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Dr. R.K. Sharma
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A Study to Assess the Knowledge and Knowledge of Practices Regarding Toilet Training among Mothers of Preschool Children in Selected Urban Community at Udaipur City

Abhishek Jain

Associate Professor, Mother Terasa College of Nursing, Visnagar, Vijapur Road Ta – Visnagar Dist- Mehsana

ABSTRACT

Aims: - To assess the knowledge and Knowledge of practices of mothers regarding the toilet training.

To find out the association between the selected demographic variables and Knowledge of practice scores of mothers regarding toilet training among preschool children.

To find out the association between the selected demographic variables and knowledge scores of mothers regarding toilet training among preschool children.

Settings and Design: Research setting: The study was conducted in Amba mata (urban area) in Udaipur.

Research design: A descriptive design

Methods and Material: The sample consisted of sixty mothers having preschool children and Convenience sampling technique was used to select the subjects. The tool consisted of structured questionnaire.

- **Section I:** Demographic data
- **Section II:** Structured questionnaire on assessment of knowledge
- **Section III:** Structured questionnaire on assessment of Knowledge of practices.

Statistical analysis used: descriptive and inferential statistics.

Results: Among 7 demographic variables it was noticed that four variables i.e., age, education, occupation and income found to be statistically significant at 5 per cent level ($P<0.05$) & the association with Knowledge of practice level, it can be seen that age, education, occupation and religion found to be significant at 5 per cent level ($P<0.05$) and the remaining variables found non-significant.

Conclusion: Knowledge of mothers on toilet training seems to have significant association with age, education, occupation and income.

Knowledge of practice of mothers on toilet training seems to have significant association with age, education, occupation and religion.

Knowledge and Knowledge of practice found to be adequate among mothers regarding toilet training.

Keywords: *Assess, Knowledge, practice, Toilet training, Mother, Pre-Schoolar.*

INTRODUCTION

Today's society is complex and ever changing. Growing up emotionally is complicated and difficult under any circumstances, but especially so when child's behavior and appearance speak adult, while their feelings cry child. Children are blooming buds. They are important asset of nation, they will face in their tomorrows changes brought by new techniques and technologies. Children are expected to grow and learn to their fullest potential. Parents serve as advocates for children in order to meet needs of all children for access to education and health care process. The preschool in turn exerts considerable influence on all other family members, regardless of the size and form of the family unit. As the preschool begin to interact with other outside the family, the parents help the child conform to the expectations of the society. The most important societal demand made on the child during this period is the control of elimination[3].

Preschool struggles in achieving independence in all angles of life. The physiological autonomy lays greater impact on the successive growth and development. One of these is the control of bowel and bladder sphincter. There is not a universal right age to begin toilet training as an absolute deadline to complete training. One of the important responsibilities of nurses is to help parents to identify the readiness signs in their child [4]. They train the child in making them aware of their age to pass urine and stool with control [3].

Enuresis refers to bedwetting after the age of 5 years, it is a fairly common pediatric problem, occurring in about one -fourth of children and is a potential causes of embarrassment to the child as well as the parents. A preparation of the children suffering from this disorder may wet their garments during awaking hours as well as boys suffer more after than girls. Remarkable familiar patterns are observed. Family conflict and maladjustment e.g. too strict parents, rejection, sibling rivalry etc. manifest it too late, too early as improper training by the parents regarding bladder control [5].

Encopresis indicating a more serious emotional disturbances characterized by passage of faeces into inappropriate places at any age when bowel control is expected to be accomplished accompanying symptoms include chronic constipation, faecal impaction, poor school attendance and performance [5] , Encopresis is defined as repeated voluntary or involuntary passage of faeces into places not appropriate for that purpose according to the individual's socio -cultural setting [1].

MATERIAL AND METHOD

- **Research approach:** A-descriptive survey approach
- **Research design:** A descriptive design
- **Research setting:** The study was conducted in Amba mata (urban area) in Udaipur.
- **Sampling and Sampling Techniques:** the sample consisted of sixty mothers having preschool children and **Convenience sampling technique** was used to select the subjects.

INCLUSION CRITERIA

- Mothers having children between 3-5 years of age.
- Mothers who understands the English and Hindi.
- Mothers who are residing in selected urban community in Udaipur city.

EXCLUSION CRITERIA

- Mothers who are not willing to participate in the study.
- Mothers who are not present at the time of data collection.

DESCRIPTION OF THE TOOLS

- **Section I:** Demographic data: Demographic data, which contained age, religion, education, family monthly income, type of family, number of children, birth order of child, number of siblings, sources of information regarding toilet training.

- **Section II:** Structured questionnaire on assessment of knowledge: Structured questionnaire on assessment of knowledge related to toilet training, consisting of twenty-one items, which were divided into four items on four aspects. There are four items on physiological readiness, four items on psychological readiness, three items on parental readiness and ten items related to process.

- **Section III:** Structured questionnaire on assessment of Knowledge of practices : Structured questionnaire on assessment of Knowledge of practices of toilet training consisting of twenty-two items that were divided into four aspects, four items on physiological readiness, three items on psychological readiness, seven items on parental readiness and eight items related to process.

FINDINGS

Section 1: Analysis of demographic characteristics of respondents.

Majority of the respondents belongs to the age group of 24-25 and 20-23 years of age group with majority of respondents with high school background housewife being predominant in the study. 45.0 per cent of the respondents belong to Hindu background compared to Muslims (30.0%). Regarding income majority noticed with income between Rs. 2500 - 3000 (66.7%). Majority of the respondents (60.0%) emerged from joint family.

Higher respondents (61.7%) found with two children compared to 26.7 per cent with one child. 30 and 45 per cent of children possess with brother and sisters. Higher per cent (95%) found with first birth order among study group. Cent percent respondents received source of information through elders/ relatives/ friends.

Section 2: (a) Analysis of association between knowledge and demographic variables of toilet training.

Higher the age of respondents better is the knowledge level on toilet training found and established statistical significant association between age and knowledge level of respondents (P<0.05).

Higher the educational level of the respondents indicates better adequate knowledge level on toilet training aspect. However, statistical significant association found between education and knowledge level of respondents (P<O.05).

The knowledge level of respondents with employed category noticed with slightly better knowledge compared to respondents of housewife background on toilet training. However the association found to be significant (P<0.05). Higher knowledge of respondents noticed by Christians in knowledge level compared to Muslim and Hindus on toilet training. However, statistical significance association found between religion and knowledge level of respondents (P<O.05). Respondents with nuclear background had higher knowledge as compared to respondents of joint and extended family. There exists a non-significant association between type of family and knowledge level (P>O.05) of toilet training.

Higher the family income of the respondent's increases better is the knowledge observed on toilet training. Further, there exists non-statistical significant association between family income and Knowledge of practice level of respondents (P>O.05). There exists higher Knowledge of practice with existence of number of children. Statistical non-significant association found between number of education and knowledge level of respondents (P>O.05).

It can be summarized that out of 7 demographic variables under study four variables i.e., age, education, occupation and religion found significant association with knowledge level of respondents on toilet training (P<O.05).

Further, for three variables viz., type of family, family income and number children found non-significant with knowledge level of respondents on toilet training (P>O.05).

Section 2: (b) Analysis of association between Knowledge of practice and demographic variables of toilet training.

Higher the age of the respondents showed better the Knowledge of practice level on toilet training of the study group. However, significant findings noticed between age group and Knowledge of practice level of respondents on toilet training (P>O.05). Respondent's graduation and high school education had higher Knowledge of practice level as compared to secondary education background. Statistical chi-square test implies significant association between education and Knowledge of practice level of respondents on toilet training (P<O.05).

Respondents of employed category had higher Knowledge of practice level as compared to housewife respondents. Further, significant association noticed between occupation and Knowledge of practice level of respondents on toilet training (P<O.05).

Christian's respondents had slightly higher Knowledge of practice level compared to Muslim and Hindu respondents. However, the association between religion and Knowledge of practice level found to be significant (P>O.05) on toilet training.

Higher Knowledge of practice level noticed among extended family as compared to nuclear and joint family on toilet training aspect. Statistical non-significant association noticed between type of family and Knowledge of practice level (P>O.05).

Possessing higher income level of respondents revealing better Knowledge of practice level on toilet

training. Chi-square test result implies non-significant association between family income and Knowledge of practice level (P>O.05).

More number of children possessed by the respondents better is the Knowledge of practice level noticed on toilet training aspect. Statistical test implies non-significant association between number of children and Knowledge of practice level on toilet training aspect (P>O.05).

Further, out of 7 demographic variables under study four characteristics viz., age, education, religion and occupation found significant association with Knowledge of practice level of respondents on toilet training (P<O.05) i.e., hypothesis is rejected. However, the remaining variables viz., type of family, family income and number of children found to be non-significant with toilet training.

Section 3: Analysis of aspect wise knowledge and Knowledge of practice of toilet training.

The mean knowledge about toilet training on different aspects found to be ranged between 30.6 per cent in parental readiness and 78.3 per cent in physiological readiness. The overall mean knowledge found to be 59.7 per cent.

Aspect wise mean Knowledge of practice shows the range mean of 40.7 per cent in parental readiness and highest mean in psychological readiness (60.6%). The overall Knowledge of practice score found to be 52.2 per cent among respondents in toilet training.

Section 4: Analysis of knowledge and Knowledge of practice scores of respondents.

The overall mean knowledge score found to be 59.7 per cent with SD as 10.9 per cent among the respondents on toilet training. Further the overall mean Knowledge of practice score of respondents noticed with 52.2 per cent and SD as 18.0 per cent among the respondents on toilet training.

Higher respondents (28.3%) found with inadequate knowledge compared to 71.7 per cent with moderate knowledge. 56.7 and 43.3 per cent of respondents noticed with moderate and inadequate Knowledge of practice. There exists inadequate knowledge and Knowledge of practice among the respondents on toilet training.

DISCUSSION/CONCLUSION

The discussion on the above aspect discussed in the following headings:

Section 1: Analysis of demographic characteristics of respondents.

Section 2 : (a) Analysis of association between knowledge and demographic variables of toilet training.

Section 2 : (b) Analysis of association between Knowledge of Knowledge of practice and demographic variables of toilet training.

Section 3: Analysis of aspect wise knowledge and Knowledge of practice of toilet training.

Section 4: Analysis of knowledge and Knowledge of practice scores of Respondents.

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Conflict of Interest: Nil

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Effectiveness of Structured Teaching Programme Regarding Care of Infants on Mechanical Ventilator

Sunita Tata[1], Elizabeth P Issac[2]

[1]Associate Professor, [2]Msc Nursing, Krishna Institute of Medical Sciences, Krishna Hospital and Medical Research Centre, Karad

ABSTRACT

Problem Statement: A study to assess the effectiveness of structured teaching programme regarding care of infants on mechanical ventilator among undergraduate student nurses in Krishna institute of nursing sciences, karad.

Objectives:

1. To assess the knowledge of student nurses regarding care of infants on mechanical ventilator before structured teaching programme.

2. To evaluate the effectiveness of structured teaching programme regarding care of infants on mechanical ventilator.

3. To find out association between pretest knowledge with selected demographic variables.

Method: The research approach adopted for this study is an evaluative approach. The research design selected for this present study was pre experimental design one group pretest posttest design.

The study was conducted at Krishna Institute of nursing sciences, karad. The sample size was 72 student nurses, Non probability purposive sampling technique was used to select in this study. A structured knowledge questionnaire was administered to assess knowledge of student nurses regarding care of infants on mechanical ventilator. Then structured teaching programme was administered on the same day of pretest to participants. Again after 7 days of administration of structured teaching programme , same structured knowledge questionnaire was administered to student nurses to assess the effectiveness of structured teaching programme.

Results: The major findings of the study were: the data on sample characteristics revealed that, Maximum number of 55(69.4%) the student nurses belong to the age group of 21-23 years and minimum 22(30.5) were between 19-20 years of age.

Major of student nurses 62(86.1%) were females and 10(13.8%) were males. Majority of the student nurses 53(73.6%) received information about care of infants on mechanical ventilator from clinical experience, 9(12.5%) received from theory class, 6(8.3%) received from books and 9(4.1%) received information from net and journals respectively. Majority of the student nurses 52(72.2%) had first calass, 16(22.2%) had second class or average and 4(55%) had distinction in their last academic performance. Majority of the student nurses fathers occupation are 35(48.6%) business, 23(31.9%) service, 12(16.6%) laborer, and 2(27%) professional. Majority of student nurses mothers occupation are 51(81.9%) house wife, 9(12.5%) service, 6(8.3%) professional.

The result of major findings indicate that the student nurses had inadequate knowledge regarding care of infants on mechanical ventilator. In pretest majority 42(58.3%) student nurse had average knowledge, 15(20.8%)had poor knowledge and 15(20.8%) had good knowledge: where as in post test 37(51.4%) had average knowledge, 32(44.4%) had good knowledge and 3(4.2%) had poor knowledge in total knowledge score of the study.

In pre test mean knowledge score and standard deviation of the student nurses' regarding total knowledge score of care of infants on mechanical ventilator was 12.47 ± 2.43, which was increased in post test to 24.05 ±1.18. Obtained pre and post test scores paired t value is 40.0 and p value is, 0.0001 which is considered extremely significant, indicates significant improvement in knowledge score regarding care of infants on mechanical ventilator. There was no/ any significant association found between the findings and demographic variables.

Conclusion: The study concluded that the structured teaching programme regarding care of infants on mechanical ventilator was an effective method for providing adequate knowledge and help student nurses to enhance their knowledge for improving their nursing care.

Keywords*: structured teaching programme, care of infants on mechanical ventilator.*

INTRODUCTION

"A babe in the house is a well, spring of pleasure, a messenger of peace and love, a resting place for innocence on earth, a link between angel and men."
Martin Fraquhar Tuppe

A child is the gift of god or greatest treasure of mankind. Child's health well being, safety and future are in the hands of parents or caregivers from birth to death. Newborns or infants are considered to be tiny and powerless and more of all treasure to the nation and the family, completely dependent on others or parents for their adaptation in the external environment.

Mechanical ventilation was first introduced during the polio epidemics of the 1950s and since then has been of undoubted value in improving the survival of many patients, including newborns and children.[1]

Immediately after birth, the neonate faces enormous task of hemostasis and adaptation to extra uterine life. These tasks include the change from fetal to extra uterine circulation, establishment of respiration, temperature regulation, digestion and elimination. The major function of the respiratory system is to provide oxygen for metabolism and to remove carbon dioxide without an adequate exchange of oxygen and carbon dioxide the metabolic demands of tissues would remain unfulfilled and body systems would rapidly fail. When oxygenation and ventilation are inadequate mechanical ventilation can be used.[2]

Rapid developments in intensive care medicine have made mechanical ventilation an essential method in the resuscitation and comprehensive treatment of critical care infants. About 80% of infants in intensive care units are reported to require mechanical ventilation and nursing care of infants receiving mechanical ventilation has become increasingly important.

Hospitals in other countries have trained nurses and respiratory care therapists for assessing the infants and care for mechanical ventilation systems. In the intensive care unit of China, nursing staff especially trained in basic knowledge and techniques of intensive care medicine provide the main care for critically ill infants including airway care for infants requiring mechanical ventilation.[4]

Technologic advances influences pediatric nurses role in increasing technical skills related to child care are inevitable future trends. Nurses are required to continually update their knowledge and prove this unique contribution. Nurses working in neonatal intensive care unit set up have to shoulder greater responsibility for meeting their immediate needs of the infants especially when surrounded by the sophisticated equipments. Nurses caring for mechanically ventilated patients have an unique role, as to provide continues care at bedside on a one-to-one basis 24 hours a day. There by assisting people throughout their illness episodes. Optimal care includes not only technical skills but also knowledge required to competently manage care if to clients on mechanical ventilation.[5]

MATERIAL AND METHOD

Material – structured knowledge questionnaire

Research approach – evaluative approach.

Research design Quasi-experimental design one group pre test posttest design.

Setting study - Krishna Institute of Nursing Sciences, Karad.

Sample - 72 student nurses;

Sampling technique - Non probability purposive sampling technique.

FINDINGS

The major findings of the study were: the data on sample characteristics revealed that, Maximum number of 55(69.4%) the student nurses belong to the age group of 21-23 years and minimum 22(30.5) were between 19-20 years of age.

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CONCLUSION

Based on the findings the result of the study shows that the total pretest mean knowledge score of the student nurses was 12.47, which indicates that the student nurses had inadequate knowledge regarding care of infants on mechanical ventilator. In the posttest the mean knowledge score of the student nurses was 24.05 in which there is a significant difference of 11.58 which is a net benefit to the student nurses due to the effectiveness of structured teaching programme. Thus it was inferred that the structured teaching programme was effective to improve students' knowledge regarding care of infants on mechanical ventilator.

RECOMMENDATIONS

1. The study may be replicated by taking a larger sample to generalize the findings.
2. A similar study may be conducted with different teaching strategies such as self instructional module, video assisted teaching and video demonstration.
3. An experimental study can be undertaken with control group for effective comparison.
4. A similar study can be conducted in staff nurses.

Acknowledgement: "I myself do nothing, The Holy spirit accomplishes all through me"

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Enrichment Programme in Kabul, Afghanistan: Access to Higher Education at Aga Khan University, Karachi Pakistan

Basnama Ayaz Khan[1], Zeenatkhanu Kanji[2], Zeenab Kassam

[1]Senior Instructor and Programme Manager, Training and Policy Unit, The Aga Khan University Programmes in Afghanistan, [2]Assistant Professor and Director External Programmes, The Aga Khan University School of Nursing and Midwifery, Pakistan, [3]English Instructor, Aga Khan University, Programmes in Afghanistan

ABSTRACT

Introduction: Today health care institutions face issues of nursing shortage due to decline in number of nurses and the complexity of patients' condition. Also, many countries internationally have moved towards Baccalaureate of Sciences in Nursing (BScN) as entry to professional practice. These factors enforce the schools/colleges of nursing to recruit students that fulfill the demands of the society; on the other hand recruitment and retention of these students into the programmes from a diverse population brings the challenges. Therefore, Aga Khan University School of Nursing and Midwifery (AKU-SONAM) in Karachi, Pakistan developed a pre-admission Enrichment Programme (EP) through its programmes in Afghanistan to facilitate prospective Afghan students improve their English language and basic science skills in preparation to gain access for admission to the Nursing Programmes.

Objectives: The purpose of this programme is to increase enrolment of disadvantaged students into the international universities for higher education including a four year BScN and a Post-Registered Nurse BScN programmes at AKU-SONAM Pakistan.

Methodology: Students are selected following a placement test of English. The subjects included for teaching are English as Second Language, Basic Sciences, Mathematics and Nursing Knowledge. This programme is designed for six months.

Results: 13 EP students got admission for BScN and Post-RN BScN programmes at AKU. In addition, the students' feedback revealed that the EP is beneficial for their professional development as it facilitated their career planning.

Conclusion: The outcome of the EP is suggestive of improving access to higher education. A prospective study is needed to gather evidence of students' retention in the programmes; and also enrolment and retention of these students at national and international institutions of higher education.

Keywords: *Enrichment Programme, Higher Education, Access, Baccalaureate of Sciences in Nursing*

BACKGROUND AND SIGNIFICANCE

Today health care industry faces the issue of nursing shortage due to decline in number of nurses' provision and the complexity of the patients' condition [1, 2, 3]. In addition, many of the countries demand for highly educated and skillful nursing personnel with Baccalaureate of Sciences in Nursing (BScN) as entry to professional practice[2, 4]; diploma holding nurses are also urged to acquire BScN degree. These factors have lead the schools/colleges of nursing for not only recruiting higher number of prospective students but also those for Bachelor of Science in Nursing (BScN) to fulfill the demands of the society and individuals. On the other hand retention and graduation of these candidates from diverse background affects the success of the programmes[1, 5]. When it comes to the medium of instruction in different languages at school level than the entrance test and the professional

education of nursing, it brings more challenges to the candidates as well as to the educational institutions for enrollment and retention. This has clearly explained by Neill, Marks and Liu [6] that the English as Second Language candidates performed lower than English as primary language; and proficiency in English language is one of the important aspects for safe practice as a nurse.

Aga Khan University (AKU) is one of the agencies of the Aga Khan Development Network (AKDN). It is the mandate of AKU to bring international students from countries in which AKDN works to AKU for higher education. After graduating from AKU, these students are expected to make contributions to nursing services and academia in their home country. Students from these countries are also opting to attain nursing studies at AKU. However, due to inefficiency in English most of the students are unable to access nursing education at AKU and few of them, if able to get into the programmes, are unable to cope with the academic rigor of the Nursing Programmes.

To address these concerns Aga Khan University School of Nursing and Midwifery (AKU-SONAM) has developed a preadmission Enrichment Programme (EP) in Kabul Afghanistan, through its programmes in Afghanistan. The purpose of this programme is to increase enrolment and retention of the disadvantaged students into the international universities for higher education including a four year Baccalaureates of Sciences in Nursing (BScN) and a Post-RN BScN programme at AKU-SONAM in Pakistan.

The EP is offered to students who are willing to acquire higher education specifically in nursing. The subjects include English as Second Language (ESL) at an academic level, Basic Sciences (Biology, Physics and Chemistry); and Mathematics. These subjects are included for teaching in the programme because they are base for BScN programme. The students of EP have learned the Basic Science subjects in their school level education in the national language, now they are learning it in English for six months. At the beginning of the programme a placement test is conducted.

AIM AND OBJECTIVES

The purpose of this paper is to assess the effectiveness of the 6 months *Enrichment Programme* for candidates of higher education in any discipline including a four year BScN programme at AKU-SONAM. The objective is to determine the:

1. effectiveness of the six months enrichment programme based on participants' objective scores as indicated by their performance on placement test and at the end of the programme; and

2. identify number of students admitted in higher education institutions i.e AKU Pakistan.

LITERATURE REVIEW

High pre-nursing grades are associated to the success in nursing students' adjustment in the programme[1,4,7]. Failure in the programme adversely affects students, progress in educational programs and ultimately brings more challenges to current nursing shortage[8]. Therefore, to meet the nursing demands of the future, institutions need to identify innovative strategies that ensure academic achievement while studying in baccalaureate nursing programmes as well as successfully retaining large numbers of nursing students[2, 4, 5, 7].

In Afghanistan the education and examination system is similar to the neighboring countries like Pakistan in which most students are dependent on rote learning[9]. One of the studies conducted in a province of Pakistan to assess the credibility of the results from the examination board found that the results were unreliable because of the incomparable examinations among different boards, inconsistency in paper setting at different times, cheating, and inconsistencies in marking the papers[9]. The situation in Afghanistan is not different than Pakistan. Every province has their own board system and the medium of teaching is not consistent, as some of the provinces teach in Pashto and others teach in Dari. This leaves the students with very less chance to get admissions in international universities where the medium of teaching is English. In addition, in Afghanistan corruption has significantly decreased the effectiveness of the education system that includes ghost teachers, taking their time out for teaching in private sectors and buying degrees from the educational institutions[10]. These student when opting for higher education, either are unable to qualify for the entrance exams or if they qualify, they may not be able to continue where there is a high demand for self-directed learning.

Research in western context has identified that

ESL students experienced difficulties in coping with academic rigor of nursing programmes than student having English as their first/primary language[6, 11]; the ESL students needed additional support for technical English for higher education and health care [11]. Childs et al.,[5] have highlighted some of the barriers to retention of these candidates with diverse background, which includes racial and ethnic differences, academic preparation, financial issues, and institution's commitment. These factors are similar to our context and affect the recruitment and retention; yet it is difficult to find any research in this regard.

METHODOLOGY

Description of Enrichment Programme: Enrichment Programme is the first of its kind in Afghanistan and was initiated by the Aga Khan University, Programmes in Afghanistan (AKU-PA), in Kabul in 2010. Since then 4 sessions have been completed. Due to high demand from the candidates 2 sessions were conducted in 2013. EP is a 6 months programme with 25 hours teaching in a week whereby 20 hours are dedicated to English and 5 hours for reviewing the concepts of mathematics and sciences/ or nursing knowledge for Post-RN BScN candidates. English is taught at an academic level, based on identified needs of the students through the placement test. For sciences and mathematics the already learned concepts, in Dari and Pashto are revised in English. This approach enabled students to understand the previously learned concepts in English and be able to perform better in the entrance exams. The scrutinization of students for the EP is done by following a set criterion as stated below.

- Candidate for four years BscN have passed 12th grade, with 65% or higher marks in Grade 12 exams.
- Candidates for Post-RN BScN, require nursing diploma, registered in the Ministry of Public Health, Afghanistan and *must* have *nursing* work experience of at least one year.
- All short listed applicants appeared for the placement test.
- Top 30 candidates were accepted into the programme.

Evaluation of Participants: The top thirty participants who scored 50 and above in the placement test were qualified for EP. These participants were then evaluated at the end of EP session to measure the effectiveness of the programme with the same questionnaire besides the final exam.

Assessment tool: The questions were specifically developed for the EP placement test, which had 50 multiple choice questions for English; consisting of grammar, reading comprehension, forms of verbs, articles and prepositions. The questions formulated were at level one, two and three of blooms taxonomy.

Face validity of the questionnaire was established by consulting experts in English. The team comprised of two English faculty members (one had Masters of Teaching English as Foreign Language {TEFL}, Associate Professor in English department at Kabul University; and the other one had studied nursing degree in Canada and had experience of teaching English in different contexts including Turkey and Saudi Arabia. Both of them had more than 10 years of teaching experience in the field of English.

Considering the purpose of identifying the effectiveness of EP to be run for prospective candidates for higher education in Afghanistan; the test questions were administered as pre and post test to all students in an examination room after getting their consent. The paper was 90 minutes long where 1.8 minute was allocated to each item.

Results/Findings: The average score was 54%, ranged between 36 - 78% in pre-test whereas in the post test it was 68% and ranged between 51 - 88%. As a result of the first two sessions of EP (2010-2012), 3 students got admission in BScN and 3 students in Post RN BScN at AKU. In 2013, 5 students (2 BscN and 3 Post-RN BScN) got admission and 2 students were short listed for academic year 2014 in BScN. of the 13 students selected for studies at AKU, 10 students are coping well and making a significant improvement in the programmes, 1 student did not join due to family issues; and 2 of the students will join in academic year 2014-15. Approximately 30 more students will be applying for academic year 2015 from the last 2 batches of EP (2010-2012). The students admitted through EP verbalized in a meeting that initially they had some problems of adjustment into the programme because of some problems such

as physical environment, home sickness, and the academic culture in the university in addition to the language. With the continuous support from external programme team at the university they adjusted well in the semester; now enjoying their studies with satisfactory academic achievements.

The EP students' feedback also revealed that the EP was an effective programme for their personal and professional development as it guided their future planning.

DISCUSSIONS

Total of 13 students got admission at AKU for BScN and Post-RN BScN programmes from three sessions of EPs (25-30 students each), in 3 academic years as compare to 20 admissions in last 11 academic years (data taken from the office of the registrar). Literature in the western world highlighted the challenges of nursing students with ESL background and they require high level support in their academic life and clinical placements [6, 11]. For some of the students of EP admitted to the BScN and Post-RN BScN programmes, English is third or fourth language and their entire school education was in the national language, are able to cope with the academic rigor at an international university. The students enrolled into the programmes are making satisfactory progress and advanced to next levels. It supports the idea that pre admission enrichment programme facilitates enrolment and satisfactory adjustment in to the BScN and Post RN BScN programmes.

CONCLUSION

The outcome of the EP is suggestive of improving the enrolment of students into higher education programmes. It is hoped that implementing this kind of programme will support the English language development of the candidates. In addition, it assist interested candidates for getting admission into the higher education institutions at international level universities from a disadvantaged population. Proficiency in English language will facilitate the candidates for higher academic achievement and better clinical nurses to provide safe nursing care in a diverse and complex health care setting. At this point we have only got the admissions data for AKU, in future we need to do a prospective study to see the students' retention in the programmes; and also enrolment and retention of these students at national and international institutions of higher education.

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4. All the participants of Enrichment Programme

Conflict of Interest: Nil

Source of Funding: First batch of EP was funded by Aga Khan University, Karachi Pakistan and three batches by Agence Française de Développement (AFD)

Ethical Clearance: This paper is out of an educational innovation for which proposal was developed and approval taken by authorities. The participants were explained for the purpose and ethical principles were followed.

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A Study to Assess the Knowledge and Practice of Patients with Bronchial Asthma Regarding Prevention of Recurrent Attacks of Asthma

D Charles Wesley

Nursing Supervisor, Al- Wakra Hospital, Doha Qatar

ABSTRACT

Background: The prevalence of asthma has increased globally. More than 300 million people around the world have asthma and its prevalence increased by 50% every decade. Asthma control is achievable for nearly every patient.

Aim: To assess the knowledge and practice of bronchial asthma patients regarding prevention of recurrent attacks of asthma.

Method: Descriptive research design was used. The study comprises of 80 bronchial asthma patients selected by convenient sampling technique. Structured Knowledge questionnaire was used to assess the knowledge and checklist to assess the practice of subjects.

Results: The study findings revealed that the knowledge of bronchial asthma patients was determined with mean of 12.85 and standard deviation of 6.82. The mean score percentage was 42.83. The mean score for practice was 10.8 with standard deviation 5.66. The mean score percentage was 43.2. The linear correlation between overall knowledge and practice was r = 0.933 (significant at 0.01 level). The correlation analysis shows a highly significant relationship between knowledge and practice. The chi-square test value reveals that there was a significant association between knowledge and practice of bronchial asthma patients with selected demographic variables.

Interpretation and Conclusion: The study concludes that the selected bronchial asthma patients knowledge and practice regarding prevention of recurrent attacks of asthma was inadequate. Since the majority of people have inadequate knowledge. A self-instructional module on management, prevention and control of asthma attacks is developed.

Keywords: *Bronchial asthma; asthma attacks; knowledge; practice; prevention; trigger factors.*

INTRODUCTION

There has been a sharp increase in the global prevalence, morbidity, mortality and economic burden associated with asthma. More than 300 million people around the world have asthma and its prevalence increased by 50% every decade. Worldwide approximately 180000 deaths annually are attributed to asthma [1]. In India asthma prevalence has increased from 9 percent in 1979 to 29.5 percent in 1999. It is a major health burden in our country. It is estimated that the chronic asthma cases in India will increase from 274.4 lakhs to 350.2 lakhs from 2001 to 2016 [2].

According to the Global Burden of Asthma Report, the majority of asthma deaths in some regions of the world are preventable[3]. Asthma control is achievable for nearly every patient, Dr. Elizabeth G. Nabel, Director of the NHLBI stressed that with proper medical care, healthy environments and better-informed patients, asthma can be controlled and people can lead active lives[4]. Health care providers are increasingly shifting asthma management from treating acute attacks to achieving symptom- control to return patients to full functioning and improve their quality of life[6].

OBJECTIVES

1. To assess the knowledge and practice of

bronchial asthma patients regarding prevention of recurrent attacks of asthma.

2. To develop the self-instructional module regarding prevention of recurrent attacks of asthma.

3. To determine the association between the selected demographic variables with knowledge and practice of bronchial asthma patients regarding prevention of recurrent attacks of asthma.

4. To determine the association between the knowledge and practice of bronchial asthma patients regarding prevention of recurrent attacks of asthma.

MATERIALS AND METHOD

Descriptive survey design was used to assess the knowledge and practice of bronchial asthma patients regarding prevention of asthma attacks. The conceptual framework selected for the present study was based on the Health Belief Model (HBM Becker). The study comprises of 80 Bronchial asthma patients between the age group of 20-60 years selected by convenient sampling technique. The study was conducted in the outpatient clinics and emergency departments of the Government and Shridevi hospital in Tumkur

A structured knowledge questionnaire was developed for assessing the knowledge regarding prevention of recurrent asthma attacks and a checklist to assess the practice on prevention of asthma attacks. The instruments were validated and tested for reliability prior to conducting the study. The structured knowledge questionnaire consists of two sections, Section A: Consists of questions assessing knowledge about asthma and Section B: consists of checklist to assess the patients practice regarding prevention of asthma attacks.

After obtaining formal permission from research committee, hospital administration and informed consent from the patients, data was collected.

FINDINGS

- Assessment of knowledge of bronchial asthma patients depicts that, of all 80 bronchial asthma patients 48 (60%) were having poor knowledge, 22 (27.5%) were having average knowledge and only 10 (12.5%) of them has good knowledge.

- Assessment of level of practice of bronchial asthma patients revealed that 43 (53.75%) have shown inadequate practices, 25 (31.25%) have average practice and only 12 (15%) have adequate level of practices regarding prevention of asthma attacks.

- The overall knowledge of bronchial asthma patients was, mean 12.85, standard deviation 6.82 and range 23 with mean score percentage was 42.83.

- The overall practice of bronchial asthma patients was, mean 10.8 and standard deviation 5.66 and range 20. Mean score percentage was 43.2%.

- The knowledge and practice of bronchial asthma patients was influenced by educational status. The calculated chi-square value for association of knowledge with educational status was 0.008(Highly significant) and for practice was 0.02(Highly significant).

- The knowledge of bronchial asthma patient was also influenced by Age, Gender, and Occupation, Place of living and Type of Pets in house. The practice of bronchial asthma patients was also influenced by Age, Family income, Place of living and Type of Pets.

- The linear correlation between overall knowledge and practice was r = 0.933, which was statistically significant at 0.01 level. It confirms that bronchial asthma patient's knowledge and practice were statistically related i.e. higher the knowledge better would be the practice.

INTERPRETATION AND CONCLUSION

The overall mean score percentage of knowledge is 42.83 and overall mean score percentage of practice is 43.20. The study confirms that bronchial asthma patient's knowledge and practice were statistically related i.e. higher the knowledge better would be the practice.

The study findings revealed that bronchial asthma patient's knowledge and practice regarding prevention of recurrent attacks of asthma was inadequate. Since the majority of people with asthma have inadequate knowledge, education of patients in this aspect is very essential for proper management and control of asthma which lessens the burden of the disease and infuses confidence and courage in patients for controlling the symptoms and leading active lives.

Hence a self-instructional module on management,

prevention and control of asthma attacks is developed and administered to patients which are aimed to provide knowledge to the patients on identification and avoiding trigger factors, self monitoring and regular use of medications and thereby enabling the patients to lead normal active lives.

RECOMMENDATIONS

In the light of the above findings and personal experience of the investigator the following recommendations are offered.

- The study can be replicated on a larger sample; thereby findings can be generalized for a larger population.
- A Structured Teaching Programme can be prepared to enhance the knowledge and practice of bronchial asthma patients regarding prevention of recurrent attacks of asthma.
- Regular educational programmes can be conducted for adults and parents of children on avoidance of trigger factors, self-monitoring and use of asthma medications, thereby ensuring an active live for asthma patients.
- Epidemiological studies may be conducted in defined geographical areas to assess the morbidity, trigger factors for asthma attacks and environmental control, thereby reducing the socio-economic burden.
- A similar study can be conducted to compare the knowledge and practice level of bronchial asthma patients between urban and rural communities.

CONCLUSION

In recent decade there has been an increase in the burden of the disease among both children and adults. This is mainly attributed to increasing atmospheric pollution, the change in lifestyle, increasing industrialization and urbanization[5]. Identification of the trigger factors, avoiding of environmental triggers, self-monitoring using peak flow meter and regular use of medications will permit most patients to achieve good control of their disease and can lead an active life [4]. Knowledge about asthma may have a direct impact on practical skills of disease management. Hence education of patients in these aspects is very essential for proper management and control of asthma.

Conflict-of-Interest Statement: There is no conflict of interest in this study. This study was conducted in partial fulfillment of the requirement for the post graduate degree of Master of Science in nursing submitted to Rajiv Gandhi University of Health Sciences, Bangalore. The study was conducted under the Guidance of Prof. K. Ramu, Principal, Shridevi College of Nursing, Tumkur.

Source of Funding: Self

Ethical Clearance: The investigator obtained the ethical clearance from the Research Committee and Hospital Administration prior to conducting the study. Complete disclosure of information provided to all subjects participating in the study. Confidentiality and Anonymity of subjects ensured. Informed consent was obtained from the participants prior to conducting the study.

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Effectiveness of Structured Teaching Programme on Knowledge and Practices Regarding Prevention of Intestinal Worm Infestations among the Mothers of 1-5 Years Children

Daljit Kaur

Lecture, Sri Guru RamDass Nursing Institute Pandher, Fatehgarh Churian, Amritsar

ABSTRACT

A quasi experimental study was conducted to assess the effectiveness of structured teaching programme on knowledge and practice regarding prevention of intestinal worm infestations among the mothers of 1-5 years children in selected villages of Moga, Punjab. A non equivalent quasi experimental design is used for study. A 60 mothers were selected, 30 for experimental and 30 for control group by using purposive sampling method. Pre test of both the groups was taken on different days using structured knowledge questionnaire to assess knowledge and checklist to assess the practice, following which structured teaching was administered to experimental group with the help of A.V. aids. Three days after structured teaching post test was conducted with the same tools of both experimental and control group. The findings of the study revealed that mean post test knowledge score (17.63) and practice score (16.60) were significantly higher than pre test knowledge score (12.67) and practice score (12.97) respectively in experimental group. The difference between the mean pre test and post test knowledge and practice score was highly significant at $p < 0.001$ level. Whereas in control group mean post test knowledge score (13.27) and practice score (13.17) were significantly higher than pre test knowledge score (13.17) and practice score (13.10) respectively. The difference between the mean pre test and post test knowledge and practice score was statistically non significant at $p<0.05$ level in control group. There was positive co-relation between knowledge and practice of experimental group and control group significant at $p<0.01$. There was statistically significant effect of Age of mothers, Education of mother, Education of husband, Occupation of mother, Occupation of husband, and Type of family on pre test and post practice score of experimental and control group expect Monthly family income, Religion, Source of information and Number of children. So the study concluded the structured teaching programme on prevention of intestinal worm infestation was effective in increasing the knowledge and practice mothers regarding prevention of intestinal worm infestations.

Keywords: *Prevention of intestinal worm infestations, mothers of 1-5 years children, structured teaching programme*

INTRODUCTION

"Children are the world's most valuable Source and its best hope for the future"It is often stated that children are the world's most valuable resources and assets. A nation's wealth depends on the citizens. A healthy adult emerges from a healthy child. Mother is the centre of child survival movement. Intestinal helminthes are a worldwide problem especially among children of developing countries. It is estimated that more than 25% of the world population are infected.In India the heavily infected areas are found in Assam, West Bengal, Bihar, Orissa, Andhra Pradesh, Tamil Nadu, and Maharashtra. More than 200 million people are estimated to be infected in India. It is believed that 60% to 80% of population of certain area of West Bengal, U.P., Bihar, Punjab, Orissa and Andhra Pradesh are infected with hookworm.**Park.K (2007)[2].** Conducted the study to assess intestinal parasites in school going children and pregnant women attending the primary health

care centres in a low socioeconomic area, Chandigarh, North IndiaIntestinal parasites were detected by direct smear in 42.8% primary school children. At minimum one intestinal parasite was found in 34.4% children, two parasites in 17.5%, and mixed infections with 3 parasites were seen in 1.9% children **Sehgal. R et al., (2007)**[8]. Deworming is not sufficient to challenge worm infections. Since helminthic infections are intimately associated with poverty, poor sanitation, and lack of clean water, the provision of safe water and improved sanitation are essential for the control of helminth infection. Still, this does not undermine the importance of health Education. To sustain control of parasitism, children must have a basic knowledge on intestinal parasitism and its prevention namely, personal hygiene particularly hand washing and proper human waste disposal and sanitation **Meycador (2003)**[10]

OBJECTIVES OF THE STUDY

1. To assess the pre test and post test knowledge of mothers of 1-5 year children regarding intestinal worm infestations in experimental and control group.

2. To compare the pre and post test knowledge of mothers of 1-5 year children regarding intestinal worm infestations in experimental and control group.

3. To assess the pre test and post-test practices of mothers of 1-5 year children regarding intestinal worm infestations in experimental and control group.

4. To compare the pre test and post test practices of mothers of 1-5 year children regarding intestinal worm infestations in experimental and control group.

5. To find the relationship between knowledge and practices of mothers of 1-5 year children regarding intestinal worm infestations in experimental and control group.

6. To find out the relationship of knowledge and practices with selected variables like, Age of the mother, Education of mother, Education of husband, Monthly family income in rupees, Occupation of mother, Occupation of husband, Type of family, Religion, Source of information and Number of children.

METHODOLOGY

Research Approach : Quasi experimental

Research Design: A non equivalent quasi experimental design is used for study.

O_1 X O_2

O_2 O_2

Setting : selected villages of Moga, Punjab

Population : mothers of 1-5 year children

Sample Size : 60 mothers 1-5 years children, 30 for experimental and 30 for control group

Sampling technique : purposive sampling

MATERIAL AND METHOD

The study was conducted on mothers of 1-5 years children living in two villages i.e. Ajitwal and KokriFula Singh comes under C.H.C Dudike. Moga, Punjab. The tool used in this study is a structured knowledge questionnaire and checklist for practice. Content validity of the tool was confirmed by the expert's opinion regarding the relevance of the items. The pilot study was conducted in month of December 2010 to ensure the reliability of the tool and feasibility of the study. Reliability of the tool was estimated by Split half technique, which was found to be r = 0.9 for Structured questionnaire and for checklist r = 0.9. Data collection was done in the month of February 2011. Prior to giving the questionnaire, the investigator gave instructions to the mothers and purpose of gathering information.The sample consisted of 60 subjects i.e. 30 in experimental and 30 in control group. Purposive sampling technique was used to select the samples from population. Firstly the personal information of all the mothers of 1-5 years children was taken. Pre test of both the groups was taken on different days to assess their knowledge and practice regarding prevention of intestinal worm infestations 1-5 year children. The structured teaching programme was given to experimental group by the investigator with the help of A.V. aids after the pre test. The time spent on structured teaching programme was 45 minutes. Before giving the structured teaching, a good rapport was established with subjects. The post test was taken of both experimental and control group after giving a gap of three days to assess their knowledge and practices.

Plan for data Analysis

Descriptive statistics - Percentage, Mean and Standard deviation

Inferential statistics - Karl Pearson's coefficient of correlation, chi-square, paired, unpaired t test and F test

Major Findings of the study

The analysis of the data revealed following findings

- In experimental and control group maximum mothers (46.7%) was in age group 26-30years and minimum in age group 31-35 years (20%). According to Education, most of the mothers (36.7%) and (33.3%) were educated up to level of matric respectively and minimum mothers were educated up to primary level (10%) and (13.3%) respectively. Maximum husbands (30%) were educated up to secondary and matric level and minimum (10%) were illiterate in both experimental and control group. Most of the mothers (33.3%) were belonged to family monthly income 3001-600 and minimum mothers (10%) and (13.3%) belonged to group more than 9000 respectively. According to Occupation majority of mothers (70%) were housewives and minimum mothers (6.7%) were on government job. Majority of husbands (43.3%), (40%) were farmer in both experimental and control group respectively and minimum (16.7%) were on government job in control group. Most of mothers (60%) were belonged to nuclear family and remaining (40%) belonged to joint family. In case of Religion (86.7%) mothers were Sikh and (13.3%) were Hindu. Most of mothers (40%) had family members Source of information and (23.3%) got information from health personnel. According to Number of children maximum (40%) mothers had two children where as minimum (23.3%) had three children.

- In experimental group, majority of mothers (56.7%) were had average knowledge and (30%) mothers were having below average knowledge in pre-test. In post-test majority of mothers (76.7%) had good knowledge and (23.3%) mothers have average knowledge regarding prevention of intestinal worm infestations. But in control group, (56.7%) and (60%) mothers had average knowledge in pre and post-test. Whereas (26.6%) and (23.3%) mothers had to below average knowledge in pre and post-test respectively.

- In experimental group mean pre-test knowledge score was (12.67) and post knowledge score was (17.63). The difference between mean pre-test and post test knowledge score was highly significant at level at 0.001 level. In control group mean pre-test knowledge was (13.17) and post test knowledge was (13.27). The difference between mean pre-test and post test knowledge score of control group was statistically non significant at $p<0.05$ level. The difference between mean post test knowledge score of mothers in experimental as compared to control group was statistically significant at $p<0.001$ level.

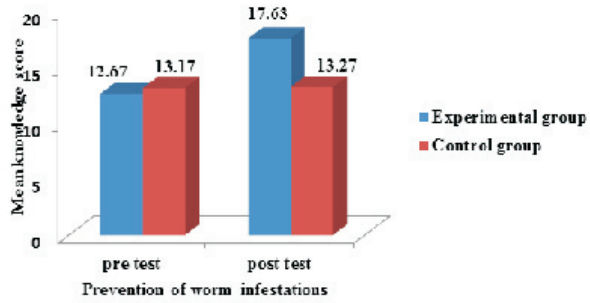

Figure 1 Comparison of mean pre-test and post-test knowledge score among mothers of 1-5 years children regarding prevention of intestinal worm infestations in experimental and control group.

- In experimental group during pre-test (80%) mothers had satisfactory practice and (20%) had unsatisfactory practice. But in post-test (90%) mothers had satisfactory practice and (10%) had unsatisfactory practice. In control group in pre-test (70%) mothers were having satisfactory practice and (30%) having unsatisfactory practice. In post test (76.7%) mothers were having satisfactory (23.3%) having unsatisfactory practice.

- In experimental group mean pre-test practice score was (12.97) and post practice score was (16.60). The difference between mean pre-test and post test practice score was highly significant at level at 0.001 level. In control group mean pre-test practice was (13.17) and post test practice was (13.10). The difference between mean pre-test and post test practice score of control group was statistically non significant at $p<0.05$ level. The difference between mean post test practice score of mothers in experimental as compared to control group was statistically significant at $p<0.001$ level.

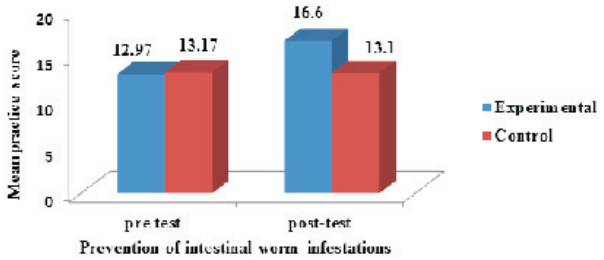

Figure 2 Comparison of mean pre-test and post-test practice score among mothers of 1-5 years children regarding prevention of intestinal worm infestations in experimental and control group

- There was positive co-relation between knowledge and practice of experimental group and control group significant at $p<0.01$.

- There was statistically significant effect of Age of mothers, Education of mother, Education of husband, Occupation of mother, Occupation of husband, and Type of family on pre test and post practice score of experimental and control group expect Monthly family income, Religion, Source of information and Number of children.

CONCLUSION

The study concluded the structured teaching programme on prevention of intestinal worm infestation was effective in increasing the knowledge and practice mothers regarding prevention of intestinal worm infestations.

Acknowledgement: I praise and thank "Lord almighty" whose abundant grace and blessings led me throughout the study.

I heartfelt thanks to all those who helped me in completing my research study.

Conflict of Interest : None

Ethical Consideration: With the view of ethical consideration the researcher has taken the permission from ethical committee of Dr ShyamLal Thapar College of Nursing, Moga to conduct the research study in selected villages of Moga. Then the type and purpose of the study was discussed with the Senior Medical officer of CHC Dhudike and with the Medical officer of mini PHC kokarikalan and written permission was obtained. The verbal consent was taken from the mothers, who are willing to participate in the study.

Source of Funding: No special source of funding. Research study was completed by the researcher own funds.

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A Descriptive Study to Assess the Knowledge of Husbands of Primigravida Regarding Antenatal Care in Selected Rural Areas of Patiala, Punjab, India

Parmjit Kaur[1], Gagandeep Kaur[2]

[1]Professor & Principal, [2]Lecturer, Adarsh College of Nursing Patiala

ABSTRACT

This descriptive study was carried out to assess the knowledge of husbands of primigravida regarding antenatal care. The partner's main role in pregnancy is to nurture and responds to the pregnant women's feelings and vulnerability. The partner should deal with the reality of pregnancy and should take care, support and take part in each phase of antenatal care. A descriptive study was conducted on a sample of 60 antenatal husbands in selected rural areas of Patiala selected by convenience sampling technique. Data was collected using structured knowledge questionnaire to assess the socio demographic profile and knowledge of husbands regarding antenatal care. Data was analyzed by descriptive and inferential statistics and pamphlets were distributed. The results of the study depicted that 36.6% husbands of primigravida had good knowledge, 62.0% were having average knowledge and 2% had poor knowledge regarding antenatal care .Furthermore, overall mean of knowledge was 20.24. So, study concluded that husbands of primigravida have an average knowledge regarding antenatal care,

Keywords: *Husbands, Antenatal Care, Primigravida.*

INTRODUCTION

Role of husband in antenatal care is a major step as a husband is a one who shares all the physical, emotional feelings of spouse. The husband are the stabilising influence or good listener to the expression of doubts and fears and source of physical and emotional reassurance. Moreover participation of husband can significant affect the health outcomes of women and babies as husband's main role in pregnancy is to nurture and responds to the pregnant women's feelings and vulnerability. The husband should deal with the reality of pregnancy and should take care, support and take part in each phase of antenatal care.Since, the trend of 21st century is also of nuclear family, so the husbands is a one who can participate in care of pregnant mother and help her to identify easily complications and can reduce maternal, neonatal and mortality rate. Moreover prenatal behaviour may have implication for father's later involvement with their children. Thus in a attempt to describe the men's views and practices regarding maternal health care the researcher felt the need to conduct the present study.

Objectives:

1. To assess the knowledge of husband of primigravidae regarding antenatal care.

2. To find an association between knowledge score of husbands of primigravidae on antenatal care with selected demographic variables.

MATERIAL AND METHOD

A descriptive study was conducted using convienance sampling technique among 60 husbands of primigravida at selected areas of Patiala (village Dainthal and village Chaunth).All the husbands of primigravida in age group of 21-24 years were included as study sample. Ethical aspects were ensured as institutional research committee approved the study. Written consent was taken from the participants before collection of data. Anonymity of

subjects and confidentiality was maintained. Data was collected in the month of February,2013. Structured questionnaire was used to assess the data regarding knowledge of antenatal care among husbands of primigravida mother which has two parts:-a).Part A-sociodemographic data-which includes items related to age of husbands, religion, educational status of husband, occupation of husband, economic status of husband, type of family, duration of marital life, type of delivery preference, type of pregnancy. Part B:structured questionarrie consisting of 32 items divided into 6 categories-general concept, antenatal check-up and registered, antenatal vaccination, minor ailments and their treatment, antenatal diet, supplements, antenatal care 5.55. collected data was analysed by using both descriptive and inferential statistics.

RESULTS

Findings of the present study regarding socio-demographic variables reveals that majority of participants (46.60%) were in the age group of 21-25year. Duration of marital life in majority of participants (41.66%) was 1-3 years. Maximum number of the participants (50%) were Sikh. Study also found that (31.67%) participants belongs to large family while (68.33%) were from small family. Majority of participants (48.33%) completed their secondary school education and (15%) of them had middle school education. Majority of the participants (66.69%) were working in private sector. Most of the pariticipants 88.33% had planned pregnancy. All of the participants (100%) were willing to participate during delivery of women and maximum number of participants (95%) preferred hospital delivery.

Table 1. Frequency and percentage distribution of husbands of primigravida mothers according to level of knowledge regarding antenatal care.

N=60

LEVEL OF KNOWLEDGE SCORE	F (%)
Poor (0-11)	O1(2)
Average (12-22)	37(62)
Good (more than 22)	22(36.6)

Maximum score=32

Minimum score=00

Table 1. shows frequency and percentage distribution of husbands of primigravida mothers according to level of knowledge regarding antenatal care. It depicts majority of respondents 37(62%) had average level of knowledge, whereas 22(36.6%) had good level of knowledge and 01(2%) were having poor knowledge.

Table 2. Mean knowledge score of knowledge regarding antenatal care among husbands of primigravida mothers.

N=60

Knowledge domains	Mean± SD	Mean%
General concepts (1-3)	1.67±0.968	55.6
Antenatal check-up and registered (4-7)	2.28±1.236	57.0
Antenatal vaccination (8-9)	1.60±0.588	80.0
Minor ailments and their treatment(10-14)	2.60±0.978	52.0
Antenatal diet(15-17)	2.65±0.606	88.3
Supplements (18-23)	3.45±0.99	57.5
Antenatal care(24-32)	5.55±1.407	61.6
Overall Mean	20.42	

Table 2. Mean knowledge score of knowledge regarding antenatal care among husbands of primigravida describes the overall mean of husband knowledge 20.42, regarding the area wise mean related to general concept 1.67(55.6%), antenatal check-up and registered 2.28(57%), antenatal vaccination 1.60(80%), minor ailments and their treatment 2.60(52%), antenatal diet 2.65(88.3%), supplements 3.45(57.5%), antenatal care 5.55(61.6%).

Findings of the present study also depict the association of the knowledge of the husbands regarding antenatal care with socio- demographic variables was found to be non significant with $p>.05$ except in duration of marriage which was found to be significant relation with knowledge $p=0.27$ as calculated by chi square.

DISCUSSION

Findings of the study reveals that overall mean knowledge was 20.42, regarding area wise mean score knowledge, highest knowledge is in antenatal diet (80%) and lowest knowledge in minor ailments and their treatment (52%). The findings of the present study is supported by the study conducted by Reddamma G.G which depicts the overall mean knowledge score obtained by the husbands of primigravida was (27.76)

RECOMMEDATIONS

- A similar study can be conducted by comparing the knowledge regarding antenatal care among the husband's of primigravida and multigravida.
- Further trials can be done by taking large sample size.
- An experimental study can be conducted with structured teaching programme on knowledge, attitude and practice in antenatal care among husbands of primigravida.

IMPLICATIONS

The study has the implication in nursing education, nursing practice and nursing administration.

- Antenatal classess should be made mandatory for both partners during antenatal visits.
- Husbands should be encouraged to accompany during antenatal visists.
- In community, classesscshould be arranged for husbands regarding antenatal care so as to identify the early complications.

CONCLUSION

Majority of the husbands of primigravida mothers had average knowledge regarding antenatal care.

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Conflict of Interest- None

Source of Funding- Self

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A Correlational Study to Assess the Relation of Anxiety and Social Phobia with Academic Performance of Students in a Selected Nursing College, Ludhiana, Punjab

Rimple Sharma[1], Pawan Sharma[2]

[1]Lecturer,College of Nursing ,All India Institute of Medical Sciences, Ansari Nagar, New Delhi,
[2]Associate Professor, Institute of Nursing Education, Guru Teg Bahadur Sahib (C) Hospital, Shastri Nagar, Model Town, Ludhiana

ABSTRACT

This study was conducted to assess the correlation of level of anxiety, social phobia and academic achievement among students of a selected nursing college, Ludhiana. The research approach adopted for this study is Quantitative and Non-Experimental Co- relational design is used. The study sample included B.Sc Nursing students of Institute of Nursing Education, GTB Hospital, Ludhiana. Two standardized tools were used for assessment of Social phobia and Anxiety among students. The tool used for assessment of Social phobia was SPIN and for assessment of Anxiety, State-Trait Anxiety Inventory (STAI) was used. Pilot study was done on one-tenth of the total sample i.e. on 10 students to ensure feasibility of the study. Before final data collection, sampling was done using Stratified Random Sampling. Out of 60 students in each class of B.Sc Ist yr, IInd yr, IIIrdyr and IVth yr, 25 students were selected from each class using lottery without replacement method. So the sample size was 100. Before starting data collection informed consent was taken from the students regarding their participation in the study. Then the two tools were administered to the students and they were instructed not to leave any part blank. Thereafter the data gathered was analyzed by using descriptive and inferential statistics. Results of the study proved that Anxiety does affect the academic achievement of the students whereas Self-reported academic performance did not significantly differ between the students with social phobia and those without social phobia.

Keywords: *Anxiety, Social Phobia, Academic achievement.*

BACKGROUND OF STUDY

Adolescence is a significant period in the life span, a period with a myriad of changes both physical and psychological. During this period, the adolescent's status is vague, and there is confusion about the role he is expected to play, as at this time, he is neither a child nor an adult. If he behaves like a child he is told to "act his age". If he tries to act like an adult he is often reproved for his attempt to act like an adult. The adolescents face difficult challenges when they begin to search for the answer to the question "who am I?" In their search to define, find or discover their new life, they land into conflicts; confusion, frustration and anxiety. (Sawyer, M S & Bowes, G 1999). [1]

The term anxiety is derived from Latin word "angere" meaning to cause distress. The sensation of helplessness accompanying strangulation is seen as being fundamentally related to its very essence, viewed as a general feeling of fear and apprehension. Every aspect of human behaviour is affected by anxiety. Anxiety is a multi dimensional concept. It is manifested as a somatic experience and interpersonal phenomenon. It therefore involves one's body, perception of self and their relationship (Stuart & Sundeen 2002)[2].

Lazarus and Folkman defined anxiety as: A vague, uncomfortable feeling exacerbated by prolonged stress and the presence of multiple stressors. There are two states of anxiety: state and trait. State anxiety, as described by Spielberger is 'the emotional state of an individual in response to a particular situation or moment that includes symptoms of apprehension, tension, and activation of the autonomic nervous system, and can include tremors, sweating, or increased heart rate and blood pressure'. Trait anxiety

is 'the tendency of an individual to respond to stress with state anxiety'. Anxiety is defined as emotional uneasiness associated with the anticipation of danger. Although some amount of anxiety is normative and adaptive in many situations, anxiety disorders involve persistent irrational fear or worries that cause significant distress or interference in functioning. (Carson, RC & Butcher, JN 2002) [3] .Anxiety disorders in children can lead to poor school attendance, low self esteem, deficient interpersonal skills, alcohol abuse and difficulty in studying (Kashani, JH et. al 1990).[4]

25% of adolescents with reading problems have an anxiety disorder (most commonly social phobia). Anxiety in addition to other problems increases the severity of social and academic consequences. Addressing anxiety can drastically improve functioning in day -to - day activities. Academic consequences of Anxiety may be severe. Anxiety leads to poor academic performance and under achievement. Highly anxious children are ten times more likely to be in bottom 1/3 rd of class. These students score lower than peers on measure of IQ and achievement tests. (e.g. basic skills). Anxiety leads to poor engagement in class. Highly anxious students tend to avoid engaging in tasks that require communication or that involve potential peer or teacher interaction. So they consequently miss the benefit of interactive learning experiences. Anxiety leads to drop out from schools and colleges. 49% of anxious adults report having left education early, 24% indicated anxiety as the primary reason. The only variable that separated drop-outs from persistent students was anxiety. Academic consequences lead to long term economic losses for individual and society. As the depth and breadth of worry increases, capacity to concentrate on academic tasks and solve problems decreases. Anxiety is associated with decreased short term memory capacity, general memory deficits with specific visual memory deficits and poor recall of previously mastered materials. The possible reasons for this can be that same area of the brain (medical temporal lobe) plays a role in memory and anxiety, therefore a dysfunction in these brain structure/ processes may affect memory.[5]

Left untreated, social phobia can be debilitating. It may ruin ones life and can interfere with work, school, relationships or enjoyment of life. Such a person may be considered as an "underachiever," when in reality it's the fears holding him/her back, not his/her ability or motivation. Severely anxious cases may drop out of school, quit work or lose friendships. Social anxiety disorder can cause low self-esteem, trouble being assertive, negative self-talk, hypersensitivity to criticism and poor social skills. Social phobia can also result in a poor work record, low academic achievement, isolation and difficult social relationships, substance abuse, excessive drinking, particularly in men and even suicide.[6]

OBJECTIVES OF STUDY

1. To assess the level of Anxiety among selected students.
2. To diagnose Social phobia among selected students.
3. To correlate Anxiety and Academic performance of the students.
4. To correlate Social phobia with Academic performance of the students.
5. To find out the relationship of anxiety and social phobia with demographic variables like age, class, father's education, mother's education ,type of family, number of siblings and residential area.

MATERIAL AND METHOD

The research approach adopted in this study is Quantitative. The Research Design used is Non – Experimental correlational design.The research variables included in the study are Anxiety, Social Phobia and Academic performance. The socio-demographic variables included in the study are age, class, father's education, mother's education and type of family. A thorough review of literature was done for the study.

To assess the level of anxiety and social phobia among students, two standardized tools were used. State Trait Anxiety Inventory (STAI) was used to assess both State Anxiety as well as Trait Anxiety among adolescents. STAI consists of two parts- Part I –State Anxiety Inventory and Part –II Trait Anxiety Inventory .Both parts have 30 questions with a range of four possible responses to each. Out of 30 items of State Anxiety Inventory, 21 items are positive and remaining 9 items are negative. Out of 30 items in Trait Anxiety inventory, 20 items are positive and remaining 10 items were negative. For positive items a score of 3 was given for 'Always', 2 for 'Sometimes',

1 for 'Never' and 0 for 'Not Sure'. For negative items a score of 1 was given for 'Always', 2 for 'Sometimes', 3 for 'Never' and 0 for 'Not Sure'.

To assess Social Phobia among students Social Phobia Inventory (SPIN) was used. It consisted of 17 statements with a range of four possible responses to each. A score of '0' was given for 'Not at All' response, '1' for 'A little bit', '2' for 'Somewhat', '3' for 'Very much' and '4' for 'Extremely'. A score less than 20 indicated 'Absence of Social Phobia', 21- 30 indicated 'Mild Social Phobia', 31-40 indicated 'Moderate Social Phobia', 41-50 indicated 'Severe Social Phobia' and 51 or above indicated 'Very Severe Social Phobia'.

Pilot study was done on 1/10 of the total sample i.e. on 10 students to find out the feasibility of the study. The assumption of the study was as follows:

'Some Anxiety always prevails in human beings and mild anxiety improves academic performance'

The study was conducted in Institute of Nursing Education, Guru Teg Bahadur Sahib Hospital, Ludhiana, Punjab. The population of the study comprised of B.Sc. Nursing students from all four years. Stratified random sampling was done to select a sample of 25 out of 60 students from each of the four classes. So total sample size was 100 students, 25 from each of the four year B.Sc Nursing classes. Written consent from the Principal for conducting this study in the Nursing College. Informed verbal consent was taken from the students for their participation in the study. The two standardized tool were distributed to the students and they were asked to complete them without leaving any statement blank. After data collection, the data was analysed using descriptive and inferential statistics.

Findings of Study: The analysis of data was done in accordance with the objectives of study. Analysis was divided into the following sections-

Section I: Demographic characteristics of sample

Section II: Findings related to level of Anxiety and Social Phobia among students

Section III: Findings related to Correlation between Anxiety, Social Phobia and Academic Achievement

Table 1: Level of State Anxiety among Students
N = 100

Level of Anxiety	n	n%	mean
Extremely Low	-----		
Low	-----		
Average	39	39	58.10
High	60	60	61.13
Extremely High	1	1	69.0

Table 1 reveals that maximum number of students i.e. 60 had high state anxiety with mean score of 61.13, followed by average state anxiety in 39 students, with mean score 58.10 and extremely high state anxiety in 1 student with mean score of 69. None of the students had low or extremely low level of state anxiety. Thus, it was concluded that state anxiety is very common in students.

Table 2: Level of Trait Anxiety among Students
N = 100

Level of Anxiety	**n**	**n%**	**mean**
Extremely Low	-----		
Low	-----		
Average	84	84	55.66
High	13	13	62.08
Extremely High	3	3	66.33

Table 2 reveals that maximum number of students i.e. 84 had average trait anxiety with mean score of 55.66, followed by high trait anxiety in 13 students, with mean score of 62.08 and extremely high trait anxiety was found in 3 students with mean score of 66.33. None of the students had low or extremely low level of trait anxiety. Thus it was concluded that average trait anxiety is common in adolescents.

Table 3: Level of Social Phobia among Students
N = 100

Level of Social Phobia	**n**	**n%**	**mean**
None	70	70	13.31
Mild	20	20	22.66
Moderate	7	7	34.00
Severe	3	3	46.53

Table 3 reveals that no social phobia was identified in maximum number of students i.e. 70, with mean social phobia score of 13.31, followed by mild social phobia in 20 with mean score 22.66, moderate in 7 with mean score of 34.00 and severe in 3 students with mean score of 46.53. None of the students had

very severe social phobia. Thus it was concluded that prevalence of social phobia is low.

Table 4: Correlation between State Anxiety and Academic Achievement among Students

N = 100

Category	Mean	r
Average State Anxiety	58.10	0.82
Academic Performance	72.78	
High State Anxiety	61.13	-0.46
Academic Performance	63.77	
Extremely High State Anxiety	69	-0.71
Academic Performance	60.11	

Table 4 reveals that there is a strongly positive correlation (0.82) between Average State Anxiety and Academic performance, whereas there is weak negative correlation (-0.46) between High State Anxiety and Academic performance and negative correlation (-0.71) between extremely high State Anxiety and Academic performance. Thus it can be concluded that average state anxiety has a good or positive effect on academic performance whereas high and extremely high state anxiety leads to poor academic performance.

Table 5: Correlation between Trait Anxiety and Academic Achievement among Students

N = 100

Category	Mean	r
Average Trait Anxiety	55.66	0.64
Academic performance	77.20	
High Trait Anxiety	62.08	−0.44
Academic performance	60.07	
Extremely High Trait Anxiety	66.33	−0.77
Academic performance	59.39	

Table 5 reveals that there is a positive correlation (0.64) between Average Trait Anxiety and Academic performance, whereas there is weak negative correlation (-0.44) between High State Anxiety and Academic performance and strongly negative correlation (-0.77) between Extremely High State Anxiety and Academic performance. Thus it can be concluded that high and extremely high trait anxiety has a negative effect on academic performance or it leads to poor academic performance.

Table 6: Correlation between Social Phobia and Academic Achievement among Students

N = 100

Category	Mean	r
None	13.31	0.23
Academic performance	71.81	
Mild Social Phobia	22.66	-0.41
Academic performance	68.77	
Moderate Social Phobia	34.00	-0.47
Academic performance	61.91	
Severe Social Phobia	46.53	-0.78
Academic performance	59.76	

Table 6 reveals that there is a no correlation (0.23) between Social Phobia and Academic performance, whereas there is weak negative correlation (-0.41, - 0.47) between Mild and Moderate Social Phobia and Academic performance and strong negative correlation between Severe Social Phobia and Academic performance. Thus it can be concluded that though social phobia does not influence academic performance but severe social phobia adversely affects academic performance or it leads to poor academic performance.

Also it was found that there was statistically significant difference in level of anxiety according to the type of family, father's education and residential area but there was no effect of age, class, number of siblings and mother's education on level of anxiety. The study also revealed that there was statistically significant difference in level of Social Phobia according to number of siblings and residential area but there was no effect of age, class, type of family, mother's education and father's education on level of social phobia.

CONCLUSION

Findings of this study revealed that average state

and trait anxiety is common in adolescents whereas Social Phobia has a low prevalence. It was found that average state and trait anxiety has a positive effect on academic performance and it leads to good academic performance but high and extremely high state and trait anxiety leads to poor academic performance. Mild or moderate Social Phobia does not affect the academic performance but severe Social Phobia has an adverse effect on the academic performance of students. Also there is statistically significant difference in level of anxiety according to the type of family, father's education and residential area but there is no effect of age, class, number of siblings and mother's education on level of anxiety. The study also revealed that there was statistically significant difference in level of Social Phobia according to number of siblings and residential area but there was no effect of age, class, type of family, mother's education and father's education on level of Social Phobia. Anxiety and Social phobia can ruin one's life .Anxiety in addition to other problems increases the severity of social and academic consequences. Addressing anxiety can drastically improve functioning in day - to - day activities and iit is the need of the hour.

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Conflict of Interest: None

Source of Funding: This was a self funded study.

ETHICAL CONSIDERATION

- Written permission was taken from Principal of the college for conducting this study.
- Written permission was taken from the Research and Ethical committee of Institute of Nursing Education, GTB Hospital, Ludhiana for conducting this study.
- Informed verbal consent was taken from the participants after explaining the purpose of study to them.

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Effectiveness of Planned Teaching Programme on knowledge Regarding First Aid for the Common Ailments among School Teachers at Selected Primary Schools in Mangalore

Linto Andrews[1], P Sathya[2]

[1]Lecturer, Teerthanker Mahaveer College of Nursing, BagadPur, Delhi Road, Moradabad,, Uttar Pradesh,
[2]Associate Professor and HOD, Department of Community Health Nursing, RVS College of Nursing, Sulur, Coimbatore, Tamilnadu

ABSTRACT

The main objective of the study was to determine the effectiveness of Planned Teaching Programme in terms of significant increase in knowledge of school teachers regarding first aid for the common ailments and determine the association between the pre-test knowledge score and selected demographic variables. The conceptual framework adopted for the study was based on Kurt Lewin's change model. Apre experimental, one group pretest, post-test design was adopted. Thirty five school teachers were selected using purposive sampling technique. Data were collected using demographic proforma and structured knowledge questionnaire developed by the researchers. The structured knowledge questionnaire was first administered; following which knowledge on First aid for common ailments was imparted using PlannedTeachingProgramme.Data were analyzed usingdescriptive and inferential statistics. The mean posttest knowledge scores of the teachers regarding first aid for common ailments (17.83) was significantly higher than the mean pre-test knowledge score (11.9) shows that the PlannedTeaching Programme was effective in improving the knowledge of teachers. The association between pre-test knowledge score and selected demographic variable were calculated using chi-square test and the result shows that the pre-test knowledge score of school teachers was independent of all the demographic variables.

Keywords: *First Aid, Common Ailments, Primary School Teachers, Planned teaching Programme, School*

INTRODUCTION

First Aid is the provision of initial care for an illness or injury. It is usually performed by a non-expert person to a sick or injured person until definitive medical treatment can be accessed[1].

Minor injuries are quite common in school children because of the range and extents of their activities expose them to such episodes. Most of the researches on childhood injuries in the recent past in India and abroad have focused on major and fatal injuries[2]. The emergencies commonly meats within schools are accidents which lead to minor or serious injuries (wound, fracture, dental injuries, nose bleeding, bites and stings etc.) and medical emergencies such as epileptic fits, fainting etc[3].

As per WHO estimates, nearly 9, 50,000 children die in the world due to an injury each year. The incidences of child injuries in India are not clearly known. As per the National Crime records Bureau report of 2006, there were 22,766 deaths (<14years) due to injuries among children. However a recent national review on burden of injuries in India revealed that, nearly 8.2% of death and 20-25% of hospitalization occur among children based on few hospitals and population based studies. In the same year there were deaths among 1,133 children in Karnataka. A one year data from Bengaluru on the injury surveillance programme showed that 5,505 children brought to hospitals with an injury and 209 children below the age of 18 years died due to an injury[4].

It is estimated that 50% of deaths occur within

the first hour of the accident, 30% between one hour and one week and 20% occur after the first week. The 'golden hour' and 'platinum hour' highlights the importance of early trauma care. Important factors responsible for increasing secondary injuries and complications are non-availability of first aid, delay in transfer of patients from the injury site to hospital[5]. Children are our future and our most precious resources. The responsibility of giving first aid and emergency care to the pupils who become sick or injured on school premises rests with the teacher. So it is essential that all teachers should receive adequate training on first aid.

MATERIAL AND METHOD

A one group pre-test, post-test design was adopted in this study. Non probability purposive sampling technique was used to select 35 school teachers and were willing to participate in the study. Teachers who were working on a part time basis and have undergone first aid training were excluded from the study.

The data collection tools used for the study were demographic proforma andknowledge questionnaire. The socio-demographic proforma consisted of six items which was used for obtaining data regarding the participantsage, gender, religion, educational qualification, years of teaching experience and previous experience in the provision of first aid. The structured knowledge questionnaire consisted of 24 multiple choice questions in the areas of general information on first aid , First aid in wound, injury & bleeding , fracture, convulsion and fainting , foreign bodyand bites and stings.Each question had a score of '1' for the correct answer and '0' for the wrong answer.

The content validity of the tool was obtained from professional experts. The validated tool was pretested on five subjects after which reliability coefficient was computed after administering it to 10 school teachers, using the split half method and Karl Pearson's correlation coefficient followed by Spearman Brown Prophecy formula, which was 0.93. The Item analysis of the questionnaire showed that all twenty four questions had a difficulty index between 30% and 70% indicating that the items were acceptable. Calculation of the discrimination index showed that 11 items were excellent, 10 items were good and three were found as poor. For the three questions suitable modifications were done in the options.

Prior to data collection, a pilot study was conducted on a sample of 10 school teachers by using PlannedTeaching Programme and it was found to be feasible. Following this the main study was done from 30th November 2011 to 8th December 2011 in D.K.Z.P.M.H.P School, Naringana, Govt. Primary School, Talapady and Madani Higher Primary School, Anekal respectively. After taking informed consent from them, the demographic proforma and the structured knowledge questionnaire were administered. On completion of the questionnaire the Planned teaching programme was conducted which took 45 minutes. On the 7th day, the post-test was conducted using the same demographic proforma and structured knowledge questionnaire that was administered for the pre-test. All 35 subjects participated in the post-test.

The analysis involved a description of the sample according to their demographic variable. Mean of the overall knowledge was calculated. Paired't' test was used to analyze the differences in the mean pre-test and post-test score, with a statistical significance of $p<0.05$. To examine the association between pre-test knowledge scores and selected demographic variables the Chi- square was computed

FINDINGS

The frequency and percentage distribution of demographic variables of Primary

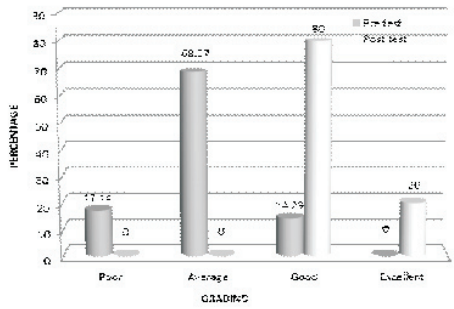

Figure 1: Cylindrical diagram showing the frequency and percentage distribution of pre-test and post-test knowledge scores of the Primary School teachers.

School Teachers showed that 40% were in the age group of 51 to 60 years, the majority (88.57%) were females, and 65.71% belonged to Hindu religion. Maximum (85.71%) of subjects had completed D. Ed/

TCH/TCL, had above 10 years of teaching experience and provided or observed the first aid earlier.

The data presented in figure 1 shows that in the pre-test 17.14% of the participants had poor knowledge, 68.57% had average knowledge, and 14.29% of the participants had good knowledge, whereas in post-test, 80% had good and 20% had excellent knowledge.

Table 1: Mean, Standard deviation (SD) and't' value between pre-test and post-test knowledge scores

N=35

Test	Max. Score	Knowledge			Paired 't' Test
		Mean	$\bar{d}$	SD	
Pre-test	24	11.9	5.94	2.63	13.38*
Post-test	24	17.8			

$t_{(34)} = 1.7$ * Significant

The data presented in table 1 shows that 'calculated 't' value of pre-test and post-test knowledge scores were statistically significant at 0.05 level of significance. The calculated't' value (t=13. 38) was greater than the table value ($t_{(34)}$=1. 7). This shows that the Planned Teaching Programme on first aid for the common ailments was effective in improving the knowledge of Primary School Teachers.

ASSOCIATION OF PRE TEST KNOWLEDGE SCORE AND DEMOGRAPHIC VARIABLES

The obtained chi—square values of age, gender, religion, educational status, years of teaching experience, and previous experience of first aid (9.48,5.99, 9.48 ,9.48, 5.99,5.99) were lesser than the table values so that there was no significant association between the demographic variables and the pre test knowledge score at 0.05 level of significance.

CONCLUSION

The findings of the present study show that the Planned Teaching Programme is an effective strategy in bringing about the desired change in knowledge. The findings of the present study have various implications for nursing practice, education, administration and research. Health education programme conducted by the nursing personnel in the school setting helps in imparting knowledge to the teachers in providing immediate first aid measures and there by save the life of the future nation.

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Conflict of Interest – Nil

Source of Funding -Self

Ethical Clearance: Ethical clearance obtained.

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Effectiveness of Self Instructional Guidelines on Child Trafficking in Terms of Knowledge and Attitude of Students Studying in Selected Rural School of Bisrakh, Greater Noida

Lekha Singh Bist[1], Neha Tomar[2]

[1]Vice Principal, Prakash Institute of Nursing, Noida, Uttar Pradesh, [2] HOD, Department of Nursing, Naraina Group of Institutions, Gangaganj, Panki, Kanpur

ABSTRACT

A study to develop and evaluate the effectiveness of self instructional guidelines on child trafficking in terms of knowledge and attitude of students studying in a selected rural school of Bisrakh, Greater Noida was undertaken by Ms Lekha Singh and Ms Neha Tomar at Nightingale Institute of Nursing.

The objectives of this study were – 1) To develop self instructional guidelines on child trafficking. 2) To assess and evaluate the knowledge of the students regarding child trafficking before and after the administration of self instructional guidelines.3) To assess and evaluate the attitude of the students on child trafficking before and after the administration of self instructional guidelines. 4) To find out the relationship between the post test knowledge and post test attitude of students regarding child trafficking. 5) To find out the acceptability and utility of self instructional guidelines by the students.

The conceptual framework of the study was based on Imogene's king's theory of goal attainment .The research approach adopted for the study was evaluative with one group pre-test post-test design. The population comprised of students of 11th class who were studying in Badami school of Bisrakh village, greater Noida. Total enumeration sampling technique was used to select a sample of 40 students. A structured knowledge questionnaire was developed to assess the knowledge of the students, a structured attitude scale was developed to assess the attitude of the students on child trafficking, and structured opinion ire was developed to find out the acceptability and utility of the self instructional guidelines on child trafficking by the students. Self Instructional Guidelines was developed to enhance the knowledge of Students on child trafficking and develop unfavorable attitude in students towards child trafficking.

The data was collected from 1 February 2013 to 16 February 2013 after taking the formal approval from the principal of Badami School, Bisrakh Village, Greater Noida. The purpose of the study was explained to the group and confidentiality was assured. Pre-test of the students was taken on the day one and self instructional guidelines was distributed on the same day, on 3rd day the doubts of the students were cleared and on 10th day Post-test was conducted .

The data was analyzed by using descriptive and inferential statistics in terms of frequency, percentage, mean, standard deviation, t - value and co-efficient of correlation.

The findings of the study were:- The maximum number of the subjects were in the age group of 16-17years, majority of the students were female, religion wise majority of the students were Hindus, regarding place of origin all of the students belongs to Uttar Pradesh, majority of students were living in joint family, maximum of the respondent mothers were illiterate and fathers were educated up to high school, regarding occupation of parents, maximum of respondent mothers were housewives and fathers were self employed, majority of the students were belongs to family income between 4001-6000, regarding previous knowledge on child trafficking, majority of the students did not have knowledge related to child trafficking.

The mean post-test knowledge score and attitude score of the students studying in rural school of Bisrakh village was significantly higher than their mean pre-test knowledge and attitude score.

There was a positive correlation exist between post test knowledge and post test attitude score of students. The overall findings on acceptability and utility of the self instructional guidelines indicated that self instructional guidelines on child trafficking had high acceptability and utility as a method of learning by the student.

Keywords- *Effectiveness, Self Instructional Module, Child Trafficking, Knowledge Attitude.*

INTRODUCTION

India is a source, destination, and transit country for men, women, and children trafficked for the purposes of forced labor and commercial sexual exploitation. Internal forced labor may constitute India's largest trafficking problem; men, women, and children are held in debt bondage and face forced labor working in brick kilns, rice mills, agriculture, and embroidery factories. NGOs estimate this problem affects 20 to 65 million Indians[1].

Women and girls are trafficked within the country for the purposes of commercial sexual exploitation and forced marriage especially in those areas where the sex ratio is highly skewed in favor of men. Children are subjected to forced labor as factory workers, domestic servants, beggars, and agriculture workers, and have been used as armed combatants by some terrorist and insurgent groups.Women and children – boys and girls – have been exposed to unprecedented vulnerabilities commercial exploitation of these vulnerabilities has become a massive organized crime and a multimillion dollar business. Nations are attempting to combat this trade in human misery through legislative, executive, judicial and social action [2].

Trafficking of children is a worldwide phenomenon affecting large numbers of boys and girls every day. Trafficking in persons shall mean the recruitment, transportation, transfer,harboring or receipt of persons, by means of the threat or use of force orother forms of coercion of abduction, of fraud, of deception, of the abuse ofpower or of a position of vulnerability or of the giving or of receiving ofpayments or benefits to achieve the consent of a person having control overanother persons, for the purpose of exploitation. Exploitation shall include, ata minimum, the exploitation of the prostitution of others or other forms ofsexual exploitation, forced labor services, slavery or practices similar toslavery, servitude or the removal of organs[3].

MATERIAL AND METHODS METHODOLOGY

The researcher in the present study aimed at developing and evaluating self instructional guidelines on child trafficking in terms of knowledge and attitude of the students studying in Badami School Bisrakh Village Greater Noida. Also the researcher was interested in determining the utility and acceptability of the self instructional guidelines by the students with the help of an opinionnaire.

RESEARCH APPROACH

The evaluative research approach was considered most appropriate for the present study because the primary objective of the study were to determine the effectiveness of the self instructional guidelines, where the criterion measures selected were gain in knowledge and development of unfavorable attitude on child trafficking .

RESEARCH DESIGN

Research design selected in the present study is pre experiment "one group pre test post test design" that is Quasi experimental.

VARIABLES UNDER STUDY

Independent variables: - In the present study the independent variable is the self instructional guidelines on child trafficking.

Dependent variable: -. In the present study the dependent variable is knowledge and attitude of the students.

SETTING OF THE STUDY- This study was conducted at BADAMI school of Bisrakh village, Greater Noida.

SAMPLE AND SAMPLING TECHNIQUE- Convenient sampling for selection of zone **and** school and total enumeration sampling technique and samples are students of 11th class studying in BADAMI school of Bisrakh village, Greater Noida.

SAMPLE SIZE- 40 students of class 11th standard were selected as sample.

DATA COLLECTION TOOLS AND TECHNIQUES

1-Structured knowledge questionnaire- Knowledge questionnaire was prepared to assess the knowledge of students.

2-Attitude scale- A five point likert scale was constructed to assess the attitude of students on child trafficking.

3-Opinionnaire- structured opinionnaire was made to determine the opinion of students about acceptability and utility of self instructional guideline.

PROCEDURE FOR DATA COLLECTION

Formal permission was sought from the principal of the Badami School to conduct final study. Final data was collected from 1st Feb 2013 to 16th Feb 2013. By using total enumeration sampling technique 40 students were selected from 11th class from BADAMI School, Bisrakh Village Greater Noida. After that Self introduction and introduction to the nature of the study students were told to give free and frank responses. The investigator established a rapport before proceeding for data collection from the subjects after selecting the subjects, verbal consent was taken from all and assured them about the confidentiality of their response. Data on demographic characteristics was collected. Pre-test was administered on day one and self instructional guidelines were distributed on the same day. On third day doubts of the students if any were cleared and then on the 10 day the post test was conducted after that the opinion from the students about the acceptability and utility of the self instructional guidelines was taken.

PLAN FOR DATA ANALYSIS

It was planned to use both descriptive and inferential statistics for data analysis

1-Frequency and percentage distribution was being used to describe the sample characteristics.

2-Mean, median, and standard deviation value were used to describe the pre-test and post –test knowledge scores

3-t-value was being used to calculate the significance of difference between the mean pre-test and post test knowledge scores.

4-Mean, median, and standard deviation value was being used to describe the pre-test and post –test attitude scores

5-t-value was being used to calculate the significance of difference between the mean pre-test and post test attitude scores.

6-'r' value was being calculated to find out the relationship between post test knowledge scores and post test attitude scores.

7-Frequency and percentage distribution was being used to find out the acceptability and utility of the self instructional module.

FINDINGS

1- Findings of sample characteristics

As per the age group, the maximum number of students (82.5%) were of the age group of 16-17years .The Majority of students are female (67.5%). Religion-wise the majority of students were Hindu i.e.87.5%. Regarding place of origin, all the students belonged to Uttar Pradesh i.e.100%, The majority of students were living in joint family (55%). Large of the respondent mothers were illiterate i.e. 45% and fathers were educated up to high school i.e.22.5%. Regarding occupation of parents, the majority of mothers of the respondents were housewives i.e. 62.5and the majority of fathers (55%) were self employed. The majority of students belonged to family income between 4001-6000 i.e. (47%). Regarding previous knowledge of exposure, the majority of students don't/didn't have knowledge related to child trafficking i.e. 75%. And 25% of students had some knowledge regarding child trafficking. Out of these 25% students 70% had gained knowledge through television and remaining 30% through news paper[4].

2- Findings related knowledge scores

The mean post-test knowledge score (19.55%) of the students was higher than their mean pre-test knowledge score (11.77). There was reduction in the SD from pre-test (3.34) to post test (2.66). The mean difference is 8.20, standard deviation difference is 3.35, standard error of mean difference is 0.53 and the't' value is 16.9 which is greater than the table value of 2.02 at df 39.

3- Findings related to attitude scores

The mean post-test attitude score (50.5) of the students was higher than their mean pre-test attitude score (39.7). There was a reduction in the standard deviation from pre-test (3.45) to post-test (3.33). The mean and median were closer to each other in both pre-test and post-test.

The mean difference is 10.8, standard deviation difference is 4.32, standard error of mean difference

is 0.67 and the calculated' value is 17.9 which is more than the table value of 2.02 at df 39.

4- Findings related to relationship between post test knowledge and post test attitude.

The coefficient of correlation between post test knowledge and post test attitude of students was 0.41, which indicates a higher positive relationship between post-test knowledge and post-test attitude at 0.05 level of significance.

5- Findings related to acceptability and utility of self instructional guidelines by the students.

There was high level of acceptance of self instructional guidelines by the students. There is 97.5% agreement on item no 8 "to the great extent" by students (better write, 97.5% students agreed on item no. 8. 95% agreed on item no. 4,9 and 10) and 95% agreement on item no. 4,9 and 10, where there are 90% agreement on item no 3,6, and 7. None of the respondent, none of the respondents responded "not at all". The overall findings on acceptability and utility of the self instructional guidelines indicated that the self instructional guidelines on child trafficking had high acceptability and utility as a method of learning by the student.

CONCLUSION

The conclusion drawn from the study is-

- The students initially had low level of knowledge and slightly favorable attitude towards child trafficking.
- The maximum deficit was found in the area of prevention of child trafficking.
- The minimum deficit was found in the area of meaning of child trafficking.
- The self instructional guidelines were found more effective in increasing the knowledge regarding child trafficking.
- The self instructional guidelines were found more effective in developing the unfavorable attitude towards child trafficking.
- A significant positive correlation exists between post-test knowledge and post test attitude scores of students regarding child trafficking.
- Self instructional guidelines were highly acceptable and useful by the students.

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Source of Funding: Self

Ethical Clearance: Ethical clearance was obtained from Ethical Committee.

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Health Care Provider Perception of Father's Role in Breast Feeding Practices

Yasmin Mithani[1], Zohra Kurji[1], Zahra Shaheen Premani[1], Shehnaz Rashid[2]

[1]MSc in International Primary Health Care, [2]Research Coordinator, Sharjah Baby-Friendly Campaign, Govt of Sharjah, UAE

ABSTRACT

Breastfeeding is identified as the single most effective intervention that could prevent 13-15% of all child deaths.[1] [6] Those mothers who receive support from health care providers most of the time are determined for protection and promotion of breast feeding for their baby.[9] [11] [12] This study used the qualitative method In addition participants from urban the semi urban areas were also selected from private maternity home and primary health care staff . Purposive sampling was done, 2 Focus Group Discussions were conducted Findings of the FGD demonstrated that healthcare providers were very well aware about the benefits of breast feeding and the risks of formula milk. Nurse's also viewed paternity leaves as enabling factors for fathers and mothers for initiating and maintaining exclusive breast feeding practices Many nurses suggested that if they were equipped with ongoing education, they would feel more empowered to encourage the practice.

Keywords: *Breast feeding, Health care provider, Perception*

Background: Breastfeeding is identified as the single most effective intervention that could prevent 13-15% of all child deaths.[1]The World health organization(WHO) underscores the benefits of exclusive and optimum breast feeding practices for both mother and child,. Scientists and nutritionists consider human milk as a "living biological fluid" with over 80 defensive components, including antiviral and antiparasitic, which cannot be reproduced by the manufacturers of formula milk. [4] [5] The immediate benefit to newborns is prevention from infection. For instance, the colostrum in breast milk provides antibodies which raises immunity.[1] [2] [3] There is much evidence related to short and long term impacts of breast feeding on maternal and child health. [4] Only 16% females in Pakistan follow exclusive breastfeeding practices.[1, 7] [10] Among these women, 38.6% are not feeding colostrum as they are not aware about its importance and they think that it would harm their baby[1,2,3]. Studies have illuminated that women need social as well as emotional support to initiate and maintain breastfeeding practices[6,7]. A mother has to put in a lot of her time and energy to feed her baby which would not be possible without a support system. [6] [7,9] [11] [12]

Study Rationale: Therefore, this study intended to explore the perceptions of nurses to get an insight into the reasons that influence breastfeeding practices, which will eventually facilitate benefit to the lactating mothers, and fathers, who want to continue breastfeeding but are faced with challenges.

Study Aim: "To explore the perceptions of nurses about the breast feeding of infants in urban and semi urban settings in Karachi, Pakistan"

Study Objectives:

- explore the knowledge, beliefs and practices of nurses regarding breast feeding in urban and semi urban areas in Karachi Pakistan
- explore how nurses perceive fathers' role in the promotion of breast feeding

LITERATURE REVIEW

Support provided by healthcare providers is also an essential ingredient in promoting breastfeeding.[13] A comprehensive review has affirmed that professional and lay support benefits exclusive and optimum breast feeding practices.[14] [15] one of the studies has also endorsed that 471 mothers who

received assurance, efficiency, support, enthusiasm and education from healthcare providers fed their infants for a longer duration of time.[16] A Cochrane review of 29,385 studies, from 14 countries, revealed that any form of support is very much appreciated by mothers and results in marked increased in the duration of breast feeding practices.[1718]A controlled trial on fathers also endorsed that if health care providers are not supportive and caring towards breast feeding, it becomes a barrier and a major impeding factor in breastfeeding continuation.[19] One study also found that the major reason for the cessation of breastfeeding among 288 American mothers was that their clinician reported that they had advised mothers to initiate formula feed because of biomedical problems.[1520] The researcher mentioned time constraints as a major reason why the physician did not provide breastfeeding counseling and proposed that physicians should be trained and made responsible for promoting breast feeding.[20 22]A study to investigate barriers to exclusive breast feeding practice among mothers underscored that health care providers attitude regarding to breast feeding is very crucial.[15 21]

Methodology: This study used the qualitative method[23 24].

Setting : The private maternity home and primary health care center of semi urban was selected as the study setting.

Sample Size: Focus Group Discussions were conducted with health care providers (RN /RM and LHV) residing in the urban and semi urban areas were done.

Sampling Technique: After approval of ethical review committee ERC (Ethical review committee) data was collected by taken consent. Purposive sampling was done whereby participants were selected on the basis of inclusion and exclusion criteria.

RESULTS AND FINDINGS

1. Perception:

1a- Benefits of Breast Feeding: The results of the FGD from the urban and (UFGD) semi urban (SFGD) health care providers (HCP) revealed that all of them were aware about the benefits of breast feeding. They stated that breastfeeding promoting child development, helped babies remain healthy, and prevented them from many diseases. They termed it as an immunity booster, convenient, hassle free and economical. One of the participants vigorously said:

"Breast milk is like baby's first vaccine"(UFGD)

However, one of the participants had a different opinion:

"exclusive breast feeding practices should be till 4 months and at the age of 4 months, weaning should be started,." (SUFGD)

1 b Risk of Formula Feeding: With regard to reasons for declining breastfeeding rates, one participant from the urban area reported

"Nowadays, working women do not initiate breast feeding and they switch to formula (UFGD)

1 c Father as a Team Member: Nonetheless, all the participants from UFGD and SUFGD suggested improving the father's role in breast feeding practices. They stated that the fathers should not be left out as they also need support and guidance as to how to fulfill their roles they should be involved in antenatal, natal and postnatal care from the start. Four of the participants of UFGD also suggested advocacy through education sessions and counseling. The participants also recommended giving paternity leaves to increase the father's support during breastfeeding. Most of the participants from the semi urban setting affirmed:

"Allowing fatherhood leaves for 4-6 weeks will provide support to couple……."

However, one of the participants had a different opinion:

"If the system of paternity leaves will be introduced, then the possibility of fertility will rise".

2. Experiences:

2a - Father's Role in Breast Feeding: Data revealed that healthcare providers perceived that husbands should support their wives his wife during breastfeeding. Out of 12 participants from the FGD, 10 participants agreed that a baby's father should play a significant role in the promotion of breast feeding by participating in baby's care; changing diapers, holding and swaddling, baby, as required. Moreover, they also expressed that when the baby wakes up

at night, it should not be mother only who wakes up and takes care of the baby's needs but fathers should also be involved. They also suggested that familial roles, such as taking care of the household chores and looking older children are also some of the ways in which they can support their spouses in breastfeeding. As one of the participants stated :

"Husband support is not needed only in infant feeding. Fathers should support in all the aspects of life. 50% wife and 50% husband will give 100% to children….." (UFGD).

However, 2 participants were in disagreement. They both were not in the favor of involving fathers and they felt that if women are motivated and other family members are supportive, father's support is not required. As one of the participants said:

"Now a day's, new generation mothers have made their mindset not to breast feed and even I also believe fathers cannot play any role in breast feeding. It is mother's responsibility." (UFGD)

Results also demonstrated that experience of nurses impacted on their views towards father's involvement. She affirmed that:

"When we go for home visit, most of the men are at sea and it's my years of experience that male members will not take any interest in reproductive health". (SUFGD)

2 b- Dealing with Breastfeeding Mothers: Sharing their experiences regarding dealing with breast feeding mothers, all 12 participants verbalized that compared to Multipara, the primigravida mothers needed more guidance regarding initiation and maintenance of the breast feeding practices..

As one of the participants stated:

"Second and third gravida [mothers] know how to breast feed but primi mothers need more attention"(UFGD)

While discussing their experience one participant stated

In the community, media is mainly causing trouble. Women are not educated and they pressurize their husband to bring formula milk…" (SUFGD)

DISCUSSION

The findings of this FGD provide an understanding the perspectives of healthcare provider's from both urban and semi urban areas, with regard to the father's role in breastfeeding. They shared their experiences in relation to their knowledge about benefits of breastfeeding, Nurses Awareness:

Findings of the FGD demonstrated that healthcare providers were very well aware about the benefits of breast feeding and the risks of formula milk[26,27,28]. However, only one participant from the FGD shared that they lacked updated knowledge as they were not following WHO recommendations. Similar findings are also found by baby friendly articles that lack of knowledge in healthcare professionals can impact negatively on optimal breastfeeding.[29]

Nurses Perceptions on Fathers' Involvement With regard to father's involvement, most of the participants perceived that fathers played central role in promoting breastfeeding except for 2 participants, who strongly disagreed stating that in developing countries, where only one member is earning and the entire family is dependent on him, this will add additional burden on him. Findings of one study also revealed that the participants suggested that fathers should focus on the role of bread earner and other key female members, like mothers in law, must be involved in promoting breastfeeding practices.[30] Nurses also verbalized that during home visits, fathers go out of that room and do not want to be involved and consider breast feeding to be a female-oriented task. similar findings have also been reported a study conducted in Turkey.[31] Thus, if male health care workers community are selected and trained in maternal and child health, they may find more in acceptance and the fathers may be more comfortable in discussing their issues. Yet, further studies are required to assess the perception of fathers regarding gender preference of healthcare providers, to have an in-depth understanding on this phenomenon.

PATERNITY LEAVES FROM THE NURSES PERSPECTIVE

Nurse's also viewed paternity leaves as enabling factors for fathers and mothers for initiating and maintaining exclusive breast feeding practices. A study conducted in Sweden reported that as soon as the reform with regards to paternity leaves was modified, more fathers started availing this benefit and the paternity leave rates rose from 4% to 11%.[32] consequently, they were able to provide support to

their wives and were more committed with their responsibility as husband and father. Consistent findings were also found in a study conducted by Margaret (2003), family life is balanced with allocation of paternity leaves.[33] However, nurses from the semi urban area had a different of opinion and pointed out that if paternity leaves will be approved, fertility will increase. A study conducted in Austria to analyze the impact of parental leave and fertility return revealed that as soon as the reform was passed for increase in paternity leaves, a marked increase was seen in fertility rates.[34] However, there may be other reasons for this; however, the relationship between paternity leaves and fertility needs further exploration.

CONCLUSION

Overall, It was found that if proper measures are taken and perspectives of health care providers are considers pertinent than improvements can be seen in the declining practice of breastfeeding. Healthcare providers pointed out that factors such as continued professional education, ample staffing, review of policies from time to time, and adequate infrastructure are all conducive in encouraging and sustaining healthy breastfeeding practices.

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Ethical Clearance: Taken

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Impact of Health Awareness Programme on Knowledge and Practice Regarding Revised Protocol of Delivering Cardiopulmonary Resuscitation (CPR) among Nursing Students

Rinni Roy[1], Ravindra H N[2], Pavan Kumar Jain[3]

[1] MSc Nursing Student, [2]Principal, [3]Assisstant Professor, Department of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth, Piparia, Vadodara-391760, Gujarat, India

ABSTRACT

Introduction: The cardiopulmonary resuscitation guidelines were updated in 2010 by the American Heart Association and International Liaison Committee on resuscitation emphasizing high quality CPR and change in the order of interventions for all age groups except newborns. Competency of nurses in CPR is a critical factor in patient outcome from cardiac arrest. There is compelling evidences to suggest that registered nurses across continents lack competence in the performance of a proper CPR.

Objective: The study aimed at assessing the existing knowledge and skill on revised protocol of delivering CPR among nursing students, evaluating the impact of awareness programme on revised protocol of delivering CPR and to find correlation between knowledge and practice.

Method: A one group pre-test post-test pre-experimental approach was adopted. The study was conducted among 50 nursing students conveniently selected from two nursing colleges of Vadodara. The content validity of the tool and teaching plan was established. Reliability of the tool was tested by split half technique and inter rater reliability.

Result: It was found that the impact of the health awareness programme in terms of increase in knowledge score among nursing students was 45% whereas increase in skill score was found to be 54.33%.

Conclusion: There is a need for a re-education and training for those who have undergone training on CPR as per the previously established guideline.

Keywords*: Knowledge, Practice, Changed Protocol of Delivering CPR, Health Awareness Programme, Nursing Students.*

INTRODUCTION

The first international congress of resuscitation in 1973 regarded Cardiopulmonary Resuscitation as a necessary action for saving life and suggested general teaching in the world. From 1979, 1985, 1992, 2000, 2005, 2010 up to now the resuscitation program has been studied and progressed.[1]

The 2010 AHA Guidelines for CPR recommended a change in the BLS sequence of steps from A-B-C (Airway, Breathing, Chest compressions) to C-A-B (Chest compressions, Airway, Breathing) for adults, children, and infants excluding the newly born. Look, listen, feel has been eliminated with the new "chest compressions first" sequence, CPR is now performed

Corresponding author:
Rinni Roy
MSc Nursing Student, Sumandeep Nursing College, Sumandeep Vidyapeeth, B-149, Mathuranagari, B/H Aims Oxygen, Old Padra Road, Vadodara, Gujarat-390020, Email Id: rinniroy18@gmail.com
Phone Number: 08460621159

if the adult is unresponsive and not breathing or not breathing normally.[2]

This resuscitation guideline has emphasized on the fast and tough pressure at the beginning of the witnessed resuscitation program. This kind of massage has to be done "atleast" with the pace of 100 times per minute from that of "approximately 100/min" for all the victims except the infants with less than one month.[3] Compression depth for adults has been slightly altered to atleast 2 inches (about 5 cm) from the previous recommended range of about 1.5 to 2 inches (4 to 5 cm). Ratio of compression to that of ventilation of about 30:2 for single as well as two rescuers for adults is recommended. Allowing complete chest recoil, minimizing interruptions in compressions, and avoiding excessive ventilation is advised. Use of cricoid pressure during ventilations is now generally not recommended. There is an increased focus on using a team approach during CPR.[4]

Claims advocating the change in the A-B-C sequence were the delay in compressions as the responder opens the airway to give mouth-to-mouth breaths, retrieves a barrier device, or gathers and assembles ventilation equipment, the C-A-B sequence ensures chest compressions being initiated sooner and the delay in ventilation would be minimal of approximately 18 seconds to deliver the first cycle of 30 chest compressions. Further a vast majority of cardiac arrests report an initial rhythm of ventricular fibrillation (VF) or pulse less ventricular tachycardia (VT) and in these patients, the critical initial elements of BLS are chest compressions and early defibrillation than ventilation. Yet another reason attributed is most victims of out-of-hospital cardiac arrest do not receive any bystander CPR and one of impediment is believed to be the A-B-C sequence, which starts with the procedures that rescuers find the most difficult. Starting with chest compressions might encourage more rescuers to begin CPR.[5]

"For more than 40 years, CPR training has emphasized the ABCs of CPR, which instructed people to open a victim's airway by tilting their head back, pinching the nose and breathing into the victim's mouth, and only then giving chest compressions," said Michael Sayre, M.D., co-author of the guidelines and chairman of the American Heart Association's Emergency Cardiovascular Care (ECC) Committee, this fundamental change in CPR sequence will require re-education of everyone who has ever learned CPR.[6]

STATEMENT OF THE PROBLEM

''Impact of health awareness programme on knowledge and practice regarding revised protocol of delivering cardiopulmonary resuscitation (CPR) among nursing students in selected colleges of Vadodara.''

OBJECTIVE OF THE STUDY

1. Determine the existing knowledge regarding CPR among the nursing students.
2. Determine the existing skill of delivering CPR among nursing students.
3. Plan and execute an awareness programme on revised protocol of delivering CPR for nursing students.
4. Evaluate the impact of the awareness programme on revised protocol of delivering CPR among nursing students measured by improvement in knowledge and skill by using a structured questionnaire and an observational checklist respectively.
5. Find correlation between knowledge and practice on revised protocol of delivering CPR.

HYPOTHESIS

H_1: The mean post test scores of nursing students will be significantly higher than the mean pre test scores on knowledge regarding CPR as measured by knowledge questionnaire.

H_2: The mean post test scores of nursing students will be significantly higher than the mean pre test scores on skills as measured by observational check list.

H_3: There will be a significant association between the pre test scores of knowledge and practice with the selected demographic variables.

H_4: There will be a significant correlation between the knowledge scores and skill scores.

MATERIALS AND METHOD

Research Approach: Pre experimental approach was used.

Research Design: A one group pre-test post-test design was adopted

Setting of the Study: The study was conducted in two selected nursing colleges of Vadodara district.

Target Population: In the present study, the target populations were nursing students studying in nursing colleges.

Sample: A total of 50 P.B.BSc nursing students from selected nursing colleges of Vadodara formed the sample for the study.

Sampling technique: Non-probability convenience sampling technique was used to select the sample for this study.

Development of tool for data collection: The final data collection instrument had three sections which included-

Section A - Demographic Variable

Section B - Knowledge Questionnaire

Section C - Structured Observational Checklist

Validity of instrument: The content validity of the tools was obtained from various experts of concerned field like medicine, nursing, research and statistics.

Reliability: Reliability of the tool was tested by split half technique (Spearman's Brown prophecy) where r = 0.93% was found and inter rater reliability (Karl Pearson Co-efficient correlation formula) where r = 0.92% was obtained.

A pilot study was conducted with six students to refine the methodology and to find the feasibility of the study.

Development of health awareness programme: The following steps were adopted to develop to the health awareness programme.

- Preparation of the health awareness programme
- Plan for teaching
- Plan for the implementation of the health awareness programme

Data collection procedure: Data collection for the study was conducted at the selected colleges of Vadodara where the feasibility of conducting study was ensured after a written permission was obtained from the college authority/principal for undertaking the study.

Informed consent was also taken from the participants. The socio demographic data and knowledge on revised protocol of delivering CPR, of the participants were collected by using close ended questionnaire and an observation checklist was used to assess the skills of delivering CPR. Data was collected and observed of 50 nursing students. Immediately after pre-test, Health Awareness Programme on revised protocol of delivering CPR were administered to the participants with the help of power point presentation, manikin live demonstration and videos as audiovisual aids. Evaluation of the Health Awareness Programme was be done by conducting post-test, 7 days after the implementation of Health Awareness Programme.

RESULTS

The data collected from the respondents were analysed by using descriptive and inferential statistics.

Demographic characteristics: Most of the participants (90%) were in the age group of 21-25. Majority of the participants were female (72%) and only 28% were males. 92% of the sample had 0-2 years of experience and larger portion of the selected sample were of those with emergency/ ICU experience. Data revealed 25% had previous information on CPR through "nursing syllabus only" while 21% were found to have information on CPR through "experience of working in the hospitals". Majority of the samples (94 %) had not attended any programmes based on 2010 CPR guidelines and only 6% had training based on 2010 guidelines.

Knowledge and practice: Pre-test assessment revealed that the mean percentage pre-test scores were 45.2% in knowledge and 32.37% in skill regarding revised protocol of delivering CPR. Scores interpretation showed 66% of the sample with very poor to poor knowledge and 88% with very poor to poor skill on revised protocol of delivering CPR. Area wise assessment of knowledge depicted the component of "current CPR guideline (2010)" as the lowest with 31.81% mean percentage score.

Table 1: Determination of Pre Test Level of Knowledge and Skill

Levels	Score Range In Percentage (%)	Knowledge Score (%)	Skill Scores (%)
Very Poor	0-25	6	24
Poor	25-50	60	64
Average	50-75	34	6
Good	75-100	0	6

Post–test assessment exhibited mean percentage post-test score of 90% in knowledge and 86.87% in skill of delivering CPR. Scores interpretation showed 96% of the sample with good knowledge and 98% with good skill on revised protocol of delivering CPR. Area wise assessment of knowledge depicted the component of "current CPR guideline (2010)" as the highest with 95.45% mean percentage score.

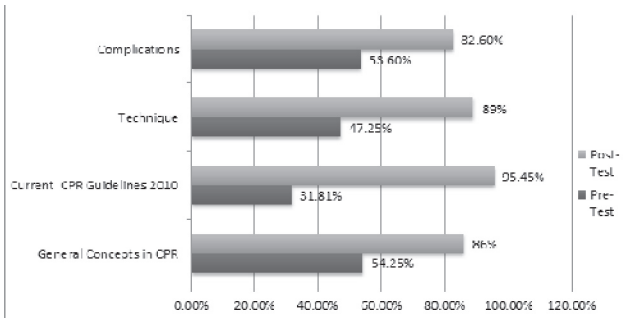

Figure 1: Comparison of Area Wise Distributions of the Pre-test and Post-test Knowledge Scores.

Impact of health awareness programme

Further impact of health awareness programme was tested by inferential statistics using paired't' test. The difference between pre-test and post-test knowledge scores of nursing students on changed protocol of delivering CPR was found to be very highly significant with mean percentage knowledge score difference of 45.66% ($t=22.39, p=0.00<0.05$) and mean percentage skill score difference of 54.33% ($t=23.97, p=0.00<0.05$)

Association between the pre test scores of knowledge and skill scores with the selected demographic variables.

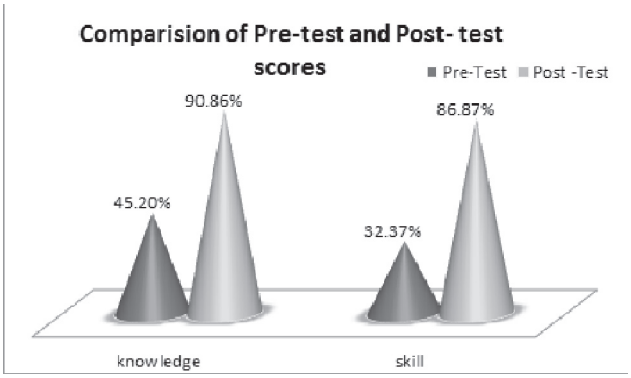

Figure 2: Overall Mean percentage distribution of pre-test and post-test scores.

Among all selected demographic variables only "Training Programme Attended on CPR Based On The 2010 Guidelines" showed significant association to the knowledge score on revised protocol of delivering CPR with "p" value of 0.00 which is less than 0.05, hence established to be highly significant.

While among all selected demographic variables "Training Programme Attended on CPR" and "Programmes Attended Based On 2010 Guidelines" showed significant association with the skill scores on revised protocol of delivering CPR among the nursing students , with "p-value" of 0.03 and 0.00 respectively which are less than 0.05, hence established to be significant.

Correlation between the knowledge scores and skill scores.

This part evaluated the correlation between the pre test knowledge and skill scores regarding revised protocol of delivering CPR among nursing students. The correlation was assessed using Pearson correlation formula which revealed 99% correlation between pre test knowledge and skill. Hence found significant.

Whereas the correlation between the post test knowledge and skill scores regarding revised protocol of delivering CPR among nursing students revealed 100% correlation between post test knowledge and skill and therefore found significant.

Thus as pre test and post test knowledge and skill were found to have high significant correlation H4 was accepted statistically.

DISCUSSION

The finding of the study was found similar to a study conducted by Daisey Christopher; a study to evaluate the effectiveness of structured teaching programme among the staff nurses regarding CPR in terms of knowledge and skill. She observed that post-test knowledge score mean difference was 1.53% and standard deviation was 3.24 and the't' value was 19.49. The significance was set at 0.05 levels.[7]

CONCLUSION

Most of the nursing student's knowledge was not up to the mark before administration of health awareness programme. This facilitated them to learn more about revised protocol of delivering CPR, the rationale behind the change and to adapt to the set of changes suggested with clearer motives for each action executed during the delivery of CPR. The clarity of concept and prompt action of assessments were revealed by the post-test knowledge and skill scores.

Implications : From the findings of the study, the following implications are suggested.

Present study would help to understand level of knowledge and skill of nursing students regarding

1) Awareness on changes in CPR delivery protocol.

2) The study also emphasizes the need of training along with education to improve the knowledge and skill among all the batches who have been educated once as per the previous protocol.

3) Health awareness programme with skill training can be utilized for students.

4) Community health workers can utilize this module for teaching the public regarding CPR.

5) Health awareness programme can be used for future reference.

6) Health awareness with skill training can be can be used to impart continuing education programme for the nursing personnel (hospital, education).

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Ethical Clearance: The ethical clearance had been obtained from the ethical committee.

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Body Image Disturbances and Well Being among Post Mastectomy Patients

Kaur Satinder[1], Saini Kumar Hemant[2]

[1]Msc(N) Final Year, University College of Nursing, [2]Lecturer, University College of Nursing, Baba Fraid University of Health Sciences, Faridkot-151203, Punjab, India

ABSTRACT

The aim of the study is to assess body image disturbances and well being among post mastectomy patients at selected hospitals of Punjab. A descriptive non experimental research design was adopted to conduct the present study. Convenient sampling technique was used to select 60 post mastectomy patients. Self structured BIS (Body image scale) was used to assess body image disturbances and standardized FACT+B tool was used to assess well being among post mastectomy patients. The findings revealed that out of 60 subjects, 43% study subjects had body image fully and partially disturbed and 62% of the study subjects had inadequate well being. A statistically significant relationship was found between body image disturbances and well being of post mastectomy patients at $p<0.05$. Body image was found to be associated with age and educational level of the patient at $p<0.05$. Well being was also found to be associated with age and stage of cancer. The study concluded that younger age, advance stage of cancer and higher education could influence the body image and well being among post mastectomy patients.

Keywords: *Mastectomy, Body image disturbance, Well being*

BACKGROUND

Breast cancer is the most common malignancy among women worldwide, potentially deadly disease affecting one in eight women comprising 16% of all female cancers.[1] It is estimated that 5,19,000 women died in 2004 due to breast cancer, and although breast cancer is thought to be a disease of the developed world, majority (69%) of all breast cancer deaths occurs in developing countries (WHO Global Burden of Disease, 2004).[2]

Breast is considered as an attribute of feminity, maternity and sexuality, therefore, its loss as a remedy for breast cancer might be followed by some sort of affection of quality of life. When evaluating holistically the life of a woman after mastectomy, all spheres of every day functioning are taken into account: physical, cognitive, emotional and social outcome[3].

Women with breast cancer have to deal not only with the trauma of disfigurement but also with the fear of rejection from their partners and loss of feminity. Breast cancer treatment has been suggested to change body reality and may affect body's presentation. The life of each woman may be further disrupted by changes in role and family functioning, occupational or employment and financial status.[4]

Breast cancer treatment typically involves several interventions over an extended duration, usually entailing initial surgery, followed by adjuvant therapy that may include a combination of chemotherapy, radiation therapy and hormonal treatments.[5] These treatments alone, and in combination, produce a number of different side effects, with regard to body image-specific outcomes, breast surgery involving partial or complete loss of one or both breasts may result in poorly aligned breasts and breast asymmetry, extensive scarring and alteration to breast and or nipple sensation, need for breast prosthesis and lymphoedema .[6]

Correspondence address:
Satinder Kaur, C/o Master Gurmail Singh,
V.P.O. Ajitwal, Distt. Moga, Punjab, India.
Contact no. 9417944163.
Email i.d. : satindersond@gmail.com

Breast surgery has its major psychological concern on the body image. Negative perceptions of body image among breast cancer survivors include dissatisfaction with appearance and surgical scars, reluctance to see one's naked body, and feelings of diminished sexual attractiveness.[7]

There are many potential interventions that help patients to get through cancers. Studies have indicated that psychosocial interventions of a variety of types such as support groups, educational interventions, patient discussion groups, interpersonal, cognitive-behavioral therapy are helpful in reducing distress after cancer diagnosis and treatment.[8]

MATERIALS AND METHOD

A descriptive non experimental study was performed. Researcher took 60 post mastectomy patients by convenient sampling technique aged 18-60 years with Ist to IIIrd stage of breast cancer. Two hospitals of Punjab were selected for the present study, Guru Gobind Singh Medical College &Hospital, Fardidkot and Mohan Dai Oswal Cancer Hospital, Ludhiana. A structured interview schedule with self structured body image scale and standardized FACT+B tool were used to assess the body image disturbances and well being respectively. A self structured interview schedule with body image scale comprising of 14 questions related to consciousness regarding body image was prepared to assess body image disturbances.

Standardized FACT+B tool consisting of 41 questions related to physical, social, emotional and functional well being were used out to assess well being. 60 subjects who fulfilled the inclusion and exclusion criteria were selected from the hospitals conveniently. Every subject was interviewed for demographic variables i.e. age, marital status, education, occupation, stage of cancer, type of surgery, post mastectomy duration and type of treatment modality along with self structured body image scale and FACT+B tool.

FINDINGS

a. Body image disturbances among sample Subjects: Body image had been found to be fully and partially disturbed among 43% post mastectomy patients. Whereas only 14% of the post mastectomy patients had shown no disturbances in their body image.

b. Well being among sample Subjects: Out of 60 study subjects, More than half (62 %) of the post mastectomy patients had disturbances in their well being; only 28% of the post mastectomy patients had adequate well being.

c. Correlation between body image disturbances and well being among post mastectomy patients: A significant correlation found between body image score and well being score among post mastectomy patients at $p<0.05$ with R value -0.533.

d. Association between body image disturbances and well being with selected socio demographic variables: Body image was found to be associated with age and educational level of the patient at $p<0.05$ shown in Table 1.Where as well being was found to be associated with age and stage of breast cancer at $p<0.05$. shown in table 2.

Table 1: Association between body image disturbances with selected demographic variables

N=60

Demographic variables	F value	P value
Age	34.554	0.000
Educational level	2.86	0.006

Significant at $p<0.05$

Table 2: Association between well being with selected demographic variables

N=60

Well being	F value	P value
Age	8.316	0.006
Stage of cancer	6.291	0.015

Significant at $p<0.05$

DISCUSSION

The present study was conducted to assess body image disturbances and well being and its association with selected socio demographic variables among post mastectomy patients at hospitals, by interview schedule with self structured body image scale and standardized FACT+B tool.

Findings of the present study revealed that 43% of the study subjects had fully and partially disturbed body image due to mastectomy and adjuvant therapies used for breast cancer treatment.

Carver CS et al(1998) observed the concern regarding appearance about body integrity after mastectomy and concluded that 65% of women suffered from greater loss of the sense of attractiveness [9].

In the present study, investigator found that body image among post mastectomy patients is associated with age of the patients. Leinster et al (1989) found that the younger women were more concerned with their appearance as compared to the older women[10]. Broeckel et al. (2002) found that younger women had a significantly worse body image as well as more ''negative feelings'', such as anger, guilt, sadness, and frustration [11].

So it is concluded that presence of disturbed body image and inadequate well being was high among post mastectomy patients. So specific psychological intervention, like preoperative and postoperative counseling should include these concerns to maintain their positive body image and adequate well being.

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Conflict of Interest: None

Source of Funding: Nil

Ethical Clearance: The ethical approval was taken from ethical committee of University College of Nursing, Faridkot. Permission was taken from Medical superintendents of the respective hospitals prior to final data collection. Apart from this, informed consent was taken from each respondent to participate in the study.

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A Study to Develop an Information Booklet for the Caregivers of Children Suffering from Nephrotic Syndrome

Manisha N Pawar

Prof. cum Vice-Principal, Terna Nursing College, Nerul, Navimumbai

ABSTRACT

Statement of the problem : A study to develop an information booklet for the caregivers of children suffering from nephrotic syndrome.

Objectives of the study : 1. To assess the knowledge of caregivers on nephrotic syndrome. 2. To identify the information required by the caregivers on nephrotic syndrome. 3. To develop an information booklet on nephritic syndrome for the caregivers based on their identified needs. 4. To find out the opinions of caregivers regarding the use of information booklet.

Methodology : The study was conducted in pediatric nephrology department of a semi government hospital of Mumbai, which is located at parel. The research approach used in this study was survey and the research design was a descriptive.

Samples: Were the caregivers of children with nephritic syndrome attending the nephrology OPD and admitted in the ward of selected hospitals in Mumbai. Fifty caregivers of children suffering from nephritic syndrome from the selected hospitals in Mumbai formed the sample. The data gathering process began from 22nd August to 27th September 2003. The data collected was analyzed and presented in terms of frequency and percentage.

Results : The major findings of the study using the scoring key revealed that majority of the caregivers had fair knowledge (26-50%) about manifestations, drug regimen, rest, activity, dietary regimen, ascites and edema, urine examination and follow-up. Only twenty five percent of the caregivers had poor knowledge about the importance of kidneys to human beings and causes of nephritic syndrome as the score was below fifty percent. All aspects' were included in the booklet. Majority (84%) of the caregivers opined the booklet as very good and only six percent as good.

Conclusion: The preparation of the booklet was a scientific process, based on the learning needs of the caregivers. The booklet was prepared, arranged and organized in such a way that the objectives of the study would be achieved and would serve as a useful tool in educating the caregivers, resulting in better care of their children suffering from nephritic syndrome.

Keywords *– Childern, information booklet, caregivers, nephrotic syndrome.*

INTRODUCTION

According to the definition[1] of international kidney diseases in children (1978) – nephritic syndrome is defined as the syndrome, which is fulfilled if proteinuria exceeds 40 mg/m2/hr and serum albumin drops below 25g/l. The clinical picture is characterized by hypovolemia and edema with all their sequale. Kidney is the principal protector of human environment. Accurate nursing assessment[2] is required to establish the caregiver's current level of knowledge, to increase the understanding of treatment. The disease has a very good prognosis if preventive measures are taken. Planned health education session regarding weight changes, timely immunization, rest, activity, urine test for albumin dietary restrictions were not held in OPD. Caregivers need help information and support. Good quality

home measures, support help in prevention and early detection of the problem that a child may face. Booklet[3] as a medium of exchange of information compiled in English, Hindi and Marathi can be read at home at ease. This can reduce barrier in teaching and learning. Overall it will enable the caregivers to develop the coping strategies to take precautions to prevent frequent relapses[6] of the disease reducing hospitalization.

MATERIAL AND METHOD

Research methodology- the research approach[4] used was survey approach and design used in this design was descriptive design. **Setting of the study** – the study was conducted in the semi government hospital of Mumbai, which was located at parel. The total bed strength of 250 beds. The hospital has a nephrology department, and has two units, which takes care of inpatients and out patients. The **population** selected for this study, consisted of caregivers of children with nephritic syndrome who were admitted or were attending the OPD in the selected hospital during the period of study. **Sample** – fifty caregivers of children suffering from nephritic syndrome who were involved directly or indirectly in taking care of their children in selected hospitals of Mumbai. **Sample technique**- purposive sampling. Technique[5] used was self reporting.

Tool was structured questionnaire for collecting data on the knowledge of caregivers regarding their children suffering from nephritic syndrome. It consisted of following sections

Meaning, Causative factor,Manifestation,Medica l management ,Drug regimen, Supportive measures, Rest and activity, dietary regimen, special care in event of ascites and edema ,urine test for albumin, follow-up for medical checkup. **Validity** of the tool was submitted to eleven experts from nursing, medical and dietary department .Reliability coefficient was calculated by spearman brown formula. The calculated r was 0.92 and the tool was found statistically reliable. Pilot study was conducted in the same setting as the main study from 16th august to 20th august 2003**. Data gathering process** – The investigator visited the hospital prior to commencement of study and obtained permission from concerned authorities of the hospital to conduct the study. The four stages as planned were. Stage 1. A self reporting questionnaire was provided to caregivers to identify their existing knowledge regarding care of their children with nephritic syndrome. stage2. Analyses of knowledge to identify existing learning needs and accordingly information booklet were prepared. Its content validity was established and then translated into Hindi and Marathi. Stage3. The booklet was given to the same caregivers of the children suffering from nephritic syndrome for reading who responded to the questionnaire. They were allowed to keep it for a week to read.Stage4. The opinion on the booklet was obtained after a period of one week from the same caregivers, who responded to the questionnaire and read the booklet on the management with children with nephritic syndrome.

FINDINGS

The data was analyzed and presented in frequency and percent. **Demographic data** of **the caregivers** – the fifty percent of the caregivers looking after these children belonged to the age group of 20-30 years. Fifty two percent were males and forty eight percent were females. **Demographic data of children**- Majority (50%) of the children belonged to age group of one- five years. Seventy six percent were males and twenty four percent females. **Medical history of the children**- with regard to duration of illness majority (38%) belonged to duration less than one year and 44% had the duration that is one to five year.

Majority (22%) of caregivers were aware of the importance of kidney to human body. Twenty six percent of the caregivers were aware of the manifestation during the illness. Only 38% of the caregivers were aware of the precautions to be taken while administering prednisolone[7]. Thirty six percent caregivers felt that activities to be included are walking , indoor, outdoor games. Eighteen percent of the samples were practicing all the measures of taking precautions to reduce the abdominal distention when it was present. Only four percent of the caregivers were aware of the method to test urine for albumin[8].

The major findings of the study using the scoring key revealed that majority of the caregivers had fair knowledge (26-50%) about manifestations, drug regimen, rest, activity, dietary regimen, ascites and edema, urine examination and follow-up. Only twenty five percent of the caregivers had poor knowledge about the importance of kidneys to human beings and causes of nephritic syndrome[9] as the score was below fifty percent. All aspects' were included in the

booklet. Majority (84%) of the caregivers opined the booklet as very good and only six percent as good.

DISCUSSION /CONCULSION

The investigator concluded that all the caregivers[10] needed information regarding the care of child suffering from nephritic syndrome. They needed information about the disease and on the various aspects of care of their children suffering from nephritic syndrome. The booklet provides much needed information, which will lead to improved care of the children from nephritic syndrome.

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Effects of Maternal Employment on Child's Emotional Development

Erum Akbar Ali[1], Salma Amin Rattani[2]

[1]Advanced Diploma in Human Development (Early Child Development), Aga Khan University, [2]Assistant Professor and Director, BScN Programme, Aga Khan University School of Nursing and Midwifery

ABSTRACT

To explore employed mothers' perceptions about influence of their working status on growth and development of their children through non-probability judgmental sampling mothers who were formally employed and were having children between the age of 0-5 years were selected from a single community. A total of twelve mothers who consented were enrolled in the study. Responses revealed that being employed their time spent with children is compromised which is impacting on children's emotional development, feeding practices, attachment and bonding with their children. It is concluded that first year maternal employment may form in-secure attachment; child may develop feeling of fear and insecurity, lack of confidence and a decline in performance at school.

Keywords: *Maternal employment, Emotional development, Child, Impact*

BACKGROUND

As the global economy is declining and recession is increasing, everyone thinks to earn for better living standard. Among the women most are working informally but educated and professional women join their professions not only for financial reasons but also to continue their careers[1]. However, uneducated women usually work as low-income workers like domestic servants or laborers[1]. Women's working status affects their gender roles including their role as a mother[2]. This study aimed to explore the effects of maternal employment on emotional development of children between the ages of 0-5 years.

LITERATURE REVIEW

It is being reported that the first year maternal employment has negative effects on child behavior, cognitive development, mathematical skills and learning abilities, especially if the mother joins the employment before the child is 9 months old but if she starts working when the child is 2-3 years old the positive effects are reported; boys get good in math and dealing with stress and girls show good reading skills[3]. However, regardless of the placement; home or at a child care center, mothers leaving their children for long hours may not continue exclusive breastfeeding[4].

Boys are considered as difficult to be disciplined, requiring continuous support and advice; and may get poor outcomes or lower grades when their mother starts working within the first year of her child's life. In high income families in the age group of 4 years this affect is more in boys as compared to girls[5]. Similarly it has been reported that the boys spending more time in child care, feel more insecure[6] and they get more exposed to strain when the mother starts working with first year of the child[5].

Negative impact on children is reported even if the mothers have joined the employment when the child was 3 years old. These effects are more in full time employed mothers[4]. If they are working for more than 20 hours/week they may not form sensitive relationships with their children and they may have insecure attachment [6]. It is also reported that children who stay in a child care center for more than 10 hours/ week and the children for whom the mothers are less concerned, may develop negative effects and it could

Corresponding author:
Erum Akbar,
Intern, Department of Human Development,
Aga Khan University
Email: erum_akbar@hotmail.com

be observed when they play in a group [6].

Full time work may cause hindrance in child's education support by the parents[7]. It is reported that if a mother works 20 or more hours per week then the child may develop aggressive behavior. Early enrollment in child care results in behavioral problems; child may be assertive and aggressive, these problems are less in children who spend less time in child care settings [6].

It is reported that maternal education helps in child rearing [3]. Educated mothers are aware of healthy upbringing of children and they provide good home environment, showing reduced negative outcomes [8].

Mother working more than 20 hours/week may not form sensitive relation with her child and have insecure attachment. If there is an insecure attachment the child may feel uncomfortable in crowd. If there is a secure attachment, child is more comfortable with mother and is more independent[6]. There is a strong bonding among mother and child through breastfeed which is missing in working mothers[4]. Due to insecure bonding there would be behavior problem; language and cognitive development may be affected[9]. Mother's availability forms secure attachment no matter she is providing less stimulating and caring home environment[6].

Among the mothers who work in different shifts their children may experience different caregivers and their bonding may get affected[10]. Having a strong bonding between child and mother; helps to build positive relation with other children [11].

Different home settings have different outcome if mother is more involve with child; the child will be more active physically and emotionally. Particular to environment at daycare centers mothers having high salary may choose good quality of child care and it may have positive result[12]. It is also reported that play has significant role in positive outcomes and parents giving their children an exposure to out- side world can reduce the motor delays[12]. Particular to disciplining the child, it should by reasoning and not by punishing[12].

Parents are responsible to build their child's personality[13]. Due to job stress and long working hours, improper sleep of mother may lead to poor quality of time spend with her child[14]. Quality time by parents helps in cognitive and language development. In small family mother can give more quality time to her kids[15]. Inadequate care may result in reduced intelligence in later life[6]. Families with low income and full time employment may not give their quality time to the child as they have lots of other responsibilities at home and at work. Unemployed mothers may have anxiety or stress and can affect the mother-child relation if mother giving quality time to her child along with her full time work, have good home environment and child care may not affect the educational achievements[7]. Quality and quantity of care plays a major role in the development of child[16]. Usually working mothers have less time with their children but gives their best when they are available[12]. Working mothers fulfill all the basics needs of their children but are rarely available to play with them [17].

Quality of care is inter-connected with outcomes. Child will be confident and will have enhanced learning skills; when quality care is provided. Frequent changes in care giver may affect social learning and competency[10].

RESEARCH METHODOLOGY

Upon ethics clearance using descriptive exploratory research design employed mothers residing in a single community and having 0-5 year old children were enrolled in the study.

RESULTS AND DISCUSSION

Participants' age ranged between 29-38 years and majority of them were educated to graduate level. A detailed demographic profile is presented in table 1.

Table: 1 Participants demographic profile:

Participant code	Age (Years)	Occupation	Education	No. of children and age	Working hours/day	Working hours/ week	Family system	Caregiver
01	38	Secretary	Master (IR)	03 (3,7 and 10 years)	09 hours	45 hours	Nuclear	Maternal grand parents
02	36	Senior administrator assistant	Graduate	01, (3.8 years)	10 hours	50 hours	Joint	Grandparents
03	29	Nurse	MScN	02 (4years, 6 weeks)	08 hours	40 hours	Joint	Grandparents
04	36	Senior administrative officer	MBA	04(16,14, 10 and 4 years)	08 hours	40 hours	Joint	Grandparents
05	31	Admin. Officer	MBA	01(3 years)	10 hours	50 hours	Joint	Day care Centre
06	35	Assistant manager	ACMA/ DAIBP/M.A	01(5 years)	10 hours	50 hours	Nuclear	Day care Centre
07	32	Teacher	M.A	01(5 years)	06 hours	36 hours	Joint	Grandparents
08	32	Secretary	Masters (IN)	01(2.3 years)	09 hours	40 hours	Joint	Grandparents Maid (care taker at home)
09	32	Teacher	B.Com	03(14,10 and 3 ½ years)	05 hours	25 hours	Joint	Grandparents
10	29	Teaching	Masters (Industrial Psychology)	01 (05 months)	02 hours	05 hours	Joint	Grandparents
11	29	Nurse	Diploma in Nursing	01(1year 10 months)	08 hours	32 hours	Joint	Grandparents
12	33	Service	ACMA	01(5 years)	10-12 hours	75-80 hours	Joint	Grandparents

EFFECTS OF MATERNAL EMPLOYMENT

Among the participants few mothers responded that their children are not expressive or emotionally they have not developed. However, most of the mothers described their experiences which were categorized as positive or negative impact.

POSITIVE IMPACT

While discussing the positive impact most of the participants shared that when mother is working the child is more responsible, disciplined, good time manager and independent.

NEGATIVE IMPACT

Describing the negative impact mothers reported that their children have developed anger, frustration and feelings of insecurity. They are hyperactive, fearful, less confident and stubborn.

One of the respondents shared that "My daughters always remain angry and away from me, when I call from office they don't want to talk to me, they ignore me and keep themselves locked in their rooms. Emotionally they are more disturbed". (Code # 04)

1. Effect of employment on breast feeding practices: In mothers' opinion breast feeding helps to secure bonding and gives feeling of accomplishment and satisfaction to both child and the mother. One of the respondents describes it as "Due to my work I stopped breast feeding when my child was 06 month old and I think this is a reason that my child is emotionally not attached with me, he doesn't share his feelings with me; he shares most with his maid" (Code # 01)

It is reported that a mother's working status influences on duration of breast feeding practices[17]. Similarly the present study illustrated that when mother is working she has to discontinue exclusive breast feeding and to top feed her child which is

challenging. Through previous studies it is revealed that non-exclusive breast feeding has added to neonatal infant morbidity and mortality[18].

2. Feeling of insecurity: Mother's absence may create a feeling of insecurity and fear in a child. One of the respondents reported that

"When I have too many responsibilities at work and at home I often scold at my child. I was used to make her scared of imaginary creatures due to which my child has developed fear". (Code # 03).

Another participant responded that "My daughter has developed feeling of insecurity; when she sleeps she hugs me tightly and suddenly start crying says; Mamma don't go…..please don't go, don't leave me alone". (Code # 11)

A mother having 4 years and 10 years old daughters said that her elder daughter has developed fear. She (the daughter) cannot sleep alone even in day time. Mother rationalized that it may be because earlier in her job she was travelling extensively but now she has switched the job and is not required to travel but her daughter is not coming out of the fear that she developed.

3. Effects on mother-child bonding : Most of the mothers responded that a mother's physical presence and the length of her time spent with the child greatly matters in creating a secure bonding and attachment between mother and child.

Describing their bonding with children, out of twelve respondents nine reported that it is weak. One of the participants reported that

"When child is not getting time of mother; it creates emotional gaps; and to fill this gap he looks towards his caregiver". (Code # 12)

Few of the mothers reported that grandparents or caregivers can only fulfill their needs they cannot form a strong bonding and they may not give the feeling of security as provided by a mother.

4. Effect of the time spent: Most of the mothers responded that being employed they compromise on spending time with their children. Few mothers said that if finance was not the reason they would not have been working. Only one mother talked about quality time to a child. She said:

"We spend quality time on weekends. We read, play and watch movies together on weekends". (Code # 12)

Family's financial need is one of the contributing factors impacting a mother's decision for working and on her quality of life[2, 19].

Among the mothers living in joint family few reported that due to family system their load is increased and even on weekends they cannot give time to their children. On the contrary, it is reported that working mothers provide more stimulating environment[15]. While comparing the working status, it is reported that part time working mothers are more active in child rearing than full time working or non-working mothers[7]. Research has revealed children achieve high results if their mothers attend parent- teacher meetings[20].

Most of the respondents reported that their children don't like them (the mothers) working. This finding confirms the findings of a study conducted earlier in which children of working mothers responded that they do not like their mothers working [21].

CONCLUSION

A child's early years are crucial for growth and development and may be influenced by mother's working status. Therefore, it is important that during the decision making process for employment positive and negative aspects of employment should be considered.

Ethical Clearance: Taken

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Facilitators and Deterrents of Critical Thinking in Classrooms: a Multidisciplinary Perspective in Higher Education in Karachi, Pakistan

Shanaz Hussein Cassum[1], Raisa Gul[2], Joanne Profetto-McGrath[3]

[1]Assistant Professor, [2] Professor, Aga Khan University School of Nursing and Midwifery, Pakistan, [3]Professor and Vice Dean, University of Alberta, Canada

ABSTRACT

The paper presents the perceptions of educators from nursing, medicine and education discipline about the facilitators and deterrents of critical thinking (CT) in higher education in Karachi, Pakistan. Using a qualitative descriptive exploratory design, 12 university educators from three disciplines were recruited as study participants using purposive sampling. Data was collected through semi structured interviews and manually analyzed for themes and categories. Findings related to the theme of facilitators and deterrents of CT are presented in this paper. Study participants identified a variety of key factors related to teacher competence, nature of students, learning environment, and organizational ethos and resources that influence the implementation and promotion of CT in higher education.

Keywords: *Critical thinking; facilitators; multidisciplinary teachers.*

BACKGROUND OF THE STUDY

Critical thinking (CT) is a phenomenon of worldwide importance[1] and has been identified as an important attribute to be nurtured and assessed in higher education and professional programs [1,2,3] Teaching CT skills and attitudes is an important goal of modern education in most disciplines as it equips students with the competency to reason while making decisions and solving problems in this complex and rapidly changing technological world [4,5]

CT skills are not completely natural or inherent, rather they are developed through time and learning experiences[6,7, 8] and some scholars argue that the development of CT is a primary responsibility of educators[9,10] Therefore, educators in practice disciplines such as nursing, medicine, and education are expected to facilitate the development of CT in their graduates , although there are varying evidences on how CT can be developed [11,12,13,14]. It is understood that to enhance the quality of higher education and promote a true culture of CT in classrooms, one needs to identify the facilitators and obstacles to critical thinking, but due to rarity of relevant research in the Pakistani context, on what educators perceive to be CT barriers and facilitators, the implementation of CT strategies in the classroom cannot be improved[6, 5].

Aim of the Study: The aim of the study was to identify perceptions of educators from nursing, medicine and education discipline about the facilitators and deterrents of critical thinking in higher education in Karachi, Pakistan.

METHODS

Using a qualitative approach, following the approval of the institutional review board, 12 faculty educators of three disciplines from four private and a public universities in Karachi were recruited as study participants using purposive sampling with informed consent. Data was collected through semi structured interviews of 60 minutes Data was manually analyzed for themes and categories.

Corresponding author:
Shanaz Hussein Cassum
Assistant Professor, Aga Khan University,
School of Nursing and Midwifery, Pakistan
E-mail: shanaz.cassum@aku.edu

FINDINGS

Teacher's competence - The participants related that teachers' knowledge, attitude, and skills regarding CT influence their ability to facilitate students to be a critical thinker. Teachers who lack knowledge and awareness of skills and attitude to teach CT, lacks confidence and motivation to try new things, and continue teaching in the traditional ways as one participant stated, "Majority of institutions in Pakistan still promote rote learning……"

Many participants reported that teachers use of effective questioning skills in classroom promote CT in learners. Questioning was viewed as an important element of deeper inquiry, that fosters students' engagement in discussion. In an enabling classroom, everyone is a kind of a learner so questioning peers and faculty enhances deeper understanding. However, another participant pointed that signaling a students by name to ask a question threatens the learner and acts as deterrent to CT. Likewise, a participant suggested that not signaling students to respond and giving wait time to respond after asking a question, allows students to pause and think, and respond critically.

Besides questioning skills, participants also reported use of active teaching strategies to facilitate CT. Use of multiple active strategies promote CT by triggering learners' senses and their interest to engage in class. A faculty emphasized that, "using portfolio… reflection… discussion… group work… asking questions, giving them real scenarios and making them think" stimulates their CT"

Nature of students: Participants identified that the diverse students' capacity and mind set affects their implementation of CT strategies. 'Students' intellectual history and paradigm becomes a challenge for me to work on 'Referring to senior and conservative students, a faculty expressed that,' older students are always a challenge, they have a mind set and fixed thoughts and adapt with difficulty.

Some participants explained how a teacher's confidence is lost, when students do not take learning seriously to engage in thinking activities or misbehaves in class and disturbs the environment. A faculty elaborated that 'As a teacher you pick up their expressions and cues like looking at time, yawning, talking among themselves, using [the] phone... students' lack of interest, and misbehavior in class is upsetting.

Type of learning environment: Many participants were of the view that CT can be promoted by creating an enabling learning environment in classroom. A teacher shared that, "creating an enabling environment is an art of making the class stimulating, engaging students and motivating shy students as well as controlling the distracting students .

Many participants related that a critical teacher understands the psychology of the student and creates a trusting relationship to reduce the student-teacher gap. Moreover, some faculty informed that a critical teacher is a vigilant observer who is quick and sensitive to assess students' physical, mental, and emotional presence, mood, temperament, and level of distraction in the classroom.

Organizational ethos and resources: The third category that influenced the promotion of student's CT was organizational factors. Faculty shared that institutional culture, values, program goals, curriculum and assessment policies, support from management as well as availability of the resources affect their ability to create a CT culture in classroom. Some participants explained that unclear expectations from management and faculty about producing graduates who are critical thinkers, as well as a lack of reinforcement of CT in the school vision, goals, and policies act as barriers to implementing CT.

On the contrary, another participant elaborated how young critical thinkers are sidelined and ignored by the management when they give critical feedback.

They [management] try to suppress them [critical thinkers]. Higher authorities don't want to listen to you. People are really afraid of critical thinkers...he will take my post"

Many participants verbalized that the school's curriculum system and evaluation policies act as the biggest challenge to CT in contemporary education. They felt that their curriculum focuses more on content and less on thinking. Students are expected to attend full day classes, which leaves little room for discussion, deeper thinking and reflection.

In addition to the curriculum and the evaluation system, the study participants also voiced that heavy work overload, a major constraint that affects their

productivity and CT. Teachers complained that they were overburdened with increased teaching loads and administrative assignments, which limited their ability to think, reflect, discuss, plan and use creative strategies to engage the students during class. Relating the university ethos of assigning multiple teaching related responsibilities, a faculty affirmed the time constrains.

Teachers are wearing multiple hats [have multiple responsibilities]. They are constantly rushing; from class to meeting……

Moreover, many participants felt that adequate space in class, moveable chairs, audio visual accessories, computer labs, internet, and library facilities also facilitate CT. A faculty said, 'if [the] projector, multimedia, and other accessories like mike system, electricity, and white board markers are not available it makes class management very difficult' Another teacher shared that they don't have computers, she write points on papers and then discuss verbally with students. Small classrooms, lack of moveable chairs, and limited free space to conduct group work also limited the use of interactive strategies, as stated by another participant:

In our classroom, there is so little space, and as a teacher one has to think 10 times before planning an activity... Plus we don't have sufficient facilities in the classroom;

Thus the participants reported various institutional factors that facilitate or deter them to promote CT and implement active strategies in the classroom.

DISCUSSION

The participants revealed that the competence of teachers, the nature of students, type of learning environment and the organizational ethos and resources either facilitates or deters teachers to implement CT in a classroom setting. In the current study, lack of teachers' knowledge, skills, motivation, confidence, and awareness of CT, were found to be important elements with respect to teachers' competence for promoting students' CT in the classroom. These findings are in line with the existing literature[5, 6, 15, 17] that suggests that teachers' CT is influenced by personal, intellectual, psychosocial and environmental factors.

With respect to students' related deterrents, the diversity, negativism, and lack of readiness amongst students were found to affect teachers' motivation and confidence in implementing CT in the classroom. Many of these student related factors have been reported in previous studies [5,6,9,18,19] that passivity, conservativeness, lack of confidence and communication skills to express freely act as deterrents to promoting CT. The findings imply that older students, who are the products of a traditional educational system of Pakistan, are not exposed to CT skills in their schooling. They are conditioned to be obedient, not to question authority, and disregard their own thoughts and ideas [20]

Consistent to Raymond and Profetto-McGrath 2005, the participants of this study affirmed that creating an enabling classroom environment is a key strategy to promote CT.[17] Literature reveals the use of various terms to refer to an enabling environment such as conducive learning environment [18,22,23,24,31] active learning classroom[23], interactive learning environment[24],positive and open environment [17], and a critical environment.[9]

Similar to other studies[9,24,25] the participants of the study emphasized that active engagement of students in learning fosters self directedness and CT, especially when teachers demonstrate a respectful, encouraging, positive, and non threatening environment, and make students feel safe in asking questions and challenging each other. This finding is supported by other studies.[26,27,28,29] Conversely participants' affirmed that maintaining a hierarchical, formal relationship with students and having a dictating 'know it all' authority attitude, strict discipline, silence and obedience in the classroom suppresses critical thinking as suggested by Pithers and Soden 2000.[15]

Siddiqui 2007 emphasizes that the notion of discipline must be reviewed in the contemporary education scenario in the Pakistani context, as to most teachers it means complete silence by the students with total obedience, without challenging or questioning the teacher.[24] He asserts that in an interactive learning climate, students must be encouraged to ask questions and be allowed to differ with arguments put forth by the teacher. Consistent to several other studies[16,25,26] the participants of this study also agreed that a teachers' ability to ask critical high level probing questions promotes students CT,

thus implying the necessity that teachers must be trained in asking higher level questions.

Several institutional factors such as availability of resources, lack of administrative support, faculty workload, a content laden curriculum, as well as assessment policies were thought to deter CT as reported in other studies[15,24]

CONCLUSION

There is an immense need to develop CT ability of learners from practice disciplines. The findings of this study reveal that faculty knowledge and skills about CT influences their teaching practices. Their ability to create an enabling environment in classroom to promote CT is contingent upon their understanding of CT. Faculty understands the need to promote CT in classroom but they feel inhibited due to variety of factors that challenges them. Faculty from different disciplines share analogous challenges to CT that influences their teaching practices. . Thus to promote multidisciplinary teaching in universities, a shared philosophy of CT needs to be developed among different discipline faculty so that they become cognizant of these obstacles and make conscientious efforts to promote CT. In addition, joint efforts is needed at different levels to promote a true culture of critical thinking in the classroom.

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Conflict of Interest: None

Ethical Clearance: See Appendix

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Effect of Community Participation on Knowledge of Selected Vector Borne Diseases among the Self Help Groups

Neethu Maria Babu[1], Shashidara YN[2], Manjula[3]

[1]MSc Nursing, Manipal College of Nursing, Manipal University, Manipal, [2]HOD, [3]Asst. Professor, Dept of Community Health Nursing, Manipal College of Nursing, Manipal University

ABSTRACT

The study is conducted to assess the effect of community participation on knowledge of selected vector borne diseases among the self help groups. The sample includes eight self help groups having 10 members, with 40 in the experimental and control group. Research approach was quantitative-evaluative approach and design used was quasi experimental pre test post test control group design. The study was carried out in two phases. In the first phase, the health teaching by the researcher was given to selected members of self help groups with a duration of 45 minutes and in the phase 2, these trained members gave health teaching to the other members of the self help groups. A leaflet was given to the control group inorder to eliminate the ethical issues. The post test knowledge was assessed over a period of 7 to 9 days after the intervention in both the phases. The community participation has found to be effective with a p value of .001. The study concluded that the community participation was effective in terms of knowledge gain.

Keywords: *Community Participation, Knowledge.*

BACKGROUND

Vector-borne infectious diseases, such as malaria, dengue fever, chikungunya, filariasis cause a significant fraction of the global infectious disease burden; indeed, nearly half of the world's population is infected with at least one type of vector-borne pathogen. National Vector Borne Disease Control Program (NVBDCP) is the central nodal agency, which takes care of all major vector borne diseases in India.[1] According to the Karnataka state report on Malaria, there were 1.49 million cases of malaria reported in India of which 44122 cases were from Karnataka and 6335 from Mangalore.[2] Nine cases of dengue were reported in the Uttar Karnataka since May 2012 and also three places in, Karwar (two), Yellapur (one), Siddapur (two), and Kumta (one) case [3]. Two cases of chikungunya had been reported in the Udupi district from January 1 to June 27. In Dakshina Kannada on January 2011, 980 lymphatic filarial cases were detected, of which about 637 cases were found in Udupi taluk, 251 cases in Kundapur taluk and 92 cases in Karkala taluk respectively.[4]

Objective: The study is conducted to determine the effect of community participation on knowledge of selected vector borne diseases

Setting : Adopted villages of Manipal College of Nursing, Manipal, Karnataka and they are Athrady and Hirebettu villages

Participants: Eight self help groups having 10 members each, with 40 in the experimental and control group.

Materials and method : Research approach was quantitative-evaluative approach and design used was quasi experimental pre test post test control group design. The study was carried out in two phases. In the first phase, pre test knowledge was assessed and a health teaching by the researcher was given to selected members of self help groups with duration of 45 minutes. In the phase 2, pre test knowledge was assessed these trained members gave health teaching to the other members of the self help groups. The post test knowledge was assessed over

a period of 7 to 9 days after the intervention in both the phases. A leaflet was given to the control group to eliminate the ethical issues.

Findings : The study found that the 20% of the people in the experimental group had inadequate knowledge during the pretest and on the post test 19% had moderately adequate and 11% had adequate knowledge, whereas in the control group, 76.7% moderately adequate and 23.3% had inadequate knowledge during the pre and post tests respectively. The community participation has found to be effective with a p value of .001.

Conclusion : The study concluded that the community participation was effective in terms of knowledge gain.

What is already known about this topic?

- Six diseases namely malaria, lymphatic filariasis, Japanese Encephalitis, kala-azar, dengue, and chikungunya are the major vector borne diseases in India.

- Community participation involving the common people and the local leaders have a significant role in improving the knowledge.

What this paper adds?

- This study outlines the effectiveness of community participation, which can be adopted as an educational measure in the community so that all are being involved and thereby enhancing the community awareness on various topics.

Background: World Health Organisation quotes that an estimated 300 million malaria infections occur each year, with 2 million deaths. They have identified malaria as one of the three major diseases of poverty along with HIV and tuberculosis. About 40% of the world's population is at risk. According to the World Health Organization (WHO), Dengue is the most rapidly spreading mosquito-borne viral disease in the world. It infects between 50 million and 100 million people annually, with 500,000 cases of the more severe infection known as dengue hemorrhagic fever.[5]

The chikungunya infection has showed a massive increase in its incidence as high as 5 million in India and South East Asia since 2005 as per the report of WHO. India reported a massive chikungunya epidemic in 2006. Chikungunya has re emerged in India since 1973, when the attack rate was 37.5%. However, in the 2006 epidemic, the attack rate increased to 45% in some places. The initial estimate of people affected with filariasis is 1.2 billion. The WHO bulletin of January 2012 says that more than 1.3 billion people in 72 countries worldwide are threatened by lymphatic filariasis, commonly known as elephantiasis and over 120 million people are currently infected, with about 40 million disfigured and incapacitated by the disease.[6]

A survey conducted in Bangalore in 2010,in the urban and rural areas to assess the knowledge, attitude and practice in determining the perceived risk by the community of mosquito borne infectious diseases and the level of knowledge regarding mosquitoes. The study result showed that more than 90% of the people interviewed perceived mosquitoes as a problem only rather than their disease causing potential. The researcher also has given stress in health education campaigns.[7]

Since it is evident that the vector borne diseases are prevalent, many studies have been done to determine the knowledge and practice on prevention of vector borne diseases among the adults. Studies have been also done to determine the effectiveness of community participation and it was found to be effective. Hence the investigator was interested to assess the effect of community participation in improving the knowledge and practice in prevention of selected vector born diseases.

METHOD

Study hypotheses: The following hypotheses were tested at 0.05 level of significance.

- H_1: there will be no significant difference between post intervention knowledge scores on prevention of selected vector borne diseases between the experimental and control group

- H_2: there will be no significant difference between pre and post intervention knowledge scores on prevention of selected vector borne diseases within the experimental group

Study design and study population: This quantitative study adopted an evaluative approach to identify the effectiveness of community participation on knowledge regarding prevention of selected

vector borne diseases and the design used was quasi experimental pretest – post test control group design. The study population was all the adults who resides in the adopted villages of Manipal College of Nursing, Manipal which are Athrady and Hirebettu and comprised of 5000.

The estimated sample size was 15 in each group with a clinical significant difference of 5; however it was decided to select 40 in each group on the basis of 20% assumed attrition. The sample size was 40 in experimental group and 40 in control group.

Administrative permissions were obtained from the self help group incharge and informed consent from all participants. Ethical clearance was obtained from The Institutional Ethics Committee, Kasturba hospital, Manipal.

DATA COLLECTION INSTRUMENTS AND MEASUREMENTS

The following tools were used to collect the data

Tool 1: Background Proforma: The investigator, for collecting the background information of the sample, developed a demographic proforma. It consisted of 11 items such as age, gender, religion, educational status, occupation, income, type of family, exposure to vector borne diseases, awareness on vector borne diseases, source of information, and the duration of being in a self help group. The tool was validated by seven experts, translated into Kannada and pretested among five adults residing in a village.

Tool 2: Structured Knowledge Questionnaire on prevention of selected vector borne diseases

The questionnaire dealt with dynamics of disease transmission, epidemiological triad and the prevention and control. It had a total of 47 items divided into two sections, section A and B with 28 and 19 items in each section respectively. The items in the section A had 5 alternate responses and the items in the section B was dichotomous type. The respondents were requested to select the best possible option by encircling the correct answer. The minimum score was 1 and the maximum score was 47. Knowledge score was arbitrarily classified as inadequate (1-15), moderately adequate (16-31), adequate (32-47). The tool was validated by seven experts, translated into Kannada and pretested among five adults residing in a village and the reliability was tested by test retest method among 20 adults residing in a village and r=.89

Pilot study was conducted among 20 sample and no changes were made in the tool or in the design of the study.

PROCEDURE

The study was carried out in two phases. Tool 1 and 2 was administered among the selected participants. In the first phase, the health teaching by the researcher was given to selected members of self help groups with a duration of 45 minutes and in the phase 2, these trained members gave health teaching to the other members of the self help groups. A leaflet was given to the control group. The post test knowledge was assessed over a period of 7 to 9 days after the intervention in both the phases.

STATISTICAL ANALYSIS

The data were analysed using both Descriptive and inferential using Statistical Package for Social Science Version 16 (SPSS 16).

- Descriptive statistics: Frequency and percentage distribution, mean and standard deviation were used to describe the sample characteristics.

- Inferential statistics: Mann Whitney U test and paired t test was used to test the effectiveness of intervention between and within the group respectively.

RESULTS

Phase 1

- Majority of the samples fall under the age category of 18-28 years (60%) in the experimental group and 30% in each categories for the control group.

- In both the phases, all the samples are females and they all belong to Hindu religion.

- In the experimental group, 50% of the samples educational level is higher secondary and in control group, both primary and higher secondary with 40% each. In the phase 2, majority of them in the experimental group (60%) as well as in the control group (80%) had primary level of education

- None of them have suffered from any type of vector borne diseases in the past .

- The mean pretest score was 24.10 and mean post test score was 29 which showed a significant increase in the mean scores with a SD of 3.604 and 4.497 respectively.

Phase 2

- The majority accounts for 40-50 years of age (36.7%) in the experimental and 29-39 years(33.3%).

- 100% of the people had moderately adequate knowledge on the pre and post test in the control group whereas, in the experimental group there was 100% in moderately adequate category which showed an increase to 50% in adequate knowledge category and 50% moderately adequate category.

- The total mean was 19.79 pre interventional and 28.39 post interventional with an SD of 7.77 and 7.35 respectively

- 20% of the people in the experimental group had inadequate knowledge during the pretest and on the post test 19% had moderately adequate and 11% had adequate knowledge, whereas in the control group, 76.7% moderately adequate and 23.3% had inadequate knowledge during the pre and post tests respectively

Table 1: Effectiveness of community participation on knowledge between the groups

	Median	Inter quartile range	Z value	P value
Knowledge	21	15.75-22.00	5.788	.001

Table 2: Effectiveness of community participation on knowledge within the group

Variable	Experimental group			t	df	p-value
Know-ledge	Mean	Mean diffe-rence	SD			
	8.967	9.7	4.295	11.435	29	.001

DISCUSSION

In the present study, all (100%) the people had moderately adequate knowledge on the pre and post test in the control group whereas, in the experimental group it was 100% in moderately adequate category which showed an increase to 50% and falling under adequate knowledge category and 50% moderately adequate category. In phase 2, 20% of the people in the experimental group had inadequate knowledge during the pretest and on the post test 63.3% had moderately adequate and 36.7% had adequate knowledge, whereas in the control group, 76.7% moderately adequate and 23.3% had inadequate knowledge during the pre and post tests respectively

The findings were supported by a survey done by Amul BP, Hitesh R, Shah P, Patel, Jignesh G, Sharma R, in the year of 2011. The results of the study showed that 90% of the samples agreed that mosquitoes are a problem. 30.4% did not know breeding sites of mosquitoes. Only 11.6% of people associated clean water collections with mosquito breeding. Regarding diseases transmitted by mosquito, 62% answered malaria, 37.4% were not aware and 8.8% people mentioned about Filariasis, Dengue or Japanese encephalitis. 4.7% granted mosquito control as responsibility of community. 61.4% were using repellents for prevention against mosquito bites and 39% not taking any preventive measure. The researchers concluded that the knowledge was inadequate.[8]

- **Effectiveness of community participation**

The present study findings reveal that the community participation is effective in terms of knowledge gain with a significance of p=.001.

The study is supported by a randomised controlled study done by Hien LTT, Takano T, Seino K, Ohnishi M, Nakamura K, to evaluate the effectiveness of an educational program entitled 'Capacity building' for community leaders in a healthy living environment. The researchers also aimed to assess the usefulness of a participatory style of education and the applicability of an intersectoral approach in the educational process. The study took place in Vietnam in the year 2005. There was a qualitative evaluation of the educational program by participants and facilitators to assess the appropriateness of the intervention. The intervention group showed a significant improvement from the pre-test score of 32.0+11.9 to the post-test score of 75.8+14.4 (P, 0.001), whereas no statistical change was observed in the control group. The conclusion was that the community leaders, who are representatives of various sectors and mass organizations within the community, can be important implementers in the promotion of a healthy living environment.[9]

CONCLUSIONS

The following conclusion was drawn from the present study:

- The community participation was effective in terms of gain in knowledge regarding prevention of selected vector borne diseases among the adults

Limitations of the study: The convenience sampling technique in the phase 1 limits the generalization of the study findings. Generalization is limited to the population under study.

RECOMMENDATIONS

Keeping in view of the findings of the study, following recommendations are made:

- Replication of study on a larger sample can be done.
- True experimental study can be done
- A similar study can be done among different age groups
- A comparative study can be conducted between urban and rural people
- A comparative study can be done between the effectiveness of community participation and other methods

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A Study to Assess the Knowledge Regarding Mental Illness among B.Ed Students in a Selected B.Ed Colleges of Mysore

Santosh Kumar SK[1], Lingaraju CM[1], Bhavya[1], Munirathna[1]

[1]Asst. Professor JSS College of Nursing, Mysore

ASTRACT

Mental disorder is one of the major problems in the world. About 450 million people suffer from mental or behavioral disorders worldwide today, It was said that mental health problems are more common in developed world than in developing world. But this notion has long been disputed[1]. However, 12% of the Ethiopian people have suffered from mental health problem and mental health problem accounts 12.45% of burden of diseases in Ethiopia[2,3]. The study objectives are to assess the knowledge of B.Ed students regarding mental illness using structured knowledge questionnaire and also to determine the association of level of knowledge regarding mental illness with their selected personal variables. Research design is Descriptive design; the study was conducted among B.Ed students at selected B.Ed colleges at Mysore district. The Sample size was 100 B.Ed students of selected B.Ed College Mysore. Sampling technique was Non-probability convenient sampling technique was adopted for the present study Conclusion: Majority 87(87%) of the participants had moderate knowledge, followed by 8(8%) had poor knowledge and least i.e. 05(05%) had good knowledge regarding mental illness. The study revealed that the obtained Chi-square values were not significant at 0.05 level of significance, from the result findings it can be inferred that the knowledge of B.Ed regarding mental illness is not having any association with their selected personal variables.

Keywords: *knowledge, Mental illness.*

BACKGROUND

The mental illness problem is aggravated by poverty, unemployment, and the presence of other physical illness like the current pandemic HIV/AIDS. These are known risk factors for common mental health problems[4]. Mental disorders are widely recognized as a major contributor (14%) to the global burden of disease worldwide[5]. Mental illness is a relative state of mind in which a person is able to cope with and adjust to the recurrent stresses of everyday living in an acceptable way. In this study refers to Mental illness is any define disease or condition affecting the brain that influences the way a person thinks, feels, behaves and relates to others, and to his surroundings[6]. WHO reported that in 2001, 154 million people globally suffered from depression, 25 million people from schizophrenia, 91 million people from alcohol use disorders, and 15 million from drug use disorders[2]. Nearly 25% of individuals, in both developed and developing countries develop one or more mental or behavioral disorders at some stage in their life. People are still not aware of the disorder and still take patients to quacks. Like other disorders that affect only once in a lifetime causing permanent disability, mental illness may also stay with someone forever and severity can occur anywhere, anytime. The Lack of information or misconceptions reflected in non compliance with prescribed therapy, in anxiety or in social isolation, important aspects of nursing management is teaching to family members about epilepsy because it is life-long problem, directed towards helping the family to adjust to a chronic condition[7]. In India, prevalence rates of mental and behavioral disorders are ranging from 9.54 to 370 per 1000 population[8].

Correspondence author :
Lingaraju CM
E-mail: lingarajucm2012@gmail.com

MATERIALS AND METHOD

Statement of the problem *"A study assess the knowledge regarding mental illness among B.Ed students in a selected B.Ed colleges of Mysore"*

Objectives:

1. To assess the knowledge of B.Ed students regarding mental illness using structured knowledge questionnaire.

2. To determine the association of level of knowledge regarding mental illness with their selected personal variables.

Research design: Descriptive design was used for the study

Setting: The study was conducted among B.Ed students at selected B.Ed colleges at Mysore district.

Population: The study was compromises of B.Ed students at selected B.Ed colleges at Mysore.

Sample size: 100 B.Ed students were included as sample.

Sampling technique: Non-probability convenience sampling technique was adopted for the present study

Criteria for sample selection:

Inclusion criteria

1. B.Ed students who are studying in selected B.Ed colleges at Mysore
2. B.Ed students who will be present during the data collection period.
3. B.Ed students who are willing to participate in the study

Exclusion criteria

1. B.Ed students who are sick at the time of data collection

FINDINGS

- The study Depicts demographic variables of B.Ed students, with regard to age of 84(84%) were in the age group of 22-23 yrs and 16 (16%) aged between 24-25 yrs. Majority of the participants were Females 82(82%) and 18(18%) were Male, in context of Marital status 92(92%) were married and 8(8%) were unmarried and all the participants were graduates 100(100%). Majority of the participants had 0-1 year experience i,e 98(98%) and 02(02%) had 2-3 years of work experience, followed 98(98%) had no previous exposure to mentally ill patients and 02 (02%) had exposure to mentally ill patients, None of the participants had underwent any special training program me, Majority i.e 95(95%) of the participants have heard or seen of mental illness.

- The study findings reveal that, the frequency and percentage distribution of B.Ed students according to the level of knowledge regarding mental illness. Majority 87(87%) of the participants had moderate knowledge, followed by 8(8%) had poor knowledge and least i.e 05(05%) had good knowledge regarding mental illness.

- The obtained Chi-square valves were not significant at 0.05 level of significance, from the result findings it can be inferred that the knowledge of B.Ed regarding mental illness is not having any association with their selected personal variables.

CONCLUSION

The study findings shows that, the frequency and percentage distribution of B.Ed students according to the level of knowledge regarding mental illness. Majority 87(87%) of the participants had moderate knowledge, followed by 8(8%) had poor knowledge and least i.e 05(05%) had good knowledge regarding mental illness. The association shows that the obtained Chi-square valves were not significant at 0.05 level of significance, from the result findings it can be inferred that the knowledge of B.Ed regarding mental illness is not having any association with their selected personal variables.

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Socialization of Omani Novice Nurse Educators: a Qualitative Approach to Assess the Preparedness of Novice Nurse Educators to Assume the Role of Faculty

Yusra Al-Nasseri[1], Vanaja Muniswamy[2]

[1]Tutor, [2]Assistant Tutor, College of Nursing and Health Sciences Oman, Muscat, Sultanate of Oman

ABSTRACT

This study provides an overview of the awareness of nurse educator competencies by Omani novice nurse educators' perspective as well as their preparedness to assume the role of the faculty. A qualitative design with focus group interview method was conducted which subsequently emphasizes the needs and challenges faced by the Omani novice educators collectively. Analysis of the data yielded 4 themes: a) competency awareness b) novice nurse educator's needs c) preparedness for the nurse educator role 4) challenges to assume nurse educator's role.

The study indicates specific areas that require support like, areas of curriculum, functioning as a change agent, assuming leadership role, developing them into to scholars and research. The study recommends for a collective effort to be put together by all those concerned in socialization of novice nurse educator. It has implications for further manpower planning, preparing national workforce and adequate supply of high quality teaching staff in both academic and clinical settings.

Keywords: *Socialization, Omani novice nurse educator, role preparedness*

INTRODUCTION

In Oman, the Ministry of Health (MOH) is a recruiting body of workforce. The Directorate General of Education and Training (DGET) and nursing institutes face the task of orienting novice nurse educators to their responsibilities. Novice nurse educators undergo significant challenges and changes in the transition from full time nurse to academic faculty. (Kenny Gerard et.al 2004)[1]. Presently, in Oman BSN graduates with two years of clinical experience are offered teaching positions.The novice nurse educator is defined as an RN with no experience in nursing education or teaching and initially lacks an understanding of the role of nursing educator. (Benner, 2001)[2]. As per the changes in requisites of Higher Education Oman, MSN will be considered as the minimum earned degree henceforth; however the trend in university settings is to require the doctorate.

Corresponding authors :
Yusra Al-Nasseri, RN, BSN MSN, Tutor &
Vanaja Muniswamy, RN, BSN MSN, Assistant Tutor
P.O.Box : 3720, PC112, Ruwi, Sultanate of
Oman, Email id: yusra444@hotmail.com,
mvanaja306@gmail.com

RATIONALE AND JUSTIFICATION FOR THE STUDY

The presence of renewed societal concern for the quality of teaching and learning, widespread curriculum reforms reflects the atmosphere of change in higher education. Nursing faculty must balance academic and scholarly development needs with the need to maintain updated clinical skills. These challenges are especially stressful to all novice nurse educators. Lack of an adequately prepared faculty has been a concern in the nursing profession for a number of years (NLN2002, Oerman, 2004)[3].

The development of competent, skilled health personnel is a priority in all countries of the Gulf region.. Omani nursing graduates are eager to share their clinical expertise as nurse educators, many of them have questions about what is required to transition from a clinical practice setting to the academic environment. Lacking adequate information

of the requirements needed in preparation for the role, novice nurse educators are likely to experience uncertainty in their roles.

This study originated from the perceived need of all concerned to assess the perception and determine the role preparedness for Omani novice nurse educators and hence socialization into the faculty role. Very little research has been reported on the essential competencies inherently necessary to perform the multiple roles of a nurse educator in Oman and especially the Gulf region.

LITERATURE REVIEW

A review of the literature, related to the novice nurse educator demonstrates that they are not adequately informed and prepared for the expectations that are part of the career change, particularly related to the role of teaching service, researcher role, and the challenges. By having a clearer vision of what a nurse educator role entails, the prospective nurse educator may achieve an appropriate socialization (Penn, Wilson, & Rosseter, 2008)[4].

Socialization refers to the process by which the individual becomes a participating member of the community of teachers (Zeichner & Gore, 1989)[5]. In other words, becoming a teacher involves professional development as well as organizational assimilation. Successful socialization results in more competent teachers who are committed to remaining in the job (Brunton, 2007)[6].

Research findings indicate that many new teachers leave the profession after only a few years, many of them because they failed to become sufficiently assimilated (Dewert, Babinski, & Jones, 2003; Johnson, 2004; Wong, 2004)[7]. A distinction may be made between primary and secondary socialization (Berger and Luckmann, 1967);[8]. Socialization has a shared purpose of transmitting norms and values that endure the continuation of socialization and it has the potential to perpetuate outdated and unhelpful norms and values (Mackintosh, 2000)[9]. Furthermore, the report of NLN (2002)[10] shed light on the importance of ensuring that the recruited nurse educator must be appropriately prepared for the responsibilities to assume faculty role.

Hessler and Ritchie (2006)[11] discuss the transition for the Generation X faculty, and offer suggestions, which include (a) provide guidance, (b) foster socialization, (c) encourage flexibility, (d) conduct orientation, (e) provide support, (f) facilitate collaboration, (g) allow for mistakes, (h) coordinate teaching assignments.

Schriner (2007)[12] examined the cultural differences and experiences from clinical practice to academia. It includes stressors and facilitators of transition, deficient role preparation, changing student culture, realities of clinical teaching and practice, hierarchy and reward, and cultural expectation versus cultural reality".

PURPOSE OF THE STUDY

The purpose of this qualitative study with a descriptive design is to assess the novice nurse educators' perception of the competencies required and their preparedness to assume faculty role within nursing education in the Sultanate of Oman, so that administrators will be better prepared to recruit nurse educators and follow up appropriate developmental plans to improve novice educators' role performance.

RESEARCH QUESTIONS

It is necessary to specify the research questions precisely, as these will guide both the selection of the media to be content analyzed and the coding schedule (Bryan, Pg.276)[13].

1. What are the perceptions of Omani novice nurse educators concerning requisite nurse faculty competencies?
2. To what extent can an Omani novice nurse educator demonstrate nurse faculty competencies?
3. What are the mechanisms through which novice nurse faculty obtains competencies for the faculty role?
4. What are the challenges faced by Omani novice nurse educator to assume the faculty role?

RESEARCH METHODOLOGY

Data was gathered using focus group interviews undertaken over 3 months period (n= 8), focus group interviews being selected on the basis of its essentialist method and its ability to yield rich, detailed and contextual data, reflective of their experiences, meanings and the reality of participants as well as make it transparent. (Braun.V&Clarke.V. 2008)[14]

SELECTION CRITERIA OF THE SAMPLE

Novice nurse educators working within MOH nursing institutes, with BSN and less than one year of experience, MSN students as well as BSN shortlisted for MSN. The participants varied in their characteristics and were representative of all MOH nursing Institutes.

SAMPLING METHOD

The purposive sampling technique was used. A letter describing the study was sent to all Deans of MOH nursing institutes and a request letter was also attached to identify the eligible participants.

DATA COLLECTION / INSTRUMENT

Data was gathered using an open ended interview questions developed by the researchers (Appendix A) .

Confidentiality: Formal Ethical approval was obtained from Research and Ethical Review Committee [RERC](MOH) , and all participants were sent a letter of invitation through the Dean, ONI outlining the purpose of the study, prior to giving informed consent.

PROCEDURE

After their approval to participate, the researcher explained the study, an initial demographic survey consent form was signed. The focus group interview was conducted by a trained faculty members. The focus group interview was also audio-taped. There were eight open ended questions asked during the discussion which lasted for one hour.

Presentation of findings: Data analysis:

Data transcribed by the researchers were analyzed independently and anonymously, using verbatim analysis, later the recorded data was discarded. Post hoc themes identification was done by two researchers independently. The 'keyness' of a theme is not necessarily dependent on quantifiable measures but rather on whether it captures something important in relation to the overall research question. (Braun.V& Clarke.V. 2008)[14]. Early stages of coding led to the identification of six core themes, illustrating the socialization and the preparedness. The final stages of coding placed priority on the phenomena under study.

Figure 1: Data extract, with codes applied

Data extract	Coded for
Ah!!! too many, we have a problem here I am talking about my batch. When I entered I did not have a proper orientation, "I was not having anyone to guide me",	1. Needs of Novice nurse educator 2. support for educator 3. changing role transition

Themes identified: The Final four themes identified are: Competency awareness, Preparedness for the nurse educator role, Novice nurse educators needs, and Challenges to assume nurse educator's role.

Figure 2: Final thematic map, showing final four main themes.

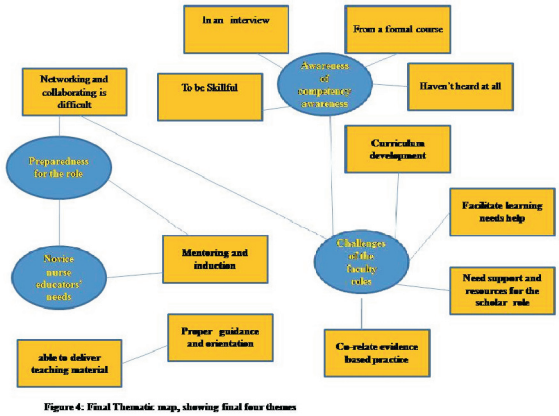

Figure 4: Final Thematic map, showing final four themes

Theme 1: Competency awareness

Novice nurse educators seemed they were little aware of the competency meaning. However, one faculty reported that "I haven't heard at all about the term competency during my career". Some faculty provided a description, "To be Skillful, set standards required to meet expectations, or expected to acquire"; "Confident in doing things"; "ability to do something according to the standards of the organization expects or standards kept by organization"; "Knowledge and skills of the faculty"; "able to deliver teaching material"; All the participants wanted to be aware of competency as it is vital and lays the foundation to the teaching profession.

Theme 2: Preparedness for the nurse educator role

The participants were aware of some of the expected roles. Most of the participants reported that it was a challenging role and they were not

adequately prepared. Inherent in this role were; selecting appropriate teaching strategies, be innovative in teaching, designing learning objectives and evaluating students. Others highlighted that "We were not guided and trained how to teach". The novice nurse educators seemed not to be aware or prepared for other competencies required by them.

Discussing the service role and scholarly role, many participants agreed that these competencies are needed to excel; however, as highlighted by them, these competencies are not required in the initial stage of working as educators. "Maybe some competency can be done, some need guidance like research and curriculum development.

Theme 3: Novice nurse educators' needs

The participants highlighted that if a proper training was done, it would be easier to adapt to the roles needed. One Participant commented that, "Ah!!! too many, problems, I am talking about when I entered I did not have a proper orientation; "A proper orientation period of six months at least, allow us to attend classes, but within the period of orientation, it is not utilized fully to orient us, we were given full responsibility of teaching, they treat you as a faculty. The other participant commented, "I was kept in the department and was to observe and learn all things on my own, with my rules, I need to know how to do session plan, to solve the conflicts, I don't like any one to doubt me somewhere, main thing the new teacher needs is proper guidance by an experienced teacher as there is a huge changes that occur as a staff nurse to teacher".

One of the participants commented "I came from clinical background and they asked me to write the test questions but how can you expect me to do so?". One of the participants stated that, "I had a mentor, but no objectives, no guidance, there was nothing in reality that helpedus. The other participant expressed the concern, I know they want us to be creative and they set hundred limits on you, I don't know, how much creativity can you put into teaching when you have so much of limitation of resources, time and curriculum". Another participant responded "Curriculum development is difficult to adapt, I know you have a task force,and I don't know how much input is taken from other teachers who are not there in the task force". Frustration was communicated by the novices when lesson planning, teaching strategies, examination writing, and student evaluation were given little guidance.

Theme 4: Challenges to assume nurse educators' role.

These include; educational environment lacked collaboration,support by coordinators and colleagues towards the novice educators; a participant said "I was not having anyone to guide or support me"; "functioning within the educational environment, networking, collaborating was difficult". One participant reported that, "immediately I had dual role which is teaching theory and going to clinical with my own set of students; Another novice faculty stated, "Evaluation of students was very difficult because there is really not hard objective criterion, I mean a lot of it is subjective, so I did find that very difficult."

A participant reported that, "I got some supervision, nothing written, there is no contract, no proper feedback, I was evaluated for three times, no feedback was given, so I assumed I was good. Something has to be written and given to us to say these are the competencies to achieve". The novices without mentoring related their experiences as being more difficult.

DISCUSSION AND SIGNIFICANCE

The study provides a useful insight into the role preparedness and their socialization. Consistent with the findings of earlier studies, the socialization has not been easy and continues to prevail, the transition is more of a shock than anticipated. Participants were able to express their perceptions and experience without the fear of retaliation and in hope of improving the socialization for future Omani novice nurse educators.

The findings of this study are supported by Anderson (2009)[15] in which there was absence of mechanisms and programs to support novice faculty socialization, also it described the feelings the nurse educator encountered, such as; unclear expectations, various levels of confidence, leaving the comfort zone, striving for excellence, and mentoring to assist with the transition.

Similarly, Hood and Leddy (2006)[16] reported that professional socialization is a part of secondary socialization.The NLN (2006)[10]recommended a

mentoring program for novice nurse educators. Suggestions include a lighter teaching load in the beginning to allow additional time to prepare lectures, more time to be oriented to the facility. Finally, the need for additional support to the novice nurse educator in terms of mentor, and other as revealed in key themes are to be examined.

IMPLICATIONS OF THE STUDY

The study implies the need to design an appropriate strategic plan for novice nurse educators' professional growth and development. Hence it supports the policy makers, manpower planning, preparing a national workforce and adequate supply of high quality teaching staff in both academic and clinical settings as wells as curriculum planners of graduate education of nurses to ensure that courses include some distinct process whereby the socialization into their roles, functions, and settings will occur. Another option is to study the mentor/mentee relationship and how that affects the socialization.

CONCLUSION

Whilst there are limitations in attempting to generalize the findings of this small scale study due to sample size and narrow inclusion criteria that limit the data, it is evident that nurse educators have made progress in their socialization. However, wide variations in role preparedness signify the need to provide ongoing support. This paper adds to the existing knowledge by providing a rich and detailed picture of Effective socialization.

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Challenges of Health Care Providers: Father's Role in Breast Feeding

Yasmin Mithani[1], Zohra Kurji[1], Zahra Shaheen[2], Shehnaz Rashid[3]

[1]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, [2]Chief Operating Officer, Catco Kids, University of London, [3]Research Coordinator, Sharjah Baby-Friendly Campaign, Govt of Sharjah, UAE

ABSTRACT

Breastfeeding mothers require a lot of support in initiating and maintaining breastfeeding.[1, 2] Many researchers have confirmed that breast feeding practices have physiological, psychosocial, economic and environmental advantages for children.[9, 5] This study is expected to benefit the health provider to support promote and protect breast feeding with regards to challenges they experience while caring for their client. Literature indicates positive associations of breast feeding practices with child health.[14] Those babies who receive exclusive breast feeding and optimum feeding are less likely suffer from various health problems. This study will also utilize qualitative method as an inquiry. The focus group provided an avenue to health care providers to share their awareness with regards to breastfeeding, their perspectives on the father's role and the challenges that they are facing in promoting, protecting and supporting breastfeeding.

Keyword: *Health care provider, Breastfeeding challenges Focus group*

BACKGROUND OF THE STUDY

Lactating mothers require a lot of support in initiating and maintaining breastfeeding.[1,13,20,23] A study conducted to understand how first time mothers initiate breast feeding revealed that although antenatal and post natal knowledge are important, the most crucial factors in deciding and opting for exclusive and optimum feeding practice include mother's ownership, commitment, motivation and accountability with social support.[4,5,6] There are numerous benefits of exclusive breast feeding reported by World health organization(WHO) for example, it refer promotion of breast feeding practices as low cost high quality care interventions for maternal and child health One of the studies has also highlighted that breast feeding is a major source of nutrient which boosts children's IQ, hence breastfed babies have higher IQ scores.[7 , 8, 16] Many researchers have confirmed that breast feeding practices have physiological, psychosocial, economic and environmental advantages for children[1 ,2 3, 4]. The immediate maternal benefits of breast feeding include prevention from post-partum hemorrhage, facilitation in the delivery of retained placenta, and, in the long run it prevents reproductive cancer and postnatal depression among women.[7, 8 ,12] However professional support may vary according to the qualification.[22] This study is expected to benefit the health provider to support promote and protect breast feeding with regards to challenges they experience while caring for their client.

Corresponding author:
Ms. Yasmin Mithani,
RN, RM, BScN, MSc in International Primary Health Care, Senior Instructor, the Aga Khan University School of Nursing and Midwifery. Affiliation: University of London; the Aga Khan University School of Nursing and Midwifery

STUDY AIM

"To explore the challenges and experiences of nurses about the breast feeding of infants in urban and semi urban settings in Karachi, Pakistan"

STUDY OBJECTIVES

- explore the challenges and experiences faced by nurses in the promotion and protection of breast feeding practices

- Recommend strategies for nurses to support sustained of breast feeding practices.

Research Question: "What are the challenges of nurses on the father's role to enhance breastfeeding in urban and semi urban areas of Karachi, Pakistan?"

LITERATURE REVIEW

Literature indicates a positive association of breast feeding practices with child health. [10,14] Those babies who receive exclusive breast feeding and optimum feeding are less likely suffer from various health problems.[9 ,15, 16] one of the research study has also affirmed that breastfeeding facilitates the psychosocial relationship of infants and mothers[12]. Furthermore, mothers have verbalized that all health care providers are not congruent in their practices and they do not follow standards and guidelines for the protection and promotion of breast feeding practices.[17,18, ,20] However one of the major reasons for lack of breastfeeding support by healthcare providers as suggested by literature is lack of knowledge. [20, 22, 23]A study conducted to identify knowledge, attitude and practice with regard to breast feeding among undergraduate medical college students in Karachi, Pakistan, revealed that those students who were in the clinical group were more aware about breast feeding as compared to the preclinical groups.[22] With regards to Fathers perspectives on healthcare provider support, one of the studies undertaken on breastfeeding success concluded that fathers wanted to be involved in infant feeding and they verbalized that both the parents should be trained and educated.[17, 21]

METHODOLOGY

Study Design: Polit and Beck also articulate that qualitative studies provide avenues for developing insight for human and social behavior and in depth understanding of human experiences.[24] Thus this study will also utilized qualitative method as an inquiry.

Population and Setting: After Purposive sampling participants were selected from urban (private maternity home) and semi urban (primary health care center) in Karachi Pakistan. After taking consent from health care providers 2 Focus Group Discussions were conducted.

DATA COLLECTION PROCEDURE

Permission was obtained from head of the department for focus group discussions. The Focus Group Discussions of both urban and semi urban nurses were conducted to gather nurse's challenges and experiences with regard to the father's role in breastfeeding Data was analyzes with iterative process.[25]

FINDINGS AND DISCUSSION

Data showed that most of the participants faced many challenges in initiating, maintaining and promoting breast feeding practices because of different cultural, religious and societal values, beliefs and practices. The respondents reported shortage of staff, improper infrastructure and no restricted visit hour's policy during postal natal hospitalization as some of the other barriers. Two participants each from the semi urban and urban setting voiced that values, belief and culture are the biggest factors affecting the initiation, maintenance and promotion of breast feeding practices. Though they were aware of the benefits of colostrum, early latch on and long-term benefits but due to family strong convictions, they were often unable to perform their role in supporting breast feeding practices. For example they stated introduction of pre-lacteal feeds like honey, tea and ghutti are very strong traditions and are one of the biggest challenges in initiating breastfeeding. Additionally, they said that families often believed that colostrum should be discarded, colostrum as it is presumed to be as dirty milk.

One of the respondents from SUFGD(semi urban focus group discussion) shared:

"Tradition and culture are the priority. Once the placenta was retained and I wanted initiate breast feeding ,……the mother said . no matter what happens, first my baby will hear the AZAAN (call for prayers) then he can have something to eat."

Moreover, sometimes family members think that mother milk is poisonous and, therefore, the baby should have fed with formula feed. As one of the respondents from **UFGD(**(urban focus group discussion) said:

"I recall one patient who shared with me that if she will deliver a baby boy, she will not feed her milk because in their culture, only girls can have mother's milk as boys die from mother's milk."

A similar experience was shared by one the participants of UFGD:

"I remember in my night shift. One patient had delivered twins. I asked her to give the baby colostrum but she replied that it is like vaccine but I will not give it because my first newborn died so my family members are saying that my milk is poisonous…"

The participants of this study also verbalized that due to the patriarchal system, in their society men did not appreciate obtaining advice from female nurses. Therefore, many a times it was impossible to convince them regarding various matters including breast feeding practices. As one of the participants shared:

"Once it happened during home visit. When the woman complained of insufficient milk, the husband was with the baby. He left the baby in the swing and left the room, …I was not hesitant but ,culturally , men do not want to hear about on breast feeding"(**SUFGD)**

Lack of Training and Increase Workload

Lack of training and increased workload was also perceived as barriers. Health care providers from both urban and semi urban settings highlighted they did not feel comfortable while talking to male clients. They also shared the need for more training with male members about issues concerning reproductive health, including breast feeding practices. However, out of five participants of SFGD, three said that they were comfortable to discuss

All participants from UFGD unanimously said:

"We, healthcare professionals, need to be trained…"

With reference to increased workload, one of the participants shared:

"We have a long list to perform in a 9 hour shift..."

One more interesting finding emerged from the data nurses from the semi urban area recommended that evidence based findings should be shared with fathers to improve and involve fathers in breastfeeding protection and support. This was surprising and contradictory to my earlier assumption that urban nurses are more competent than semi-urban nurses; on the contrary, this suggestion was put forward by a nurse from the semi-urban area. In my opinion, this may be because this nurse was an undergraduate while the nurse from the urban area had diploma which may suggest that the qualifications of healthcare providers have an impact on their attitude towards breastfeeding practices. However, further studies are required to explore the relationship of educational level of healthcare providers and breastfeeding.

NURSES EXPERIENCES

Similar results were revealed from this study from the urban and semi urban cohorts. All nurses appreciated that women required professional support but as per their experience, primi mothers and first time fathers had more anxiety and they required more reinforcement as compared to multi para. Literature reports that if a mother is unsuccessful with the first child than chances of failure to breast feed may increase in subsequent births.[26, 27] Likewise Ingram has stated that in Pakistan, mothers in law pressurize their daughters in law's to not give colostrum to their babies.[28] Similarly, women do not feed colostrum in Nepal also and it was reported that 45% breastfeeding mothers discarded colostrum for various reasons[29]. In continuation of barriers, lack of training was also identified as one of the hindering factors in not promoting fathers role in breastfeeding. A study conducted also demonstrated that those health care providers who lacked training were providing incorrect information to mothers.[30, 31] In addition; lack of training increases lack of confidence among healthcare professionals[32].This Focus Group discussion reported time constraints and shortage of staff which resulted in increased workload. Policy and infrastructure were also deemed as major challenges for promoting the father's role in breastfeeding. Literature also points out the same findings; that the major barriers perceived by nurses were heavy work load, time consuming routines and policy of the hospital.[33, 34] As one of the participants from the urban FGD highlighted that during the 8-9 hours shift, they are not only responsible for providing breastfeeding support also for completing much more work, including documentation.

CONCLUSION

In summary, the focus group provided an avenue to health care providers to share their awareness with regards to breastfeeding, their perspectives on the father's role and the challenges that they are facing in

promoting, protecting and supporting breastfeeding. Very practical recommendations were also shared in both FGDs which will have future implications for the promotion of breastfeeding in Karachi Pakistan.

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Curriculum Alignment: the Soul of Nursing Education

Basnama Ayaz Khan[1], Saima Shams Hirani[2], Nausheen Salim[3]

[1]Senior Instructor and Programme Manager, Training and Policy Unit, The Aga Khan University Programmes in Afghanistan, [2]Assistant Professor, [3]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, Pakistan

ABSTRACT

Curriculum translates the academic institution's vision into action. The back bone of the curriculum is its alignment among the components. By complying with the processes of curriculum alignment at different level, multiple values and competencies are achieved by graduates that guide ethical and professional nursing practice. This paper highlights the significance and processes of curriculum alignment. It also provides practical recommendation for the challenges to curriculum alignment.

Keywords: *Nursing; Education; Curriculum; Alignment*

INTRODUCTION

In today's changing era, the paradigm of education system is moving towards achieving high level quality education. In establishing quality education system, the core and the key feature of academia is curriculum along with other significant contributors like competent teachers and learning environment.

Curriculum is the spirit of education which gives life to the whole education structure. It could be said undoubtedly that curriculum is the functional factor of transmitting academic institution's vision into action. It is defined as a written outline which determines scope, program organization, activities and assessment to attain educational goals [1]. This is a continuous process which involves need assessment, planning, interventions, assessments, and evaluation. Keeping a curriculum functional is important that it should be reactive to changing trends and requirements[2]. In curriculum design, alignment among the components is an important aspect and an element which is the back bone of the curriculum. This is true for all educational systems including nursing education. This concept paper emphasizes the overview of curriculum alignment and its significance generally to education and specifically to nursing education. It also highlights the processes and challenges of curriculum alignment; and recommendations for dealing with challenges.

CURRICULUM ALIGNMENT AND ITS SIGNIFICANCE

Curriculum alignment has been used as an effective tool towards higher achievement of schools since 20th century[3]. The concept of alignment in curriculum has been defined by various authors and disciplines. Some of the definitions are 'match' between content and assessment[4]; a coordination between curriculum components to work together for student's learning [5] or for stakeholders[6]. It is a link, a 'degree of correspondence' between objectives, content, material, activities, and assessments[7, 8]. It also serves as a tool not only to improve teaching but to make effective and accurate assessments. It affirms that decision taken based on test performance, has significant consequences of rewards and sanctions for the students' career[4]. Therefore, constructing aligned curriculum plays a vital role in academia by connecting the processes of teaching, learning and evaluation.

The definition of curriculum alignment suggests it as a process of congruence and sequence among all aspects of a curriculum, i.e. what was planned, what was actually taught, how it was taught, what was learnt, and how it was tested and evaluated. Ensuring alignment in curriculum components is the responsibility of the curriculum developers; most of the times are teachers. Therefore, teachers should be well aware of the stakeholders' needs and well prepared to address the needs into the curriculum.

Various factors which may influence the curriculum alignment are diverse students' learning needs, teaching learning strategies, effectiveness and accountability of institutions to facilitate students in achieving highest possible learning[7]; estimation of systemic evaluation, and quality assurance[9]; and achievement of content standards/ objectives[10]. The process of alignment assists educators to be accountable for their teaching and necessitate the alliance between learning objectives; instructional content and strategies; and evaluation or assessment methods. Therefore, it is essential to understand the effects of alignment and misalignment of a curriculum, ultimately affects students' as well as teachers' efforts, efficiency and goal accomplishment.

SIGNIFICANCE OF CURRICULUM ALIGNMENT IN NURSING EDUCATION

Although the concept of alignment is widely discussed and applied in different academic disciplines however, it needs effective utilization in health care professions including nursing education. Today the health care industry faces challenges that are related to patient acuity, cost effectiveness, quality assurance and advances in information technology. Therefore, congruency of such needs in curriculum is one of the key elements that would be effective tool in fulfilling the complexities of the time and preparing nurses in providing quality care.

Nursing curriculum strives to achieve multiple values and competencies from its graduates. The core values of nursing profession include integrity, caring, quality, competence[12]; professional self-concept, social awareness, professionalism, nursing service roles and its originality[13]. Developing these values in nurses would guide their care towards individuals, families, community and society at large.

Additionally, nursing profession also demands for core competencies such as critical thinking, psychomotor, problem solving, and decision making skills to promote health and prevent illness. In order to achieve these competencies, nursing curriculum embraces various courses including basic and applied sciences, psychology, sociology, and humanities that require integration of theory with clinical practice. These courses enable nursing students to transform their learnt knowledge into care at various clinical settings. This transformation requires numerous efforts from nurse educators. Nurse educators teach and evaluate the learners in the areas of communication skills, professional development, nursing process with scientific rationale, principles of health education and application of psychomotor skills. This approach empowers learners to achieve competency of safe and quality care provision to patients, and their families. Therefore, it is vital for nurse educators to comply with the process of curriculum alignment at all levels (teaching, learning and assessment) in order to achieve learning outcomes that guides ethical and professional nursing practice[12].

PROCESS OF ALIGNMENT

Outcomes of a curriculum must be transmuted into each course/courses (objectives, content, teaching learning strategies, and assessment) pertinent to nursing education. The establishment of curriculum alignment can be achieved at various levels of the curriculum ranging from program level to a single course level[14]. To ensure alignment in all components of curriculum, the process incorporates certain variables such as level of course/ curriculum objectives, emphasis on content and relevant assessment[5, 15]. Following is the description for each variable.

LEVEL

Education aims to achieve critical thinking and higher levels of cognitive skills[8]. Determining levels in curriculum indicate congruency between hierarchy of cognition in objectives and assessment[15]. Bloom's Taxonomy provides a well-defined measurement tool to establish various levels of cognition moving from recalling and recognizing information to applying, analyzing, synthesizing, and evaluating the knowledge. Educators must endorse inclusion and synchronization of these levels according to learners' needs and their vertical progress throughout the academic years.

EMPHASIS

Several studies have identified that ignorance of content is frequently observed phenomenon in developing curriculum models[9]. Consistency between course objectives, content and assessment was observed with inconsistent content delivery in classrooms[8]. Emphasis is the variable that takes care of this issue by verifying the consistency between content and assessment[15]. It also directs educators

to recognize the difference between "essential to know content" and "nice to know content". It may be decided on the basis of hours spent to deliver a particular course objective throughout the course; and involvement of course objectives in its assessment methodology. Therefore, it is required for nurse educators to maintain the stability of emphasis among all the components "*As taught, so assessed*".

ASSESSMENT

Assessment is an approach to appraise students' learning. It could be conducted by utilizing different strategies such as multiple choice exams, short answer questions, paper writing, projects, skills examination, and viva according to the level and nature of objectives. It is a commonly observed phenomenon that many occasions assessment strategies do not reflect the taught content and appropriate level of teaching objectives. Designing curriculum with aligned assessment is an intellectually rigorous task that requires enough budgeted time and well trained educators to provide useful information about students' and institution's effectiveness [4,10]. Hence, while developing course/curriculum objectives, the method of assessment measurement should also be deliberated considering its depth and emphasis on content.

CHALLENGES OF CURRICULUM ALIGNMENT IN NURSING EDUCATION

Curriculum alignment is not an automatic process; it requires a lot of conceptual and operational deliberations. One of the major challenges observed during this process is difference of understanding among nursing educators. This challenge arises when individual's philosophy of teaching and curriculum gets dominated on institution's philosophy and vision because of some factors such as educator's knowledge and experiences.

The other challenge is time factor. Alignment process itself is an exhaustive activity that takes a huge chunk of educators' time along with their other expected activities such as teaching, administration, research, and practice that are likewise time consuming activities. Inadequate time planned for this important concept puts it on less priority.

Besides this, technology advancement, and use of contemporary teaching learning pedagogies, may also bring a challenge to educators during the implementation phase of the curriculum. Rapidly changing teaching practices regardless of their relevancy and congruency with the curriculum objectives may bring misalignment among the components of planned, taught and assessed curriculum.

Being in a practice discipline, nursing educators face another challenge of integrating theory into practice. Because of a variety of factors; availability, accessibility, and relevance of clinical placements become a concern affecting the implementation of curriculum alignment that ultimately hinders the quality of students' learning.

RECOMMENDATIONS

In order to address above challenges, the first and foremost strategy is to apply measures that can bring a common and consistent understanding of education philosophy, and institution's mission amongst all nursing educators. Frequent workshops and seminars must be arranged for exchange of ideas and better understanding of curriculum and its processes. Novice educators should be mentored effectively for designing and implementing curriculum in order to keep the alignment intact. Academic leadership should place maximum emphasis and provide adequate time for revision of courses and for collaboration with all stakeholders. In addition, the alignment should be viewed as an ongoing process that needs periodic evaluation and adjustment [11]. Therefore, there should be an effective monitoring and evaluation system to ensure quality and well aligned curriculum.

CONCLUSION

Curriculum alignment is the soul of a successful curriculum. Educators' understanding, competencies, skills, time and efforts, institutional support and stakeholders' collaboration are essential ingredients to achieve maximum students' learning outcomes. An aligned nursing curriculum can guarantee the production of efficient and proficient nurses for quality care of the population.

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Quality of Nursing Care Rendered by Staff Nurses and Patients Satisfaction : a Comparative Study

Bhat Nighat Ara[1], Thokchom Somibala[2], Bhardwaj Urmila[3]

[1]Msc Nursing Student, [2]Tutor,[3] Assoc Professor, Jamia Hamdard, New Delhi

ABSTRACT

The present study is a comparative study to assess the quality of nursing care rendered by staff nurses and level of satisfaction perceived by patients in selected wards of a selected government and a private hospital.

Objectives: To assess and compare the quality of nursing care rendered by staff nurses in medical and surgical wards of the government and private hospital, to find association between quality of nursing care rendered by staff nurses and between level of satisfaction perceived by patients with selected demographic variables and to assess and compare the level of satisfaction perceived by patients in medical and surgical wards of the government and private hospital.

Method: Cross sectional design was adopted with a sample comprising of 60 staff nurses and 60 patients A structured observational checklist for assessment of quality of nursing care and structured patient satisfaction questionnaire for assessment of level of satisfaction perceived by the patients was used.

Results: The findings showed that better level of satisfaction of the patients and quality nursing care rendered by staff nurses in private hospital than in government hospital**.** The present study revealed that in government hospital, there is a significant association between level of satisfaction perceived by the patients and their age and marital status. In case of private hospital no significant association was found between the level of satisfaction perceived by patients and selected demographic variables

Keywords: *Quality nursing care, patients satisfaction, staff nurse, government hospital and private hospital.*

INTRODUCTION

Caring is the essence of nursing and is basic factor that distinguishes between nurses and other health professionals. The concept of caring in nursing has been defined in different ways. Watson [1] says, "Caring includes knowledge, performance and the results". Morse [1] represented definitions of caring according to the five major conceptualizations of caring: 'caring as a human trait, caring as a moral imperative, caring as an effect, caring as an inter personnel interaction and caring as an intervention'. Caring is an interpersonal process that is characterized by expert nursing, interpersonal sensitivity and intimate relationships. It is the most important and critical factor in enhancing the human life and is considered as the key role in the nursing team. Caring includes behaviors such as professional knowledge and skills, respect for the others, assurance of humanistic presence, positive communication, and attention to the experiences of the others.

Donabeidan[2] defined quality as the "harmony actual nursing and the criteria prescribed beforehand". Ovretveit[2] states that the quality of health activities is the complete satisfaction of the needs of those who are in the most need of health services, for the lowest organizational costs, within the given limit and guidelines of higher administrative bodies and those paying. He also mentions the components of quality healthcare as: high level of professionalism, efficient use of resources, the lowest possible risk for the patient, patient satisfaction and a positive influence

Corresponding author:
Thokchom Somibala,
Tutor, Jamia Hamdard, Delhi
Email id: somithok@yahoo.com

on his/her state of health.

Frost[3] stated that quality nursing care is extremely important for health care organizations. Lang[3] defined quality nursing as A "process that seeks to attain the highest degree of excellence in the delivery of patient care".

Quality assurance frequently refers to evaluation of the level of care provided by a health care agency., but limited to the evaluation of the performance of one nurse or more broadly involve the evaluation of the quality of the care in an agency, or even in a country.

Patient's satisfaction with nursing care has been reported as most important predictor of the overall satisfaction with hospital care and an important goal of nay health care organization by Mrayyan[4]. Yunus et al[5] purported, "dissatisfaction with the nursing care services may further lead to lower utilization of the nursing care services by the patients". Merkouris et al[6] have acknowledged that patient's satisfaction is not simply a measure of quality, but the goal of health care delivery system".Mufti et al[7] states among all the health care workers nurses spend maximum time with the patients. Therefore, the nurse is in a unique position to influence and promote effective consumer relationships.

A very little is known about the quality of nursing care and the level of patient satisfaction in both Govt and private hospital in India.

Thus keeping this in mind the present study was designed with the following objectives: -

- To assess the quality of nursing care rendered by staff nurses in medical and surgical wards of the government and private hospital
- To compare the quality of nursing care rendered by staff nurses in medical and surgical wards of the government and private hospital
- To find association between quality of nursing care rendered by staff nurses and selected demographic variables
- To assess the level of satisfaction perceived by patients in medical and surgical wards of the government and private hospital
- To compare the level of satisfaction perceived by patients in medical and surgical wards of the government and private hospital
- To find association between level of satisfaction perceived by patients and selected demographic variables

MATERIALS AND METHOD

Research design adopted for the study was cross sectional research design.

Variables of the study are:-

1. Quality of nursing care rendered by staff nurses
2. Level of satisfaction perceived by patients
3. Age, gender, marital status, days of stay in the hospital and history of previous hospitalization of patients.

Setting of the study

The present study was conducted in a government hospital (Safdarjung Hospital) and a private hospital (HAHC Hospital), in Delhi.

POPULATION

In the present study, population comprised of staff nurses working and patients admitted in government and private hospitals.

SAMPLE SIZE

Total sample size was 120 which included 60 staff nurses and 60 patients.

n_1 (staff nurses of government hospital) = 30

n_2 (staff nurses of private hospital) = 30

n_3 (patients of government hospital) = 30

n_4 (patients of private hospital) = 30

Sampling technique

In the present study the sampling technique adopted was convenient sampling technique

Data Collection Tools and Techniques

In the present study, the researcher developed and used a structured observational checklist for assessment of quality of nursing care and structured

patient satisfaction questionnaire for assessment of level of satisfaction perceived by the patients.

STRUCTURED OBSERVATIONAL CHECKLIST

It was divided into two parts:-

Part I – it consisted of items related to the demographic data such as age, gender, educational qualifications and years of work experience.

Part II – it consisted of 57 items related to various aspects of nursing. This part was divided into 5 areas – General Nursing, Environment, Patient Safety, Nurse's Communication and Behavior and Documentation.

Structured patient satisfaction questionnaire

It was divided into two parts:-

Part I- it consisted of items related to the demographic variables of the patients such as age, gender, marital status, days of stay in the hospital and history of previous hospitalization.

Part II – it consisted of 31 items related to patient satisfaction and was divided into three areas- general nursing care, care facilities available in your ward and nurse's communication and behavior.

The structured questionnaire was translated into Hindi before giving it to the patients.

ANALYSIS OF THE DATA

The data was tabulated in Microsoft Excel Spread sheet and the analysis was done using descriptive and inferential statistics using SPSS version 16. The level of significance was kept at 0.05 level.

RESULTS

The findings were organized under the following sections:-

Table 1:- Frequency and percentage of Staff Nurses of the Govt. and the Private Hospital as Per Demographic Characteristics.

	Sample Characteristics	Government hospital		Private hospital	
		Frequency	%	Frequency	%
1.	**Age in years**				
	20 – 29	11	37	14	47
	30 -39	19	63	16	53
2.	**Gender**				
	Females	30	100	30	100
3.	**Educational qualifications**				
	Diploma GNM	25	83	20	67
	B.Sc Nursing	05	17	10	33
4.	**Work experience in years**				
	1-5	16	53	07	23
	6-11	14	47	20	67
	12-17	00	00	03	10

Table 2:- Mean, SD, MD and 't' Value for significance between quality scores of staff nurses in Govt. and Private Hospital

Group	Mean	SD	Mean difference	t value	P value
Govt. Hospital n_1= 30	34.76	32.5	7.30	9.34	0.00*
Private Hospital n_2= 30	42.06	42			

*p value significant at 0.05 level of significance

Table 2 shows that the mean score of the quality of nursing care rendered by staff nurses in the private hospital is (42.067) which is higher than (34.767), the mean score of quality of nursing care rendered by staff nurses in the government hospital. This indicates that the quality of nursing care rendered by staff nurses is better in the private hospital than in the governmental hospital. Unpaired "t" test was used to find the significance of difference of the means which was found to be statistically significant as p value is less than 0.05 level.

Table 3:- Frequency and Percentage of staff nurses in Medical and Surgical wards of the Govt. and Private Hospital as per quality of nursing care rendered by them.

S. no	Category	Govt. Hospital		Private hospital	
		Frequency	%	Frequency	%
1.	Poor quality of care	04	13	00	00
2.	Average quality of care	23	77	08	27
3.	Good quality of care	03	10	22	73

The data in Table no. 3 reveal that in the government hospital, majority of the staff nurses that were 23 (77%) rendered average quality of nursing care, followed by 4 (13%) of the staff nurses who rendered poor quality of nursing care and 3 (10%) of the staff nurses rendered good quality of nursing care. In case of private hospital, majority of the staff nurses 22 (73%) rendered good quality of nursing care followed by 8 (27%) of staff nurses, who rendered average quality of nursing care and none of the staff nurses in private hospital rendered poor quality of care. It implies that quality of nursing care rendered by staff nurses in private hospital is better than the quality of nursing care rendered by staff nurses in government hospital.

The descending order of ranks of nursing care rendered by staff nurses in government hospital was nurse's communication (I), patient safety (II), documentation (III), environment (IV) and general nursing care(V). while in case of private hospital it was environment (I), patient safety (II), Nurse's communication and behavior (III) and general nursing care(IV) and documentation (V).

There was no significant relationship between quality of nursing care rendered by staff nurses in medical and surgical wards of government hospital and private hospital and selected variables.

Findings related to demographic characteristics of patients in Medical and surgical wards of the government and the private hospital.

Majority of the patient were in the age group of 39 – 59 years (60%), 6 (20%) of patients who were in the age group of 18 – 38 years and 6 (20%) were in the age group of 60 years and above. As of private hospital majority of the patient were in the age group of 39 – 59 years (53%), 8 (27%) of patients who were in the age group of 18 – 38 years and 6 (20%) were in the age group of 60 years and above. In Govt. hospital majority of patients 24 out of 30 i.e. (80%) were married, 6 out of 30 (20%) were un married. In private hospital majority of patients 21 out of 30 i.e. (70%) were married, 9 out of 30 (30%) were un married. In Govt hospital (47%) and private hospital (53%) majority of patient were males. In government hospital 11 out of 30 (37%) of patients had stayed 2 – 4 days, 8 out of 30 i. e (26%) had stayed 5 – 7 days, and 11 (37%) had stayed for 8 – 10 days. . In private hospital 9 out of 30 (30%) of patients had stayed 2 – 4 days, 14 out of 30 i. e (47%) had stayed 5 – 7 days, and 4 (37%) had stayed for 8 – 10 days and 3 out of 30 (10%) had stayed in the hospital for 11 days or above. As of history of previous hospitalization, in government hospital, majority of patient (575) had no history and in private hospital (73%) had no history of hospitalization.

Findings related to assessment and comparison of the level of satisfaction perceived by patients in medical and surgical wards of government and private hospitals.

It was found that majority of patients 24 (80%) were satisfied with nursing care in private hospital than in government hospital 18 (60%). The mean

difference of satisfaction scores of two hospitals was found to be statistically significant at 0.05 level of significance (Table 4 and 5).

Table 4:- Frequency and Percentage Distribution of patients in the Government and the Private Hospitals by their Level of Satisfaction

Hospital	Category	Frequency	Percentage
Government Hospital	Satisfied	18	60%
	Not Satisfied	12	40%
Private Hospital	Satisfied	24	80%
	Not Satisfied	6	20%

Table 5:- Mean,, SD, MD and 't' Value for significance between quality scores of staff nurses in Govt. and Private hospital

Group	Mean	SD	Mean difference	T value	P value
Govt. Hospital n_3= 30	92.03	9.66	10.9	4	0.00*
Private Hospital n_4= 30	102.9	11.03			

*p value significant at 0.05 level of significance

Findings related to the association between level of satisfaction perceived by patients in medical and surgical wards of government hospital and private hospital and selected variables

A significant association between level of satisfaction perceived by patients by patients their age and marital status and no significant association between level of satisfaction perceived by the patients and their gender, days of stay in the hospital and their history of previous hospitalization in government hospital.

In case of private hospital no significant association was found between the level of satisfaction perceived by patients and selected demographic variables.

DISCUSSION

The present study revealed that most of sample subjects in government hospital rendered average quality of nursing care but majority of staff nurses in private hospital rendered good quality of nursing care. 13% of staff nurses in government hospital rendered average quality of care but none of the staff nurses in private hospital rendered poor quality care. On an average B. Sc nurses rendered better quality of care than Diploma nurses. In general nurses in both hospitals having more than 5 years of experience rendered better quality of care than those having less than 5 years of experience.

The present study also revealed that there is statistically no significant association between the quality of nursing care rendered by staff nurses and their age, educational qualification and the years of work experience.

The findings of the present study reveled that quality of nursing care is better in private hospital and also more patients were satisfied in the private hospital than in government hospital. The findings are consistent with the findings of the study conducted by Boomberg and Mills[8] that revealed quality of nursing care is better in private hospitals than in the government hospitals. These findings were also consistent to the findings of a similar study by Alev[9] et al which revealed that the private hospital performs better than the public hospital on service quality

Another findings of this study revealed that most of the patients were satisfied with the nursing care in both government (60%) as well as private hospital (80%). This finding is consistant with the findings of a similar study conducted by Sajdadian[10] et al in the Iranian Centre for Breast Cancer; they found that 82% were satisfied.

Another finding of the present study revealed that in government hospital, there is a significant association between level of satisfaction perceived by the patients and their age and marital status, and no significant association between level of satisfaction perceived by the patients and their gender, days of stay in the hospital and their history of previous hospitalization in government hospital. In case of private hospital no significant association was found between the level of satisfaction perceived by patients and selected demographic variables.

This finding is consistent with a descriptive, correlation study by Chan and Chau[11] in an urban

acute hospital in Hong Kong, who found that the gender and age had no significant association with patient satisfaction.

The study highlights the need for a qualitative study to assess the quality of nursing care and level of satisfaction with more areas.

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Critical Care Nurses' Perceptions of Ethical Distresses and Workplace Stressors in the Intensive Care Units

Amina Hemida Salem

Lecturer of Critical Care and Emergency Nursing, Department of Critical Care & Emergency Nursing, Faculty of Nursing, University of Alexandria, Egypt

ABSTRACT

Intensive care nurses are confronted daily with increasing work demands, emanating from the caring for patients who are relentlessly exposed to illness, suffering, death and the emotional demands from families regarding their loved ones, increased workloads and the introduction of highly sophisticated technologies; this means that nurses working in intensive care units (ICUs) are encountered ethical distresses and workplace stressors more often than general medical-surgical nurses. An adverse experience of ethical distress is termed "moral distress". Failure to alleviate moral distress and workplace stressors can impact the quality of patient care and nurse leading to job stress and burnout, job dissatisfaction, and departure from the work environment and/or nursing.[1-5].

Aim of this study was to explore the critical care nurses' perceptions of ethical and workplace distresses in the intensive care units.

Participants & Method: A convenience sample of 100 critical care nurses working in the intensive & coronary care units and emergency care department was recruited. A descriptive, questionnaire – based study was used.

Results: The results of the current study revealed that, the highest levels of ethical distresses encountered by nurses were concerned with the quality of patient care. Working with physicians and nurses who are not as competent as patient care requires were the most morally distressing situations. Regarding to the CCNs' perceptions and experiences about stressful events in the critical care environment, results revealed that, the most stressful workplace situation was conflict with other nurses and supervisors. **Conclusion:** Critical care nurses commonly encounter situations that are associated with high levels of ethical and workplace distresses that may have implications on the quality of patients' care, job satisfaction and job retention.

Keywords: *Ethical or Moral Distresses, Critical Care Nurses' Perceptions, Workplace Stressors.*

INTRODUCTION

Intensive care unit (ICU) nurses make many ethical decisions every day, but in practice, they cannot always act in accordance with their beliefs.[5,6] Moral distress is defined as painful feelings and/or psychological disequilibrium that results from recognizing an ethically appropriate action, yet not taking it because of such barriers as lack of time, supervisory reluctance, an inhibiting medical power structure, institutional policy, or legal considerations.[7,8] Because the causes of moral distress vary according to the work situation, ICU nurses may feel a different kind of moral distress from nurses in other settings.[9] Radzvin identified many sources of moral distress in ICUs, including aggressive or futile treatment of terminal patients, problems related to informed consent, working with incompetent nurses and physicians, and working under institutional

Correspondence author:
Dr. Amina Hemida Salem
Lecturer of Critical Care and Emergency Nursing, Department of Critical Care & Emergency Nursing, Faculty of Nursing, University of Alexandria, Egypt.
E-mail: omnia308@yahoo.com

policies that constrain ethical decision making that may interfere with patients' needs.[10] The other sources of moral distress include the perception that aggressive medical treatment is being used, which might increase the burden of suffering, inaccurate/ incomplete information presented to patients and families by physicians; difficulty with resuscitation decisions and other advance directives and the ability to communicate about prognosis and care plans to patients and their families.[11-13]

In addition to the ethical distresses, critical care nurses are also confronted with workplace stressors. In a review by (McVicar; 2003), six sources of workplace distress for nurses were identified: workload, relationship with other clinical staff, leadership and management issues, emotional demands of caring, shift working, and lack of reward.[14] Additional factors contributing to role stress include lack of control over the work situation; shortage of resources; concern for the quality of nursing; and lack of cooperation among patients, families, and staff members.[15 - 17]

MATERIALS AND METHODS

Setting: the study was conducted in medical and surgical intensive care units (MICU & SICU), coronary care unit (CCU) and emergency department (ED) at King Fahd University Hospital (KFUH), KSA.

Study Design: A cross-sectional descriptive study using questionnaire – based method was designed to explore and describe the critical care nurses' (CCNs') perceptions about ethical and workplace distresses.

Sample: A convenient sample of 100 nurses working in intensive care units and emergency department was included.

Method: Data was collected during a 6-week period in January and February 2012.Permission to use the modified MDS was obtained. Permission to conduct the study was obtained from the nurse director after explanation of the study aim and methodology. Study participation was voluntary. Participants were identified from the roster of staff nurses assigned to the selected units. Cover Letter introducing the study and the requirements of participation were distributed to staff nurses along with printed questionnaires. The letters and the questionnaires were distributed to the participants from nurse director to staff nurse. Nurses were asked to participate by completing the questionnaires and returning completed forms in the office of the nurse director.

Tools: 2 questionnaires were used to collect data.

Questionnaire 1: Corley's Moral / Ethical Distress Scale

This scale was designed to measure nurses' perceptions / experiences of ethical or moral distress in 23 clinical situations. Nurses were asked to indicate on a 7-point Likert scale: "0" indicating no moral or ethical distress or never occurring in practice and "7" denoting extreme distress or often occurring in practice.

Questionnaire 2: Nursing Stress Scale

This is a valid and reliable instrument used to assess workplace & occupational stressors among nurses. It was developed and tested for its validity and reliability by many researchers. [18 - 25] The scale consists of two parts:

A. Demographic data: This included: age, gender, marital status, number of children, nationality, educational degree, years of experience, working department and monthly income.

B. Workplace Occupational Stress Scale: A three-point Likert scale was used where low stress = 1, moderate stress = 2, and extreme stress = 3. The total number of statements included in the scale was 15; whereas, the total mean score was calculated by summating all statements for every nurse then dividing the total by 15. Cut-off points of the scale were as follows; low stress: 1 to < 1.99, moderate stress: 2 to < 2.99; high stress: 3. Slight modification in the statements of the scale was done by the researcher to be more suitable to the intensive care environment.

RESULTS

A total of 100 nurses who were employed in a variety of intensive care and emergency care units, including MICU (n= 16%), SICU (n = 14%), CCU (n = 16%) and ED (n= 54%). The highest frequency of nurses was those in the age group between 20 and 30 years (42%) and were females (82%) whereas the highest frequency of nurses were from the Philippines (57%) followed by Indians (25%). About (12%) of

nurses had 0 to less than 5 years of experience. The majority of the sample (65%) earned a monthly income less than 5000 SR. There was positive correlation between years of experience in nursing and ethical distress scores (r = .0443; P = .02). No other significant associations were found.

Table 1: Demographic Characteristics of the Participants

Characteristic	Number	Percent	Characteristic	Number	Percent
Age in Year			**Work Setting**		
20 - 30	42	42%	MICU	16	16%
31 - 40	28	28%	SICU	14	14%
41 - 50	18	18%	CCU	16	16%
51 - 60	12	12%	ED	54	54%
Nationality			**Years of Experience**		
Saudi	15	15%	0 - 5	12	12%
Philippine	57	57%	6 – 10	48	48%
Indian	25	25%	11 - 15	18	18%
Egyptian	3	3%	16 - 20	22	22%
Gender			**Income Per Month**		
Male	18	18%	Less than 5000 SR	65	65%
Female	82	82%	5000 SR +	35	35%
Educational Degree					
Diploma	60	60%			
Associates	19	19%			
Bachelor	21	21%			

Table (2): Ethical Distress Associated with Clinical Situations and Mean Frequency of Situation Occurrence

Ethical Situations	Mean Score*	(SD)	Mean Frequency*
Follow the family's wishes for the patient's care when I do not agree with them but do so because hospital administration fears a lawsuit.	3.4	(1.8)	2.84
Follow the family's wishes to continue life support even though it is not in the best interest of the patient.	3.19	(2.49)	0.74
Carry out a physician's order for unnecessary tests and treatments.	3.65	(1.74)	3.31
Initiate extensive life-saving actions when I think it only prolongs death.	3.45	(2.09)	2.67
Avoid taking action when I learn that a colleague has made a medication error and does not report it.	3.06	(2.00)	1.23
Allow medical students to perform painful procedures on patients solely to increase their skills.	4.12	(1.97)	2.86
Work with levels of nurse staffing that I consider 'unsafe'.	4.13	(1.90)	2.56

Continue to participate in care for a hopelessly injured person who is being sustained on a ventilator when no one will make a decision to 'pull the plug'	3.41	(2.24)	1.84
Observe without taking action when health care personnel do not respect the patient's privacy.	3.21	(1.88)	1.64
Follow the physician's order not to tell the patient the truth when he/she asks for it.	3.37	(2.39)	1.03
Assist a physician who in your opinion is providing incompetent care.	3.64	(2.19)	2.29
Discharge a patient when he has reached the maximum length of stay based on diagnostic related grouping (DRG), although he has many teaching needs.	3.37	(1.97)	1.53
Follow the family's request not to discuss death with a dying patient who asks about dying.	3.48	(2.15)	1.12
Providing care that does not relieve the patient's suffering because the physician fears increasing the dose of pain medication will cause death.	3.6	(2.27)	1.75
Not being able to offer treatment because the costs will not be covered by the insurance company.	3.68	(1.97)	2.86
Follow the physician's request not to discuss death with a dying patient who asks about dying.	3.07	(2.52)	0.6
Follow orders for pain medication even when the medications prescribed do not control the pain.	3.7	(1.89)	2.3
Work with nurses who are not as competent as patient care requires.	4.14	(1.93)	2.03
Work with nursing assistants who are not as competent as patient care requires.	4.12	(1.97)	2.24
Work with non-licensed personnel who are not as competent as patient care requires.	4.12	(1.97)	2.86
Work with physicians who are not as competent as patient care requires.	4.14	(1.93)	2.84
Work with support personnel who are not as competent as patient care requires.	4.13	(1.90)	2.56
Be required to care for patients for whom I am not competent to care.	4.12	(1.97)	2.86

*Items with a moral distress score & mean frequencies of greater than 3 were considered above the scale mid-point and were carefully examined managed.

Table (2) shows that, the most ethically distressing situations were working with physicians and nurses who were not as competent as patient care requires (M_/4.14; SD1.93), (M_/4.14; SD1.93). Nurses were also distressed when levels of nursing staffing perceived as 'unsafe' (M_/4.13; SD1.90), the competency of nursing assistants (M_/4.12; SD 1.97), support personnel (M_/4.13; SD 1.90) and non-licensed personnel (M_/4.12; SD 1.97) were not equal to the demands of patient care. Allowing to the medical students to perform painful procedures on patients solely to increase their skills was also ethically distressing situation (M_/4.12; SD 1.97). The frequencies varied but they were less than the scale mid-point (3). The RNs were distressed when following prescribed pain medication regimens that

were ineffective (M_/3.7; SD 1.89).

Table (3): Workplace stressors; Factor Analysis of Items of the Stress Scale.

Workplace Distress Factor	1	2	3
Dealing with death and dying			0.710
Conflict with physicians			0.473
Conflict with other nurses and supervisors			0.755
Workload			0.720
Uncertainty concerning treatment			0.752
Shortage of the Staff			0.693
Standing for long hours		.748	
Coping with high & new technology		.657	
Lack of support at or outside the work		.655	
Time pressures		.626	
Enclosed atmosphere	.752		
Excessive noise	.693		
Unpleasant sights and sounds	.690		
Situations in which nurses have little control over work	.690		
Inadequate preparation to deal with the emotional needs of patients and their families	.573		
3 = High Stress	2 = Moderate Stress	1 = Low Stress	

Table (3) shows the results of the Varimax rotation analysis. The rotation solution showed a number of strong variable loadings on the three components. Component1: nurses perceived that, these factors are associated with low level of stress. Component 2: nurses perceived that, these factors are associated with moderate level of stress. Component 3: nurses perceived that, these factors are associated with high level of stress.

DISCUSSION

Due to the negative consequences of moral and workplace distresses, the current study aimed to explore the critical care nurses' perceptions regarding the most morally distressing situations and the most common workplace stressors encountered in critical care environment. The results of the current study revealed that, all the moral distressing situations have been got score of greater than 3, so they were considered above the scale of mid-point and should be carefully attract the attention of the authority figures in the institution. Although the mean scores of distressing situations were greater than 3, they were varied in their frequencies. The most morally distressing situations occurred when nurses felt that the patients did not receive competent care either from the medical or nursing side. The context of morally distressing situations described in this study were in keeping with the consistent findings of other studies. These studies have been concluded that, moral distress will occur if insufficient numbers of staff, inadequately trained staff, and organizational policies and procedures make it impossible for nurses to meet the patients' and their families 'needs. [26-29] On the contrary to the current study, Davis and Wilkinson reported that, prolonging life and performing unnecessary tests and treatments on terminally ill patients were mentioned most often. [30]

Regarding to the CCNs' perceptions and experiences about stressful events in the critical care environment, results of the current study revealed that, the most stressful workplace situations that were associated with dealing with death and dying, conflict with physicians, conflict with other nurses and supervisors, workload, uncertainty concerning treatment, and shortage of the staff consequently. Eventually, such items got three on the scale are the basic elements for staff burnout and in turn leads to increased staff turnover. These dimensions were in concordance with other research results on nurse stress.[31,32] In another study by Lambert et al, they reported that, the workplace stressors are the same from one country to another, according to a cross-cultural study of workplace stressors. The highest-ranked stressors in the countries compared in the study were workload and dealing with death and dying.[33] In addition, stress caused by a heavy

workload—due to a shortage of staff in relation to the number of patients—is in line with findings in previous studies. [34,35]

CONCLUSION

Critical care nurses commonly encounter situations that are associated with high levels of ethical and workplace distresses that may have implications on the quality of patients' care, job satisfaction and job retention.

RECOMMENDATIONS

The following strategies might be helpful:

- Periodic meeting should be held with the ethical committee in the hospital in order to discuss the ethical situations that would cause moral distressing for the nurses.
- Social support and improved team cooperation could protect nurses against burnout.
- Creating opportunities for critical incident debriefing sessions
- Provision of a clear and relevant policy relating to counseling services

Ethical Clearance: This research was conducted as a part of presentation in a conference. Ethical approval was taken verbally from the nursing director.

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Disaster Management

Rachana Gupta

Prof cum Principal, Shreyas College of Nursing, GE Road, Supela, Bhilai, Chhattisgarh

ABSTRACT

Emergencies and disasters do not only affect health and well-being of people; frequently, large number of people are displaced, killed or injured, or subjected to greater risk of epidemics. Considerable economic harm is also common. Disasters cause great harm to the existing infrastructure and threaten the future of sustainable development.

Keywords: *Disaster, Types, Phases, Disaster cycle, Disaster management*

INTRODUCTION

Disasters are not confined to a particular part of the world; they can occur any where and at any time. Major emergencies and disasters have occurred throughout history and as the world's population grows and resources become more limited, communities are increasingly becoming vulnerable to the hazards that cause disaster. Statistics gathered since 1969 show a rise in the number of people affected by disasters. Since there is little evidence that the actual events causing disasters are increasing in either intensity or frequency, it can only be concluded that vulnerability to disaster is growing. For each disaster listed in officially recognized disaster database, there are some 20 other smaller emergencies with destructive impact on local communities that are unacknowledged.[7]

DEFINITION

According to WHO disaster is defined as "Any occurrence that causes damage, ecological disruption, loss of human life or deterioration of health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area"[1]

A "hazard" can be defined as any phenomenon that has potential to cause disruption or damage to people and their environment. Hazard is not as severe and alarming as disaster.[5]

Disasters are either natural or manmade. Examples for natural disaster are earthquakes, folds, droughts; cyclones and tidal waves, snow storms, at northern mountain region (Himalayas) etc.

Example for manmade disaster are atomic bombing at Hiroshima and Nagasaki, terrorist blasting at New York, bioterrorism etc.

TYPES OF DISASTER

The types of emergency vary according to the kind of disaster, and how when it strikes. In earthquakes, there is a high level of mortality, as a result of people being crushed by falling objects. The risk is greater inside or near dwellings but is very small in the open.

- **Natural**-Earthquakes, floods, droughts etc
- **Man**m**ade**-Atomic bombing, bioterrorism etc
- **Slow onset**-Famines, draughts etc
- **Sudden**-Cyclones, hurricanes etc.[4]

On the whole morbidity which results from a disaster situation can be classified into four types.

1. Injuries
2. Emotional stress;
3. Epidemic of diseases; and
4. Increases in indigenous diseases.[4]

The probable disasters that can occur in any country are:-

1. Earthquakes
2. Floods

3. Cyclones and Tidal waves
4. Sea erosions
5. Snowstorms
6. Fire
7. Volcanic eruptions
8. Famines
9. Heat waves
10. Hurricanes
11. Tornadoes
12. Land slides
13. Epidemics of infectious diseases
14. Leakage of toxic gases from industrial plant
15. Accidental collapse of multistoried buildings
16. Accidental burst of nuclear plants
17. Droughts
18. Wars
19. Clouds of toxic fumes
20. Train or airplane accidents, etc.[7]

PHASES OF DISASTER

1) Pre-disaster phase
2) Alert phase
3) Impact phase
4) Post-impact phase
5) Rehabilitation or reconstruction phase

- PRE- DISASTER PHASE: - The phase before the disaster strikes.

- ALERT-PHASE:- This is the period when a disaster is developing when it has not yet hit the community

- IMPACT-PHASE: - Impact may be sudden or slow onset. Sudden onset disaster is unpredictable. So there is less time available to face it. But in case of gradual onset type, the time is available, so we can save more lives, with less damage to the community.

- POST-IMPACT PHASE: - This is the phase following the actual impact of the disaster. The steps take during this phase are very important. Infectious diseases appear more during this phase. So, more active participation is needed.

- RECONSTRUCTION-PHASE:- This is a slow and long-term phase. It aims at getting the community back into the groove. Steps are also needed to be taken to prevent further attacks or episodes. [3]

DISASTER CYCLE

DISASTER MANAGEMENT : Disaster management can be divided into three phases:-

- Disaster response
- Disaster preparedness
- Disaster mitigation

These three aspects of disaster management corresponds to different phases in the so-called "disaster cycle" [5]

DISASTER RESPONSE

It is the immediate response once the disaster strikes. A number of causalities may be seen immediately after the disaster. Thus immediate care is needed at this phase. Important steps in management of disaster at this phase are:-

a) Preparatory activities (or disaster preparedness)
b) Search and rescue operations, including first aid.
c) Triage and stabilization of victims
d) Tagging
e) Hospitalization and treatment.
f) Identification of dead

- **Preparatory activities: -** It is a comprehensive approach to face a disaster. This phase starts with training about how to face a disaster once it strikes. It is a continuous process. The elements of this phase are:-

a) Education and training of health personnel, and important, interested members of the community
b) Involving (and collaboration) other sectors
c) Developing plan of action
d) Procurement of essential drugs and supplies
e) Inventory of resources.

- **Provider's Role in Disaster Preparedness (Pre-disaster Phase):-** Improving the communities awareness regarding disaster preparedness through suitable IEC activities is the first step. This followed by disaster mapping and activities like assessing the

needs of the community; helping the community to setup disaster preparedness teams and disaster preparedness plan, assist in planning for response to disaster and ensuring that adequate relief measures and medical (supplies) services reach the area.

- **Disaster Phase:** - first step is spreading advance warning of a disaster and assessing the situation of that area. Help rescue trapped people and providing first aid and emergency care. Organize transportation of victims. Deal with the post disaster health problems. Help in prevention of diseases occurrence and spread. Another important step is sanitary disposal of dead animals. Help to arrange shelter for people who have lost their home. Ensure adequate supply of protected water. Help to ensure accessibility to adequate nutrition. Proper sanitation of the area is a very important step; so ensure sanitary environment and help the affected people to counter wrong practices.

- **Supplies needed during the disaster (Cholera epidemic):**- Materials that are required during cholera epidemic are ORS packets, bleaching powder, chlorine tablets, antibiotics (e.g. tetracycline capsules), fluids and saline sets etc. During the epidemics of malaria, dengue, and Japanese encephalitis antibiotics, anti- malaria, drugs, disinfectants like DDT, BCG, and Paris green e.tc. And equipments for spraying operations, mosquitoes nets, mosquito repellents, slides and needles. Continuing causing injury like earthquake, accidents, (rail, road, air crash etc.), needs cotton, bandages, clothes, cleaning material, antibiotics, antiseptics, ointments etc.

- **Triage in disaster management:** - Triage is a different approach of medical treatment followed during severe epidemics where the number of causalities is very high (loss of lives is in thousands) and resources and medical supplies are limited. The principle of "first come, first treated", is not followed here. Triage consists of rapidly classifying the injured on the basis of the severity of their injuries and the likelihood of their survival with prompt medical intervention. High priority is given to victims whose immediate of long-term prognosis can be dramatically affected by simple intensive care. It is believed that triage is the only approach that can provide maximum benefit to the greatest number of injured in a major disaster, whether it is ethical or not. Internationally accepted Triage system is 'four colure code system'. Out of these four color red is indicates high priority care (treatment) or transfer (to equipped hospital), yellow signals medium priority; green indicates ambulatory patients; and black indicates for moribund or dead patients. Persons with minor or moderate injuries should be treated at their own homes to avoid social dislocation; the seriously injured should be transported to hospitals where specialized facilities are available.

- **Tagging:**- All patients should be tied with tags stating their name, address, triage category, diagnosis and initial treatment.

- **Relief Phase:**- Relief phase starts when assistance from outside to reach the disaster area. The type and quantity of supplies are usually determined by the type and quantity of supplies available locally. Immediately following a disaster the most critical health supplies are those needed for treating causalities and preventing the spread and sanitary equipment and construction material. Once the relief supplies have reached, the important components in the management are:

a) Acquisition of supplies

b) Transportation

c) Storage, and

d) Distribution

- **Epidemiologic surveillance and disease control**

Disasters can increase the transmission of communicable diseases through following mechanisms:

a) Over crowding and poor sanitation in temporary resettlements.

b) Population displacement may lead to introduction of communicable diseases to which either the migrant or indigenous populations are susceptible.

c) Disruption of water supplies or contamination of water supplies and damage to sewerage system and power supplies is common in natural disasters.

d) Disruption of routine control programmes as funds and personnel are usually diverted to relief work.

e) Ecological changes may favour breeding of vectors and increase the vector population density.

f) Displacement of domestics and wild animals, which carry with them zoo-noses that can be transmitted to humans as well as to other animals. Leptospirosis cases have been reported following large floods (as in Orissa, after super cyclone in 1999). Anthrax has been reported occasionally.

g) Provision of emergency food, water and shelter in disaster situation from different sources may itself be a source of infectious disease. [7]

- **Vaccination** health authorities are often under considerable public and political pressure to begin mass vaccination programmes usually against typhoid, cholera and tetanus.

- **Nutrition** A natural disaster may affect the nutritional status of the population by affecting one or more components of food chain depending on the type, duration and extent of the disaster, as well as the food and nutritional conditions existing in the area before the catastrophe.

- **Rehabilitation** The final phase in a disaster should lead to restoration of the pre-disaster conditions. Rehabilitation starts from the very first moment of a disaster.[5]

DISASTER PREPAREDNESS

It is a "programme of long term development activities whose goals are to strengthen the overall capacity and the capability of a country to manage effectively all types of emergency and bring about an orderly transition from relief through recovery, and back to sustained development." The objective of disaster preparedness is to ensure that appropriate systems, procedures and resources are in place to provide prompt and effective assistance to disaster victims, thus facilitating relief measures and rehabilitation is the cornerstone for the development of any community.[1]

The individuals are responsible for their development. The reasons of community preparedness

- Sustained development is best achieved by allowing emergency affected communities to design, manage and implement internal and external assistance programmes.

- Resources are most easily pooled at community level and every community possesses capabilities. Utilization of these resources is the best possible method to attack future disasters.

- Members of the community have the most to lose from being vulnerable to disasters and the most to gain from effective and appropriate disaster management programmes.

- Those who first respond to a disaster comes from the same community and so they can manage the situation effectively; even the communication systems are badly affected and external support comes late. Disaster preparedness is an ongoing multicultural activity. It forms an integral part of nat ional programmes for disaster prevention, management, rehabilitation and reconstruction.[2]

- **Policy development** It is the formal statement of a course of action.[2]

- **Personal protection in different types of emergencies** By taking precautions, the individual assists the collective effort to reduce the effects of an emergency.[2]

DISASTER MITIGATION

Disaster preparedness and mitigation involve measures designed either to prevent hazards or to lessen the likely effects of disaster. These measures include flood mitigation works, appropriate land using techniques and protection of vulnerable population and structures. The most common mitigation works are aimed at the reduction of vulnerability of the system. Medical causalities can be drastically reduced by improving the structural quality of houses, schools, and other public and private buildings. Although mitigation in these sectors has clear health implications the direct responsibility of the health sector is limited to ensuring the safety of health facilities and public health services (like water supply, sewage system etc.). Thus, mitigation complements the disaster preparedness activities.[7]

MAN-MADE DISASTERS

Man is more intelligent, more creative, but more destructive also. The most useful creations made by him may turn into disasters. These are unintended and unwanted, but cause severe destruction and fatalities. Some of these are accidental while some may be intended also. Some are preventable and some are unpreventable. [3]

These can be divided into four categories:-

1) Sudden and unintended (Bhopal gas tragedy):- Bhopal gas tragedy in India occurred on 3-12-1984. Leakage from the storage tank of pesticide plant of Union Carbide's company, led to release of tons of methyl isocyanate gas into air. This caused morbidity of 20 lakhs people and mortality of 3000. People are still suffering from ill effects of the gas. Another example is blast in the Chernobyl nuclear power plant which occurred in former USSR on 26-04-1986.

2) Insidious and unintended disasters:- Slow leakages of poisonous gases from factories; insidious chemical exposures or insidious radiation exposures as in nuclear weapons productions plants, research laboratories resulting in release of radioactive substances into the air, soil and water, chemical plans releasing their toxic byproducts into rivers, sea etc.

3) Insidious and intended:- Second World War, which led to death of millions of people. Indirectly it helped in formation of Red Cross Society.

4) Sudden and intended:- Civil conflicts commonly seen in African countries and terrorists attack in USA. [3]

DISASTERS IN INDIA

With a wide range of topographic and climatic conditions, India is the highly disaster prone country in Asia-Pacific region with an average of 8 major natural calamities a year.

Frequent disasters from time to time

- Floods
- Draughts
- Cyclones
- Earthquakes
- Epidemics
- Major accidents in railways, mines & factories

Disasters in Northern mountain region including the foot hills are:

- Snow storm
- Land slides
- Earthquakes

Eastern coastal areas are prone to:

-Severe floods and

-Cyclones

Western Areas are prone to Draughts

Man Made Disaster

India also saw world's worst man-made disaster in 1984, when methyl isocyanate gas leaked at Union Carbide pesticide Plant in Bhopal killing about 3,000 people.[6]

Disaster impact in some states in India 2000-2001[6]

State	Type of disaster	Districts affected	Villages affected	Population affected (000)	Human life lost
Andhra Pradesh	Heavy rains/ Floods	18	4522	29.35	257
Arunachal Pradesh	Heavy rains/ Floods/land slides	4	30	0.42	26
Assam	Heavy rains/ Floods	19	3474	36.09	32
Bihar	Heavy rains/ Floods	33	11696	79.72	273
Gujarat	Floods/ earthquakes	10 24	389	4.08	116 16480
Uttar Pradesh	Heavy rains/ Floods	49	6893	48.40	400
West Bengal	Heavy rains/ Floods	9	1412	218.18	1320

CONCLUSION

Indian Meteorological Department (IMD) plays a key role in forewarning the disaster. It has five centres in Kolkata, Bhubaneswar, Vishakhapatnam, Chennai and Mumbai for detection and tracing of cyclone storms. Satellite imagery facilities and cyclone warning radars are provided to various Cyclone Warning Centres. In addition, it has 31 special observation posts set up along east coast of India.[7]

As a part of the international Decade for Natural Disaster Reduction activities, every year, the second Wednesday of October has been designated as *World Disaster Reduction Day*.[7]

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Lifestyle Practices among Students of Different Nationality in a Selected University

Sulochana B[1], Linu Sara George[2]

[1]Associate Professor, [2]Professor and Head Dept. of Fundamentals of Nursing, Manipal College of Nursing Manipal, Manipal University, Manipal, Karnataka, India

ABSTRACT

A healthy lifestyle is one that concerns with good physical and mental health. Physical health can be achieved by following a healthy diet, adequate rest and sleep and doing regular exercise.

A cross-sectional survey study was conducted to assess the lifestyle practices among 250 students of selected institutions of a University. The objectives were to assess the lifestyle practices of students; find the relationship BMI and lifestyle practices. The data were collected by administering a self-reported lifestyle practice scale. The content validity of the tool was established by giving to seven experts from different disciplines and modifications were made according to the suggestions. Reliability was established by using Cronbach alpha, the value estimated was 0.7. Purposive sampling technique was used in order to select the participants. Descriptive and inferential statistics were used for analyzing the data. The results showed that the percentage of students belongs to less than 20 years of age was 70.8%. Most of the students ie 43.6% of them having 56 to 75kg weight and 42% with height of 161 to 170 cm. Majority (63.2%) of students were females and 87.2% with undergraduate education belongs to Hindu religion (37.6%). There was no relationship between lifestyle practice and nationality.

Keywords: *Health status, habits and behaviour, students, lifestyle practices*

INTRODUCTION

Adolescence is one of the stages of development of human beings. It is a transitional stage of physical, mental and human development of a person. Adolescent population and health of adolescents is a very special issue and therefore, focus of attention globally for various reasons. It is well known and documented that physical activity, diet and nutrition play important roles in maintaining health and preventing diseases[1]. Decrease in morbidity and mortality associated with lifestyle diseases may be achievable if satisfactory nutritional habits are adopted in early life and maintained in the long term[2,3]. During adolescence, young people are assuming responsibility for their own eating habits, health attitudes and behaviors[4]. Participation in health-enhancing physical activity is a key determinant of energy expenditure in youth and leads to improved cardiovascular and metabolic fitness as well as enhanced bone health[5,6]. Persistent physical inactivity, on the other hand, is detrimental to health and well-being[7,8] and it was shown to be associated with a less healthy lifestyle[9].

Generally, the context in which an individual lives is of great importance for his health status and quality of life. It is increasingly recognized that health is maintained and improved not only through the advancement and application of health science, but also through the efforts and intelligent lifestyle choices of the individual and society. According to the World Health Organization, the main determinants of health include the social and economic environment, the physical environment, and the person's individual characteristics and behaviors[7].

A descriptive study was conducted among 60

Corresponding Author :
Mrs, Sulochana B
Associate Professor
Dept of Fundamentals of Nursing
Manipal College of Nursing Manipal
Manipal University, Manipal, Karnataka, India
Email: Sulochana.k@manipal.edu
Tel +9108202923126, Mobile: +919844995784

adolescent participants (30 males and 30 females) ranging in age from 14 to 18 years of age (M = 14.88, SD = .64). The researchers selected the adolescents from a large, public high school in the Midwestern United States in order to examine the general eating practices and nutritional intake of students. The researchers utilized the Food Frequency Questionnaire (Board of Trustees of Leland Stanford Junior University, 1994): a self-report questionnaire regarding specific food consumption in the past 7 days. Researchers found that teens reported information consistent with current national statistics on the relatively poor eating behaviors and nutritional practices of teenagers[10].The purpose of this study was to describe the lifestyle practices among students.

MATERIALS AND METHOD

A cross-sectional survey design was employed. The students were chosen from the list which was obtained from the statistics bureau of university. The inclusion criteria were; the student should not have Indian residence, who born and brought up in their own country and student who is enrolled in a professional course. Purposive sampling technique was utilized to select 250 students from selected institutions of a University. The data were collected from the participants by administering the life style practice scale after obtaining the informed consent.

Instrument: The lifestyle practice scale was developed by reviewing the related literatures. The scale had two sections; section I had baseline data, section II had questions on life style practices. The domain of section II were Physical activities, sleep, relationship, Nutrition, religious practices, use of Alcohol, stress and environment. The rating scale consisted of four responses; always, sometimes, rarely and never. The positive response was scored 4-1 and negative response was scored 1-4. The content validity of the tool was established through experts from the field of nursing, clinical psychology and public health. Modifications were done as per the experts suggestions. Reliability was established by administering the tool to 20 students and computed by using Cronbach alpha, the value estimated was **r** = 0.7.

The survey was approved by the institutional research committee and permission was obtained from the University as well as the concerned institutions. Informed consent was obtained from the participants. Confidentiality of the responses were assured.

RESULTS

The descriptive statistics (frequency and percentage) was used to describe the demographic characteristics and item wise description of the lifestyle practices. SPSS 16.0 was utilized for the statistical analyses.

Table 1 indicates that 70.8% of the students belong to less than 20years of age with 43.6% of them having 56 to 75kg weight and 42% with height of 161 to 170 cm. Majority (63.2%) of students were females and 87.2% with undergraduate education belongs to Hindu religion (37.6%). Majority (52.8%) of the student populations were from Malaysia.

Table 1: Sample characteristics n = 250

Sample characteristics	Frequency(f)	Percentage(%)
Age in years		
<20	177	70.8
21-30	73	29.2
Gender		
Male	92	36.8
Female	158	63.2
Weight in kg		
36-55	105	42
56-75	109	43.6
76-95	33	13.2
96-115	3	1.2
Height in cm		

Table 1: Sample characteristics n = 250 (cont...)

141-150	13	5.2
151-160	64	25.6
161-170	105	42
171-180	47	18.8
181-190	21	8.4
Education		
Diploma	13	5.2
Under graduate	218	87.2
Post-graduation	19	7.6
Religion		
Hindu	33	13.2
Muslim	69	27.6
Christian	45	18.0
Buddhism	94	37.6
Sikh	5	2.0
Taoism	1	0.4
Bahai	1	0.4
Not believing in god	2	0.8
Country		
Malaysia	132	52.8
United states	58	23.2
Nigeria	12	4.8
Canada	18	7.2
Tanzania	5	2
Tibet	25	10

Item wise description of the lifestyle practices was given in table 2.

Table 2: Item wise description of lifestyle practices **N=250**

Sl No	Items	Never %	Rarely %	Sometimes %	Always %
1	I perform exercise 2 to 3 times in a week	3.2	26.4	40.4	30
2	I engage myself in games	14.8	29.2	45.2	20.8
3	I go a walk for at least 15 to 20 mts in a day	5.2	18	28.4	48.4
4	I engage in leisure activities	-	11.6	49.2	37.6
5	I often climb stair rather than using a lift	2.0	14.8	56.4	26.8
6	I sleep for 6 to 8 hours per day	1.2	20.4	42	36.4
7	I sleep or lie down during leisure time	23.2	50.4	23.2	3.2
8	I take sleep including substances	5.6	4.4	8.8	81.2
9	I have strong sense of support from my family members	0.4	1.6	10.8	87.2
10	My relationship with family members is happy and satisfying	-	1.2	12.0	86.8
11	I find time to help others	0.4%	2.8%	60.4%	36.4%
12	I have close friends	0.4%	2.4%	21.6%	75.6%
13	I seek help from my friends/relatives/teachers in times of trouble	0.8%	6.8%	38.8%	53.6%
14	I eat three meals per day	2.8	9.2	35.6%	52.4%
15	I eat breakfast everyday	4.8	10.8	37.6%	46.8%
16	I take fresh fruits/raw vegetable/green leafy vegetable	2.0	16.8	49.6%	31.6%

Table 2: Item wise description of lifestyle practices (Cont...)

17	I prefer to take fast foods/tinned or processes food	6.0	46.8	40.4%	6.8%
18	I eat foods and sweets	14.0	55.6	26.8%	3.6%
19	I eat excessively when feeling bored, depressed or anxious	17.2	38%	30.4%	14.4%
20	I take excess				
20a	a. sugar	16.8	31.2%	38%	14.0%
20b	b. salt	5.2	32.4%	44%	18.4%
20c	c. animal fat	6.4	28.8%	41.6%	23.2%
20d	d. junk foods	10.0	45.2%	31.6%	2.0%
21	I take carbonated drinks	9.6	35.6%	46.4%	8.4%
22	I drink 6 to 8 glasses of water in a day	3.6	16.0%	44.4%	36.0%
23	I drink more than 2 cup of tea or coffee in a day	21.2	36.4%	22.8%	19.6%
24	I drink alcoholic beverages	5.6	16.8%	14.0%	63.6%
25	Smoking helps me to relax	6.4	4.8%	4.0%	84.8%
26	I pray to God	6.4%	6.8&	29.6%	56.8%
27	I attend religious activities/ temples/ mosque/ churches/ gurudwara	6.0%	17.2%	41.6%	35.2%
28	I feel that faith gives me a strong sense of meaning and purpose to my life	3.6%	8.0%	26.4%	62.%
29	I feel that the spiritual beliefs affect absolutely every aspect of my life	4.0%	10.0%	31.6%	51.4%
30	I engage in healthy behaviors to care for my body as God's temple	4.8%	15.2%	41.6%	38.4%
31	I find it easy to relax	2.8%	14.4%	53.6%	29.2%
32	I feel tensed or anxious	11.6%	62.4%	22.0%	4.0%
33	I am able to cope with daily stresses	2.85	10.8%	56.0%	30.4%
34	I have the practice of fasting	37.6%	22.8%	23.6%	16.0%
35	I often skip my meals to get my work completed	9.2%	46.0%	27.2%	17.2%
36	I do perform yoga, meditation	50.4%	30.4%	15.6%	2.0%
37	I do have conflict with others	3.2%	28.4%	49.6%	18.4
38	I find it difficult to adjust with others	4.8%	32.8%	38.4%	24%
39	I feel others are able to understand me	3.6%	16.8%	59.2%	20.4%
40	I am adjusted with my present place of stay	2.0%	6.0%	46.4%	45.6%
41	I keep my bed room/ study room neat and tidy	4.8%	10.4%	41.6%	42.8%

One way ANOVA used to find the difference between nationality and lifestyle practices among students, the data in table 3 shows that there was no difference in lifestyle practices between different nationalities.

Table 3: One way ANOVA computed between lifestyle practices and nationality

Variables **Lifestyle Practices Scores and nationality**		**One Way ANOVA** **F Value**	**P Value**
Mean	88.39	1.871	0.075
SD	1.12		

Pearson's r correlation was computed to determine the relationship between BMI and life style practices as shown in table 4.

Table 4. Relationship between BMI and life style practices

Variable	**Mean**	**Mean difference**	**SD**	**`r' value**	**p value**
BMI	22.24	6.61	6.61	-0.131	0.039
Lifestyle practice scores	88.39		11.25		

There was a low negative relationship between BMI and lifestyle practices.

DISCUSSION

The present study aimed to analyze the life style practices among university students' population of different nationalities. Students studying professional courses in health care are considered prospective professionals with an important role in the future. For this reason, a healthy life style practice needs to be followed in their day to day life. The area wise percentage distributions as reported by the students are discussed below. In the present study 32.56% of the participants were always involved in physical activity. A study conducted among students attending a high school in Pretoria showed that 26% and 16% of the students reported that they participated in rigorous and moderate exercise, respectively. The study also showcased that majority of the students were not engaged in physical activities[11]. 35.76% of the participants reported that they maintain adequate rest and sleep. With regard to the relationship with family and friends 57.6% always maintained the relationship. 48.24% did not follow the positive nutritional practices. 10.72% of participants reported that they are not having the practice of taking alcohol beverages and smoking. A similar study finding also showed a high percentage of students who consumed alcohol (77%), especially at weekends and in high doses[12]. With regard to the religious practices 48.72% had given importance to spiritual dimension. 19.92% participants experienced some stress in their day to day life.

CONCLUSION

The present study concluded that there was no difference in the lifestyle practices among students of different nationalities. The adolescent group should be given with adequate awareness about the various practices which will help them to maintain their health promoting behaviors.

Acknowledgement: We express our sincere thanks to all the institutional heads for giving administrative permission to conduct the study and the participants for participating in the study.

Conflict of Interest - Nil

Source of Funding - Self

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Achieving 100% Reporting of Hypoglycemia in a Tertiary Care Hospital through a Structured Action Pathway & Persistent Monitoring Tool among Nurses

Sandhya Shankar Pandey[1], Ashutosh Chauhan[2]

[1]Division of Nursing Quality, Education and Training, Max Healthcare Limited, Delhi, INDIA ,
[2]Associate Professor, Department of Surgery, Command Hospital, Lucknow, INDIA

ABSTRACT

Background: Hypoglycemia is a feared complication of management of diabetic patients, especially in critical care setting. Reporting and management of hypoglycaemia is an reflection of quality of healthcare delivery

Aim: To evaluate success of a structured plan implemented in a tertiary care hospital in terms of an evidence based hypoglycemia management protocol, traingning & awareness among all nurses in the organization and promoting a reward based reporting system.

Patients and Method: A prospective observational study was conducted over 3 year period. A inhouse hypoglycaemia management protocol designed based on international guidelines. The protocol was included in the induction training programme of nurses and implemented in wards under guidance of master trainers. Each episode of hypoglycaemia reported and managed was logged into centralised database , Quality Flash Matrix(QF) . The QF was analysed at end of each 24 hours cycle to carry out a root cause analyses. Based on findings, the master trainers made appropriate correction in training modules. Data extracted from hospital records, patient case records and QF in terms of total number of cases receiving insulin, total number of episodes of hypoglycaemia documented and reported

Result: Incidence of hypoglycaemia recorded was 6.4,5.3,4.7 per 1000 patient hours for year 2009,10 and 11 respectively.The percentage of episodes of hypoglycaemia reported improved from 78% (1st quarter 2009) to 100% (4th quarter 2011). Root cause analysis showed change in diet of patient with no corresponding change in insulin and viceversa being the commonest cause for hypoglycaemia consistent over the study period.

Conclusion: Constant structured training of nurses , constant surveillance and appropriate feedback analysis results in decreased incidence of hypoglycaemia and increased reporting of episodes of hypoglycaemia.

Keywords *Hypoglycemia; nursing quality; education.*

INTRODUCTION

Hypoglycemia is one of the most feared complications of diabetes treatment. The incidence of hypoglycemia is increased in attempts to achieve euglycemia as recommended by current treatment guidelines and approximately 90% of all patients who receive insulin have experienced hypoglycaemic episodes.[1] There is a threefold increase in severe hypoglycaemia and coma in intensively treated patients versus conventionally treated patients.[2] It is recognised that the patients with hypoglycaemia have increased length of stay in hospital and higher mortality both during and after admission. Therefore

Corresponding Author :
Dr Ashutosh Chauhan
Associate Professor, Department of Surgery,
Command Hospital, Lucknow 226002
E-mail- bolubonkey@rediffmail.com

measures should be undertaken to decrease the frequency of hypoglycaemia in this high-risk patient population.[3] We describe results obtained in a tertiary care hospital wherein a structured plan was implemented which included designing an evidence base hypoglycemia management protocol, introducing structured training & awareness among all nurses in the organization and promoting a reward based reporting system.

MATERIAL AND METHOD

Study design:Prospective, observational

Study period : 03 years , Jan 2009-Dec2011

Methodology: Following sequence of events were implemented

(i) Hypoglycemia was defined as blood sugar level < 70 mg/ dl .A Hypoglycemia Management Protocol was designed based on ADA Formula 15[4].(Figure 1) This protocol was made available in each department of the hospital.

(ii) A hypoglycemia kit was constituted which included Sugar, Inj Dextrose and Inj Glucagon. This kit was made part of the crash cart available in each ward.

(iii)International Diabetic federation (IDF) certified Master trainers trained primary nurses in the wards to recognize clinical features of hypoglycemia and to institute remedial measures as first responders.

(v) Each incidence of hypoglycemia was logged into the hospital Quality Flash Matrix (QF). QF is the tracker where the clinical performance indicators are monitored round the clock in the hospital and hypoglycemia is one of the twenty six clinical performance indicators. (Figure 2)

(vi) At end of each 24 hour cycle, the master trainers reviewed the QF to carry out a root cause analysis of each incidence of hypoglycemia and reviewed the performance of the first responder. Based on this analysis, recommendations were generated which were implemented in the induction training protocol.

(v) Hypoglycemia management module was made an integral part of Nurses Induction Training Program for the hospital

(vi) The master trainers imparted on job training and carried out surveillance of the nurses in proper handling and administration and monitoring of insulin injections and infusions.

Data Collection: Following data was collected from central patient database and QF matrix

(i) Total number of patients receiving injection insulin as part of their treatment

(ii) Total number of episodes of hypoglycaemia recorded in patient data records

(iii) Total number of episodes of hypoglycaemia reported on Quality Flash Matrix

(iv) Root cause analysis of each episode of hypoglycaemia

FINDINGS

During the study period, there was a steady decrease in episodes of hypoglycaemia noted in the in-patients who were on injectable insulin or oral hypoglycaemic agents (OHAS) (Table 1). The incidence of actual incidences of hypoglycaemia in the in-patients and those reported are summarised in Table 2. It is noted that there was a steady upwards trend noted over the three years about reporting of episodes of hypoglycaemia till the last two quarters on 2011 recorded 100% reporting. Root cause analysis showed change in diet of patient with no corresponding change in insulin and vice-versa being the commonest cause for hypoglycaemia consistent over the study period. (Table 3)

DISCUSSION

It is well documented that intensive insulin therapy significantly increased the risk of hypoglycaemia.[5] In critically ill patients, intensive glucose control leads to moderate and severe hypoglycaemia, both of which are associated with an increased risk of death.[6] In a study evaluating association between moderate/ severe hypoglycemia and death among 6026 critically ill patients in intensive care units (ICUs), it was noted that the adjusted hazard ratios for death among patients with moderate or severe hypoglycaemia, as compared with those without hypoglycaemia, were 1.41 (95% confidence interval [CI], 1.21 to 1.62; P<0.001) and 2.10 (95% CI, 1.59 to 2.77; P<0.001), respectively.[7] It has also been documented that episodes of hypoglycaemia increases length of stay and adds to financial burden of healthcare cost.[8]

Thus it is evident that health care providers need to minimise the incidence of hypoglycaemia. It is seen that (a) lack of adequate awareness to recognise early hypoglycemia; (b)inadequate or inappropriate recording /reporting of hypoglycaemia; (c)lack of quality root cause analyses for every hypoglycemic incident and, (d) delay in treating hypoglycemia due to lack of standardized protocol are the major factors contributing to the morbidity and prolonged hospital stay for the diabetic patients.[6-9] In recent years , there has been an increasing emphasis on nurse led diabetic management. It is recognised that implementation of a nurse-led, conservative intravenous insulin protocol in the intensive care unit and wards is effective,safe and markedly reduces the rate of hypoglycaemia.[10-12] Recognising that ward nurse are the" first responder" to hypoglycaemic crises, the programme of training all nurses in evidence based management of hypoglycaemic episodes was initiated in our Hospital.

Recognising, reporting and treating hypoglycaemia in hospitalised patients needs to be assessed as a measure of quality of healthcare being provided by a healthcare setup. The quality of health care is on the agenda in most health care systems. Assessing the quality of care has become increasingly important to providers, regulators, and purchasers of care. In recent years, providers have begun to be interested in evidence-based medicine and purchasers have begun to focus on the cost-effectiveness of health care in producing health outcomes.[13,14] Clinical Indicators can be defined as measures that assess a particular health care process or outcome. They are seen as a valuable quantitative tool for quality assurance, particularly if collected as part of a more comprehensive programme.[15] Reporting of incidence of hypoglycaemia in a patient , institution of remedial measures and recording successful outcome(or lack of same) is one of the important clinical indicator related to process as well as outcome.[16,17]

The emphasis on nurses driven reporting, recording and documentation of hypoglycaemia at our Institution has resulted in 100% reporting of all hypoglycaemic episodes. Introduction of a new stream of specialty nurses in the system- Diabetes Nurse Educator- has added value and enhanced the quality of nursing care delivered to the diabetic patient. It is recognised that use of group clinical supervision with an executive co-coaching approach for the implementation and to sustain quality service demands that 'good nursing' is accepted as being synonymous with 'good management'.[18] Our experience is in consonance with previously reported literature wherein a diabetes management mentor programme enhances the skill set of bedside nurses in dealing with complications arising from treatment of diabetes mellitus.[19] In our experience, this has resulted in steadily improving efficacy in terms of the ward nurses successfully tackling events of hypoglycaemia. The practice of regular root cause analyses of all episodes of hypoglycaemia has helped to steadily reduce the episodes of hypoglycaemia in the in-patients admitted in the hospital. Root cause analysis of hypoglycaemic events indicated that by far the commonest reason for hypoglycaemia is change in type or quality of nutritional intake without concomitant dose adjustment of insulin or OHA. Similarly, next common reason appears to be alteration in insulin/OHA dosage. It has been documented that use of bicarbonate-based substitution fluid during continuous venovenous hemofiltration, a decrease of nutrition without adjustment for insulin infusion, a prior diagnosis of diabetes mellitus, sepsis, and need for inotropic support were found to be associated with hypoglycemia. Simultaneous use of insulin and octreotide may also be associated with hypoglycemia.[20]

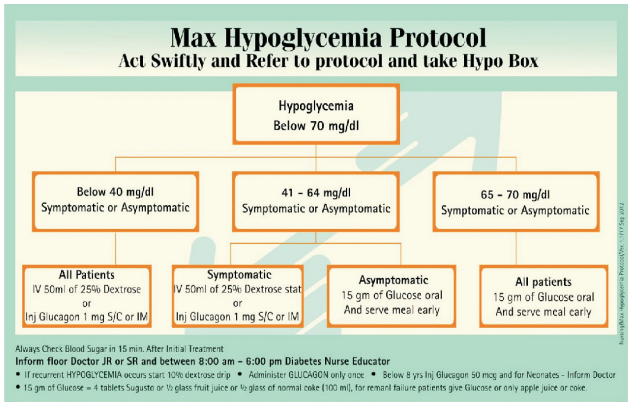

Figure 1 : Hospital Hypoglycemia Protocol

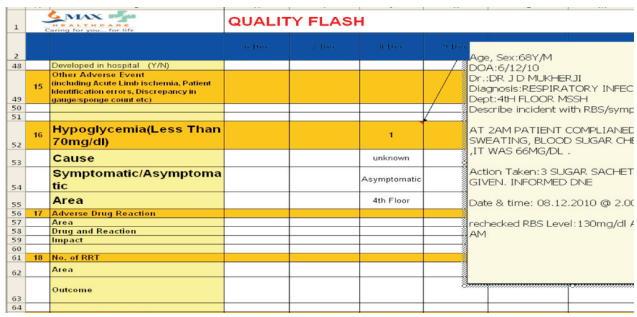

Figure 2 : Quality Flash Matrix

Table 1: Incidence of Hypoglycemia in in- patients

Year	No. of patients on injectable insulin/ OHA	No of patient days	Episodes of hypoglycemia	Incidence of hypoglycemia
2009	256	6913	447	6.4
2010	279	7622	404	5.3
2011	213	6618	312	4.7

Table 2: Actual episodes of hypoglycaemia in in-patients & incidences reported

Time Period	**Actual episodes of hypoglycaemia(n)**	**Instances of hypoglycaemia reported by nurse (n)**	**Percentage of instances reported (%)**
2009			
1st quarter	128	101	78%
2nd quarter	113	86	76%
3rd quarter	135	111	82%
4th quarter	101	81	80%
2010			
1st quarter	107	93	87%
2nd quarter	116	110	94%
3rd quarter	94	89	95%
4th quarter	87	83	95%
2011			
1st quarter	83	76	92%
2nd quarter	91	88	97%
3rd quarter	72	72	100%
4th quarter	66	66	100%

Table 3 : Root cause analyses for incidence of hypoglycemia

Root cause	**Episodes of hypoglycemia (n)**			
	Year 2009 (n=447)		**Year 2010 (n=404)**	**Year 2011 (n=312)**
Change of diet with no corresponding change in dose	235		232	167
Change in dosage of insulin/OHA	134		109	84
Starvation/Fasting	23		15	12
Sepsis	17		11	16
Concomitant medication	14		19	11
Pancreatic endocrine tumor	03		02	04
Medication error	05		06	02
Pregnancy	05		03	11
Adrenal Insufficiency	02		Nil	01
No cause identified	09		07	04

CONCLUSION

The study shows that implementation of a structured training pathway and persistent monitoring results in cent percent reporting of episodes on hypoglycaemia in in-patients. This results in prompt recognition and treatment of the same thus potentially reducing the morbidity associated with hypoglycemic episodes. This indirectly reflects the quality of nursing care being imparted and hence serves as one of benchmarks of overall quality of healthcare.

Acknowledgement -Nil

Conflict of Interest – Nil

Source of Funding- Nil

Ethical Clearance- Not required

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Effectiveness of Self-Instructional Module on Airway Management Modalities among Staff Nurses

Bithika Gogoi[1], Mayengbam Benita Devi[2], Arline Beshra[3]

[1]M.Sc (N) Student, [2]Associate Professor, [3]Assistant Professor, Sankar Madhab College of Nursing, Gandhinagar, Panikhaiti, Guwahati, Assam

ABSTRACT

The study was undertaken to evaluate the effectiveness of self-instructional module (SIM) on airway management modalities among 60 staff nurses in down town hospital, Guwahati, Assam. Non-probability convenience sampling technique was used for selection of sample. Pre-test was administered by using structured knowledge questionnaire on airway management and self-instructional module (SIM) was given on the same day after completion of pre-test. On the eight day post-test was conducted using knowledge questionnaire. The findings revealed that the mean of post-test knowledge score (23.70) obtained by the staff nurses was higher than the mean of pre-test knowledge score (17.25). There was significant difference between the mean post-test and pre-test knowledge score (t_{59}=12.66, $p<0.05$). There was no association between the pre-test knowledge scores and selected variables at the level of $p<0.05$.

Keywords: *Self-instructional module, airway management modalities.*

INTRODUCTION

Airway management is the medical process of ensuring there is an open pathway between a patient's lungs and the outside world, as well as ensuring the lungs are safe from aspiration. Airway management is a primary consideration in cardiopulmonary resuscitation, anaesthesia, emergency medicine, intensive care medicine and first aid. Airway management is a high priority for clinical care. This is because if there is no airway, there can be no breathing, hence no oxygenation of blood and therefore circulation (and hence all the other vital body processes) will soon cease. The 'A' is for 'airway' in the 'CAB' (chest compressions-airway-breathing) of cardiopulmonary resuscitation according to the 2010 American Heart Association and International Liaison Committee on Resuscitation CPR guidelines.[1]

Corresponding author:
Mayengbam Benita Devi
Associate Professor
Sankar Madhab College of Nursing, Gandhinagar, Panikhaiti, Guwahati-781026. Assam
E-mail-: benitadevi@gmail.com

Respiration is a basic human need that man tends to ignore unless they feel some difficulty in breathing. Respiration is a physiological function that is almost synonymous with being alive. Patient experiences difficulty in breathing as a threat to life itself. Patient airway is very essential for effective breathing. Airway patency is usually maintained by action of the mucocilliary system when normal amount of mucus is produced. When airway clearance cannot be accomplished via involuntary physiological mechanism then collaborative nursing intervention is needed such as, endotracheal suctioning to achieve optimal patient outcomes.[2]

The investigator observed that the staff nurses in general do not use appropriate oxygen delivery devices, suctioning techniques and airway management skills. So the investigator felt the importance of refreshing the knowledge of staff nurses using self-instructional module to enhance the quality of nursing care.

REVIEW OF LITERATURE

A randomized controlled trial conducted in UK to determine whether individualized performance feedback improved nurses and physiotherapists

knowledge and practice of tracheal suctioning. 95 qualified healthcare professionals were included. In both settings, intervention groups performed statistically significantly better in terms of knowledge (P=0.014) and practice (P=0.037) at final follow up. Those who received performance feedback had statistically significant higher knowledge (P=0.004) and practice (P <0.01) scores than the control group. For practice there was also a relationship between professions (P <0.01), with physiotherapists performing better than nurses overall, and an interaction between group and setting (P < 0.01), with performance feedback showing a stronger positive effect in the simulation setting. This study concluded that retention of knowledge and tracheal suctioning practices are improved when training is followed up by tailored feedback on performance.[3]

A qualitative study was conducted at Melbourne on patients and nurses perspectives on oxygen therapy. Face to face interview with a convenience sample of 37 adult patients and 25 intensive care unit nurses were conducted. The study showed significant differences between the patients and nurses perspective of oxygen therapy. The study recommended further research to provide an in depth understanding of the current oxygen administration practices of nurses and the patient factors that enhance or hinder effectiveness of oxygen therapy.[4]

MATERIAL AND METHOD

The objectives of the study were to-

- assess the pre-test knowledge scores of staff nurses regarding airway management modalities.
- assess post-test knowledge scores of staff nurses regarding airway management modalities.
- evaluate the effectiveness of self-instructional module on knowledge of staff nurses regarding airway management modalities.
- find out the association between the knowledge scores of staff nurses regarding airway management modalities and selected demographic variables.

The conceptual framework used for present study was based on General System Theory by Ludwig Von Bertalanffy (1969) which is explain by Putt AM (1978).

Research approach- Evaluative approach

Research design- Pre-experimental one group pre-test post-test design.

Population- The study population for this study included staff nurses working in critical care areas.

Sample and sample size- Sixty staff nurses.

Data collection procedure- Non-probability convenience sampling technique was used for selection of sample. Pre-test was administered by using structured knowledge questionnaire on airway management and self-instructional module (SIM) was given on the same day after completion of pre-test. The questionnaire consisted of two sections: Section A to collect the demographic proforma, Section B consisting of knowledge questionnaire on airway management modalities. On the eight day post-test was conducted using same knowledge questionnaire.

FINDINGS

- Most i.e. 40 (66.6%) staff nurses were GNM, 12 (20%) BSc. Nursing and 8 (13.4%) were PB BSc. Nursing.
- The staff nurses areas of posting were ICU/ ICCU 16 (27%), SICU 8 (13%), A/E 7 (11%), Recovery 10 (17%) and OT 19 (32%).
- In relation to year of working experience of the staff nurses 48 (80%) had 1-3 years, 9 (15%) had 4-5 years and 3 (5%) had 6-9 years of experience.
- In relation to exposure of in-service education programme related to airway management were 44 (73%) and 16 (27%) staff nurses were not exposed to any kind of in-service education programme related to airway management.
- In pre-test majority i.e. 55 (91.67%) staff nurses had inadequate knowledge and only five (8.33%) staff nurses had adequate knowledge regarding airway management modalities. In post-test most i.e. 34 (56.67%) staff nurses had adequate knowledge and 26 (43.33%) staff nurses had inadequate knowledge regarding airway management modalities. Fig 1 indicates the frequency of pre-test and post-test knowledge scores of the staff nurses regarding airway management modalities which clearly indicates the increase in score from pre-test and there was

significant difference between the mean post-test and pre-test knowledge score (t_{59}=12.66, p<0.05) (Table 1).

Fig 1: Line graph showing frequency distributions of the pre-test and post-test knowledge score of the staff nurses on airway management modalities

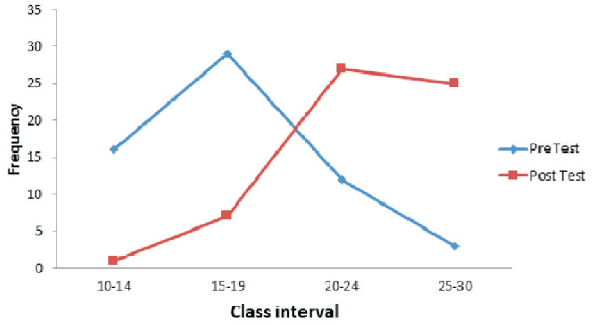

Table 1: t-value of pre-test and post-test knowledge score staff nurses on airway management modalities

n=60

Knowledge score	Mean	t- value	df	P- value
Pre test	17.25			
Post test	23.70	12.66	59	<0.05

There was no association between the pre-test knowledge scores and selected variables like educational status, area of posting (ICU/ICCU, SICU, A/E, OT and recovery), year of working experience and exposure to any in-service education programme related to airway management.

CONCLUSION

Based on the findings of the present study the following conclusions are made:

- The self-instructional module was found to be effective strategy for improving the knowledge of the staff nurses on airway management modalities.
- There was no significant association between pre-test knowledge score and demographic variables such as educational qualification, area of posting, year of working experience and exposure to any in-service education programme related to airway management modalities.

Acknowledgement: The researchers acknowledge contribution and cooperation provided by the authority of the institution and staff nurses who participated in the study.

Conflict of Interest: The researchers declare that they have no financial or personal relationship(s) which may have influenced them inappropriately in writing of this study.

Source of Funding: Self

Ethical Clearance: Ethical clearance for the study was obtained from the Institutional Ethical Committee. In addition, informed written consent was obtained from the staff nurses and they were assured of both anonymity and confidentiality.

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A Study to Assess the Knowledge among Mothers of Under Five Children Regarding Immunization in Selected Villages of Punjab

Varinder Pal Kaur

Lecturer, Army College of Nursing, Jalandhar Cantt, Punjab

ABSTRACT

An exploratory study was conducted to assess the knowledge among mothers of under five children regarding immunization in selected villages of Moga, Punjab. A non experimental research design is utilized for this study. A sample of 100 mothers of under five children were selected from two 4 anganwadis of above 2 villages by using simple random sampling (Lottery) method. The findings of the study revealed that 12% of mothers had good knowledge, 40% of mothers had average knowledge and 48% of mothers had below average knowledge regarding immunizaton. The mean percentage of mothers knowledge regarding immunization according to different aspects was higher in Polio (76.2%) followed by BCG (62.5%), General information (58.8%), DPT (57.8%), Measles (56.6%), Definition (48%) and TT (47.5%). And the total mean percentage of mothers knowledge regarding immunization is (69.12%). There was statistically significant effect of Age, Qualification, Occupation of mother, Family monthly income in rupees, Religion, Number of children and Source of information on knowledge regarding immunization but type of family, Distance of health centre from home and Previous history of illness to child had no impact on knowledge regarding immunization among mothers of under five children. So the study concluded that the level of knowledge was vary according to different demographic variables.

Keywords: *Knowledge Regarding Immunization, Mothers of Under Five Children.*

INTRODUCTION

"The child must know that he is a miracle, that since the beginning in the world there hasn't been, and until the end of the world there will not be, another child like him"

A good indicator of accessibility and outreach in the health care sector is the state of childhood immunization. Immunization is a simple preventive service; it is independent of need and is normally provided free of charge at all public health care facilities. Immunization forms one of the most important and cost effective strategies for the prevention of childhood sicknesses and disabilities and is thus a basic need for all children. Immunizat ion is a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert over two million deaths each year. Immunization can be delivered effectively through outreach activities; and vaccination does not require any major lifestyle change.

Every infant is entitled to the possible protection against diseases; obviously infant cannot take proper precautions. This care extends beyond the daily needs for food, sleep, cleanliness, love and security. Protection is available against a number of serious or disabling diseases such as diphtheria, tuberculosis, poliomyelitis etc making it necessary to take chances with a child's health due to inadequate immunization. **Margaret Marks G (2000)**[1]. Immunization has been one of the most significant, cost-effective and stimulatory public health interventions. India, along with the whole world, stands committed to the welfare of children, as reflected in the theme of 'World Health Day, 2005,' viz., 'Make every mother and child count. The most important indicators mentioned in the Millennium Development Goals (MDGs) are the under-5 mortality rate (U5MR), infant mortality rate (IMR) and proportion of 1-year-old children immunized against measles. About one-quarter, or 25%, of under-5 mortality is due to vaccine-preventable diseases. The World

Health Organization (WHO) launched the Expanded Program on Immunization (EPI) in 1974 globally with focus on prevention of the six childhood vaccine-preventable diseases by the year 2000. This was endorsed by the Government of India in 1978. Later, on November 19, 1985, the Universal Immunization Program (UIP) was introduced in India with the objective to cover at least 85% of all infants by 1990. Further, a national socio-demographic goal was set up in National Population Policy (NPP) 2000 - to achieve universal immunization of children against all vaccine preventable diseases by 2010. **Nath Bhola et al., (2007)**[2]. Universal Immunization Programme aims at completing the primary immunization for all the children in the country by the time children become one year old. Despite all the efforts put by governmental as well as non-governmental institutes for 100% immunization coverage, there are still pockets of low coverage areas that constitute high-risk areas for the vaccine preventable diseases. **Lodha R et al., (2000)**[3].

OBJECTIVES OF THE STUDY

1. To assess the knowledge of mothers of under five children regarding immunization.

2. To determine the relationship between knowledge and selected demographic variables like Age of mother, Occupation of mother, Education of mother, Family income in rupees, Religion, Type of family, Number of children, Source of Information, Distance of health centre from home, Previous history of illness.

3. To prepare the pamphlets for deficit area regarding immunization.

METHODOLOGY

Research Approach	: Exploratory
Research Design is used for study	: A non experimental design
Setting	: Selected villages of Moga, Punjab
Population	: Mothers of under five children
Sample Size	: 100 mothers of 1-5 years children
Sampling technique	: Random sampling

MATERIAL AND METHOD

The study was conducted on mothers of under five children in two selected villages namely Ajitwala and Kokari Fula Singh, Moga. These two villages were selected by Lottery Method (Simple random sampling technique) from five villages coming under the mini PHC Kokari Kalan – the villages were Kokari Fula Singh, Ajitwala, Kokari Kalan, Kokari Heran, Matwani. The tool used in this study is a structured knowledge questionnaire. Content validity of the tool was confirmed by the expert's opinion regarding the relevance of the items. The pilot study was conducted in month of December 2010 to ensure the reliability of the tool and feasibility of the study. Reliability of the tool was estimated by Split half technique, which was found to be r = 0.9 for Structured questionnaire. Data collection was done in the month of February 2011. Prior to giving the questionnaire, the investigator gave instructions to the mothers and purpose of gathering information. The sample consisted of 100 subjects. Random sampling technique was used to select the samples from population. Firstly the personal information of all the mothers of 1-5 years children was taken. At the end, pamphlets were provided to the mothers and quarries of subjects were clarified.

PLAN FOR DATA ANALYSIS

Descriptive statistics - Percentage, Mean and Standard deviation

Inferential statistics - Karl Pearson's coefficient of correlation, paired, unpaired t test and F test

MAJOR FINDINGS OF THE STUDY

The analysis of the data revealed following findings:

- Out of 100 samples, maximum number of mothers were in age group of 26-30 years (40%) and minimum number of mothers were in age group of >35 years(0.5%). In case of qualification, maximum mothers were middle passed (22%) and minimum mothers were graduate and above (11%). Regarding occupation, maximum number of mothers were housewives (65%) and minimum number of mothers were doing government job (6%). Related to family monthly income in rupees, maximum mothers were having family income ≤ 3000 (39%) and minimum number of mothers were having monthly income 9000 and above (13%) respectively. In case of religion,

maximum numbers of mothers were from Sikh religion (55%), and minimum numbers of mothers were from Muslim religion (14%). Regarding type of family, maximum numbers of mothers were from joint family (55%) and minimum numbers of mothers were from nuclear family (45%). Regarding number of children, maximum number of mothers had 2 children (40%) and minimum number of mothers had more than 3 children (8%). Related to source of information, maximum number of mothers got information from health care personnel (31%) and minimum number of mothers got information from relatives (16%). Regarding distance of health centre from home, maximum number of mothers were living with in the distance of 2km-3km (58%) and minimum number of mothers were living with in the distance of 4km-5km (19%). Related to previous history to any disease to child, the mothers (100%) reported no history of any disease to child.

- Majority 12% of mothers had good knowledge, 40% of mothers had average knowledge and 48% of mothers had below average knowledge regarding immunizaton. (fig-1)

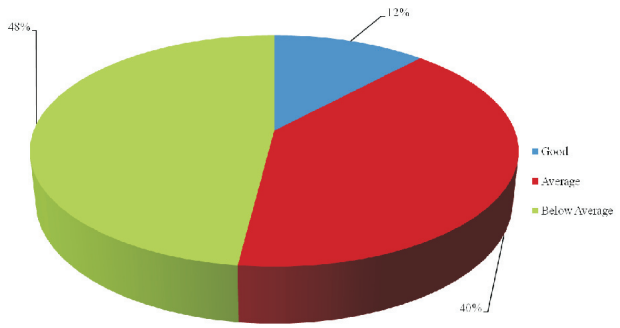

Figure 1 : Percentage disribution of knowledge score of mothers of under five children regarding immunization

- Figure 2 depicts knowledge of mother of under five children regarding immunization according to different aspects of knowledge. This shows that highest knowledge score was in case of Polio i.e 3.81 (76.2%) followed by BCG 2.5 (62.5%), General Information 8.23 (58.8%), DPT 2.89 (57.8%), Measles 1.7 (56.6%), Definition 0.48 (48%) and TT 0.95 (47.5%) respectively. And the total mean percentage of mothers' knowledge regarding immunization is 23.5 (69.12%). So it shows that mothers have maximum knowledge regarding polio i.e 76.2% and minimum knowledge regarding TT i.e 47.5%.

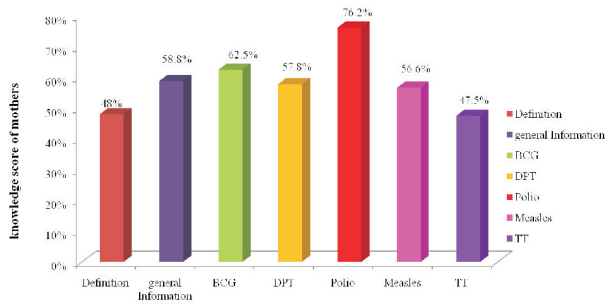

Figure 2: Mean score of mothers knowledge regarding immunization according to different areas of knowledge.

- In the present study Age, Qualification, Occupation of mother, Family monthly income in rupees, Religion, Number of children and Source of information had significant impact on knowledge regarding immunization among mothers of under five children but type of family, Distance of health centre from home and Previous history of illness to child had no impact on knowledge regarding immunization among mothers of under five children.

CONCLUSION

The study concluded that the level of knowledge was vary according to different demographic variables i.e Age of mother, Occupation of mother, Education of mother, Family income in rupees, Religion, Type of family, Number of children, Source of information, Distance of health centre from home, History of previous illness.

Acknowledgement : I bow in reverence to the Almighty for giving me the opportunity to undertake this work, and the strength and ability to successfully complete it.

I heartfelt thanks to all those who helped me in completing my research study.

Conflict of Interest: None

Ethical Consideration: With the view of ethical consideration the researcher has taken the permission from ethical committee of Dr Shyam Lal Thapar College of Nursing, Moga to conduct the research study in selected villages of Moga. Then the type and purpose of the study was discussed with the Senior Medical officer of CHC Dhudike and with the Medical officer of mini PHC kokari kalan and written permission was obtained. The verbal consent was taken from the mothers, who are willing to participate in the study.

Source of Funding: No special source of funding. Research study was completed by the researcher own funds.

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Adherence to Anti Retroviral Therapy of People Living with HIV/AIDS: a Cross Sectional Survey

Balasaraswathi Seetharaman[1], Premila Lee[1], Grace Rebekah[2]

[1]Professor, College of Nursing, [2]Statistics Consultant, Christian Medical College, Vellore, Tamil Nadu

ABSTRACT

Anti Retroviral Therapy (ART) is the drug of choice in the treatment of Human Immunodeficiency Virus (HIV) / Acquired Immune Deficiency Syndrome (AIDS). More than 95% adherence to ART is necessary to achieve suppression of HIV replication. Therefore, a cross sectional study was undertaken to assess the adherence of patients with HIV/Acquired Immune Deficiency Syndrome (AIDS) to ART. The study also intended to identify the relationship of adherence with the socio-demographic and clinical variables. The study was conducted at the ART clinic of a tertiary care hospital, with a sample size of 100. The study participants were chosen using systematic random sampling technique. Morisky Medication Adherence Scale (MMAS) was used to measure the adherence behavior of People Living with Human Immunodeficiency Virus (PLHIV) and Patient recall and Pill count method to assess their actual drug intake.

The study findings revealed that 53 (53%) subjects had high adherence behavior, 32 (32%) had medium adherence behavior and 15 (15%) of them had low adherence behavior to ART. Regarding the drug intake, out of 100 subjects, 12(12%) were found to be non-adherent and the remaining 88 (88%) to be adherent to ART. Results had also shown that there was a statistically significant relationship between the adherence and duration of HIV infection and duration of ART.

Keywords: *Adherence, Anti Retroviral Therapy (ART), People Living with Human Immunodeficiency Virus (PLHIV).*

BACKGROUND INFORMATION

World Health Organization (WHO) reported that 35.3 million people were living with HIV in the year 2012.[1] Joint United Nations Programme on HIV/AIDS (2013) stated in 2012 that globally there were 2.3 million new HIV infections.[2] In India, HIV is prevalent in almost all the states accounting for approximately 2.39 million People Living with Human Immunodeficiency Virus (PLHIV).[3]

ART is the only drug of choice for controlling the disease progress and reducing the transmission of HIV infection. ART also increases the life span and quality of life of PLHIV by preventing opportunistic infections. About 9.7 million people in the world have access to ART.[2]Literature states that more than 95% adherence is required to prevent emergence of resistant viral strains.[4] However, research studies report that a large proportion of the PLHIV on ART are not adherent to the drug therapy. Talam,and colleagues reported that only 43.2% of subjects adhered to the prescribed time of taking drugs.[5]Another cross-sectional study conducted in Bangalore, India reports full adherence among 60% of the study participants. This finding also reported that certain socio demographic factors like age and gender were related to the drug adherence to ART.[6]

Nurses play a vital role in promoting patients' adherence to drug therapy. Appropriate interventions must be implemented to increase patients' awareness. Having sufficient knowledge about the current scenario is vital to plan further. Therefore, the present

Corresponding author:
Mrs. Balasaraswathi Seetharaman
Professor, College of Nursing, Kagithapattari, Christian Medical College, Vellore-632004
Tamil Nadu, E-mail Id : bala_seeth@hotmail.com
Phone (mobile) : 9894376620

study was undertaken to evaluate the adherence of persons with HIV/AIDS to ART, and its relationship with their selected socio-demographic and clinical variables

OBJECTIVES

The objectives of the study were to

- Assess the adherence of people living with Human Immunodeficiency Virus to ART
- Identify the relationship between the adherence to ART of people living with human immunodeficiency virus and their socio-demographic and clinical variables.

MATERIALS AND METHOD

Design and sampling: A cross sectional studywas conducted to assess the adherence of PLHIV to the drug therapy. The study sample comprised of PLHIV on ART. PLHIV above 18 years and fluent in the regional language (Tamil) or English were recruited for the study. The PLHIV with dementia were excluded. Systematic random sampling technique was used to select 100 subjects. On an average, 40 PLHIV attended ART clinic per day and from whom eight PLHIV were selected.

Sample size calculation: The sample size was calculated based on the data from the previous study. Literature reports non adherence to ART to be 12%.[7] With the precision of 6.5% and a desired confidence interval at 95%, the sample size was estimated to be 96.

Instrument: A proforma was used to collect socio-demographic and clinical data of the study participants. The proforma included gender, age, marital status, education, family income, occupation, family locality, type of family, ill habits, and disclosure status. The clinical data studied were duration of HIV infection, clinical stage of illness, HIV status of the spouse and children, duration of ART, CD4 count, opportunistic infections, type of ART, side effects of ART and other medications.

Morisky Medication Adherence Scale (MMAS) was used to assess the adherence behavior of PLHIV. MMAS consists of eight items that indicate PLHIV's adherence behavior to ART. Each item has "yes" and "no" responses. Each 'yes' response was given a score of '1' and '0' for the 'no' response and the maximum total possible score is '8'. Reverse scoring was given for the negative statement. The lower score reflected higher adherence.[8] The obtained scores were interpreted as high adherence (score of 0), medium adherence (1-2) and low adherence (>2).

Adherence was also assessed by actual drug intake with patient recall and pill count method. PLHIV were asked to report the number of tablets they missed in the last one month. Their response was counter checked by counting the number of pills at hand. Percentage of adherence was calculated by dividing total number of tablets consumed in one month by total number of tablets to be consumed in one month and then multiplied by 100. The score of more than 95% was considered as optimal adherence.

Data collection procedure: The data collection began after getting approval from the concerned authorities. PLHIV who attended the ART clinic of a tertiary care hospital in South India and fulfilled the inclusion criteria were selected by systematic random sampling technique. The subjects were explained about the purpose of the study and a written consent was obtained from them. Interview technique was used to collect the data. The investigator collected the socio-demographic and clinical data from the participants by interviewing and by reviewing their personal records. Data to assess their adherence behavior and the actual drug intake were collected with Morisky Medication Adherence Scale (MMAS) and patient recall and pill count method. The time taken for collecting the data from each participant varied from 15 to 20 minutes.

RESULTS AND DISCUSSION

Statistical Package for the Social Sciences (SPSS) version 16 was used to analyze the data. The baseline data showed, that the mean age of the study participants was 41.25 years (range 22-71 years, SD=10.074). About 54% of them were in the age group of 30-45 years, 80% being married, and 53% of PLHIV being female, median duration of illness and duration of ART were 36 months and 9 months respectively.

Table 1: **Distribution of PLHIVaccording to their adherence behavior to ARTand drug intake (n=100).**

Variables	No	%
Adherence behaviour		
High adherence	53	53
Medium Adherence	32	32
Low adherence	15	15
Adherence (Drug intake)		
Optimal adherence (>95%)	88	88
Non-adherence (upto95%)	12	12

The first objective of the study was to assess the adherence behavior and the drug intake of PLHIV to ART. The findings revealed that (as shown in table 1), 53 (53%) PLHIV had high adherence behavior, 32 (32%) had medium adherence behavior as assessed by the Morisky Medication Adherence Scale. Actual drug intake revealed that of the 100 subjects, optimal adherence and non-adherence was found to be in 88% and 12% respectively. Adherence assessed by both methods revealed similar findings. The optimal adherence of 88% assessed by actual drug intake is congruent to the high (53%) and medium adherence (32%) behavior as assessed by MMAS. These findings also suggest an improvement in the adherence of PLHIV in comparing the result with a study done in the same setting in 2008. Previous study reported, 23.3% of likelihood to non-compliance[9] whereas, the current finding suggests only 12% of non-adherence reflecting the effectiveness of various patient teaching strategies practiced in the study setting. Though the assessment of reasons for non-adherence to ART were not included in this study, it was observed that denial of HIV disease status, side effects of ART, lack of privacy at home in a joint family, being busy with their routines, and lack of understanding about resistance owing to non-adherence to ART were some of the reasons for non-adherence to ART.

Table: 2 depicts that majority of the subjects (62%) in this study felt that taking medicines twice daily is inconvenience and three fourth of the subjects (75%) had difficulty in remembering to take all their medicines. These results are consistent with Talam et al's study findings in which 49% had difficulty in remembering to take ART at correct time[5].

Table: 2 Distribution of PLHIV according to their responses to individual items of Morisky Medication Adherence Scale. (N=100)

Item No.	Itemspertaining to adherence behaviour	Responses			
		Yes		No	
		N	%	N	%
1.	Forgetting to take the medicine	12	12	88	88
2	Missing the medicine for reasons other than forgetting	7	7	93	93
3.	Stopped medicine due to side effect without consulting the doctor	8	8	92	92
4.	Forgetting to carry medicine during travel	9	9	91	91
5.	Consumed all the medicine previous day	4	4	96	96
6.	Stopping medicine when symptoms are under control	5	5	95	95
7.	Feeling hassled about sticking to the treatment plan	38	38	62	62
8.	Difficulty in remembering to take all the medicine	25	25	75	75

The second objective was to determine the relationship between adherence behavior and selected socio-demographic and clinical variables of PLHIV for which logistic regression was used and the findings are presented in table 3.

Table: 3 Relationship between the adherence behavior of PLHIV and their socio-demographic and clinical variables (n=100)

Socio demographic and clinical variables	Adherence behavior to ART	Unadjusted Analysis		
	High/Medium n(%)	Low n(%)	OR (95%CI)	P value
Gender				
Male	18(38.3)	29(54.7)	-	-
Female	29(61.7)	24(45.3)		
Education				
No formal Education	5(10.6)	7(13.2)	-	-
Primary	6(12.8)	16(30.2)		
High School	22(46.8)	15(28.3)		
Higher Secondary	6(12.8)	8(15.1)		
Graduate & above	8(17)	7(13.2)		
Duration of HIV Infection (Years)				
<=1	18(38.3)	8(15.1)	3.49(1.34-9.07)	0.010
>1(R)	29(61.7)	45(84.9)		
Clinical Staging				
Stage I	11(23.4)	17(32.1)	-	-
Stage II	8(17)	6(11.3)		
Stage III	14(29.8)	13(24.5)		
Stage IV	14(29.8)	17(32.1)		
HIV Status of Spouse				
Positive	31(66)	29(54.7)	-	-
Negative	16(34)	19(35.8)		
Not Known	-	5(9.4)		
ART Duration (Months)				
<=3	18(38.3)	4(7.5)	7.60(2.34-24.66)	0.001
>3(R)	29(61.7)	49(92.5)		

The findings of this study showed that the PLHIVs adherence to ART therapy had statistically significant relationship with duration of HIV infection and duration of ART. A decline in adherence was observed as the duration of HIV infection and duration of ART increased. It was also observed that people diagnosed with HIV infection for less than one year of duration, had 3.49 (1.34-9.07) times more high adherence to ART when compared to those with more than one year of duration which was significant at p= 0.010. Similarly, PLHIV on ART for less than three months duration had 7.60 (2.34-24.66) times more high adherence when compared to those with more than three months duration which was significant at p= 0.001. An earlier study conducted in the same setting in 2008 with 106 PLHIV, the findings did not show any statistically significant relationship between adherence and clinical variables such as duration of illness and duration of ART.[9] However, the previous study utilized the earlier version of the Morisky scale.

There was no statistically significant association found between adherence and socio-demographic and other clinical variables. In contrary to the current findings a study done by Roca et al., reported that there was a significant relationship between adherence and level of education (p=0.009), in which, PLHIV who had higher level of education were more adherent to ART compared to lower level.[10]This difference in the current study could be because of the sound understanding of PLHIV about the importance

of ART regardless of their educational status.

These findings support the hypothesis that there will be a significant relationship between adherence and the clinical variables at $p<0.05$, whereas did not support the hypothesis that there will be a significant relationship between adherence and the socio-demographic variables.

LIMITATIONS

Assessment of adherence behavior is limited to subjectivity in terms of self report of the study participants.

CONCLUSION

The study demonstrated that PLHIV on ART had an overall adherence behavior of 85% including medium and high adherence. As HIV is a chronic illness, it demands at least more than 95% adherence in order to control the progress of the disease and to improve the quality of life. It is important to take appropriate measures like educational interventions to increase ART adherence of PLHIV.

Acknowledgement: The authors thank the institution for granting permission to conduct the study at ART clinic of CMC, Vellore. We also thank all the patients for their willingness to take part in this study.

Conflict of Interest: Nil

Source of Funding: Self

Ethical Clearance: Ethical clearance was obtained from the institution, where the study was conducted. Informed written consent has been obtained from each subject enrolled in the study.

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Implication of Social Media in Health Care Practice

Neelam Sleem Punjani[1], Sahreen Malik Bhanji[1], Shaista Taufiq Meghani[1]

[1](BScN, MScN), Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan

ABSTRACT

Background: Technology advancements have transformed our way of living, way of working, and way of interacting. E-health can be defined as the promotion of the health, comfort, and well-being with every individual and their families to develop the proficient practice with the utilization of information and communication technology (ICT) [(1).] Social media (SM) is considered as the commonly used form of e-health that consists of mobile based and web based technologies, providing an opportunity to communicate, dialogue, and exchange health related information[(2)].

Objective: The objective of this paper is to review the literature and provide briefing about the use of social media by health care professionals while providing health care.

Methodology: The literature review was done from the period of October-December 2012 from various online databases such as PUBMED, CINAHL and Allied Health Literature. Key words used: 'Social media', 'eHealth', and 'health care professional' using Boolean (AND, OR) words. The final reference list consists of 20 relevant articles ranging from 1995 to 2012, which include qualitative and quantitative researches, literature reviews, peer reviews, and index articles.

Results: Literature review suggested that E-health provides variety of clinical care, health content, vast connectivity, and easy accessibility through health associated internet application. The utilization of information and communication technology (ICT) through SM continues to expand worldwide. It is also attaining fame among health care professionals (HCP), including nursing. It is realized that SM can be a powerful tool for educating, communicating, and influencing. Therefore, there is much to be gained in terms of its utilization in health care particularly in nursing. Nurses can use SM technology to improve the quality of care provided to clients and their families.

Keywords: *Social Media, Health Care, Health Care Professionals.*

INTRODUCTION

SM seems to be the upcoming technological wave in health care because of its strong consumer edge, temporality, and high accessibility [(3)]. In today's world, in social networking sites like My Space, Linkedin, Facebook, and Twitter, media are globally used as the most common medium for spreading health awareness. Moreover, these social networking sites are supported by multimedia contents like You Tube and Flicker. Globally, health care professionals (HCP) are using SM to improve practice and promote health by increasing access to health information and improve equity in health care [(4).]

In Pakistan, the use of social media is rising dramatically. The Facebook users have been doubled from 1.8 to 3.6 million over a six month period from 2010 to 2011. Also, in Pakistan, one million new Facebook accounts were created between August 2011 to January 2012[(5)]. Even with the progression in technology and the revolution of social media, nursing profession has been dawdling to recognize the potential for application, modernization, and adoption of this technology[(3)]. The most important apprehensions in prevention of using these technologies in nursing practice are spelled out by Lambert et al., as risk avoidance, fear of breaching patient's privacy and confidentiality[(6)]. Although these issues are paramount and their importance should not be let go, SM provides nursing with multiple opportunities which must be appreciated to permit for innovation in the profession. Impact of Social Media E-health provides a variety in clinical care, health content, vast connectivity, and easy accessibility through health associated internet applications [(7)]. The utilization of information and communication

technology (ICT) through SM continues to expand worldwide. It is also attaining fame among health care professionals (HCP), including nursing.

It is realized that SM can be a powerful tool for educating, communicating, and influencing. Therefore, there is much to be gained in terms of its utilization in health care particularly in nursing. SM is the easy means of communication for the health care consumers. It provides a platform to consumers who can share their health issues as they arise, and get a very instant response, either from the public or from HCP. Moreover, patients who have similar kind of health issues form the virtual communities via which they connect, communicate, and share their experiences. A national survey conducted by the Pew Research Centre highlighted that in United States (US), one in three adults (30%) reported that they are people guided by health information or advice found online through SM [8]. Moreover, the popularity of SM can be seen by Nursing & Midwifery Council, through their event which was conducted in February 2012,: "Talking with patients online: What are the boundaries?" According to Barry and Hardiker the event attained greater than 24,000 Twitter followers.[4]

USE OF SOCIAL MEDIA WITHIN HEALTH CARE

In order to enhance public awareness, in communities there are many nursing led initiatives globally. The wide outreach of SM can provide opportunities for the campaign of such programs [9]. Furthermore, access to social media through mobile phones may prevent the need of luxurious ICT and may improve access and fairness to health care information and services in the remote areas of the world [4].Public health communication strategies are also largely promoted through SM. In order to keep the global public aware of the outbreak of diseases and disaster, World Health Organization (WHO) utilizes SM as a source to-spread and increase awareness about public health information. WHO has its own page on Facebook and Twitter. Moreover, it is significantly utilizing YouTube [11]. McNab reported that during the pandemic of influenza A (H1N1), WHO used Twitter and they had more than 11,700 followers, signifying the power of SM and its rapid outreach.[12]

According to Fox and Jones around 61% of Americans regularly access health related information online mainly from personal websites, blogs, and online news groups[11]. Based on this, innovative health care models have been developed to connect patients and health care professionals. Hello Health model is such example initiated by Brooklyn, New York, which has established success in employing SM to communicate with health care users [13]. This program aims to provide a secure social network for patients to provide health care after paying an enrolment fee. Patients are facilitated by private web sites, instant messaging, and e-mails; they are also assured to be seen by health care professionals within 24 hours. Since SM has potential to empower, educate, and engage patients, it should be used as a tool for communication between patients and health care professionals.[14]

HCP and physicians around the world use SM to communicate about the health related concerns. PatinetsLikeMe (Cambridge, Massachusetts) is also a podium for those patients who have similar diseases and they can advocate and explore health care options and outcomes through SM.[13] Furthermore, My Health Manager (Kaiser Permanente, San Francisco, California) is a SM digital diary which is used for commentary and sharing news and patients' experiences and it also allows patients to read physician-authored blogs. [13]

In contrast, Krowchuk, Lane, and Twaddell suggest using SM with caution as there are websites like Twitter, Facebook, and MySpace which are meant for peer interaction and not for professional affiliation[14]. Therefore, SM should be used with caution to communicate with patients as this could lead to the disruption of professional relationship. Moreover, building of mutual trust between HCP and patient is important to make professional relationship. This could be compromised when patients have access to the personal information of HCP that weakens that trust.[15] Similarly, when on social networking sites HCP "friends" their patients, patients can get access to the personal information and this could probably affect the care they are providing and could perhaps affect the professional boundaries between patients and providers.

In order to access health information, there are numerous patients who are using internet and other SM website[13]. Interestingly, it is also found out by some researchers that to access health information, up to 75% of patients use the web search with the increase in the population between the age of 70 and 75 years[16]. SM users which were once confined to young adults

and teenagers are shifting towards population of older adults. Whereas, it is also argued by Skiba that the availability of SM tool is not a possibility for many patients, particularly those with low income brackets [16]. Besides, accessibility is an issue with many health receivers. Wireless technology has made it possible to communicate with patients and access information just about anywhere and engage more individuals [11]. Nurses can use SM technology to improve the quality of care provided to clients and their families. Crumb reported that in one of the study the patient undergoing surgery approved to have a hospital staff use Twitter to continuously inform her family about her progress during surgery [17]. The staff was in operating room, and during 3 hours surgery he "tweeted" about 300 progress reports to the patient's family. It was concluded that informing the patient's attendants rapidly with patient's progress during surgery can reduces family's anxiety.

RISKS ASSOCIATED WITH SOCIAL MEDIA

Privacy Concerns: Preserving patient's confidentiality and ethical practices have been a challenge in traditional nursing practice. As increasing patients are participating in venue of SM in seeking health care, the risk of patients' record being compromised is increasing exponentially. Health care through SM poses a huge challenge like privacy issues. According to Krowchuk, Lane, and Twaddell, while providing nursing care to the patient on SM, patients post a question on HCPs' Facebook wall related to their health [14]. The question posted by patient and responses by the provider can be viewed by other friends in the provider's network. These wall posts are then made accessible by "friends" to their other "friends". This is how patient's information can become accessible to many people which can violate the right to privacy of patients.

Confidentiality and ethical aspects should be foundational module of nursing curricula. Due to the marked growth in the SM used by HCP and patients, there is an urgent need for the inclusion of "social media in nursing practice' in nursing curriculum [3]. Moreover, the perceived benefits of SM in nursing is meaningful, thus, the secure social networks should be formed in order to overcome privacy issues.

LEGAL ISSUES

Initiating new technology entails a watchful assessment and judgment of "fit for purpose" [3]. Legal issues need to be well thought-out when executing SM into nursing practice. Hawn and McBride & Cohen affirmed that it has been reported in the literature that due to leakage of the patients' private information on the social networking sites, blogs, and public websites, lawsuits have occurred against HCP [13, 15]. Legal issues can occur when the patient's personal information is shared. Therefore, it is significant that all HCP should comply with the Health Insurance Portability and Accountability Act (HIPPA) [14]. HIPPA is designed to guard the confidentiality of patient's medical records [18].

PRACTICE IMPLICATIONS FOR HEALTH CARE

Regardless of the advancement in technology, Google and other social websites remain blocked on the desktop computers of nursing stations by the hospital server administrators. Selected websites are unblocked for senior management staff during the office timings from 9 AM to 5 PM as they may need referring to vital information on the web [3]. However, these search tools like Google scholar could prove effective in the enhancement of evidence based care and up-to-date researches for the nursing profession. This is a thought provoking matter, as nurses are trusted to access highly confidential patient data and in administrating controlled drugs to save patients but they are not trusted to access searching engines at the time of delivering nursing care [3].

CHALLENGES

There are certain challenges for the implementations of SM in health care program. Krowchuk, Lane, and Twaddell are of view that use of SM for routine health cannot replace the traditional, face-to-face communication with patients [14]. They further argue that the list of emailed symptoms of patients cannot substitute the inspection, auscultation, and palpation performed by HCP. Similarly, the caring touch from nurse, the listening ears and the welcoming smile cannot be replaced by emails, websites and other SM tools. This makes the effectiveness of promoting health through SM questionable. Therefore, there is an urgent need of studies to be conducted in order to evaluate the effectiveness of SM in nursing practices [14].

Also, nursing needs to carefully harness the power of SM to avail unprecedented opportunities for wide reaching communication globally. Gap Analysis, an in-depth critical review of literature to the best of my knowledge, shows that very limited research has

been done on this topic in Asian/Pakistani context. Moreover, there is a scarcity of research from the perspective of E-health through SM.

In Pakistan, most of the population has access to SM and those in remote areas can have access to health care through SM in near future. However, there is a need to initiate access to health care benefits through SM. Thus, there is a gap in study of the SM for health care in order to improve the quality of care provided through SM.

CONCLUSION

Like any other technology, use of SM for spreading health awareness and increasing patient satisfaction has also its own merits and demerits. While it helps in improving effectiveness of communication, easy dissemination, better accessibility, and potential for decision making, there are issues of privacy, confidentiality and sensitivity. It is, however, evident that merits prevail over demerits. Nurses as health care professionals, need to learn the boundaries within which one must utilize SM to increase patient satisfaction. A conscious effort needs to be made at all levels, starting from thoughtful policy making to actual utilization of this mode on daily basis by healthcare professionals.

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Epileptic Women: Going Into or Coming Out of the Closet

Erum Lalwani[1], Fauziya Ali[2], Mughis Sherani[3], Asho Ali[4], Nasreen Sulaiman[5], Saima Sachwani[6]

[1]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, [2]Instructor, Faculty of Health and Community Studies, NorQuest College, [3]Associate Dean, Post Graduate Medical Education & Associate Professor PGME, The Aga Khan University, [4]Associate Professor, Microbiology King Abdul Aziz University Jeddah, KSA, [5]Instructor, University of Alberta, [6]Senior Instructor, The Aga Khan University School of Nursing and Midwifery

ABSTRACT

Epilepsy is considered to be a socially and culturally stigmatized disorder. Female patients encountered more deleterious social hurdles than males especially in marriage, education, job, driving, pregnancy, and motherhood. Female patients of marriageable age and their parents encounter challenges regarding the disclosure of diagnosis at the time of marriage negotiation. Therefore, the prevalence rate of disclosure of the diagnosis prior to marriage is significantly low. The purpose of this study was to determine the reasons and consequences of the disclosure of epilepsy diagnosis at the time of women's marriage negotiations.

Method: A sample size of 381 married women suffering from active epilepsy was enrolled through the purposive sampling technique to answer the research questions, from a tertiary healthcare setting in Karachi, Pakistan.

Findings: Three key reasons for the pre-marriage disclosure of epilepsy include anticipating disruption in the matrimonial relationship, trustworthiness in the marital relationship, and acceptance from the prospective spouse after knowing the history of the disease. Whereas, respondents have reported four major reasons for the concealment of epilepsy: to prevent proposal rejection, stigma, pressurized by their own family to hide, and myths and misperceptions regarding epilepsy. Epileptic women experience the grave consequence of marriage proposal rejection after sharing the diagnosis with the prospective partners

Conclusion: The awareness among female patients of marriageable age and their parents will assist to make informed decisions regarding marital aspects. This pioneer study is an attempt towards the implementation of one of the goals of the International League against Epilepsy, that is, "making female epileptic patients come out of the shadow and creating an accepting environment for them".

Keywords: *Active Epilepsy, Pre-marriage, Reasons for disclosure, Stigma.*

BACKGROUND

Many epidemiological studies have been conducted worldwide to identify the prevalence and incidences of epilepsy [1-3]. Several negative connotations are attached with the disease and these perceptions are still prevailing in modern times in many countries, and attributes are the breeding ground and the sources of conception of the stigma[4-5]. Research has shown that female patients do not access the health services, and even do not adhere to the treatment and lifestyle recommendations due to the shame attached to epilepsy [6]. Moreover, they face serious consequence due to social and culture labeling, such as difficulty in getting jobs as well as in finding marriage partners [7]; therefore, they avoid sharing the disease with others[8]. A study in Iran has cited that epileptic patients use concealing as one

Corresponding author:
Erum Lalwani,
Senior Instructor, The Aga Khan University School of Nursing And Midwifery,
Ph: 92-346-2345085, E-mail: erum.lalwani@aku.edu

of the strategies to cope with the challenges of the stigma[9]. A substantial number of research studies have identified the prevalence of disclosure of epilepsy[10-12]. Wada and colleagues have investigated the disclosure rate prior to marriage in Japan, and the result revealed that it was 58% among female patients[11]. The purpose of this study was to determine the reasons for the disclosure and concealment of epilepsy diagnosis at the time of women's marriage negotiations. This study is probably the first of its nature in Pakistan that has explored the reasons of pre-marriage disclosure and concealment of the epilepsy disorder among married women.

MATERIAL AND METHOD

The quantitative research approach and the descriptive cross-sectional study design guided this study. The study was conducted at the Epilepsy centre of the Jinnah Postgraduate Medical Centre (JPMC). The targeted population of this study was female, married patients suffering from active epilepsy. The required sample size was calculated to be 381, using a power of 80%, and the level of significance at 5%.Non-probability purposive sampling was utilized for this study. The survey questionnaire was designed by Santosh and colleagues [12]; it was modified to achieve the purpose of this study. The piloting of the tool was done on 19 participants (i.e. 5% of the calculated sample size of 381), after receiving approval from the Aga Khan University- Ethical Review Committee. Institutional approval was taken from JPMC. Individuals' right of autonomy was ensured by indicating that participation was voluntary and by obtaining the informed consent. Participants' right of self-determination was censured by providing all the information related to the study. To maintain the anonymity of the participants, numerical codes were assigned on all questionnaires, instead of the participants' names. All the data were kept in a locked cabinet; the information on the computer was secured under secret passwords.

FINDING

Reasons for Pre-marriage Disclosure of Epilepsy

The findings of the research question pertaining to the reasons for the pre-marriage disclosure of epilepsy (see table 1). 242 out of 381 participants who disclosed their diagnosis to their in-laws, 50% (n= 121) mentioned that they had disclosed it due to the fear that their marital relationship would break up if their spouse came to know about the history of the disorder after the marriage. Whereas, 29% (n= 70) shared they did so to build a trustworthy relationship; while the rest of the participants (21%) wanted to marry a person who would accept an epileptic patient as a partner.

Table 1: Reasons for Pre-Marriage Disclosure of Epilepsy (n=242)

S. No.	Reasons for the Disclosure	Married Epileptic Women who have disclosed *(n=242)*	
		Frequency	Percentage
1	Due to the fear of break-up in relationship	121	50%
2	To have a trustworthy relationship	70	29%
3	Wanted to marry a person who accepted me with my disorder	51	21%

Reasons for Pre-marriage Concealment of Epilepsy

Another striking finding of the present study, as displayed in the figure 1, was that from among the participants who had concealed their diagnosis prior to marriage a majority, 57% (n= 79), had taken this step due to the fear that disclosure would result in the rejection of their marriage proposal. However, 29% (n=41) had concealed their diagnosis due to the stigma attached to epilepsy in the general population; while 9% (n=12) were pressurized by their own family to hide the diagnosis, and 5% (n=7) had myths and misperceptions regarding epilepsy.

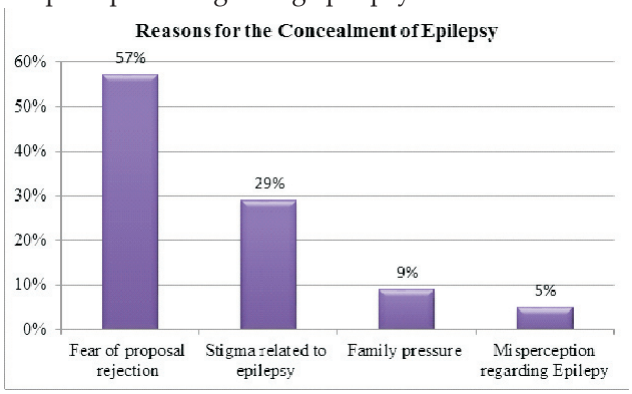

Figure 1: **Reasons for the Concealment of Epilepsy n=139**

Consequences of Disclosure at the Time of Marriage Negotiation

It was found that, from those who shared, 39% (n=94) of the marriage proposals were rejected after the sharing of the diagnosis, while 61% (n= 148) successfully ended in marriage. Furthermore, 84% of the participants reported that they had faced rejection of marriage proposal once, while 16% of the participants reported encountering proposal rejection twice.

Table 2 Percentages of Proposal Breakdowns after the Disclosure of Epilepsy

Variables	Married Epileptic Women who have disclosed (n=242)	
	Frequency	Percentage
Proposal accepted	148	61%
Proposal rejected	94	39%

DISCUSSION

Disclosure of the disease is verbally sharing with others that he or she suffers from a disorder [13]. In Asian countries, sharing the history of epilepsy during marriage negotiations is a major concern because women are socially underprivileged, easy targets of stigmatization, and not equipped to handle the social stigma due to male dominancy. Only one quantitative study has been conducted among 82 married women in India to identify the reasons for sharing the history of epilepsy prior to marriage. The findings showed that women disclosed due to fear and as an attempt to protect themselves from the negative reactions and consequences after marriage[12]. Trustworthiness is one of the most important virtue of ethics as well as a prominent requirement of the matrimonial relationship, so female participants disclosed the epilepsy disorder prior to marriage because they wanted to begin their relationship with trustworthiness and to maintain honesty and confidence in their personal relationships [14]. Besides this, participants wanted to get relief from the burden and fear of keeping the disease secret. Moreover, the acceptance of a female patient with a history of the epilepsy is very important in the intimate relationship, as the partner would have the emotional support of compassion, empathy, kindness, and care; furthermore, the suffering and discomfort of the female patient will be alleviated. Thus, the participants shared that in view of the imminent relationship, they would rather marry a person who accepted them along with their shortcoming.

Respondents reported four key reasons that played a major role in their hesitation to disclose epilepsy at the time of marriage negotiations. The most prominent reason was the fear of having the marriage proposal rejected. This reason is supported by a current study that 92 participants have actually experienced proposal rejection after sharing the diagnosis prior to the marriage. Similar findings have been reported in other studies conducted in Korea and India [10-12]. The reason for the rejection could be that people consider epileptic patients to be socially dysfunctional because they are unable to fulfill the expected social roles and obligations allotted to them[15]. Another reason for the refusal of proposal is that epileptic patients would be an extra financial liability and burden on the prospective family, as patients need regular checkups in clinics as well as costly epileptic medications [16]. Secondly, participants concealed information about their epilepsy due to the stigma attached to it. Thus, stigma and fear of proposal rejection were cited as major reasons for concealing the diagnosis[12]. Thirdly, female epileptic participants are forced by their parents to keep their illness as a secret from the prospective spouse and family at the time of marriage negotiations because parents fear that their marriage proposal will be rejected, and their daughter will not find a suitable partner for marriage. Moreover, due to the negative perceptions and attitudes of people related to epilepsy, other daughters would also suffer from the disadvantage in the marital prospects. Finally, some participants concealed their disease due to the negative perceptions of the general population. A study conducted in Pakistan has identified the myth related to epilepsy; that it is caused by the evil spirit and black magic. These fallacies ultimately exacerbate the negative attitude of people towards epilepsy[17]. Studies conducted in the developed and developing countries have found that people perceive that female patients should not marry because epilepsy can be inherited, which means that the disease will be transmitted to the next generation, and because they believe that the offspring will carry morphological abnormalities due to epilepsy[17-18]. Hence, these prevailing misconceptions result in undesirable consequences for the female patients. Many of the

studies have found that 70% to 90% parents objected to their son marrying a girl who had epilepsy [19-20].

RECOMMENDATION

The findings of the current study recommend that effective community educational campaigns must be arranged. Nationwide large-scale education programs should be started with the cooperation with the media, so that each member of the society can be educated about epilepsy, and to enhance understanding on social issues related to epilepsy.

CONCLUSION

The awareness among female patients of marriageable age and their parents will assist to make informed decisions regarding marital aspects. This pioneer study is an attempt towards the implementation of one of the goals of the International League Against Epilepsy, that is, "making female epileptic patients come out of the shadow and creating an accepting environment for them" [21].

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Study to Assess Effectiveness of a Structured Teaching Programme on Knowledge and Practices of ASHA Workers Regarding the Case Management of Children with Diarrhea at Home Situation as per IMNCI Guidelines

Anugrah Charan

Lecturer, Department of Child Health Nursing, Nightingale Institute of Nursing, Noida, Uttar Pradesh, India

ABSTRACT

Background: The past few decades have witnessed large and sustained decreases in child mortality in most low and middle-income countries. However, an estimated 10.6 million children under the age of five still die each year from preventable or treatable conditions[1]**.** A large proportion of these deaths could be prevented through early, appropriate and low-cost treatment of sick children in the home or community. Improvements in care at health facilities through IMNCI and other initiatives are necessary.[2]

Objectives: Developing a Structured Teaching Programme (STP) for the ASHA workers regarding the case management of children with diarrhea at home situation as per IMNCI guidelines, assessing and evaluating knowledge and practice of ASHA workers, determining relationship between post test Knowledge and Practices.

Hypotheses: Mean post test knowledge scores and practice scores of ASHA workers will be significantly higher than the mean pre-test knowledge and practice scores, significant association between post test knowledge and practice scores of ASHA workers at 0.05 Level of Significance.

Material and Method: A pre-experimental study was carried out among ASHA workers and structured interview schedule as well as structured express practice interview schedule was used to collect the information. Descriptive and inferential statistics were used for the data analysis in terms of mean, median standard deviation, "t" test and coefficient of correlation.

Results: Mean post test knowledge score (23.2) is higher than the mean pre-test knowledge score (17.06), Mean post-test practices scores (22.8) is higher than the mean pre-test practice scores (16.5) and Coefficient of Correlation between Post-test Knowledge scores and Post-test Practice scores of ASHA workers was 0.80.

Conclusion: Structured Teaching Programme was effective in enhancing the knowledge and practices of ASHA workers regarding the Case management of children with diarrhea at home situation as per IMNCI guidelines.

Keywords: *ASHA works, IMNCI, Diarrhea, Case management.*

INTRODUCTION

The past few decades have witnessed large and sustained decreases in child mortality in most low and middle-income countries. However, an estimated 10.6 million children under the age of five still die each year from preventable or treatable conditions, including malnutrition[1]. Many of these deaths are attributable to the conditions targeted by Integrated Management of Childhood Illness (IMCI): acute

Corresponding author:
Mrs. Anugrah Charan,
Lecturer, Department of Child Health Nursing,
Nightingale Institute of Nursing, Noida,
Uttar Pradesh, India.
Email id: charan.anugrah@gmail.com

respiratory infections, diarrhea, malaria, malnutrition and measles[2]. Childhood illness continues to contribute substantially to the global burden of disease.

Diarrhea remains the second leading cause of death among children under five globally. Nearly one in five child deaths – about 1.2 million each year – is due to diarrhea[3].

WHO-2005, UNICEF (2007) Unfortunately worldwide, every year more than 10 million children die in developing countries before they reach their fifth birthday. The health of the children under five remains worrying in developing countries. Indeed, nearly ten million children still die annually before reaching the age of five and the majority of these deaths occur in countries with limited resources. It kills more children than AIDS, malaria and measles combined[4]. Diarrhea is defined as a change in bowel habit for the individual child resulting in substantially more frequent and/or looser stools. Although changes in frequency of bowel movements and looseness of stools can vary independently of each other, changes usually occur in both. Clinical features vary greatly depending on the cause, duration**.** The most severe threat posed by diarrhea is dehydration. During a diarrheal episode, water and electrolytes (sodium, chloride, potassium and bicarbonate) are lost through liquid stools, vomit, sweat, urine and breathing. Dehydration occurs when these losses are not replaced.

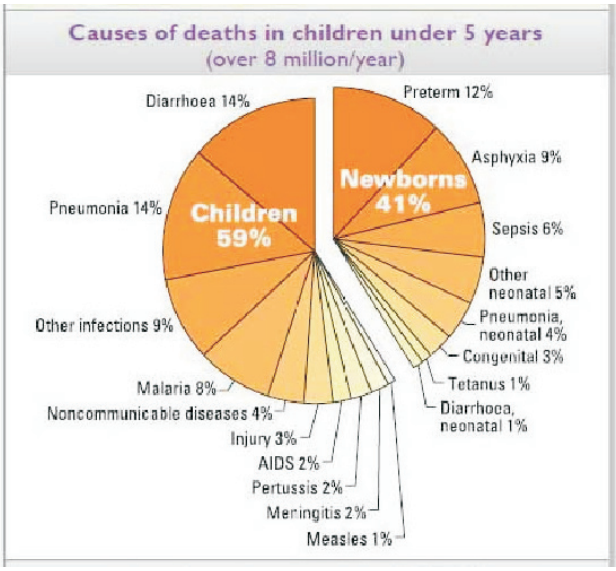

Fig 1: Source: Countdown to 2015 2010 Report

Integrated Management of Neonatal and Childhood Illness (IMNCI) is the Indian adaptation of the WHO-UNICEF generic Integrated Management of Childhood Illness (IMCI) strategy and is the centrepiece of newborn and child health strategy under Reproductive Child Health II and National Rural Health Mission[5]. IMNCI aims to reduce child and infant mortality that results from preventable diseases by providing home-based care through India's primary health care system, which is a decentralized network of health facilities and frontline health workers. IMNCI is a strategy developed by the World Health Organization (WHO) and the United Nations International Children's Fund (UNICEF) in the mid-1990s to improve the health of children under 5 years of age and reduce their mortality[5]. **Three important components are:** strengthening health worker skills in managing childhood illnesses; strengthening health systems (drugs) and informing community and household practices related to child health.

The strategy provides an integrated approach for standard management of major causes of childhood morbidity and mortality like Pneumonia, Diarrhoea, Malnutrition, Neonatal problems, Measles, Malaria in the out-patient settings. With the implementation of IMNCI strategy in the country, more and more newborns and children are being referred to health facilities for inpatient care[5]. ASHA workers are the first port of call for any health related demands of deprived sections of the population, especially women, children, old aged, sick and disabled people. She is the link between the community and the health care provider. She is a volunteer who acts as a bridge between the community and the available health care system. The ASHA strengthens the link between health sector and community. She is working towards catylysing behavioural change in rural and tribal areas of the state[6].

WHO Project (ICP CAH 030/2005) recommended that the inclusion of IMNCI in pre-service education of doctors, nurses and paramedical workers will help introduce the practice of standardized protocol based management of the most common medical conditions that afflict children[3]. Pre-service education is a sustainable means for introducing public health interventions in national health programmes. Pre-service training is considered to be cost effective, sustainable and most appropriate alternative that allows service staff to devote their full attention to programs implementation.

Thus it has been envisaged that training will help to equip her with necessary knowledge and skills.

Material and Method: The research approach for the study was evaluative in nature. The research design used was- one group pre-test post-test design. The study was conducted in Community Health Centre/ Primary Health centre at Modinagar during the period from 13rd February 2012 to 29th February 2012. Sample size of the present study comprised of 30 ASHA workers selected by Purposive sampling technique. Based on the objectives of the study, the following instrument:-

a). Structured interview schedule

b). Structured express practice interview schedule. Reliability coefficient of Structured Knowledge Interview schedule (0. 72) and Structured Express Practice interview schedule(0. 73) was calculated by **KR-20 formula.** Formal administrative permission was obtained from the health centres to conduct the study. On Day 1 the Structured Knowledge Interview Schedule was administered, followed by the Structured Express Practice Interview Schedule. Structured Teaching Programme was conducted on the 3rd day. And thereafter the Post Test was administered on the 10th day in order to evaluate the effectiveness of the Structured Teaching Programme. The Structured teaching Programme was classified into:- 1. **Introduction to IMNCI** (Components, Principles, case management process)

2. **Diarrhea** (Definition, Causative organism, types, Clinical assessment, Classification and Management as per IMNCI guidelines)

OPERATIONAL DEFINITIONS

1) Integrated Management of neonatal and Childhood Illness: it refers to the strategy developed by the World Health Organization, in collaboration with UNICEF and many other agencies and individuals with an objective to reduce mortality and the frequency and severity of illness and disability and contribute to improve growth and development during first five years of child's life together with management of diarrheal diseases.

2) Effectiveness: Effectiveness refers to the extent to which the teaching programme on the management of diarrhea at home situation as per IMNCI guidelines has been achieved its desired result as evident from knowledge and practice score.

3) Knowledge: Refers to the health care workers range of correct responses about the management of children with diarrhea at home situation as per IMNCI guidelines on the interview schedule items as evident from knowledge scores.

4) Practice: Refers to one's ability to perform an act correctly. In this study practice denotes the expressed practice of the health care workers regarding management of children with diarrhea at home situation as per IMNCI guidelines.

5) Structured Teaching Programme: Refers to a set of systematically developed instructions designed to provide information to the health care workers regarding management of diarrhea at home situation as per IMNCI guidelines.

6) Health care workers: in the study is the Accredited Social Health Activist (ASHA workers) working in PHC/CHC of Modinagar, Uttar Pradesh.

8) Case Management: Refers to the tasks and activities carried out for the diagnosis, and management of diarrhea in children.

ASSUMPTIONS

1) ASHA working in selected Community Health Centers and areas possess some Knowledge about management of diarrhea at home situation as per IMNCI guidelines.

2) Structured Teaching Programme on prevention and control of diarrhea will enhance ASHA's knowledge and there by improve the practices.

DE LIMITATIONS

The study is de limited to:

1) ASHA's working in selected Community Health Centres of Modiagar, Uttar Pradesh.

2) Assessment of knowledge is limited to a Structured Inowledge interview schedule.

3) Assessment of practices is only expressed practices as per the structure practices

interview schedule.

4) Only one pretest and one post-test of Knowledge and Practices will be measured.

FINDINGS

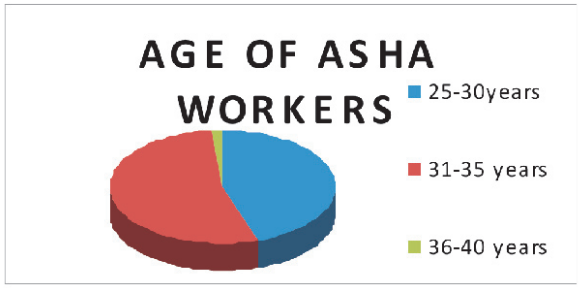

Figure 1: Pie Chart showing percentage wise distribution of ASHA workers according to age

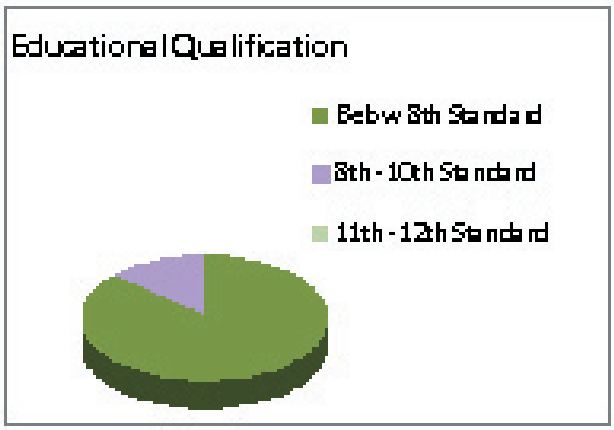

Figure 2: Pie Chart Showing percentage wise distribution of ASHA workers according to Educational Qualification

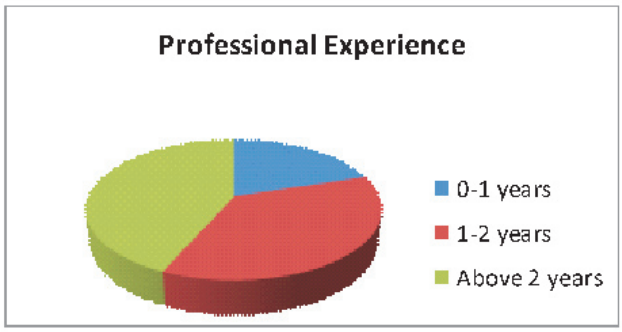

Figure 3: Pie Chart showing percentage wise distribution of ASHA workers according to Professional Experience

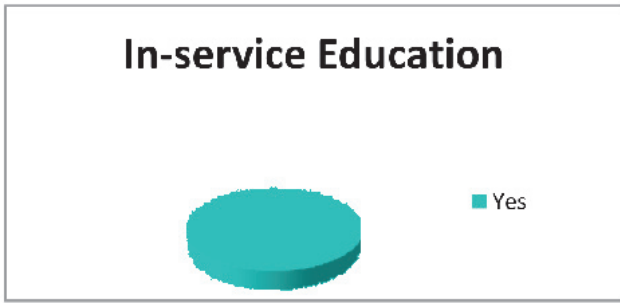

Figure 4: Pie Chart Showing percentage wise distribution of ASHA workers according to Inservice Education

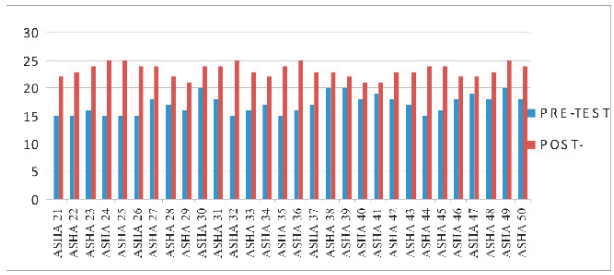

Figure 5: Bar Graph showing the Pre-test and Post test Knowledge scores of ASHA workers

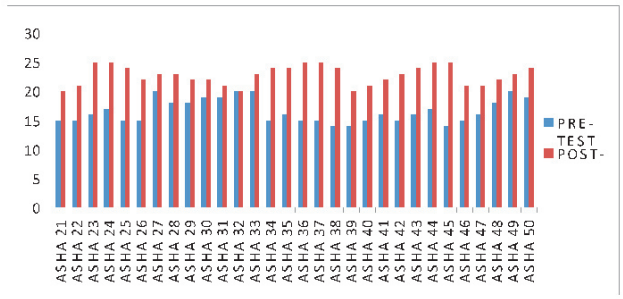

Figure 6: Bar Graph showing the Pre-test and Post test Practice scores of ASHA workers

The study revealed that majority number of ASHA workers (43.3%) were in the age group of 31-35 years, (86.6%) studied below 8th standard, (43.3%) respondants had above 2 years of professional experience, (100%) of the respondents have received some sort of In-service education. The study also revealed that Mean post test knowledge score (23.2) is higher than the mean pre-test knowledge score (17.06), mean post-test practices scores (22.8) is higher than the mean pre-test practice scores (16.5), coefficient of Correlation between Post-test Knowledge scores and Post-test Practice scores was 0.80. Hence it was concluded that Structured Teaching Programme was effective in enhancing the knowledge and practices of ASHA workers.

CONCLUSION

Deficit in knowledge as well as practice was found regarding Case Management of IMNCI in the selected group of ASHA workers in all content areas (specifically in color coding classification). There was a significant positive correlation between post test knowledge scores and post test practice scores.

DISCUSSION

The researcher in the present study tested the effectiveness of Structured Teaching Programme regarding the Case management of children with diarrhea at home situation as per IMNCI guidelines

and evaluated it to be effective in enhancing the knowledge and practice of ASHA workers.

IMPLICATIONS

Since the incidence of Diarrhea disease is increasing sharply, it is imperative for the ASHA workers to play an important and vital role in care of the sick children. ASHA workers should be able to demonstrate their practical skills and play an important role in emergency situations either in healthcare settings or home settings to save the life of sick children. Health teaching is an integral component of Nursing Practice and hence apart from the incidental teaching, a better teaching programme should be planned by the nursing personnel for teaching of community healthcare givers.

Traditional health workers are readily accepted by families. So they should be trained and utilized for providing care and education. Community sensitization programme can be successfully implemented by students and nursing staff. Nurses must be encouraged and valued for their unique contributions to the system and recognized for their ability to adopt, and adapt to change- not only in patient populations but also in health care delivery.

Acknowledgement: "I do not know anyone who has gotten to the top without hard work. That is the recipe. It will not always get you to the top, but it will get you pretty near". (Margaret Thatcher)

The present study was completed under the expert and excellent guidance and direction of **Ms. Kalpana Mandal,** Professor and Head of Department, Community Health Nursing and **Dr. R. S. Hooli,** Professor and Head of Department, Medical and Surgical Nursing. Above all, I express my deep sense gratitude to God almighty for His abiding grace and blessing, which gave me strength for success of this project.

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Conflict of Interest Declaration: Nil

Ethical Clearance: Obtained from Nightingale Ethical Clearance Committee.

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A Comparative Study to Find out the Health Related Quality of Life of Children with End Stage Renal Disease on Various Renal Replacement therapies: Self and Parental Perception

Anand Narain Tiwari[1], Minakshi Bansal[1], Manju VM[2], Poonam Joshi[3], Aditi Sinha[4], Pankaj Hari[5], Arvind Bagga[5]

[1]Sister-Incharge, [2]Staff Nurses, [3]Lecture, [4]Pool Officer, [5]Professor, Nephrology Division, Department of Pediatrics, AIIMS

ABSTRACT

A descriptive cross-sectional survey was undertaken on a sample of 55children with ESRD on maintenance dialysis (MD) and kidney transplantation (KTP) attending indoor and outdoor units of pediatrics department between June 2012- June 2013. The objectives of the study were to assess the quality of life of children with end stage renal disease on MD and following KTP & to compare the health related quality of life (HRQOL) assessed by child self report and parent's proxy report. Data was collected using Peds QL 3.0 ESRD module, Hindi version. Health related quality of life of children was assessed by child self report and parent proxy report. The data was analyzed using descriptive and inferential statistics. Children with ESRD in KTP group had better health related quality of life rated by both children and parents in comparison to MD group. There were no differences between the HRQOL scores of the children and their parents.

Keywords: *Health Related Quality of life (HRQOL), End stage renal disease (ESRD), Maintenance dialysis (MD), Hemo-dialysis (HD), Peritoneal dialysis (PD), Kidney transplantation (KTP).*

INTRODUCTION

End-Stage Renal Disease (ESRD) is the term that refers to severe kidney failure that necessitates the initiation of dialysis therapy or kidney transplantation to maintain life affecting children as well as adults. The major health consequences of end stage renal disease in children include not only progression to kidney failure but also an increased risk of cardiovascular disease.

Children with end stage renal disease require strict dietary and lifestyle modifications, and frequent monitoring by a medical team. Their associated cardiovascular and physical complications, neuro-developmental disorders and psychosocial problems may all affect quality of life. A child whose kidneys fail completely must receive treatment to replace the work the kidneys do. The two types of treatment currently available are maintenance dialysis (HD or PD) and kidney transplantation.

Development of renal replacement therapies such as hemodialysis (HD), peritoneal dialysis (PD) and kidney transplantation in children with end-stage renal disease (ESRD) has resulted in improved long-term survival.[1] However, ESRD influences virtually every organ system and thus, has a major impact not only on morbidity and mortality but also on the health related quality of life (HRQOL) of children with ESRD.[2]

A heavy burden of disease rests on children with end-stage renal disease (ESRD) and their families. Monitoring functional status and subjective state of well-being as it relates to health, called health-related

Corresponding author
Poonam Joshi,
Lecturer, College of Nursing, All India Institute of Medical Sciences. New Delhi, India
Email: pjoshi69@rediffmail.com
Tel: +91-11-26594457; Fax: + 91-11-2658 8883

quality of life (HRQOL) is of particular importance in children with ESRD. The HRQOL is an important clinical measure of the effects of disease and of the beneficial effects of medical treatment for children undergoing maintenance dialysis (MD), and kidney transplantation (KTP).

There are strong arguments in favour of eliciting data from children directly as far as possible as information provided by proxy respondent is not equivalent to child report[3-5]

Children with ESRD, and their parents, report significantly lower HRQOL than do healthy children. However, the differences in HRQOL for children treated with different renal replacement modalities are less conclusive.[6] In recent years, the survival of patients with end stage renal disease (ESRD) due to various treatment modalities has increased significantly. These strategies restore organ function, but may not necessarily return child to a normal life. Hence the need to assess the health related quality of life is essential. Consequences of disease and treatment can be tapped by measuring health related quality of life.

Few studies have assessed the quality of life in children with ESRD on different treatment modalities outside India. No studies in Indian setting, so far have explored health related quality of life of children with end stage renal disease: self and parental perception. The aim of the present cross-sectional study is to analyze the quality of life in pediatric population with ESRD as perceived by them and parents, and intergroup comparisons receiving different treatment modalities. The present study was undertaken in view of identifying the health related quality of life in children with end stage renal disease in Indian setting for provision of better quality care.

METHODOLOGY

A descriptive, comparative, and cross-sectional survey was done in 55 children with ESRD on maintenance dialysis and kidney transplantation attending indoor and outdoor units of paediatrics department cross-sectional study between June 2012 to June 2013. The children with ESRD were enrolled using total enumeration technique. The inclusion criteria for enrolling sample were children with end stage renal disease, between 5-18 years on any renal replacement therapy, willing to participate, can understand/read/ write Hindi or English, whose parents also willing to participate, can understand/ read/ write Hindi or English. All critically ill children with end stage renal disease (encephalopathy, CHF, severe acidosis, ventilator support) were excluded. Ethical clearance was taken from ethics committee of the institute. Informed written consent was taken from the parents and assent from children. Confidentiality of information and anonymity of the subjects was maintained.

Subject data sheet was used to collect the demographic profile of respondents. The 34-item PedsQL 3.0 ESRD Module, Hindi version, a standardized tool (α =0.88 child and 0.90 parent report) was used to assess health related quality of life of children with ESRD. Tool included scales: i) general fatigue (4 items), ii) about kidney disease (5 items), iii) treatment problems (4 items), iv) family and peer interaction (3 items), v) worry (10 items), vi) perceived physical appearance (3 items), and vii) communication (5 items). The scales were composed of both the child-self report and parent-proxy report formats for children aged 5 to 18 years and a parent-proxy report format for children aged 2 to 4 years. Items were reverse-scored and linearly transformed to a 0-100 scale (0=100, 1=75, 2=50, 3=25, 4=0). Higher scores indicated better HRQOL.

Data was analyzed using descriptive and inferential statistics using SPSS 17.0. The quantitative variables were tested for normality of distribution. Due to skewed distribution of data the Mann–Whitney test, Wilcoxon signed rank sum test were used, to compare the different studied groups. The p value at 0.05 level was considered significant.

RESULTS

Out of 55 enrolled children with ESRD dialysis 49.1% children were on maintenance dialysis (MD) and 50.9% had undergone KTP. Mean anthropometric parameters (weight, height, MAC) of the enrolled children in KTP group [(34.07 ± 8.7), (138.95±13.85,), (20.88±2.67) were better than the maintenance dialysis group [(29.76±10.14), 137.78±17.84), (17.85±2.79)], and mean MAC measurement was statistically significant (p=0.00). Physiological parameters like mean SBP (mm of Hg), mean DBP (mm of Hg) were better controlled in KTP group (115.79±12.25, 73.57±12.16) than maintenance dialysis group (116.79±±17.19, 81.52±17.07, p=0.05). The mean bio-

chemical parameters like serum BU, Cr in KTP group (38±.04±26.11, 0.94±0.53) were significantly lower than the other group (92.11±33.16, 5.66±2.2) at p value0.00, while serum calcium and hemoglobin in KTP group (9.15±0.67, 11.73±2.05) were significantly better than the maintenance dialysis group (8.29±2.12, .36±1.98) at p= 0.046, 0.00).

Both maintenance dialysis and KTP children were comparable in terms of age and sex of the child, age of the child at the time of diagnosis of ESRD, and initiation of RRT, residence, religion, primary caregiver's age, education and occupation, family income, support person, number of children and family members(p>0.05) . They were also comparable in terms of PCG characteristics like age, education, occupation, socio-economic status and available support system in the family.

Majority children on maintenance dialysis (92.6%) were on anti-hypertensive and vitamin supplements while all KTP children were on immunosuppressant along with regular antihypertensive drugs and vitamin supplements. None of the children were on antiepileptic drugs (AED) in either of the groups).

Quality of life of children was assessed in total and seven domains namely general fatigue, about kidney disease, treatment problems, family and peer interaction, worry, perceived physical appearance, and communication as perceived by children and their parents.

Children with ESRD following KTP assessed their QOL related to kidney disease problems and communication better in comparison to maintenance group (p= 0.01, 0.01). Post KTP children neither had problems related to swelling on the face, nor complained of dizziness, headache, thirst or muscle cramps. Their concern about problems related to kidney disease was less in comparison to children in MD group (Table1). Children with ESRD in KTP group communicated well in comparison to MD group. They did not have any difficulty in telling their parents, doctors, nurses and other people like social worker, dietician in hospital about how they felt, asking questions from the doctors & nurses and explaining about their illness to other people. In other subscales also, KTP children had in general higher scores in general fatigue, treatment problems, worry, perceived physical appearance than the dialysis children, although the differences did not achieve statistical significance. It can be said that HRQOL of children with ESRD on following KTP was better than MD group.

The overall HRQOL of children following KTP in ESRD children was better than MD group as reported by parents(p=0.04) (Table 1), however no statistical difference was observed in any of the 7 domains of HQOL. On comparing parental perception about the HQOL of children with child's perception in both groups irrespective of RRT (n=110), and with respect to group (MD (n=27) and KTP (n=28), it was found to be similar in both the groups (p>0.05). Out of 55 enrolled children with ESRD, there were 4 children initially enrolled in MD group and later on in KTP group. No statistically significant difference was observed in HRQOL scores before and after KTP.

Table 1: QOL of children with ESRD: self perception and parental perception

n= 55

Domain	Child			Parent		
	MD [median, IQR] Mean± SD	**KTP [median, IQR], Mean± SD**	**p value**	**MD [median, IQR], Mean± SD**	**KTP [median, IQR], Mean± SD**	**p value**
General fatigue (4 items)	300(125-350) (258.33±109.632)	300(300-350) (315.18±80.89)	0.07	275(175-450) (267.59±98.01)	337.5(256.25-400) (311.61±95.13)	0.07
About kidney disease (5 items)	300(200-300) (293.52± 130.38)	400(350-450) (382.14±89.45)	0.01*	375(175-375) (313.89± 142.33)	375(331.25-450) (370.54±115.08)	0.19
Treatment problems (4 items)	250(175-300) (238.89±98.14))	300(231.25-350) (284.82±87.49)	0.06	300(225-375) (269.44± 113.58)	300(225-350) (277.68± 84.53)	0.86

Table 1: QOL of children with ESRD: self perception and parental perception (Cont...)

Family and peer interaction (3 items)	225(125-300) (192.59±105.57)	200(125-300) (187.5± 85.12)	0.67	200(100-250) (184.26± 80.60)	200(125-250) (180.36±81.75)	0.89
Worry (10 items)	625(425-850) (608.33± 266.48)	700(500-825) (668.75± 213.14)	0.54	375(250-800) (486.11±288.34)	662.50 (393.75-775) (614.29±240.12)	0.10
Perceived physical appearance (3 items)	200(100-300) (186.11±111.01)	225(125--300) (208.93± 89.81)	0.45	200(75-300) (181.48±102.28)	200(131.25-268.75) (191.07±92.85)	0.78
Communication (5 items).	300(125-450) (285.19±158.40)	387.5(125-300) (387.75±124.82)	0.01*	375(225-475) (332.41±156.10)	450(300-500) (382.14±148.27)	0.17
Overall QOL	2250 (1175-2700) (2062.96± 774.52)	2437.5(2000-2950) (2434.82± 576.24)	0.08	1925(1600-2450) (2035.27±557.91)	2425(1975-2843.75) (2327.68± 651.40)	0.04*

Man Witney U test ($p<0.05$)

DISCUSSION

Kidney transplantation ameliorates uremic symptoms in ESRD children. After kidney transplantation children show improvement in their growth, school performance, cognitive and psycho-social functioning. All these results have direct positive impact on the quality of life. The present study findings showed that anthropometric, physiological and bio-chemical parameters were better controlled in KTP children as compared to MD children. All these controlled parameters have direct reflection on the HRQOL of children with ESRD. Self perception of the HRQOL of children with ESRD in KTP group was better in comparison to MD group. The findings of the present study are similar to the findings given by Katarzyna Kilis´-Pstrusin´ska etal[7] Goldstein **et al**,[8] McKenna **et al**.[9] The only subscale where MD group scored higher was family and peer group interaction. This finding possibly reflects that children are on lifelong immune-suppressants following KTP and might be having fear related to the rejection of the new kidney. Therefore, there may be self imposed restriction related to family and peer interaction. It is to be emphasized that children with ESRD on maintenance dialysis require counseling and special support by the health care professionals for having lower QOL scores. Similar to children's self perception, parents of children with ESRD in KTP group rated their overall quality of life much higher than MD group which is in congruence to the findings given by Katarzyna Kilis´-Pstrusin´ska etal.[7]

Comparison between self and parental perception of HRQOL of children with ESRD revealed similar scores between the two groups, the findings are in contrast to the findings given by Amr M etal[1], in which conflict between self and parents' perception about the quality of life in children with ESRD was reported. Similar HRQOL scores were seen in 4 children before and after KTP. The same can be attributed to very small sample size.

There are several studies in which quality of life of children has been compared with healthy children but very few studies have done this type of comparison among the ESRD children on different RRT. Findings of the study would help the health care professionals to understand the children's perspective about their own quality of life, who tend to give more importance to parents' version. Use of standardized tool for assessing the HRQOL of children with ESRD, that could evaluate HRQOL in young children as well in adolescents, is another strength of the study. There are some limitations of this study too. A single center, cross-sectional study with small sample size limits the generalizability of the findings. In the present study either of the parents was enrolled, it would have been better if both parents' perception was taken into consideration. Also factors contributing to the difference in perception of parents and children about their quality of life can be studied.

Scholastic performance of the children, psycho-social wellbeing of the children with ESRD can be studied. The study can be replicated with larger sample size involving multiple centers so that a standardized counseling programme can be developed to improve the quality of life of these children. Qualitative study, longitudinal follow-up study in this area can reveal more in-depth information about the HRQOL of these children.

CONCLUSION

Children with ESRD in KTP group had better quality of life rated by both children and parents in comparison to MD group. There were no differences between the QOLL scores of the children and their parents.

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Conflict of Interest: The authors declare no conflict of interest.

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Experiences of Fatherhood from an Urban Setting of a Middle Income Country

Laila Pirani[1], Rozina Karmaliani[2]

[1]Sr. Instructor, Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan, [2]Professor, School of Nursing and Midwifery and Community Health Sciences, Aga Khan University, Karachi, Pakistan

ABSTRACT

Fatherhood is one of the landmark achievements in an individual's life, giving oneself, feelings of fulfillment and strengthening family ties. Never the less it is challenging too. Understanding these challenges is important for preparation and for effective performance of this role. Hence, through enrolling the first time fathers (n= 7) a study was conducted in an urban city for a middle-class income segment of the country. Results revealed that managing these challenges is important for smooth transition of a couple towards parenthood.

Keyword*: Fatherhood, Postnatal Experiences, Family Harmony, Middle Income Country, Pakistan.*

INTRODUCTION

Parenthood is considered as an important component of growth and development of a family and it is the moment of happiness which along with it brings challenges too. Understanding these challenges is very important for strong family ties. However, studies on postnatal experiences focus mainly on women; whereas men also go through these experiences and face psychological, socio-cultural and physiological changes. Having this knowledge could guide the health care personnel mainly in maternal and child care settings, to fulfill their role effectively.

Purpose: To understand, and interpret the lived postnatal experiences of first time fathers in an urban setting of a middle income country, Pakistan.

Methodology: Hermeneutic phenomenology[1] was used as study design. Upon receiving the ethical clearance and participants' informed consent, using semi structured interview guide, data was collected from the first time fathers (n=7). Interviews were audio recorded, transcribed and analyzed which were grouped into themes and their corresponding categories and sub-categories. This paper focuses on theme challenges, its categories and sub-categories.

Corresponding author:
Laila Pirani
RN, BScN, MScN, Sr. Instructor, Aga Khan University School of Nursing and Midwifery
Stadium Road, Karachi 74800, Pakistan
Tel: 0092 21 34865415
Email: laila.pirani@aku.edu

FINDINGS

Analysis of the participants' responses is diagrammatically presented in figure 1 and is supported through their quotations.

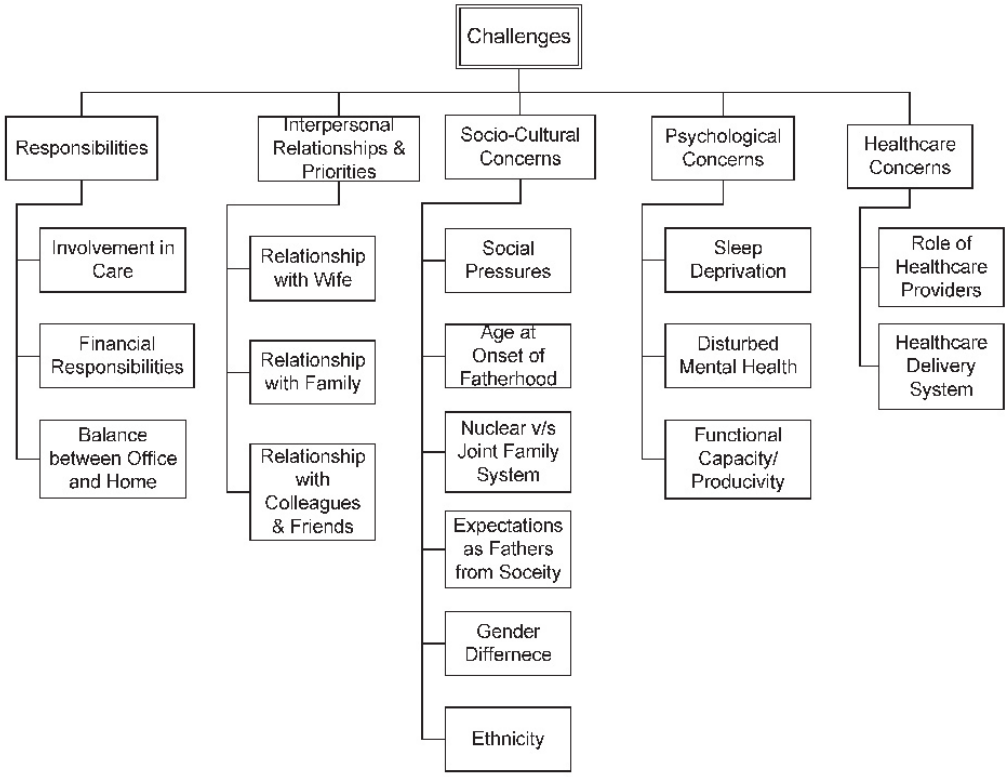
Category # 1: Responsibilities

The study participants shared that after becoming first time fathers, they completely underwent an extended change of role that is from a husband to a father. During this period, fathers are also expected to do physical work for the baby while the mother was either busy in other household errands or feeding and is tired and need breaks as interview ID # 3 said:

"Yes I help in a way, that if my mother or anyone else is not at home and my wife is all alone, then I take care of the baby, and my wife takes care of the cooking and other household stuff."

Sub category # 1: Involvement in care

The study participants responding to this area had mixed feelings, as many of them were happy Figure 1:



Challenges of fatherhood

with the new responsibilities, whereas some of them were fulfilling these, due to the expectations. One of the participants, interview ID # 4 reported that:

"Since we are not being taught in our culture about these things (minor problems of infant, like baby' throwing up etc.), which, in turn, creates a lot of anxiety when you become a father for the very first time."

Sub category # 2: Financial responsibilities

Participants felt it was an ongoing challenge, because it was not limited to the present but would remain with them in the future too.

Interview ID # 2 said: "Previously, I never used to think before spending but now I think that if I save now, it will help me in my tough times and for the education of the baby, and other needs."

Some of them shared that they had started working extra hours in office in order to earn overtime money, on top of their salary, so that they would be able to meet the extra expenses of the newborn baby.

One of the respondents ID # 4 emphasized on restraining from habits like smoking, pan and uses of other such substances as it is important for financial management. He said:

"I don't have habits of smoking or pan etc., so it gets managed."

Sub category # 3: Balance between office and home.

Participants shared that, due to sleep deprivation and tasks related to the baby, created problems at work. Interview ID # 6 responded:

"Initially I couldn't give much attention to my work. Sometimes it happened that my wife would call me at the office and say that the baby is not well. Then I had to take my child to the doctor."

Category # 2: Interpersonal relationships and priorities

This category is further divided into sub-categories which are described succinctly.

Sub category # 1: Relationship with wife

Although all the participants were provided complete privacy and none of them were interviewed in the presence of their wife even then most of them were quite reluctant to express but few talked about

their relationships with their wives. They expressed about division of time, love and affection and a decline in sexual relationships. The interview ID # 6, said:

"My wife is a typical Pakistani girl. She doesn't like to be touched. After birth everything takes time, even in sexual relationship; sometimes she has pain, and sometimes the baby needs to be fed. She ignores the fact that, I also need attention, like we all need love, but now more attention is for my daughter."

One participant shared that for birthing process wife required surgery therefore, he had to restrain from sexual contact with his wife (interview ID # 5).

Sub category # 2: Relationship with family

The study participants shared their views about their experiences regarding their priorities with respect to their family members, like wife, parents, and friends. The major complaint they faced from all of them was that since the birth of the baby, the father had completely changed, in terms of maintaining priorities in relationship and other such expectations. Whereas the study participants' perspective was that, others should also understand that they have become fathers for the first time, so they should also be given some space with regard to prioritization in family relations. As interview ID # 3 said:

"But priorities get changed; means that when you have a baby, than you are more inclined towards your baby. Therefore, people say that your attention has diverted towards your baby and you are not paying attention to us."

Sub category # 3: Relationship with colleagues

As per the study participants, there was little effect on their personal relationship with their colleagues or friends. Many of them said that their relationship with their office colleagues remained unchanged, whereas in the case of friends, the complaint they received was that, now they gave less time to them as compared to the past, when they had not become fathers; they had confined themselves to their home.

Category # 3: Socio-cultural concerns

The study participants shared their personal as well as joint (couple) experiences, regarding the multiple types of expectations they came across from society, and how they felt or responded to them.

Sub category # 1: Social pressure

In this category, the study participants shared about the social pressure they underwent when the couple was unable to conceive for some years after their marriage. The society pressurized them to undergo different types of tests along with their wives just to fulfill the requirements of their self-proclaimed justification. One participant interview ID # 5 said that this type of pressure created a lot of mental strain. He said:

"The tension I went through was of extreme level. What does a woman feel, that I don't know, but what does a man feel is, like, even a highly intelligent person gets mentally weak and he cannot even tell you, what is going on with him. He faces people and can only understand within, but cannot express it."

Sub category # 2: Age at the onset of fatherhood

Majority of the fathers, discussed about getting married and becoming a father at the age of 28 to 30 years, because, according to them, delaying the process of fatherhood can have several concerns; a great age difference between child and father could create a major gap between their understanding and building their relationships in a longer run.

Sub category # 3: Nuclear v/s joint family system

While discussing the family system participants' had mixed feelings as they compared joint family system to nuclear family system; as they felt this could minimize the conflicts between daughter-in-law and mother-in-law, complaints from mother to son regarding change in attitude and interference in couple's living style and privacy. Apart from that, they also said that one also gets an opportunity to think about his own family's future exclusively, which is not possible in joint family system.

Sub category # 4: Expectations as fathers from society

In this category, the study participants expressed that, primarily, society and people ask them to act in a matured manner now that they had become fathers and, at the same time, if anything went wrong like not available when required for the family members, the blame would be placed

on father, whereas they should understand that the father is in new role for them.

Sub category # 5: Gender differences

While describing their feelings for this particular area, the study participants' had mixed viewpoints, although, in general, they said that they were happy with either a boy or a girl, but, actually, a majority of them expressed the opinion that they would prefer having a son. The reasons for this were different in nature; like they wanted to have son, so that in their old age, the son could not only support them financially, but would also take care of them, by keeping them with him. Another reason was that they felt that daughters were a heavy financial burden, in terms of their marriage and dowry, whereas, in case of the son, they become source of receiving dowry, hence, they had this benefit.

One of the father particularly described the problem in terms of physical appearance, like complexion and other such attractive features, because if their daughters didn't have all these characteristics, then that really can become a severe problem for them, with regard to their marriage.

Another father shared that if you have a baby girl then even society treats you in an inferior manner, especially when you have more than one daughter then it really becomes a burden. Another feeling, that was really important for fathers was that if they had only daughters then there would be no continuity in their generation, and this made them feel inferior in the society, and had to face the pressure of going for a second marriage.

One of the fathers had very optimistic approach towards having a daughter. He linked it with the religious aspect in terms of gift from Almighty, if you take good care of the baby girl.

Sub category # 6: Ethnicity

Most of the participants responded that they had no problems with ethnicity. However, one father commented on this issue, and said that, yes, ethnicity did matter, and he felt that its impact increased especially when one is the father of a daughter.

Category # 4: Psychological concerns

In this category, the study participants discussed and shared their experiences, which resulted in form of psychological challenges.

Sub category # 1: Sleep deprivation

Almost all the study participants said, that their sleep routine had been affected, because the baby wakes them up many times during the night. This particularly created problem for those fathers who worked for long hours, as interview ID # 1 said,

"A person like me, who goes office at 8:00 am and comes back around 9:00 or 9:30pm, so during sleeping hours you face a little bit of a problem, as your sleep gets affected, but, then again, it's up to you to manage it."

But, at the same time, the fathers did accept the fact, that no matter how many times they needed to wake up, this thing had developed a sense of responsibility in them, and even if the baby didn't wake them up, then they themselves got up many times at night to check the baby to see that everything was fine.

Sub category # 2: Disturbed mental health

n this category, the study participants said that after becoming a father for the first time, everything was new, with regard to the baby's reaction to weather and surrounding. For example, if the baby started crying and did not stop, then it made you worried, as you didn't know the reason and baby could not express it either. The study participants also shared that not only because of the baby, but, at times, because of the mother too, they underwent lots of mental pressures, sometimes at the time of delivery, and sometimes post-delivery; their worries increased.

Sub category # 3: Functional capacity/ productivity

The study participants expressed mixed feelings regarding this area, as some said that their functional capacity/productivity increased and some said that it had been affected, whereas some remained neutral about it.

Category # 5: Health care concerns

This was another major area, in which the study participants were quite vocal about their feelings, as they said healthcare issues really mattered, especially for the first time fathers.

Sub category # 1: Role of Healthcare Providers

The study participants strongly felt that the healthcare provider play a very important role in developing their understanding as first time fathers as they are stressed with number of laboratory test and possible complications related to pregnancy and delivery.

Sub category # 2: Healthcare delivery system

Concerns identified by the participants included; communication gap, lack of coordination between different teams of doctors, ignorant attitude, and poor competency levels. One of the participants interview ID # 7 said:

"Unfortunately the doctors, pediatricians were so uninformed and ignorant that they knew nothing. They repeatedly kept on saying that the mother should feed the child. We kept telling them but still…"

On another occasion the same study participant shared:

"A patient is being medically advised not to breast feed and, despite of that, still it is being written in the discharge summary, been recorded in an official document".

DISCUSSION

Birth of a child brings profound changes in a family's life; new roles are learnt, new relationships are built and the existing relationships get realigned[2]. It is not only the mothers who go through role transition but fathers also go through this process and require preparation as "how to father"[3]. The present study enrolled first time father to understand their experiences in this new role. The participants strongly felt that father's involvement in baby's care is important as it gives mother some break and builds strong relationship among baby and wife. However, they felt being discouraged by the society as provision of child care is considered to be mother's responsibility and father's role is of a financial provider for the family. Consequently, they arrange the finance for care during pregnancy, child birth and related expenses. Fathers are required to provide the finance for child's immediate and long term needs including education, marriage and others as they progress in the life. Particularly expenses for marriage, especially exuberant marriage expenses, has become a social norm and status symbol giving the impression that the family has a strong financial background[4].

Particular to sleep deprivation, it is not only mothers, but fathers too get affected, as they need to get up to respond to the need of their new born. For father, implication of sleep deprivation could be lack of attention at work and feeling of tiredness which may require more time to complete their work and their stay at work may get prolonged.

Interpersonal relationship was another component which the study participants found challenging and required to be managed diligently to maintain the family harmony and to maintain social relationships.

Sexual relationship was the area, which the participants were very reluctant to discuss but few shared that, this need was unmet.

CONCLUSION

Alike motherhood, fatherhood is also challenging process in any individual's life and; understanding this process is vital to prepare the couple for their role transition towards parenthood. For meaningful outcomes, it is necessary for all quarters of society like healthcare professionals, academicians and NGOs, having direct or indirect affiliation with the couple; should have appropriate understanding of this role transition, so they can better perform their role. This goal could be achieved through knowledge generated in connection with the present study, and by means of implementing certain initiatives like arranging pre and post natal educational sessions, how to handle the pressure of labor room for first time fathers and awareness of sexual health related matters. It is also recommended that a specialized area shall also be made part of regular curriculum for our future healthcare educators and professionals.

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Ethical Clearance: Received from the university and participants

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A Study to Compare the Effectiveness of Video Assisted Teaching vs Self Instructional Module on Quality of Life among Type 2 Diabetes

Sithara Begum

Ph.D Scholar, Saveetha University, Chennai

ABSTRACT

Diabetes is becoming the epidemic of the 21st century. Type 2 diabetes , which is more prevalent (more than 90% of all diabetes cases) and the main driver of the diabetes epidemic, now affects 5.9% of the world's adult population with almost 80% of the total in developing countries .In addition to this, the complications and associated with diabetes is also in the higher rate.

Aim: The aim of study is to compare the effectiveness of of video assisted teaching Vs Self instructional module on quality of life among type 2 diabetes.

Methodology: The research approach adopted for the present study is an Quantitative research approach and the design adopted was quasi experimental design. The setting for the study was Crescent Hospital, Alathur. Palakkad, Kerala. The sample size of the present study was 50 used simple random sampling technique to select samples.

Finding: The Pre-test mean Score and Standard Deviation of the type2 diabetes regarding video assisted teaching on quality of life was 55.84 & 6.95,which increased in post test 75.76 and 6.54. pre test mean Score and Standard Deviation of the type 2 diabetes regarding Self-instructional module on quality of life was 54.4 and 4.203, which increased in post test 66.68 and 13.524.

Conclusion: The present study results shows that comparatively the video assisted teaching is more effective in promoting Quality of life than Self-instructional module .

Keywords *: Self instructional module(SIM) , Video assisted teaching(VAT), Effectiveness, Compare , Quality of life(QOL), Type 2 diabetes.*

INTRODUCTION

While there are many diseases, there is, in a sense only one health. - ***Park***

Encyclopedia, defines diabetes is the group of metabolic diseases which a person has high sugar, either body does not produce enough insulin or because the body does not produce enough insulin or because cells do not respond to the insulin that is produce.

Kumar and Clark (2005) Diabetes Mellitus (DM) is a syndrome of Chronic hyperglycaemia due to relative insulin deficiency, resistance or both It affects more than 120 million people world wide and it is estimated that it will affect 220 million by the year 2020. Diabetes is usually irreversible and although patients can have a reasonably normal lifestyle, its late complications result in reduced life expectancy.[1]

Dr.V. Mohan and Dr. Pradeepa (2009), conducted a Study on Epidemiology of Diabetes in Different Regions of India. Diabetes is fast becoming the epidemic of the 21st century. Type 2 diabetes , which is more prevalent (more than 90% of all diabetes cases), now affects 5.9% of the world's adult population with almost 80% of the total in developing countries.[2]

Kumar and Clark (2005), Type II diabetes is relatively common in all population enjoying affluent life style. The four major determinants for development of type II diabetes mellitus are increase in age, obesity, ethnicity and family history.[1]

The World Health Organization (2012) estimates that nearly 200 million people all over the world suffer from diabetes and this number is likely to be doubled by 2030. In India, there are nearly 50 million diabetics, according to the statistics of the International Diabetes Federation. The people should be made aware and educated about their health and fitness level to reduce the number of patients in India.[3]

The Management of type 2 diabetes is most difficult part. Lifestyle modifications like dietary modifications, physical activity, some major drugs of diabetes management, insulin therapy, foot care of diabetes and annual screening. To manage Diabetes patients need a well planned teaching in all aspects of diabetic care

NEED FOR THE STUDY

Maria Polikandrioti,Helen Dokoutsidou(2009) conducted a study on the role of exercise and nutrition in type 2 diabetes mellitus management. In their study concluded that the patients with type 2 diabetes should be constantly informed about the crucial role on nutrition and exercise in the management of the disease. Lack of understanding of the beneficial effects of dietary choices and exercise in the regulation of type 2 diabetes, may lead to inappropriate treatment methods.[4]

Helen Altman Klein(2013) conducted a study on Diabetes Self-Management Education: Miles to Go. Type 2 diabetes, or non-insulin dependent diabetes mellitus (NIDDM), accounts for 90 to 95% of all diagnosed cases of diabetes in adults.

patients experience increased risks of complications including blindness, kidney damage and failure, cardiovascular disease, nerve damage, and lower-limb amputation.[5]

Grace Lindsay, Kathryn Inverarity ,and Joan R.S.McDowell (2011) conducted a study on Quality of life in people with type 2 diabetes in Relation to Deprivation, Gender ,and age in a new community based model of care. The study confirms the value of measuring HRQL for people with diabetes, living with a chronic long term condition, to identify changes in status as a mechanism for understanding wider health issues and developing individualized strategies to improve care.[6]

The latest global figures on diabetes, released by the International Diabetes Federation (IDF), has raised a serious alarm for India by saying that nearly 52% of Indians aren't aware that they are suffering from high blood sugar.[7]

Kerala has a prevalence of diabetes as high as 20% - double the national average of 8%. The prevalence was 17% in urban, 10% in the midland, 7% in the highland, and 4% in the coastal regions .[8]

These evidence clearly explains the need for effective education in quality of life among type 2 diabetes and it suggests the need for conducting this studyThe researcher came across many diabetes during the time of clinical postings and found that patients lack in self management of type 2 diabetes.Hence the researcher is interested to take up this study to find an effective teaching method in quality of life among type 2 diabetes.

REVIEW OF LITERATURE

Mohan D et al (2003) conducted a study on Awareness and knowledge of diabetes in Chennai – the Chennai Urban Rural Epidemioogy study. It was Concluded that awareness and knowledge regarding diabetes is still grossly inadequate in India. Massive diabetes education programs are urgently needed both in urban and rural India.[9]

Tang TS, Funnell MM, Oh M.(2012) Lasting Effects of a 2-Year Diabetes Self-Management Support Intervention: Outcomes at 1-Year Follow-Up. It was concluded that participation in an empowerment based diabetes self management support intervention may have a positive and enduring effect on self care behaviours and on metabolic and cardio vascular health.[10]

Santhosh Thomas .Vaishali R Mohite(2014) a Study was conducted to assess the effectiveness of self instructional module on the knowledge regarding diabetic diet among diabetic patients. They reported that self instructional module was effective in improving knowledge of diabetic patients.[11]

Pushpalatha K.S (2007) study conducted on video teaching program of Home care management of Diabetes. The researcher concluded that early teaching program to diabetes mellitus promote the knowledge and alleviate the misconception regarding to practice of life style behaviors'. Timely to education

will reduce the stress and protect from complications. [12]

Vaz N.C et al (2011) conducted study on prevalence of diabetes mellitus in a rural population of Goa, India. the study concluded that innovative community outreach programs are required to create awareness and for screening and treatment of diabetes mellitus to curb the growing epidemic of diabetes in the population.[13]

Farooq Mohyud Din Chaudhary (2010)et al conducted study on Evaluation of Lifestyle Modifications in Diabetic Patients. It was concluded that Diabetes was more common in female and middle age people. Healthier lifestyle modifications were noted more frequently in males, well educated and those on oral plus insulin medication. [14]

STATEMENT OF THE PROBLEM

A study to compare the effectiveness of video assisted teaching VS self instructional module on quality of life among type II diabetes in Crescent hospital, Alathur, Palakkad.

OBJECTIVES:

1. To assess the quality of life among type II diabetic patients before and after administration of Video assisted teaching and self instructional module.

2. To compare the quality of life among type II diabetic patients before and after administration of video assisted teaching.

3. To compare the quality of life among type II diabetic patients before and after administration of self instructional module.

4. To compare the quality of life among type 2 diabetes after administration of video assisted teaching and SIM.

5. To associate the quality of life among type II diabetic patients with their selected demographic variables in video assisted teaching group and SIM.

HYPOTHESES

H1: There is a significant difference in quality of life before and after video assisted teaching & self instructional module.

H2: There is a significant association between post test quality of life scores of video assisted teaching with their selected demographic variables.

H3: There is a significant association between post test quality of life scores of self instructional module with their selected demographic variables.

OPERATIONAL DEFINITION

Effectiveness: In this study effectiveness refers to extent to improve the quality of life among type II diabetes by video assisted teaching or self instructional module.

VIDEO ASSISTED TEACHING

In the study it is a pre recorded video assisted teaching of the management of type II diabetes, which will be projected to the patients using a lap top.

SELF INSTRUCTIONAL MODULE

In this study it refers to the educational booklet prepared for type II diabetes regarding their management.

DEPENDENT VARIABLES: QOL among type II diabetes.

INDEPENDENT VARIABLES: Video assisted teaching and self instructional module.

RESEARCH METHODOLOGY

RESEARCH APPROACH: Quantitative research approach -Quasi experimental subtype approach is used.

RESEARCH DESIGN: The The research design selected for this study is quasi experimental design.

SETTING OF THE STUDY: Study was conducted at Crescent hospital with 300 bed multi specialty hospital. This hospital has Medical and Surgical Wards, Which include Diabetic Clinic.

POPULATION: The Population includes patients who are having type II diabetes in Crescent hospital, Alathur, Palakkad.

SAMPLE: The samples in this study includes the in patients and out patients with type II diabetes in Crescent Hospital.

SAMLE SIZE: Sample size consists of 50type II diabetes patients. Selected 25 for video assisted

teaching group & 25 for self instructional module group.

SAMPLING TECHNIQUE: Simple random sampling technique is used for selecting the sample.

INCLUSION CRITERIA

1. Patients with type II diabetes diagnosed less than 1 year.

2. Patients known to write and speak Malayalam and English.

EXCLUSION CRITERIA

1. Patients with documented mental illness and anxiety disorder.

Data Collection Instrument are:

Section A : Biographic Variables

Section B : Physiological Variables

Section C : QOL For Indian Diabetes Patients

RELIABILITY& VALIDITY

The tool was given two medical experts & six nursing experts, one statistician and the demographic data was prepared. The standard Indian diabetic quality of life tool was used. Final approval was sought from the guide.

FINDINGS

Table 1: Distribution according to the demographic variables:

S.No	Demographic variables	SIM	VAT	Chi-square(table value)	P-value
1	**Age**				
	35 -45 years	48%	32%	3.125	0.210(NS)
	46 -55 years	40%	36%		
	>55 years	12%	32%		
2	**Sex**				
	Male	60%	60%	0	1.000(NS)
	Female	40%	40%		
3	**Marital status**				
	Married	92%	68%	7.567	.056(NS)
	Unmarried	0%	12%		
	Widowed	4%	20%		
	Divorce	4%	0%		
4	**History of illness**				
	1 -3 months	40%	24%		
	4 -6 months	32%	12%	8.673	.034(S)
	7 -9 months	12%	48%		
	10 -12 months	16%	16%		
5	**Education**				
	Primary & secondary school	40%	36%		
	Diploma	16%	28%		
	Degree	28%	16%	1.8	.615(NS)
	Others	16%	20%		
6	**Employment status**				
	Cooley	12%	24%		
	Private	36%	52%	6.499	.090(NS)
	Government	44%	12%		
	Others	8%	12%		

In the above observation the comparison is significant only under the category History (0.034<0.05) and no other category is significant.

Table 2: Comparison of pre test & post test of VAT

S. No	Item		Mean	Standard Deviation	t Value	Level of Significance
1	Blood Glucose	Pre test	142.44	15.149	10.375	0
		Post Test	124.2	10.575		
2	HbA1c	Pre test	7.27	0.514	2.004	0.056
		Post Test	7.1	0.256		
3	Urine Glucose	Pre test	0.88	0.4397	4.272	0
		Post Test	0.52	0.1		
4	SBP	Pre test	138	11.902	0.827	0.417
		Post Test	135.6	11.576		
5	DBP	Pre test	92	7.071	0.659	0.516
		Post Test	90.4	10.198		
6	BMI	Pre test	23.56	1.446	2.619	0.015
		Post Test	23.16	1.313		
7	Waist circumference measurement	Pre test	100.88	8.064	1.732	0.096
		Post Test	99.88	7.513		
8	Score	Pre test	55.84	6.95	-11.195	0
		Post Test	75.76	6.54		

Observation shows the comparison between pre-test and post-test all the categories are significant. Since the significance level is less than 0.05 in all the categories.

Table 3: Comparison of pre & post test values of SIM Group

S. No.	Item		Mean	Standard Deviation	t Value	Level of Significance
1	Blood Glucose	Pre test	148.16	14.343	8.959	0
		Post Test	130.44	6.893		
2	HbA1c	Pre test	7.12	0.726	-1.693	0.103
		Post Test	7.28	0.542		
3	Urine Glucose	Pre test	1.1	0.40825	4.437	0
		Post Test	0.84	0.45		
4	SBP	Pre test	128.8	13.638	3.098	0.005
		Post Test	124.8	9.626		
5	DBP	Pre test	82.8	5.416	1.445	0.161
		Post Test	82	5		
6	BMI	Pre test	22.36	1.15	3.116	0.005
		Post Test	21.88	0.971		
7	Waist circumference measurement	Pre test	92.52	3.618	0.885	0.385
		Post Test	92.96	3.857		
8	Score	Pre test	54.4	4.203	-4.746	0
		Post Test	66.68	13.524		

In the observation given above pre-test and post-test result in all the categories plays a significant role.

Table 4 : Comparison of post test between two groups

S.NO	Physiological Variables	SIM		VAT		t value	Level of significance
		Mean	Std.Deviation	Mean	std. Deviation		
1	Blood Glucose	130.44	6.893	124.2	10.575	2.472	0.017
2	HbA1c	7.28	0.542	7.1	0.256	1.536	0.131
3	Urine Glucose	0.84	0.45	0.52	0.1	3.471	0.001
4	SBP	124.8	9.626	135.6	11.576	3.587	0.001
5	DBP	82	5	90.4	10.198	3.698	0.001
6	BMI	21.88	0.971	23.16	1.313	3.919	0
7	Waist circumference measurement	92.96	3.857	99.88	7.513	4.097	0

From the above observation comparison of post test given above the comparison shows SIM is found to be significant in SBP, DBP, BMI & Waist circumference measurement, whereas there seems to no significance in the other items.

Table 5: Comparison of QOL between two groups

S. No	Item	SIM			VAT			Chi Square		Level of Significance	
		Good	Average	Poor	Good	Average	Poor				
								SIM	VAT	SIM	VAT
1	**History of ILLNESS**										
	1 - 3 Months	0.00%	0%	45.50%	0%	50%	19.00%	4.482a	2.679	0.214	0.444
	4 - 6 Months	0%	67%	27.30%	0%	0%	14.30%				
	7 - 9 Months	0%	33.30%	9.00%	0%	50.00%	47.60%				
	10 - 12 Months	0%	0%	18.20%	0%	0%	19.00%				
2	**Sex**										
	Male	0%	33.30%	63.60%	0%	50%	61.90%	1.010b	0.198	0.315	0.656
	Female		66.70%	36.40%	0%	50%	38.10%				
	Marital Status										
3	Married	0%	100.00%	90.90%	0%	100.00%	61.90%	.296a	2.241	0.862	0.326
	Widowed		0%	4.50%	0%	0%	14.30%				
	Divorce		0%	4.50%	0%	0%	23.80%				

The above table shows history of illness during stipulated period and sex and marital status. The data do not show a great significant variation between SIM and VAT.

CONCLUSION

The study shows that the Pre-test mean Score and Standard Deviation of the type 2 diabetes regarding video assisted teaching on quality of life was 55.84 and 6.95, which increased in post test 75.76 and 6.54. pre test mean Score and Standard Deviation of the type 2 diabetes regarding Self-instructional module on quality of life was 54.4 and 4.203, which increased in post test 66.68 and 13.524.

RECOMMENDATION

- The comparative study can be done for the newly diagnosed diabetes with chronic diabetes patient

- A similar study can be done in public health center.

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Reminiscence Therapy to Reduce Depression among Elderly

G Soniya

Lecturer in Psychiatric Nursing, Department of Mental Health and Psychiatric Nursing, Nightingale Institute of Nursing, Noida, Uttar Pradesh

ABSTRACT

Background: The diminishing joint family system in India and various other social factors created a boom in emergence of old age homes, especially in cities. The elders are considered financial burdens on the families and therefore unwanted, unloved and uncared. Social isolation and loneliness commonly accompany depression in adults over 65 years. India poised to become home to second largest number of elderly. Projected number of elderly above 65 years of age will be 86.7 million by 2050. 974 million is total worldwide senior population over age 65 by 2030, as projected by the Census Bureau of 2010**.** Depression is a common problem among older adults. Studies have found that about 15% of those over age 65 experience symptoms of depression that cause them distress and make it hard for them to function

Objectives: Developing a structured reminiscence therapy programme**,** Assess and Compare the pre-test levels of depression among elderly in experimental group and control group before reminiscence therapy, Assess and Compare the post test levels of depression among elderly in experimental group and control group, Compare the pre-test and post test levels of depression among elderly between experimental group and control group. Associate the post test levels of depression among elderly in experimental group and control group with the selected demographic variables.

Hypothesis: Mean post test depression Scores will be significantly higher than the mean pre test depression score among elderly, Significant association of post test level of depression in experimental and control group with their selected demographic variables.

Materials and Method: The research approach used in this study is quantitative approach and the research design is quasi-experimental pre-test- post-test design. The Structured Questionnaire to elicit Demographic Variable and Geriatric Depression Scale were used as tools of data collection. Descriptive and Inferential Statistics were used in terms of mean median, standard deviation "t" test and chi-square test.

Result: The mean and standard deviation of post test level depression among elderly in experimental group and control group depicted that, the mean value of 9.63 with SD 1.99 and the mean value of 15.3 with SD 2.23 of post test levels in control group projects 't' value as 27.6 which is Statistically significant at P =0.001 level.

Conclusion: The overall findings suggested that the majority of old age persons had mild depression. Reminiscence therapy was effective in reducing depression among old age persons.

Keywords: *Elderly, Depression, Reminiscence therapy*

Corresponding author:
G Soniya
Lecturer in Psychiatric Nursing
117- Tenament-2, R.B.T.B. Hospital, Kingsway Camp, Delhi- 110009, Email I.d.: gsoniya1987@gmail.com

INTRODUCTION

Aging is the process of becoming older, Aging defined as the process of deterioration of system with time. The age of 65 years has arbitrarily become the point at which a person is considered old. The

number of people 65 years old and older is growing dramatically today. People are living longer because of scientific, medical, and technical advances. Elderly populations are considered as important segment of population. Global population of aged above 65 years has reached 483 million due to increased longevity of life.

It is estimated that 11.9% of population is above 60 years around the globe. In India, the trend is the same, 7.5 % of total population is above 60 years and the life expectancy is increasing gradually. Projected number of elderly above 65 years of age will be 86.7 million by 2050. 974 million is total worldwide senior population over age 65 by 2030, as projected by the Census Bureau of 2010.

According to **(WHO 2008)**[1] the prevalence of depressive disorders varies throughout the world. The lowest rates are reported in Asian and Southeast Asian countries., Taiwan reports less than 2%, and Korea 3%. Western countries typically report higher rates, such as Canada 7%, New Zealand 11%, and France 16%. The United States has a rate of 6%. Also, countries plagued by protracted civil war, such as Bosnia and Northern Ireland, report higher rates of depression.

National institute of mental health (2010)[2] reported the prevelance of depression as 12.7% and Low income, experiencing hunger, history of cardiac illnesses, transient ischemic attack, past head injury and diabetes increased the risk for geriatric depression.

Science Daily (2011)[3] reported that most severe depression can lead to suicide and is responsible for 850,000 deaths every year

Harvard health publication[4], reported that about 15% people over 65% have significant depression symptoms and above 5% the same proportion as in youth of suffering from major depression, another 2% have dysthymia a mild form of depression

There is a need for preventive interventions which are at once effective, acceptable and economic affordable

Structured reminiscence has been suggested as a cognitive-behavior approach for dealing with depression in elderly. Its basic assumption is that reflection on positive and negative past life experiences enables individuals to overcome feelings of depression and despair. Reminiscence therapy has been found to reduce depressive symptoms in non clinical samples and among cognitively impaired nursing home residents.

Reminiscing encourages older people to become actively involved in reliving and sharing their past with others. Although reminiscence involves recalling past events it encourages the elderly to communicate and interact with a listener in the present. Reminiscence groups can operate on different levels. Groups can be run with older people and with a range of competencies including those who are confused.The therapist may use music, photographs, replica documents, drama and sensory gardens to stimulate debate and discussion for the participants.

Su TW, Wu LL, (2011)[5] used reminiscence as a nursing intervention to evaluate the immediate effects on self-esteem, life satisfaction and depressive symptoms for a special group named institutionalized older and found that reminiscence therapy was effective in reducing depression.

Therefore, there is a need to research alternative approaches to dealing with depression in this age group and Reminiscence Therapy is very effective and beneficial.

MATERIAL AND METHOD

The research approach used in this study is quantitative approach The research design is quasi-experimental pre-test- post-test design The sampling technique used is simple random sampling technique, Sample size was 60, including experimental group and control group. The study was conducted in a old aged home in Chennai. Based on the objectives the following data collection instruments were used Structured Questionnaire to elicit Demographic Variable and Geriatric Depression Scale to assess depression. The investigator had collected data for four weeks. After formal approval was taken from the authority of the old age home. 60 Samples were selected using simple random sampling. 60 members were divided into 30 in experimental group and 30 in control group using lottery method. Informed consent was taken. The pre-test was conducted using geriatric depression scale. The 30 members from the experimental groups were divided into 3 groups each of 10 members. each individual have

received reminiscence therapy using themes such as pleasurable memories related to family of origin and family life, spiritual life, hobbies and recreation, occupation and achievements, vacations and travelling with family, food and meal time, Good times with friends in old age home for 20 minutes for 7 days followed by post- test.

OPERATIONAL DEFINITIONS

Effectiveness: It refers to the capacity of reminiscence therapy to reduce level of depression as determined by difference between pre-test and post test level.

Reminiscence therapy: Reminiscence therapy is a therapeutic intervention in which elderly recall and share significant past events and memories through verbal interaction which helps to relieve depression. Each therapy sessions lasts for 20- 30 minutes for 7 days.

Depression: Depression is characterized by loss of interest and enjoyment in activities, feeling of helplessness and loneliness, worries about the future, reduced energy decreased concentration and disturbance in sleep and levels assessed using geriatric depression scale.

Elderly: Elderly refers to people above 60 years of age in a selected old age home.

Assumptions: Elderly people often experience mild levels of depression.

Sharing past events and memories may reduce depression and provides assistance in solving unresolved conflicts.

FINDING

Following graphs represents frequency and percentage distribution of demographic variables of elderly in experimental group and control group.

Table 1: Age wise distribution of elderly person

Demographic variables		Experimental		Control	
		No.	%	No	%
Age	60-64	7	23.3	6	20.0
	66-69	6	20.0	8	26.7
	70-74	8	26.7	6	20.0
	75-79	3	10.0	5	16.7
	80-85	6	20.0	5	16.7

Table 2: Sex wise distribution of elderly person

Demographic variables		Experimental		Control	
		No.	%	No	%
Sex	Male	13	43.3	15	50
	Female	17	56.7	15	50

Table 3: Marital Status of elderly person

Demographic variables		Experimental		Control	
		No.	%	No	%
Marital status	Un married	4	13.3	8	26.7
	Married	3	10.0	4	13.3
	Separated	4	13.3	2	6.7
	Divorced	2	6.7	5	16.7
	Widow	17	56.7	11	36.7

Table 4: Educational status of the elderly persons

Demographic variables		Experimental		Control	
		No.	%	No	%
Education	Primary	7	23.3	7	23.3
	Middle	6	20.0	7	23.3
	High School	4	13.3	4	13.3
	HSS	7	23.3	7	23.3
	College	6	20.0	5	16.7

Table 5: occupation of the elderly persons

Demographic variables		Experimental		Control	
		No.	%	No	%
Occupation	Govern-ment	16	53.3	9	30.0
	Private	4	13.3	4	13.3
	Business	6	20.0	10	33.3
	Un employed	4	13.3	7	23.3

Table 6: Particulars of children

Demographic variables		Experimental		Control	
		No.	%	No	%
No. of Children	0	9	30.0	4	13.3
	1	6	20.0	5	16.7
	2	5	16.7	8	26.6
	3	8	26.7	7	23.3
	4 and above	2	6.7	6	20.0

Table 7: Duration of stay in old age home

Demographic variables		Experimental		Control	
		No.	%	No	%
Duration of stay in Old age Home	<1 Year	4	13.3	7	23.3
	1-3 Years	13	43.3	13	43.3
	4-5 Years	10	33.3	7	23.3
	6 and above	3	10.0	3	10.0

Table 8: Reason for staying in old age home

Demographic variables		Experimental		Control	
		No.	%	No	%
Reason to stay in Home	None to look after	6	20.0	5	16.7
	Forced by children	6	20.0	7	23.3
	Neglected at home	12	40.0	14	46.6
	Voluntarily	6	20.0	4	13.3

Assessment and Comparison of pre test and Post test levels of depression.

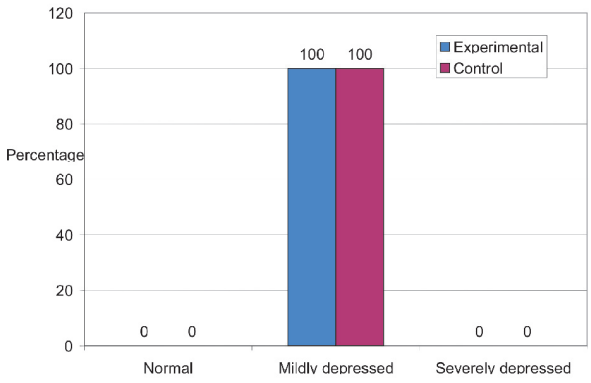

Fig 1: Pre test level of depression among elderly

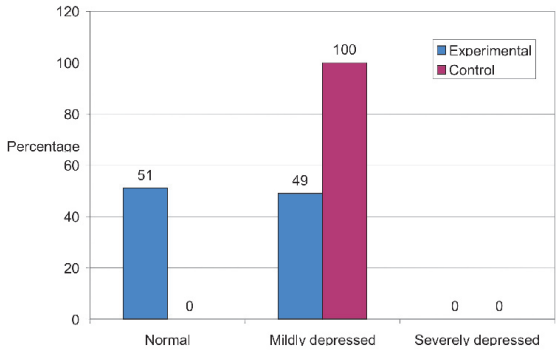

Fig 2: Post test level of effectiveness of reminiscence therapy on Depression

Findings suggested that the mean and standard deviation of post test level depression among elderly in experimental group and control group depicted that, the mean value of 9.63 with SD 1.99 and the mean value of 15.3 with SD 2.23 of post test levels in control group projects 't' value as 27.6 which is Statistically significant at P =0.001 level

There was a significant association between post-test level of depression of experimental group and their selected demographic variables like Occupation ($X^2 = 7.52$) and No. Of Children ($X^2 = 11.37$). Hence the stated research Hypothesis was accepted.

IMPLICATION

As a member of health team, nurses play a vital role in reducing the depression among elderly**.** Nurses should develop skill in implementing reminiscence therapy. Nurses should create awareness and motivate others in the team to use this approach in reducing the depression among elderly people. A continuing nursing education program can be arranged on the reminiscence therapy. Arrange and conduct workshop, conferences and seminars on elderly depression and its management by psychological therapies for general public. The same study can be done with large sample size so that the results can be generalized.

CONCLUSION

The following conclusions were drawn on the basis of the findings of the study. The overall findings suggested that the majority of old age persons had mild depression. Reminiscence therapy was effective in reducing depression among old age persons. Hence it can be concluded that Reminiscence therapy was highly effective in reducing depression of elderly persons those who are residing at old age homes.

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Conflict of Interest- Nil

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Development of Patient Handover Documentation Tool for Staff Nurses using Modified Delphi Technique

Jaspreet Kaur Sodhi[1], Kapil Sharma[2], Jaspreet Kaur[3]

[1]Associate Professor, [2]Associate Professor & Head of Department of Medical Surgical Nursing, [3]MSc.(N)2nd Year Student, Institute of Nursing Education, Guru Teg Bahadur Sahib (C) Hospital, Shastri Nagar, Ludhiana, Punjab

ABSTRACT

Background: The handoff is a mechanism for transferring information, primary responsibility, and authority from one or a set of caregivers, to oncoming staff. The concept of a handoff is complex and includes communication between the change of shift, communication between care providers about patient care, handoff, records, and information tools to assist in communication between care providers about patient care.[1] Evidence suggests that nurse documentation is often inconsistent and lacks a coherent and standardized approach. In most of the hospitals there seemed to be no clear policy for delivering handover and each nurse chose their own method, making handover inconsistent. Inadequate communication handovers have been identified as the primary root cause in sentinel events. The different unit cultures and contexts and the resulting lack of collaboration and cohesion between nurses create increased risk for adverse events. In addition, the nurses developed an appreciation for the challenges of the different work environments.[2]

Aim of study: The aim of study is to develop Patient Handover Documentation Tool for Staff Nurses.

Objectives

1. To select and pool items for Patient Handover Documentation Tool for Staff Nurses
2. To obtain consensus of panelists for Patient Handover Documentation Tool for Staff Nurses
3. To organize valid items in a structured format for development of Patient Handover Documentation Tool for Staff Nurses

Method: Using instrument development design for Patient Handover Documentation Tool for Staff Nurses. 252 Items were generated from evidence and qualitative data. Face and content validity were established through experts by 3 modified Delphi round. Content validity was computed. The content validity index (CVI) was calculated for each item i.e CVI-i, content validity index for experts i.e CVI-e and general content validity index for the tool i.e CVI-total. Item level CVI (CVI-i) is calculated by number of experts agreeing on the value of relevance of each item (value between 3 and 4) divided by total number of experts, expert level CVI (CVI-e) is calculated by number of items scored between 3 and 4 by an expert divided by total number of items and general CVI (CVI-total) is calculated by sum of all experts individual CVI divided by number of experts. Based on expert panel, CVI-i lower than 0.6 were deleted, (CVI-e) is 0.8,and CVI-total) 0.825. The 252 items was reduced to 98 items.

Results: Patient Handover Documentation Tool for Staff Nurses had face and content validity. The content validity index was 0.80.

Conclusion: The study concluded that proper documentation during shift change plays an important and integral part for providing accurate and quality of care for the patient. Using Patient Handover Documentation Tool for Staff Nurses for communicating patient's needs and information improves nurses' safe practice in the area of basic nursing care and improve the quality of patient handover.

Keywords: *Patient Handover, Patient Handover Documentation Tool, content validity index, Documentation, Staff Nurses.*

Corresponding author:
Jaspreet Kaur
M.Sc (N) 2nd year Student, Apex Coloney,
Dosanjh Road, Moga 142001,
E-mail: jaspreetkaursandhu88@yahoo.com

INTRODUCTION

"One must have something to communicate [and] have someone to whom to communicate it, and one must really communicate it- not merely express it for oneself alone."- Friedrich Von Schlegel (1772-1829).

Shift report among nurses has been defined as "a system of nurse-to-nurse communication between shift changes intended to transfer essential information for safe, holistic care of patients" Report, or handoff, is unique to the nursing profession. Although shift work is a common concept, nurses are not simply changing personnel during this critical moment. Change of shift signifies a time of careful communication in order to promote patient safety and best practices. The risk exists, however, for this critical opportunity of relaying important information to become muddled by irrelevant information instead of focusing on the needs of the patient. In addition, the person at the center of the communication — the patient — is seldom part of this process. Many different approaches to shift report exist, including written report, phone recording and tape recording with possible verbal updates, or verbal reports in a designated room, nurses' station, or at the patient's bedside. In the best of circumstances, the report will be patient-focused and patient care will proceed with minimal disruption.[3]

Nursing has had a long relationship with handover. Handover is a historic, institutionalized ritual that has remained part of nursing culture throughout the decades. Its roots lie deep in nursing tradition and nursing handover practice continues without questioning its purpose in contemporary times. Historical traditions such as nursing handover have to be reviewed to highlight the discourse. It is not so much what handover is but more why it exists, why it is maintained and how it affects current healthcare.[4]

Continuity in nursing care depends on the effective transfer of information between nursing shifts. Moreover, the shift handover provides a valuable opportunity for social interaction, emotional support and education. During the traditional nursing handover, face to face interaction takes place between nurses, usually in an office or another room away from the bedside. However, in recent years numerous other handover styles have been developed, such as the bedside report and the tape-recorded handover. Despite these innovations, there is no consensus regarding an effective nursing handover and research in this area has been mainly small scale, qualitative in nature and mainly concerned with how the handover is performed.[5]

METHODOLOGY

It is a Methodological Study to develop Patient Handover Documentation Tool. The tool was validated by 10 multidisciplinary health care professionals. The study was conducted in 3 Modified Delphi rounds. The validity of tool was determined by content validity index (CVI). The data was collected via e-mail and by personal meeting.

The tool was developed under three phases. And under each phase some steps was taken.

PHASE 1- Preliminary preparation

During this phase the investigator was developed the preliminary patient handover documentation tool for which the following steps will be taken:

Step-1: Review of Literature- An extensive review of literature was carried out from books, journals and through internet. Literature was searched which represent patient handover documentation tool from all aspects. Various tool was searched. Literature related to tool construction and standardization was also be reviewed.

Step-2: Items selection and pooling- Different checklists was analyzed and related items such as assessment, vital signs, intake and output was selected from the content and items was pooled together.

Step-3: Preparation of first draft- Selected items was seemed to represent patient handover documentation tool to generate first draft of the tool.

PHASE 2- Validation of first draft and subsequent drafts

Step-1: Selection of panel- There was 10 experts in all Delphi rounds. The Delphi panel was consist of multidisciplinary health care professionals (nurses, doctors, and administrator). The sample of the panelist was heterogeneous to ensure the entire spectrum of opinion to be determined. The written consent was taken from the selected experts to participate in the study. The first draft of tool was circulated among 10 experts from above stated field.

Step-2: Delphi Rounds: The modified Delphi technique was used to validate the draft (Snyder-Halpern et al. 2000)[6]. The Delphi is an interactive process designed to combine expert's opinion into group consensus. According to this technique the response of each panelist remains anonymous that there are equal chances of each panelist to present the ideas unbiased by the identity of other panelist. There are subsequent Delphi rounds until a definitive level of consensus is recorded (keeney et al.2001)[7]. All the panelist were requested to give their valuable suggestion pertaining to the content, accuracy of information, the item order i.e organization and sequence of the items and working of the items. The consensus was undertaken using four point likert scale (1 not relevant, 2 somewhat relevant, 3 relevant, 4 very relevant). The suggestions given by panelist were incorporated to generate the second draft of tool.

Step-3: Modification: As per the experts opinion the modification in the tool were made. After Delphi round I- 100 items were deleted, Total number of items left - 152, After Delphi round II- 95 items and Total number left and 57 items are deleted.

PHASE 3- Assessing reliability and content validity of tool:

Draft prepared after third Delphi round.

Validity of Tool: It was done by expert's opinion. The tool was circulated to 10 experts of various specialties. The experts were asked to rate the items in terms of relevance to the patient handover documentation tool (PHD Tool). A 4 point likert scale (1 not relevant, 2 somewhat relevant, 3 relevant, 4 very relevant). The content validity index (CVI) was calculated for each item i.e CVI-i, content validity index for experts i.e CVI-e and general content validity index for the tool i.e CVI-total. Item level CVI (CVI-i) is calculated by number of experts agreeing on the value of relevance of each item (value between 3 and 4) divided by total number of experts, expert level CVI (CVI-e) is calculated by number of items scored between 3 and 4 by an expert divided by total number of items and general CVI (CVI-total) is calculated by sum of all experts individual CVI divided by number of experts. Based on expert panel, CVI-i lower than 0.6 were deleted, (CVI-e) is 0.8, and CVI-total) 0.825.

INSTRUMENT DEVELOPMENT

The content validity assessment process described by Lynn (1986)[8] was used. 252 items were generated and were carefully investigated for clarity, grammar, and construction. A likert scale, widely used in behavioral and organizational research (stone, 1978), was chosen as scale type. Each item was rated on 4 point likert scale (1 not relevant, 2 somewhat relevant, 3 relevant, 4 very relevant) with significant agreement (10 experts rating item a 4 or 3) needed for it to be retained. The experts were asked also to evaluate the set of items to determine if any content area was missing. After first round 100 items were deleted, items left are 152, after second round 95 items are left and 57 items are deleted. expert panel, CVI-i lower than 0.6 were deleted, (CVI-e) is 0.8, and CVI-total) 0.825.

CONCEPTUAL FRAME WORK (BASED ON MODIFIED STETLER MODEL 2001)

The conceptual framework of present study is based on modified evidenced based model which was given by Stetler. The Stetler Model was developed in 1976 and was refined in 1994 with conceptual underpinning and a set of assumptions. In 2001, it was further refined to make it more practical and valuable in research utilization.[9] The Stetler model has been known as 'Practitioner oriented model' because its focus on critical thinking & use of finding by individual, knowledge, practitioner. It involves the following phases for tool development:

Phase 1: Preparation phase

According to Stetler, the preparation phase includes getting started in research utilization by defining and assessing priority need.

In the present study, the preparation phase includes:

a) Extensive review of literature.
b) Pooling of items on Patient Handover Documentation Tool.
c) Item selection for Patient Handover Documentation Tool.
d) Preparation of pre-liminary draft.

Phase 2: Validation phase

It include assessing a body of evidence by

systematically criticizing each study with utilization focus on mind, then choosing and summarizing the collected research that relates to identified need.

In the present study, validation phase includes the content validity. It will be done by:

a) Selection of Panelists

b) Validity of the developed tool via face validity and content validity index of each item.

c) Three modified Delphi rounds which will lead to formation of first, second and third draft with validation at each round.

Assessment of content validity will be undertaken with Modified Delphi Technique by choosing expert from various fields.

The preliminary tool will be refined during the Modified Delphi rounds.

Phase 3: Decision- making

According to Stetler, this phase includes making decisions about use after synthesizing body of summarizing evidence.

In present study, the decision-making will be done through-

a) Logical organization including synthesis of cumulative findings.

b) Reliability of the developed tool which will be checked after preparation of final draft of tool.

c) Pilot study on Staff Nurses of Guru Teg Bahadur Sahib (C) Hospital, Ludhiana, Punjab.

Phase 4: Application

This phase includes converting finding, planning their application and putting the plan to use by defining operational details of how to use the acceptable findings, then implementing use with evidenced based change plan.

In the present study, application of the Patient Handover Documentation Tool

Tool will not be done in clinical areas of Guru Teg Bahadur Sahib (C) Hospital, Ludhiana, Punjab.

Phase 5: Evaluation

According to Stetler model, evaluation is done by appraising the plan in terms of the degree to which it was implemented.

In the present study, the Patient Handover Documentation Tool will not be evaluated for change in practice of Staff Nurses working in Guru Teg Bahadur Sahib (C) Hospital, Ludhiana, Punjab.

Source of Funding: None

Acknowledgement: None

Conflict of Interest: None

Ethical Clearance:

- Permission was taken from Ethical Committee of Institute of Nursing Education, Guru Teg Bahadur Sahib (C) Hospital, Ludhiana.
- Permission was taken from Medical Superintendent of Guru Teg Bahadur Sahib (C) Hospital, Ludhiana.
- Written informed consent was taken from the Panelist.
- The staff nurses were informed about the objective of the study and verbal consent will be taken.

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Study to Evaluate the Effectiveness of Self Instructional Module on Pain Management for Nursing Officers at Selected Military Hospitals, Pune

M Jayalakshmi

Principal, Shri Vinoba Bhave College of Nursing, Shri Vinoba Bhave Civil Hospital, Silvassa, DNH

ABSTRACT

Pain is one of the most common reasons people enter the health care system, yet it is one of the most widely under treated health problems. Controlling pain is a vital component of patient care. The study was evaluative in nature and a quasi-experimental design was used, The study aimed at developing SIM on 'pain management' for nursing officers and testing the effectiveness by assessing the knowledge level of nursing officers before and after implementation of SIM. The investigator also studied the relationship of knowledge level with selected variables like nursing officer's professional qualification, age, and professional experience. A pre-test was carried out before administration of SIM. A post test was carried out after the administration of SIM at an interval of 7-14 days. The post test mean knowledge score (26.14) was significantly higher than the mean pre test knowledge score (13.33). Further analysis was carried out in each area to find out the difference in mean knowledge scores. The computed't' values were found to be statistically significant ($p<0.001$) in each learning areas. Learning through self instructional module is a practical strategy for nursing officers to encourage them to incorporate pain relief measures into nursing practice.

Keywords: *Module, Pain Management, Knowledge.*

INTRODUCTION

Pain is one of the most widely undertreated health problems. Pain is commonly associated with hospitalisation regardless of the patient's age and reason for admission despite technological and pharmacological advances in pain management.

Pain is viewed as the fifth vital sign and is an important component of nursing assessment. Two of the most important variables in effective pain management are the knowledge level and attitudes of the clinical practice, as the nurse is responsible for keeping the patient safe while relieving the pain[1].

Aim of the study: The study aimed at evaluating the effectiveness of a self instructional Module (SIM) on pain management developed for nursing officers posted at selected military hospitals of Pune.

Objectives of the study:

- To develop a SIM on pain management for nursing officers
- To assess the existing knowledge on Pain Management
- To assess the effectiveness of the SIM in terms of knowledge gained by the nursing officers

METHODOLOGY

The Study was conducted in 3 phases. First phase was aimed at development of self instructional module. Second phase was aimed at the collection data and third phase was on the analysis of the data collected the study.

Research Design: The present study is of evaluative in nature for which a quasi experimental research design is applied. It is one group protest – post test design.

Development of self Instructional Module.

The initial draft of the SIM was formulated after having thoroughly reviewed the existing literature on pain management with due expert's consultation in the field of anaesthesia and experts in nursing practice.

Preparation of First Draft: The first draft of the SIM was prepared in 14 units. The module was based on principles of self directed learning .The module prepared was then given to experts in the field of nursing and medicine for validating the content.

Preparation of second draft: Second draft was tailored according to suggestions/guidance given by the experts. The draft included more diagrams and modifications as suggested by experts. The re-tailored SIM was again perused by the nursing and medical experts for validating content.

Final Draft: The final draft of the SIM was made after necessary corrections and modifications as advised by the experts. The final format adopted is as under:

a. Objectives of the module.
b. Introduction.
c. Definitions of Pain
d. Physiology of Pain
e. Theories of Pain.
f. Dimensions of Pain
g. Factors Affecting pain
h. Etiologic of Pain
i. Classification of Pain.
j. Nursing Assessment of Pain
k. Pharmacological Interventions
l. Non Pharmacological Interventions
m. Nursing interventions
n. Conclusion
o. Glossary

The Questionnaire formulated in this study consisted of two parts :

Part I:

a. Socio demographic data of nursing officers

b. Back ground information of nursing officers.

Part II : knowledge assessment questionnaire with 30 items to measure the level of knowledge before and after using the SIM. Items of the questionnaire were categorized into the following areas:

i. Meaning, concept, Physiology & Theories of Pain.

ii. Assessment of Pain and Nursing Interventions.

iii. Pharmacological and Non Pharmacological Interventions.

Scoring of Knowledge Assessment Questions.

Each item of the knowledge assessment questionnaire was scored. The Maximum total score for evaluation was 30. The level of knowledge of the respondents were then categorized based on the percentage of scores obtained by them.

Validity: Experts from the nursing and medicine were requested to give their opinion and suggestions about the content and also judge the relevance of the item in relation to the purpose of the study.

Reliability : Instruments were pretested in order to establish reliability of the knowledge assessment questionnaire by using following methods:

a. Split Half Method

Split half reliability was established by using Pearson's co efficient formula and was found highly reliable (p,0.001)

b. Test-Retest Method

Retest was conducted after an interval of 7 days was found to be statistically significant ($p<0.05$).

Opionnaire: An opinionnaire was evolved with a view to find out the acceptability of the module. It consisted of ten items with 4 alternative responses.

Research setting: This study was conducted at Command Hospital (SC) Pune, MH CTC Pune and MH Kirkee.

Target population: This study has included all nursing officers posted at CH (SC) Pune, MH CTC Pune and MH Kirkee.

Sample Size: The sample size consisted of 100 nursing officers who fulfilled the following criteria for sample collection.

Criteria for sample selection: All the randomly selected nursing officers of Military Hospitals of Pune who are involved in direct patient care, irrespective of their age, qualification and martial status were included in the study.

Sampling Technique: Systematic random

sampling method was followed for selection of nursing officers for the study.

Data Collection Technique: Data was collected during the months of May 2005 to October 2005 in all the three military hospitals of Pune. The following steps were followed while collecting data:

a. A written permission was obtained from the Administrative Office of all the Military Hospitals.

b. Respondents were contacted and explained about the purpose of the study to obtain their willingness and co operation for their participation in this study.

c. Pre-tests were conducted by administering the knowledge assessment questionnaire to each respondent individually and were asked to answer the same within a time frame of 30 minutes.

d. After the pre-test, each respondent was given a copy of the SIM on 'Pain Management'

e. A Post-test was carried out by read ministering the knowledge assessment questionnaire at an interval of 7-10 days after the pretest.

PILOT STUDY

A Pilot study was conducted on nursing officers posted at MIDTC ward to find out the practicability and feasibility of the study, during the month of March, 05. The level of increase in the knowledge after administering the SIM, was highly significant (p,0.001). The subjects of the Pilot study were excluded from the main study.

The final study was conducted on 100 nursing officers, selected by systematic random sampling method. A Pre test was carried out before administration of SIM. A Post-Test was carried out after the administration of SIM at an interval of 7-14 days.

RESULTS

A maximum of 63% respondents were married and 27% were unmarried. Academic qualification of 52% of respondents was 10+2 and the least number of respondents (4%) were from the 'Metric' group. Majority of the nursing officers (74%) have done diploma in General nursing and Midwife while (24%) were degree holders (BSc Nursing). A maximum of 36% of respondents had the professional experience of less than 5 years and only 9% had attained the professional experience of >20 years.

A maximum of 79% of respondents confirmed that they had not attended any lecture/CME/CNE on "Pain Management". A maximum of 48% respondents have experienced some kind of pain due to various causes which include fall, labour pain, dysmenorrhoea, surgery, and other medical conditions.

Pre-test level of knowledge level of respondents:

The professional knowledge score before administration of SIM ranged from a minimum score of 03 to maximum score of 20. Maximum number of respondents (47%) obtained score in the range of 11 to 15. The pre-test mean knowledge score was 13.33. As per the categorization of knowledge score, fig 1 depicts that, in the pre test, only 13% of respondents had 'good' level of knowledge 33% had poor knowledge on 'pain management'.

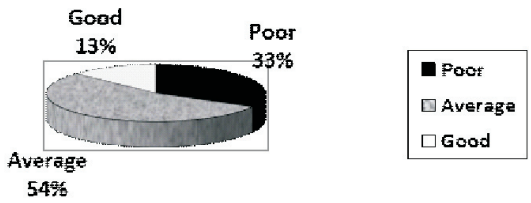

Fig.1: Pre-test level of knowledge and level of respondents

Post – test Level of Knowledge of respondents

The knowledge score of the respondents after the administration of SIM ranged from a minimum score of 19 to a maximum score of 29. A maximum of 56% of the respondents have obtained scores ranging from 27-30. The post-test mean knowledge score was 26.14. From fig. 2, it is seen that majority of the respondents (80%) had 'excellent' level of knowledge while 20% had 'good' level of knowledge.

Fig. 2: Respondents' Level of knowledge in post-test.

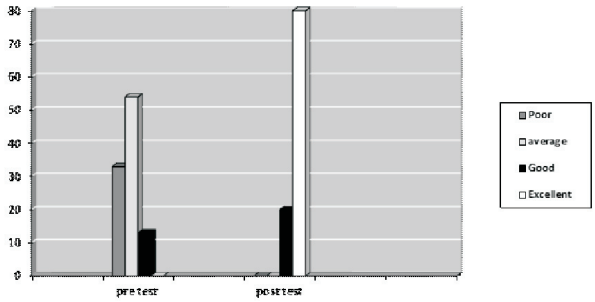

Fig. 3: Comparison pre test - post test knowledge scores

The post-test mean knowledge score (26.14) was significantly higher than the mean pre-test knowledge score (13.33). It is evident from table 1, that there was considerable increase in the knowledge score after the administration of SIM. Further analysis was carried out in each area to find out the difference in mean knowledge scores. The computed't' values were found to be statistically significant ($p<0.001$) in each learning areas.

Table: 1: Mean, SD, 't' value of pre-test knowledge scores

N=100

Category	Mean Knowledge Score	SD	't' value
Pre-test	13.33	3.48	
Post-test	26.14	2.74	37.41*

$p<0.001$

DISCUSSION

Hospitalised patients across the life span often experience pain[2]. Patients often are not prepared for pain and how to manage it. They are uninformed on how to communicate about pain and are unaware of the options available to manage it. A source from the literature [3] confirms that pain management includes the following:

- Knowledge of the physiology of pain, theories of pain
- Assessment of pain and principles of management
- Pharmacological and non pharmacological measures.

In general education about pain is weak[4]. Nurses like physicians often require skills at the bedside under the tutelage of clinicians.

Royal College of Anaesthetists has recommended the ongoing programme of continuing Nursing Education and professional development for all management in pain management services[5]. Nursing behaviours related to pain management have been altered through education.

Primary responsibility for the assessment and management and management of pain belongs to the nurse[4]. Nurses tend to rely on vital signs and behaviours that are neither specific, nor reliable indicators of pain[6]. For example, American Nurses reported screaming behaviour as indicative of severe pain while African Nurses felt that quietness was reflective of severe pain. In the present study, 24% of nursing officers have stated that they assess pain through facial expression and 45% by asking questions to their patients. Nurses frequently do not ask patients about their pain when patients are asked about pain, the questions are non specific like "how are u feeling today"?.

Even though emphasized valid approaches to measure pain such as self report approaches, typically nurses do not use these tools. Only 3% of the nurses used a standard approach (e.g.) Visual Analogue Scale. In the present study too, the investigator has observed that none of the nursing officer was using any standard tool for assessing patient's pain.

Discrepancies between clinicians' assessments ad patient's self report of pain have been reported in a variety of settings[5]. Research has elucidated the potential influence of patient and nurse factors on nurse assessment and management practices. Patient factors include diagnosis, age, gender, ethnicity and

socioeconomic status. Nurses perceived more pain associated with physiologically confirmed diagnosis with acute conditions. Age of the patient affects the nurses' expectation of pain. Nurses attributed to greater pain to the young[6]. Findings regarding gender have been inconsistent. In some studies, nurses attributed greater sufferings to females, in some studies to males.

Personal characteristics of the nurse may affect the assessment and management of pain. Personal characteristics include education, professional experience, age and personal pain experiences[5].Personal beliefs and attitudes affect the assessment and management of pain [5].Complete pain relief was a goal in only about 3% of the nurses, 58% reported a goal to relieve as much as possible and 38% just enough to function. Personal pain experiences may shape attitudes towards pain. In the present study, 48% of the respondents have some kind of pain due to various causes which include fall, labour pain, dysmennorhea, surgery and other medical conditions.

Blank, et al (2001) evaluated the assessment and management of pain in 68 patients treated in an emergency department. The researcher found lack of acceptance pain relief among patients due to failure to follow good pain assessment practices. When patients are not asked to rate their pain intensity, nurse's assessment of patient's pain were based on assumption. Tanabe and Buschman (2000) noted that inadequate knowledge of pain management principles was a barrier that affected nursing practice.

In a study conducted by Fatma Eti Aslan, it was found that 39.6% of nurses did not know how to evaluate pain symptoms in critical care patients suffering from complicated problems. The study concluded by suggesting that there is a clear need to address nursing education and training with regard to evaluation and management of patient's pain in critical care setting.

In the present study, nursing officers were pretested with a view to assess the existing knowledge they have with regard to "Pain Management". While assessing the pre-existing knowledge, it emerged that nursing officers had fairly 'average' level of knowledge on the subject. After the administration of SIM, there was remarkable change in the level of knowledge. A maximum of 80% of Respondents had achieved 'excellent' level of knowledge while 20% exhibited 'good' level of knowledge. This clearly indicates SIM was found to be effective ($p<0.001$) in terms of knowledge gained by the nursing officers with regard to "Pain Management". This finding corresponds to the findings of various studies conducted on staff nurses to find the effectiveness of interventional educational programme and self instructional modules. In the present study, the pre-test mean knowledge score was 13.33 and post test mean knowledge score was 26.14. The mean increase in knowledge score was 12.8. Statistical analysis of the overall pre-test and post-test knowledge scores using paired't' test was highly significant ($p<0.001$). Therefore SIM was found to be effective in enhancing the knowledge of nursing officers on "Pain management".

CONCLUSION

The following conclusions were drawn on the basis of the findings of the present study conducted on nursing officers at selected military hospitals of Pune.

i. There is a deficit in the knowledge on "Pain Management" among nursing officers.
ii. There was a significant increase in the level of knowledge on "Pain Management" among nursing officers after the administration of SIM.
iii. Learning through SIM was found to be effective for nursing officers to enhance their knowledge on "PAIN MANAGEMENT"

RECOMMENDATIONS

i. Nurse administrators and nurse educators can utilize SIM used

in the present study for 'on the job training' of nursing officers and nursing students.

ii. A planned clinical supervision of nursing officers can be organized to practice the pain assessment methods in clinical fields.
iii. A Quiz programme on pain management can be conducted for Nursing officers to become aware of the various pharmacological and non-pharmacological pain relief measures.
iv. A information booklet can be made available for patients and their care takers regarding pain control measures.

v. Planned health education programme can be organised for Various relaxation therapies which can be used for control or alleviation of pain.

The SIM on 'Pain Management' therefore was effective in enhancing the knowledge of the nursing officers. Hence learning through self instructional module is a practical strategy for nursing officers thereby encouraging them to incorporate pain relief measures into nursing practice.

Acknowledgement: Govt of India, AFMRC, Indian Armed Forces Medical Corps, MOD

Conflict of Interest: Nil

Source of Funding: The project was funded by Ministry of Defence. AFMRC project.

Ethical Clearance: The research proposal was approved by the Armed Forces Medical Research committee for conducting the research.

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Case Report: Discontented Life versus Peaceful Death

Erum Lalwani[1], Saima Sachwani[1], Nishat Tabassum[1], Nimira Asif[1], Shireen Shehzad[1]

[1]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan

ABSTRACT

In today's healthcare system, health professionals deal with many challenging dilemmas and controversies that are difficult to resolve. Among several issues, the issue of refusal of blood transfusion by the patient in an emergency situation has been debated a lot in the literature. It is a crucial issue that puts health care professional in a state of confusion, and creates ethical and legal dilemma to deal with. The health professional engage in ethical inquiry to identify the best possible option, based on ethical grounds and discover morally-justifiable solution while prioritizing a patient's interest. The pioneers in ethical theories and principles provide us a framework to ethical decision making. The widely used ethical theories include Utilitarian, and Kantism.

Keywords: *Discontented life, peaceful death, ethical dilemma, and blood transfusion.*

INTRODUCTION

Ethical dilemmas are part and parcel of healthcare professional's life. Some of the common examples of ethical dilemmas are decisions regarding advance directives, informing patient's about their terminal diagnoses, and dealing with patients who refuses for blood transfusion based on various reasons. Healthcare professional's lack of knowledge of cultural and religious beliefs pertaining to life and death situation complicates the overall scenario. However, refusal on the basis of fear and misconception can be effectively handled through efficient medical intervention and counseling. Refusal of blood transfusion arising from religious believes are legally and ethically challenging to respond[1]. Thus, it is necessary to identify right option, based on ethical grounds to discover ethically justifiable solution. The article will reflect on pertinent scenario, identify available options based on ethical justification, and affirm final position.

CASE STUDY

During my clinical experience, We came across a situation that addressed the ethically challenged situation, where the patient refused for the blood transfusion. A 26-year-old lady pregnant lady (Gravida 1 Para 0) admitted in the labor room at 39 weeks with 3cm dilatation with history of uncomplicated pregnancy, had a vacuum extracted delivery due to prolong second stage of labor. Placenta delivered within 5 min. After half an hour, she began to complain of lower abdominal pain. On examination, it was noticed that she was passing large clots of blood. Moreover, physical examination revealed bleeding from cervical os with no tears in cervix or vagina. Hydration was started soon after the identification. Patient received medication (ampule of carboprost every 15 minutes and IM methylergonovine), but bleeding failed to stop. She was ordered to get immediate blood transfusion of 2 pints. While taking consent for blood transfusion therapy, it was ruled out that patient's religion does not permit blood transfusion. Hence, the patient refused for blood transfusion. Patient condition began to worse; her blood pressure dropped to 90/60mmHg, and pulse increased to 120/minutes. Within no time she ended up in a state of hypovolemic shock.

ANALYSIS IN VIEW OF ETHICAL DIMENSION

To analyze this issue, health care professionals and patients need to respond on ethical questions. Ethical questions for health care professional includes, is it right to go against individual's religious

Corresponding author:
Erum Lalwani, Senior Instructor, The Aga Khan University School of Nursing And Midwifery,
Ph: 92-346-2345085, E-mail: erum.lalwani@aku.edu

belief and transfuse blood? Or is it right to respect patient's autonomy and let the patient die? Question that arises for patient includes, is it right to lead an isolated and dissatisfied life, after overlooking the religious belief? Or is it right to follow religious belief and die peacefully?

ETHICAL PRINCIPLES IN CONFLICT

In the given scenario two ethical principles in conflict are Beneficence and Autonomy. Principle of beneficence focuses on doing good for others and to take action for the best interest of patient[2]. In this case doctor can decide for patient's benefit by doing efforts to save life. In the stated case, blood transfusion will eventually save the life of patient. This intervention will benefit individual by preserving life and promoting wellness. The same example could be related to mother-child dyad, where an infant or a young child who does not know the benefits and harms of the action taken, the mother may take action, keeping in mind that she has more knowledge of the benefits associated as compared to her child.

Contrary to the beneficence, the principle of autonomy explains that the patient has a right to make decisions for him/herself. Every individual should have liberty to exercise their rights. In addition, the principle guides that the caregivers should respect the decision taken by patients regardless of the positive or negative outcomes, which must be explained to the patients in depth[2]. Furthermore, every individuals have right to practice their faith and religion. Thus, healthcare professionals should consider social, spiritual and emotional wellbeing of patients, and not only the physical well-being. Our duty as a healthcare professional should be to promote dignity, and respect for an individual regardless of the decisions taken by him/her in society and community. Moreover, imposed blood transfusion may bring psychological disturbance among individuals[3]

ETHICAL THEORIES IN CONFLICT

In the given scenario two ethical theories in conflict are Utilitarianism and Kantianism. Theory of utilitarianism, deals with actions that are right or wrong. These actions are based on the good or bad consequences[4]. In the given situation, one must consider that blood transfusion will bring positive outcome as it will promote wellness. It must be kept in mind that the patient's life is also very valuable for the newborn born, who would need her mother for his/her survival. However, not transfusing blood in hypovolemic shock may result in severally adverse consequences. It may lead to life threatening situation for the patient, and the family. On one hand, the patient may suffer physically, due to loss of larger volume of blood. On the other hand, it may also raise unexpected financial issues for the family. The other consequence would be that the newborn is prohibited for the warmth, and nutrition for his/her mother in the initial and the most critical phase of the life. Finally, the psychological burden that effects everyone involved in the situation.

However, theory of Kantianism believes that "… morality is grounded in reason, not in tradition, intuition, conscience, emotion, or attitude such as sympathy"[4]. Therefore, the rationale behind refusing for blood transfusion is grounded in religious believes. Healthcare professionals need to respect the reason behind their refusal for blood transfusion. Kant also believes that autonomy alone promotes individual's respect, value, and proper motivation. To maintain person's dignity one should exercise autonomy[2].

CONCLUSION

Based on ethical justification, we respect the position of doing good for the patient. Blood transfusion in hypovolemic shock can benefit patient by retrieving homeostasis[5]. This position is based on the principle of beneficence. This is ethically justifiable position as it involves efforts of health care professionals that focuses on saving life. In this situation blood transfusion is necessary to prevent patient from ultimate death. Moreover, it is duty of health care professionals to work for patient's best interest. Best interest of patient resides in alleviating suffering and preserving life. Blood transfusion irrespective of any situation is based on justifiable paternalism. Paternalism deals with coercive intervention. In the given scenario paternalism will eventually increase patient's welfare. Moreover, healthcare professionals have an obligation of fidelity. This obligation directs individual to be faithful with their profession. Being part of healthcare it's our duty to preserve life of individual's[5].

RECOMMENDATIONS

Since, engaging in process of analyzing healthcare issues from an ethical dimensions is not an easy

process, health care professionals should weigh risks and benefits to reach to the best possible solution which would not only be in favor of the patients fostering their quality of life but also, justifies the practices of healthcare professionals as well. Hence, it is important that the healthcare institutions that run healthcare providers (doctors, nurses, allied health care workers), must educate them during the term of their education, so that when they take the role of practicing healthcare professional, they are equipped with the basic knowledge of healthcare ethics and its challenges. Moreover, hospitals must have a regular platform where these ethical dilemmas are discussed and debated. Ultimately, the homogeneously agreed guidelines from this discussion should be incorporated as hospital policies for patient care. At the government level, the health care monitoring agencies must monitor for compliance to the ethically sound patient care practices.

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Conflicting Interest: None

Source of Support : None

Ethical Clearance: Not required

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Attitude of Nursing Students towards Ragging and its Perceived Psychological Disturbances in Selected Nursing Colleges at Mangalore

Darsana R S[1], Thereza Mathias[2]

[1]M.Sc Nursing Student, [2]Professor and HOD Psychiatric Nursing Department, Laxmi Memorial College of Nursing, Mangalore, Karnataka

ABSTRACT

Today, almost all countries of the world have enacted stern laws that ban ragging. But sadly, India, which inherited ragging as a legacy, has not been able to free itself from the clutches of this inhuman practice. It can be said, without any room for doubt, that the worst form of ragging is committed in India. Ragging doesn't teach freshers to be bold or smart, and is not helpful to build a strong character. Ragging in Indian colleges is still a brutal reality despite all the claims and rules made by the Indian government. We still have long way to go before the menace of ragging in India stops completely. Hence a study was conducted to determine the attitude of nursing students towards ragging and its perceived psychological disturbances. A non experimental descriptive research design was used to study 100 nursing students from five private nursing colleges in Mangalore, selected by disproportionate stratified random sampling technique. The data was collected using attitude scale and perceived psychological disturbances scale on ragging. The analysis revealed that maximum percentage (67%) had favorable attitude and least (33%) had unfavorable attitude towards ragging. Maximum percentage (66%) of the students had mild psychological disturbances and 33% had moderate psychological disturbances and only 1% had severe psychological disturbances due to ragging. Sex and religion among the demographic variables had significant association with attitude scores.

Keywords: *Attitude, perceived psychological disturbances, ragging, B.Sc nursing students.*

INTRODUCTION

"Ragging does NOT break the ice; it breaks lives, careers and families! Ragging is NEVER necessary! Ragging is a crime, condemned by the Nation."

Ragging is originally a western concept. Gradually, the practice of ragging became popular throughout the world. However, with time, ragging assumed obnoxious and harmful connotations and was severely condemned.

But sadly, India, which inherited ragging as a legacy from the British Raj, has not been able to free itself from the clutches of this inhuman practice. It can be said, without any room for doubt, that the worst form of ragging is committed in India

The increasing privatization of higher education has led the academic institution in India to experience an increasing number of ragging-related incidents. A report from 2007 highlights 42 instances of physical injury and reports ten deaths as a result of ragging. Ragging has caused at least 30-31 deaths in the last 7 years. In 2007, approximately seven ragging deaths have been reported. In addition, a number of fresher's were severely traumatized to the extent that they were admitted to mental institutions. Ragging in India commonly involves serious abuses and clear violation of human rights.

Though ragging has ruined the lives of many, resistance against it has grown up only recently. Several Indian states have made legislation banning ragging and the supreme court of India has taken a strong stand to curb ragging. Ragging has been declared a criminal offence. Ragging leads to psychological disturbances among the victim. The common features shown by victims include anxiety,

shame, aloofness, guilt, depression and suicide. Hence this study was done to assess the attitude of Nursing students towards ragging and its perceived psychological disturbances.

Objectives of the study:

1. To determine the attitude of nursing students towards ragging.

2. To determine the perceived psychological disturbances of students.

3. To find out the association of attitude of nursing students towards ragging with their selected demographic variables.

MATERIAL AND METHOD

A Non-experimental descriptive study design was adopted for the study. Disproportionate stratified random sampling technique was used to select 100 second year nursing students from selected nursing colleges, Mangalore. The research tool consists of four sections – Section A, B, C and D. **Section A:** Screening tool to identify victims of ragging with four items. Those students who answered the first question i.e. whether the students ever faced ragging as "yes", those students are only instructed to answer the further items. **Section B**: Demographic Performa of students with six items, **Section C:** Attitude scale towards ragging had 20 items and in that 10 items are positively scored and 10 items are negatively scored with responses "Strongly Agree"(SA), "Agree"(A),"Uncertain"(U), "Disagree" (DA) and "Strongly Disagree"(SD). The highest possible score was 100. It was arbitrarily classified into two levels: favorable attitude (61 – 100) and unfavorable attitude (20 – 60). **Section D:** Scale to assess perceived psychological disturbances had 21 items under the following areas like psychological problems; inter personal relationship problems, somatoform problems and academic problems. The responses given to each items were "Never", "Sometimes" and "Always". The scoring was 0, 1, and 2 respectively. The highest possible score was 42. It was arbitrarily classified into three levels: 0-13, (Mild disturbances)], 14-27, (Moderate disturbances)] and 28-42, (Severe disturbances)].

The content validity of both the tool was established in consultation with 9 experts. The reliability of the tool was established by administering the tool to 10 year B.Sc. nursing students of selected nursing college at Mangalore. The reliability of the attitude scale was computed by test retest method (0.87) and Cronbach's Alpha was used for the perceived psychological disturbances scale (0.88). Hence the tools were found to be reliable. Ethical consideration was obtained from A. J. Ethics committee, Mangalore. Prior to data collection, permission was obtained from the concerned authority for conducting the study. Informed consent was obtained from the sample. The tool was administered to 100 nursing students. The data obtained was analyzed using descriptive and inferential statistics.

RESULTS

Section A: Demographic variables:

Hundred second year nursing students participated in the study. Majorities (91%) of the respondents belong to 18 – 20 years and (61%) were females. Highest (59%) of the subjects belonged to Christian religion. Majority (80%) of income of the students parents were below 30,000. Majority (96%) of the participant's parents were living together. 44% of the participants belonged to rural area**.**

Section-B: Description of attitude scores of nursing students towards ragging:

This section deals with the description of the attitude scores among students and presented in the form of tables and figures.

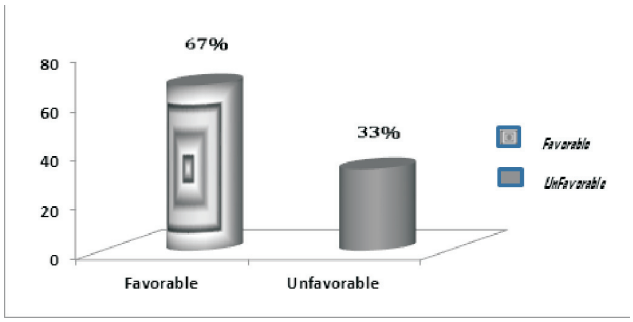

Fig: 1 Bar diagram showing the attitude score of the nursing students.

Data in figure 1 show that majority (67%) of the students had favorable attitude and 33% had unfavorable attitude towards ragging.

Table 1: Range, mean, median and standard deviation of attitude scores of nursing students towards ragging

N = 100

Obtained Range	Maximum Score	Mean	Median	SD	Attitude
43 – 91	100	65.7	66	10.2	Favorable

Data in table 1 shows that the range of attitude scores was between 43 – 91, and the mean attitude score was 65.7. i.e. attitude was favorable towards ragging.

Section C: Description of scores of perceived psychological disturbances

The scores were assessed with a scale to assess the perceived psychological disturbances related to ragging.

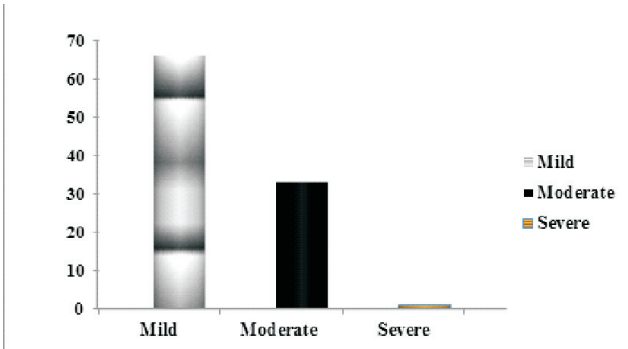

Figure 2: Bar diagram showing distribution of subjects according to their scores on perceived psychological disturbances

Data in figure 2 shows that maximum percentage (66%) of students had mild psychological disturbances and 33% had moderate perceived psychological disturbances and 1% had severe perceived psychological disturbances.

Table 2: Range, mean, median and standard deviation of perceived psychological disturbances score

N = 100

Obtained Range	Maximum Score	Mean	Median	SD	Level of disturbances
1 - 38	42	12.91	12	6.93	Mild

Data in table 2 shows that the range of perceived psychological disturbances scores were between 1 – 38, and mean score of subjects was 12.91. i.e., level of perceived psychological disturbances was mild.

Table 3: Area- wise mean, SD and mean percentage of scores on perceived psychological disturbances

N = 100

Areas	Maximum score	Mean	SD	% mean
Psychological disturbances	18	7.6	3.36	43.7
Interpersonal relationship problems	8	2.05	1.79	25.3
Somatoform disturbances	10	2.00	1.87	20.00
Academic problems	8	1.00	1.20	16.7

Data in Table 3 shows that the mean percentage (43.67%) was highest in the area of psychological problems and least (16.7%) in the area of academic problems.

Section – D: Association between the attitude scores and selected demographic variables

In order to find the significant association between these variables and attitude, the following null hypothesis was stated

H01: There will be no significant association between attitude of nursing students with selected demographic variables at 0.05 level of significance.

Chi square test was computed in order to determine the significant association between attitude score with age, sex, monthly income, marital status of parents, religion and place of residence.

Table 4: Chi-Square test computed between demographic variables with attitude scores of nursing students towards ragging.

N = 100

Sl.no	Demographic variables	χ^2 value	df	Table value	Inference
1.	Age in years	3.06	2	5.991	Not significant
2.	Sex	13.29	1	3.841	significant
3.	Monthly family income	3.961	3	7.815	Not Significant
4.	Marital status of parents	0.961	3	7.815	Not Significant
5.	Religion	9.712	3	7.815	Significant
6.	Place of residence	0.99	2	5.991	Not Significant

It is interpreted that attitude scores of nursing students are dependent on sex and religion. Hence the null hypothesis $H0_1$ is rejected and research hypothesis is accepted.

DISCUSSION

The findings of the present study showed that Majority (67%) had favorable attitude and least (33%) had unfavorable attitude towards ragging.

Results obtained from this study are similar to results reported in descriptive study conducted to assess the peer culture and the social context of love and sex in a sample of university students in Srilanka. This revealed that art students had more favorable attitude towards ragging compared to medical students. Of the male respondents 46.8% agreed with the statement "I like to rag newcomers to the university". On the other hand, only 38% of male respondents agreed to the statements "I liked being ragged when I was a fresher". 40% of the male respondents agreed that they used to select female partners through the practice of ragging. The pattern among females was reverse with 21.8% agreeing that they liked to be ragged and a slightly higher 22.6% agreeing with that they select female partners through the practice of ragging.[7]

This favorable attitude is because students have already undergone the ragging in the first year and now they are in the second year. So they feel that they are privileged to rag their juniors. The second year students would have been ragged by their seniors on various occasions and at different places and their mentors would have told them to report the incident. However the incidences are hardly reported due to fear or pressure from seniors not to report. The mentors would follow the students and protect them in the college environment. But it so happens that these very students who were ragged in first year would themselves rag their juniors when they are in the second year. This shows that either as vengeful act the students may be ragging the first years. They just forget that they also had undergone such acts of humiliation.

CONCLUSION

The findings of the study have important implications for the nursing profession such as in nursing practice, nursing education, nursing research and nursing administration. Keeping in view the study findings, the following recommendations have been made: A similar study can be undertaken on a larger sample of nursing students. A study can be conducted to find out the incidence rate of ragging among nursing students. A similar study can be undertaken among students of engineering medical and other disciplines. A similar study can be conducted among different health care professionals.

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Conflict of Interest: Nil

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Effectiveness of Infra-Red Therapy Upon Level of Episiotomy Pain and Wound Healing among Postnatal Mothers

Preetinder Kaur[1], Nidhi Sagar[2], Rupinder Deol[3], Jasbir Kaur[4]

[1]Assistant Lecturer, [2]Assoc. Professor, [3]Lecturer of Nursing, [4]Professor & Principal, College of Nursing, DMC& H, Ludhiana, Punjab

ABSTRACT

Perineal pain and wound is most commonly associated with vaginal delivery with episiotomy. Various therapies are available for the treatment of episiotomy pain and wound healing; the effectiveness of infra-red therapy is little documented. So, keeping in view a quasi-experimental study was conducted to assess the effectiveness of infra-red therapy upon level of episiotomy pain and wound healing among 60 post natal mothers (30 in each experiment and control group) admitted at selected hospitals of district Ludhiana, Punjab. The findings of present study concluded that both the experimental and control group were statistically homogenous ($p>0.05$) Application of infra-red therapy had significant effect as episioto my pain mean score decreased from 4.1667±1.555 to 0.533±0.937 in experimental group and 4.166±1.555 to 2.900±1.516 in control group. Application of infra-red therapy had significant effect as improvement in episiotomy wound healing as episiotomy wound healing also mean scores decreased from 3.733±2.258 to 0.733±1.284 in experimental group and4.366±1.449 to 3.633±2.189in control group. Furthermore, the study can be replicated on a large sample. The study findings concluded that Infra-red therapy was found to be effective in the management of episiotomy pain and wound healing.

Keywords: - *Episiotomy, episiotomy pain, Infra-red therapy, episiotomy wound healing, postnatal mothers.*

INTRODUCTION

Pregnancy followed by labour is the normal phenomenon. The process of giving birth is the most beautiful experience on earth and the mother attains unique capacities and true nobility through childbirth. The mother suffers much distress after child birth due to painful perineum associated with vaginal delivery due to episiotomy[1]. The purpose of episiotomy is to enlarge the vaginal area so as to facilitate easy and safe delivery and to minimise overstretching and rupture of the perineal muscles[2]. A variety of interventions are being used for alleviating episiotomy pain and promoting healing such as heat in the form of lamps, warm sitz bath and moist packs.[3] Infra-red light therapy is a form of photo therapy in which infrared light is directly applied to the episiotomy wound. These rays, on penetrating the skin, help in the release of nitric oxide thus relaxing the blood vessels and prevent the clotting of blood due to injury/illness thus further improving the blood circulation to the affected areas. As a result, more blood can reach the injured tissue, which in turn, increases the supply of oxygen and valuable nutrients to it.[4] The purpose of present study was to assess the effectiveness of infra-red therapy on episiotomy pain and wound healing.

MATERIAL AND METHOD

A Quasi-experimental study was conducted in postnatal wards of DMC & Hospital, ESIC Model Hospital of Ludhiana. The study was conducted on 60 postnatal mothers (30 in each experiment and control group) selected by convenience sampling. Data was collected by using the questionnaire. It was comprised of socio-demographic profile and maternal profile. Subjects in the experimental group were given intervention with application of infra-red therapy while in control group were given routine care. A Numerical pain rating scale was used to assess level of episiotomy painbefore and after application of infrared therapy.[5] The Modified Davidson REEDA

(Redness, Edema, Ecchymosis, Discharge and Approximation) scale was used to assess postpartum healing of the perineum[6].The research tool was validated by consultingexperts from the department of Obstetrics & Gynecology Nursing, Medical Surgical Nursing, Pediatric Nursing regarding for content and language used in the tool and necessary changes were made as suggested. The data was analysed using both descriptive and inferential statistics.

FINDINGS

Findings of present study showed that theslightly more than three-forth of subjects 23 (76.7%) in control group and less than 2/3rd of subjects 19 (63.3%) in experimental group were in the age group of 20-25 years. In both control and experimental group, equal number of subjects 12 (40.0%) had education up to elementary level. Furthermore, regarding occupation, maximum number of subjects 27 (90.0%) in the control group and majority of subjects 26 (86.7%) in experimental group were house wives. As per habitat, maximum number of subjects 28 (93.3%) in control group and 26 (86.7%) in experimental group belonged to urban habitat. Likewise regarding dietary pattern, slightly less than two third of the subjects 19 (63.3%) in control group and18 (60.0%) in experimental group were vegetarian. Both the groups were homogenous in terms of their socio-demographic characteristics as calculated with chi square test (p>0.05)

Table1. describes the pre and post interventional comparison of mean scores of episiotomy pain among postnatal mothers in experimental and control group. Pre-interventional mean score of episiotomy pain of experimental and control group were same i.e. (4.166±1.555) and their difference was found to be statistically non-significant. (p>0.05). On 1st day of post intervention, the mean score of episiotomy pain of control group (4.266±1.574) was significantly higher than that of the experimental group (3.000±1.231). On 2nd day of post intervention, the mean score of episiotomy pain of control group (3.433±1.633) was significantly higher than that of the experimental group (1.666±1.295). Similarly, on 3rd day of post intervention, the mean score of episiotomy pain of control group (2.900±1.516) was significantly higher than that of the experimental group (0.533±0.937). Hence, it can be concluded that experimental group had greater decrease in mean score of episiotomy pain on 1st ,2nd and 3rd day of post intervention which was statistically significant (p=0.001) as compared to control group. Thus, the application of infra-red therapy was more effective in relieving episiotomy pain.

Table1. Pre and post interventional comparison of mean score of episiotomy pain among postnatal mothers in experimental and control group **N= 60**

		Groups	Mean ± SD	't' value
Pre-intervention score (2hr after delivery)		Experimental	4.1667±1.555	0.008
		Control	4.1667±1.555	$p = 0.993^{NS}$
Post intervention score	Day 1 (5 hr after delivery)	Experimental	3.000±1.231	3.470
		Control	4.266±1.574	p = 0.001*
	Day 2	Experimental	1.666±1.295	4.643
		Control group	3.433±1.633	p = 0.001*
	Day 3	Experimental	0.533±0.937	7.274
		Control	2.900±1.516	$p = 0.001^{*}$

Table 2. describes the pre and post interventional comparison of mean scores of episiotomy wound healing among postnatal mothers in experimental and control group. It depicts that pre-interventional mean score of episiotomy wound healing of experimental and control group were 3.733±2.258 and 4.366±1.449 respectively. The difference of pre-interventional mean score of episiotomy wound healing in experimental and control group were statistically non-significant.(p>0.05). On 1st day of post intervention, the mean score of episiotomy wound healing of control group (4.233±1.568) was significantly higher than that of the experimental group (3.166±2.182). On 2nd day of post intervention, mean score of episiotomy wound healing of control group (4.000±1.929) was significantly higher than that of the experimental group (1.800±1.788).Similarly, on 3rd day of post intervention, mean score of episiotomy wound healing of control group (3.633±2.189) was significantly higher than that of the experimental

group (0.733±1.284).Hence, it can be concluded that experimental group had greater decrease in mean score of episiotomy wound healing on 1st, 2nd and 3rd day of post-intervention which is statistically significant (p=0.000) as compared to control group. Thus, the application of infra-red therapy was more effective in improving episiotomy wound healing.

Table 2. Pre and post interventional comparison of mean score of episiotomy wound healing among postnatal mothers in control and experimental group. N=60

Pre-intervention score (2hr after delivery)		Groups	Mean ± SD	't' value
		Experimental	**3.733±2.258**	**1.157**
		Control	**4.366±1.449**	**p = 0.251^{NS}**
Post intervention score	Day 1 (5 hr after delivery)	Experimental	3.166±2.182	2.1750
		Control	4.233±1.568	p = 0.033*
	Day 2	Experimental	1.800±1.788	4.581
		Control	4.000±1.929	p = 0.001*
	Day 3	Experimental	0.733±1.284	6.259
		Control	3.633±2.189	p = 0.001*

DISCUSSION

The findings of present study revealed that pre-interventional mean score of episiotomy pain in experimental group was 4.166±1.555 which decreased to 0.533±0.937 on day 3 after applying infra-red therapy, whereas in control group pre interventional mean score of episiotomy pain was 4.166±1.555 which decreased only upto (2.900±1.516) on day 3 (p=0.001). Similarly V Venkadalakshmi (2009) also conducted a quasi-experimental study to assess the effectiveness of infra-red therapy on episiotomy pain and wound healing at Kovilpadi, Tamil Nadu, India on 60 post natal mothers. The study results showed that pre-interventional mean score of episiotomy pain in experimental group was (2.9±0.9) which decreased to (0.02±0.09) on day 3 after applying infra-red therapy, whereas in control group pre interventional mean score of episiotomy pain (4.9±0.8) which decreased only upto (2.1±0.9) on 3rd day[7]. Findings of the present study revealed that pre-interventional mean score of episiotomy wound healing in experimental group was 3.733±2.258 which decreased to 0.733±1.284 after applying infra-red therapy on day 3, whereas in control group pre-interventional mean score of episiotomy wound healing 4.366±1.449 which decreased only upto 3.633±2.189 on day 3 (p=0.001). Similarly Rzakulieva LM (2006) conducted an experimental study to develop an effective method of treatment with an application of magnet laser radiation as a stimulating aid in healing of perineum injury in Russia. The study results showed that infra-red therapy improves the process of healing and promotes the rapid disappearance of inflammatory signs and renders analgesic effect[8].

CONCLUSION

The findings of present study concluded that both the experimental and control group were statistically homogenous (p>0.05). Application of infra-red therapy had significant reduction in episiotomy pain as episiotomy pain mean score decreased from 3.733±2.258 to 0.733±1.284 in experimental group and 4.366±1.449 to 3.633±2.189 in control group (p=0.001). Application of infra-red therapy had significant improvement in episiotomy wound healing as episiotomy wound healing mean score decreases from 3.733±2.258 to 0.733±1.284 in experimental group and 4.366±1.449 to 3.633±2.189 in control group (p=0.001). Experimental group had greater change in mean score of episiotomy pain and wound healing as compare to control group which was statistically significant (p=0.000) as compared to control group Thus, The null hypothesis that there will be no significant difference between the level of episiotomy pain and wound healing between the experimental and control group during post-test at 95% confidence interval has been rejected. Furthermore, the study can be replicated on a large sample. Randomized control trials can also be done.

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throughout the course of their study.

Conflict of Interest: None

Source of Funding: Self

Ethical Consideration: A written permission for conducting the study was taken from ethical committee of DMC & Hospital, Ludhiana as well as Principal, DMC & Hospital, College of nursing, Ludhiana, before starting the study. An informed written consent was obtained from each subject.

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Assessment of Post-operative Pain and the Activities that Increases Pain among Patients Undergoing Gastrectomy

Asishbala Mohapatra[1], Maya Patlia[2]

[1]*Professor, Research Scholar, SOA University. Hi-tech College of Nursing Bhubaneswar, Odisha,*
[2]*Principal, Indore College of Nursing, Gendalal Bam Parisar, Raw Pithampur Road,Vill – Dehri, Indore MP*

ABSTRACT

Pain is one of the most common experiences and stressors in patients undergoing G.I. Surgeries. Patients undergoing gastrectomy may experience frequent and moderate to severe pain postoperatively. The incidence and severity of pain and a multimodal approach (use of a combination of pain control strategies including opiods, NSAIDS, non-pharmacologic intervention) to acute post gastrectomy pain is recommended. The present study was undertaken to assess the level of pain experienced by patients after gastrectomy, to identify the post-operative activities that increases pain and to find out the association between pain score of patients and the selected variables. A descriptive research design was adopted. Setting was Hi-Tech Medical college and Hospital. Sample size was 40 and convenient sampling technique was used. Wong Bakers faces pain rating scale and a validated questionnaire was used as a tool. The maximum obtainable pain score was 19. t-tests showed that the mean pain score on the second post operative day was significantly less then that of first post operative day. Chisquare test reveals that there is significant association between different degrees of pain and the selected demographic variables.

Keywords: *- Assessment, Post-operative pain, Gastrectomy.*

INTRODUCTION

Pain is an individual, subjective and complex bio-Psychosocial process whose existence cannot be proved or disproved. Unrelieved pain is a major psychological and physiological stress for patient (dewitt, 2009). The patient is the best authority on the existence of pain. Therefore, validation of the existence of pain is based on the patient's report that it exists. Pain is one of the most common experiences and stressors in patients undergoing G.I. Surgeries. Patients undergoing gastrectomy may experience frequent and moderate to severe pain post operatively (Hense et al, 2011, Kotak et. al.2009, Kincaid & Larn, 2007). The incidence and severity of pain and a multimodal approach (use of a combination of pain control strategies including opiods, non-steroidal anti inflammatory drugs (NSAIDS), non pharmacologic intervention to acute post gastrectomy pain is recommended. (Flexman at al 2010).[1]

Despite the growing recognition for analgesic needs in post-gastrectomy patients, this remains a poorly studied area in gastro-intestinal surgery. (Hassoounch et al, 2011). Hence, the present study was undertaken to assess the level of pain experienced by patients after gastrectomy, to identify the post-operative activities that increases pain and to find out association between pain score of patients and selected variables.

OBJECTIVES OF THE STUDY –

- To assess the degrees of pain and the activities which increases pain after gastrectomy.

Corresponding author :
Ashisbala Mohapatra
(Deputy Nursing Superintendent) All India Institute of Medical Sciences, Sijua Post- Dumduma, Bhubaneswar-19
E-mail Id: ashisbalamohapatra@gmail.com
Mob : 09937440524

- To find out the association between the degrees of pain with their selected variables during post-operative period.

HYPOTHESIS

- H_1:- There is significant association between different degrees of pain and the activities performed post-operatively.

- H_2 There is significant association between different degrees of pain and the demographic variables.

CONCEPTUAL FRAME WORK:- The conceptual framework in this study is based on Sister callister Roy's Adaptation model. The Roy's Adaptation model views the person as an adaptive system in constant interaction with an internal on external environment containing variety of stimuli that either threats or promote the persons unique wholeness. [2]

MATERIAL AND METHODS: A descriptive research design was chosen for this study. The subjects were the patients those who have undergone gastrectomy in Hi-Tech medical college and Hospital, Bhubaneswar. Sample size was 40 and convenient sampling technique was used for this study. A self prepared validated questionnaire and wong Bakers faces pain scale were used as the tools. The data gathered were organized, tabulated and analyzed using descriptive and inferential statistics.[3]

RESULTS & DISCUSSION

Wong bakers faces pain rating scale (Score = 0-10) and a validated questionnaire about pain experiences after gastrectomy during the first three post operative days, including a four point verbal numerical range scale ranging from "0" (No pain) to 3 (Maximal pain) with three questions score (0-9). Total Pain score was 19. The highest score indicated the highest intensity of pain. [4&5]

Questions about pain aggravating and alleviating activities, post operative day of maximum pain were also included. First assessment was done after 24 hours of surgery. Second and third assessments were carried out on consecutive days after 48 hours and 72 hours of surgery. Most of the patients were shifted to post-operative ward on second or third post operative day.[6]

Fifty six patients underwent gastrectomies during the data collection period. Out of this, 40(>75%) patients were conveniently selected. The age of the participants ranged from 19 to 74 years. Out of these 40 patients, 22 (55%) were males and 18 (45%) were females. Rest had undergone partial gastrectomy operations.

Table No - 1: Mean , standard deviation and P-valued of pain score according to selected variables

N=40

Characteristics of patients	Mean	Standard deviation	P-Value
Age			
Younger age (<42.5)	8.80	2.04	0.81
Older age (>42.5)	8.65	1.87	
Sex			
Male	8.56	1.99	0.50
Female	8.94	1.89	
Post operative day			
1st Postoperative day	8.73	1.935	0.000
2nd postoperative day	6.25	1.104	
3rd Postoperative day	2.93	2.280	0.000

The maximum obtainable pain was 19. The range of pain score (mean ± SD) of patients on first, second and third post-operative day were five to thirteen (8.73 ± 1.94), four to eight (6.25± 1.1), and zero to eight (2.93 ± 2.28) respectively. "t" tests showed that the mean pain score on the second post operative day was significantly less than that of first post-operative day (p=0.000), and the mean pain score on the third post-operative day was significantly less than that of second post-operative day (P=0.000). There was no significant difference in the mean pain according to age (P=0.81) or gender (P=0.5) (Table No-1).

All patients reported surgical dressing removal as the activity that caused maximum pain. In addition to this, 18 (45%) patients reported that position changing also included pain. None of the patients reported pain during physiotherapy, suctioning or any other activities. Thirty seven (92.5%) patients required analgesics for reducing the pain while the rest reported the pain was tolerable.

Majority 32(80%) of patients reported maximum pain on the first postoperative day, while only 08 (20%) patients reported maximum pain on second postoperative day. None of them reported maximum pain on third post-operative day.[7]

Table No- 2: T-test showing the association between different degrees of pain and the activities performed

N=40

Sl No.	Degrees of Pain score	Activity Performed	Mean Score	SD	t-value
1	Severe (19)	Surgical dressing removal	7.46	0.36	10.16
2	Moderate (13)	Position changing	7	0	16.17
3	Mild (08)	Other activities	3.64	0.77	12.44
4	Nil (0)	Physiotherapy	4.38	0.63	11.41
5	Nil (0)	Suctioning	6.88	1.99	8.47

Findings reveal that there is significant association between the different degrees of pain and the activities which increases pain after gastrectomy. Hence the hypothesis is accepted.

Table No:- 3: Chi-square value showing association between different degrees of pain and the demographic variables.

N= 40

Demographic Variables	df	Chisquare	Table Value	Remark
Age of the Patients	3	0.30120283	7-81	S
Type of family	3	2.08519128	7-81	S
Education	3	3.8444444	7-81	S
Occupation	2	3.91111111	5-99	S
Family income	3	2.08519128	7.81	S
History of any previous surgery	3	5.58289732	7-81	S
History of any chronic disease	3	5.58289732	7.81	S

Findings reveals that there is significant association between the different degrees of pain and the selected demographic variables. Hence, the Hypothesis is accpepted.

CONCLUSION

The reported pain in patients after gastrectomy was mild to moderate and the use of combination drugs like non-narcotic analgesics and NSAIDS provided adequate pain relief. Wong bakers faces pain rating scale could be used as an easy tool to assess the post operative pain. Patient's self report pain along with assessment using the fourt point verbal numerical rating scale was helpful for effective management of pain. The practical knowledge obtained through this study can be used to answer pre-operative queries of patients regarding post operative pain. For most of the patients, pain gradually decreased from first post-operative day to third post operative day.

NURSING PRACTICE

The nurse practitioners should attempt to educate the staffs periodically regarding the assessment of pain and the nursing measures to be taken to cope up with pain. Also , they must educate the patients to report the existence of pain according to the severity and the way to cope up during post operative period.

RECOMMENDATIONS

- The study can be replicated in various settings.
- The study can be done in a larger sample size which is needed to compare the postoperative pain in patients after gastrectomy surgery.

- **Acknowledgement**: The authors are grateful to the medical superintendent & Nursing superintendent, Hi-Tech medical college and Hospital, and department of clinical research and bioethics for providing administrative permission and support.
- **Conflict of Interest :-** Nil
- **Source of Funding :-** Nil

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Knowledge of Parents on Effects of Child Labor

Prasannakumar D R[1], Rekhanisha SK[2], Chandrashekar M[3], Vinaykumar G[4], Murali Mohan A[5]

[1]Asst Professor, Pediatric Nursing, JSS College of Nursing, Saraswathipuram, Mysore, [2]Asst Professor, Pediatric Nursing, RNS College of Nursing, Murudeshwar, [3]Asst Professor, Pediatric Nursing, [4]Asst Lecturer, Community Health Nursing, [5]Asst Lecturer, JSS College of Nursing, Saraswathipuram, Mysore

ABSTRACT

Creating a safe and healthy world for our children is as a important task as any that exists. Yet millions of children around the world remain victims of poverty, illness, armed conflict, exploitive and forced labor. Child labor is a very complicated development issue, effecting human society all over the world**.** Child labour is any work that is likely to interfere with the child's education or harmful to his/her health, physical, mental or social development.

Method: Exploratory research approach with descriptive survey design was adopted for the study. The sample consisted of 50 parents having children aged between 5-14 years. The tool used for the data collection was structured interview schedule. The structured interview schedule was validated by 10 experts. The reliability was established through split half method by administering to 30 parents having children aged between 5-14 years residing in Gandhinagar urban slum, under Kengeri Upanagara Primary Health Centre, Bangalore and the tool was found reliable. The data analyses by using both descriptive and inferential statistics.

Results: Findings of the study revealed that majority 64% of the parents had moderate knowledge while 34% parents had inadequate knowledge regarding effects of child labour. The total mean of overall knowledge score was 2.68. Study also revealed that there was a statistically significant association between the knowledge score of the parents with demographic variables such as family size, education, occupation, family income and number of children at the probability level of $P<0.01$.

Conclusion: The samples had inadequate knowledge regarding the effects of child labour. The knowledge level of the parents increases with the educational status, family income and number of children they have. Hence the health professionals and social workers should take the responsibilities for conducting the awareness program on effects of child labor among parents having children aged between 5-14 years in community and schools.

Keywords: *Knowledge; parents; children aged between 5-14 years; effects of child labor.*

INTRODUCTION

Children are regarded as a source of joy to families and are invaluable assets to the parents. Hence, they should grow up and be nurtured in family environment, in an atmosphere of happiness, love, care, and understanding. They should not be maltreated, exploited, over worked or deprived of their rights to education, association and health. Child labour is any work that is likely to interfere with the child's education or harmful to his/her health, physical, mental or social development [1, 2].

Child labor is most rampant in Asia with 13 percent of its children doing commercial work followed by 26 percent in Africa which is the highest rate and 9.8 percent in Latin America. In India 14.4 percent children between 10 and 14 years of age are employed in child labor, 30 percent in Bangladesh, 11.6 percent in China, 17.7 percent in Pakistan, 24 percent in Turkey, 11.2 percent in Egypt, 41.3 percent in Kenya, 25.8 percent in Nigeria, 31.4 percent in Senegal, 4.5 percent in Argentina, 16.1 percent in Brazil, 6.7 percent in Mexico, 0.4 percent in Italy, 1.8 percent in Portugal. The above figure only gives part of the picture [3,4].

STATEMENT OF THE PROBLEM

"A study to assess the knowledge on effects of child labor among the parents of urban slums with a view to develop the information booklet on effects of child labor at selected slums of south Bangalore"

OBJECTIVES

1. To assess the knowledge on effects of child labor among the parents.

2. To develop an information booklet on the effects of child labor

3. To find out the association between the selected demographic variables with the knowledge of parents on child labor

HYPOTHESES

H1- There will be significant association between the knowledge of the parents regarding child labour and demographic variables.

Conceptual Framework : Conceptual model of present study is based on health belief model by Rosenstoch and Becker's. This model describes about 3 variables - Individual perception, Modifying factors, Likelihood of taking action.

MATERIALS AND METHOD

The research design adopted for the study was descriptive survey design. The study sample composed of 50 parents having children aged between 5-14 years. Structured interview schedule was used to assess the knowledge of parents regarding effects of child labor. The structured interview schedule was validated by 10 experts. There was 100% agreement from all experts on all times The reliability was established through split half method by administering to 30 parents having children aged between 5-14 years at selected areas under Kengeri Upanagara urban Primary Health Centre of Bangalore. The reliability of structured interview schedule was obtained by computing coefficient of correlation which was found to be 0.86. This indicate that tool was reliable.

FINDINGS

Section I: Description of Selected Personal Variables

TABLE 1: Frequency and percentage distribution of parents having children aged between 5-14 years according to their selected personal variables

n = 50

Sl. no	Variables	Frequency	Percentage
1.	**Age**		
a.	Less than 30 years	3	6.0
b.	31-35 years	29	58.0
c.	36-40 years	11	22.0
d.	41 years and above	7	14.0
2.	**Education Status of Father**		
a.	Not literate	2	4.0
b.	primary education	17	34.0
c.	Secondary education	8	16.0
d.	PUC	18	36.0
e.	Graduation and above	5	10.0
3.	**Occupation of Mother**		
a.	House wife	28	56.0
b.	Coolie	13	26.0
c.	Private employee	4	8.0
d.	Semi government employee	5	10.0
4.	**Religion**		
a.	Hindu	26	52.0
b.	Muslim	15	30.0
c.	Christian	9	18.0
5.	**Family type**		
a.	Nuclear Family	41	82.0
b.	Joint family	9	18.0
6.	**Family size**		
a.	Less than 4 members	33	66.0
b.	5-8 members	11	22.0
c.	More than 8 members	6	12.0
7.	**Total number of children in the family**		
a.	One	16	32.0
b.	Two	25	50.0
c.	Three	9	18.0
8.	**Total number of earning members in the family**		
a.	One	31	62.0
b.	Two	19	38.0
9.	**Family Income**		
a.	Less than Rs.4,000	10	20.0
b.	Rs. 4,001-8,000	25	50.0
c.	Rs. 8,001 and above	15	30.0

Section II: Knowledge level of parents

Data presented in figure 3 shows that majority of the sample (n=32, 64%) had inadequate knowledge and remaining (n=18, 36%) samples had moderate knowledge on effects of child labour.

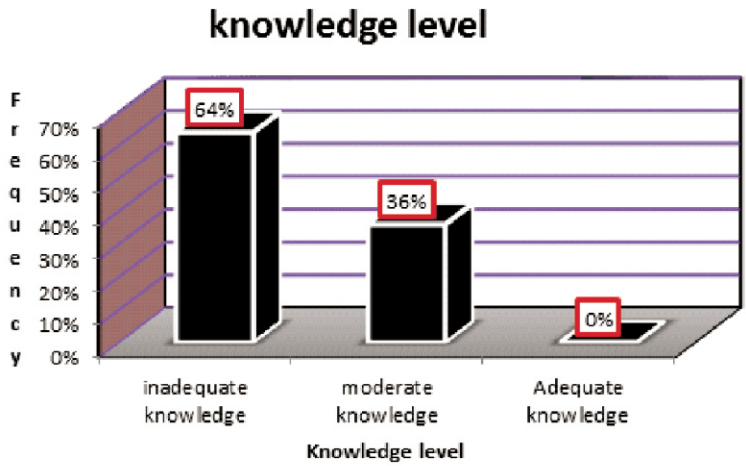

Fig. 3- Bar Diagram representing the Distribution of parents according to the knowledge level

TABLE -2: Mean, mean%, median and standard deviation of knowledge scores of parents having children aged between 5-14 years.

n=50

Knowledge aspects	Max Score	Mean	Mean%	Median	SD
a. General aspect of child labour	5	2.54	50.8%	3	0.930
b. Efects of child labour	20	9.46	47.3%	9	1.619
c. Prevention of child labour	10	4.50	45%	4.5	1.074
Total	35	16.84	48.11%	17	2.376

Ection III: Association of Knowledge of Parents on Child Labour and its Prevention with Demographic Variables

Table 3: Association of knowledge of parents on child labour and its prevention with demographic variables

Sl no	Variables	Below Median	Median and above	Chi square	Df	P value (0.01)	Inference
1.	**Age of father**						
	a. Less than 30 years	3	0	6.696	3	11.34	NS
	b. 31-35 years	13	16				
	c. 36-40 years	6	5				
	d. 41 years and above	1	6				
2.	**Education**						
	a. Illiterate	2	0	31.506	4	13.28	S
	b. primary education	16	1				
	c. Secondary education	3	5				
	d. PUC	2	16				
	e. Graduation and above	0	5				
3.	**Occupation**						
	a. House wife	10	18	17.183	3	11.34	S
	b. Coolie	12	1				
	c. Private employee	0	4				
	d. Semi government employee	1	4				

Table 3: Association of knowledge of parents on child labour and its prevention with demographic variables (Cont...)

4.	**Religion**						
	a. Hindu	9	17	15.753	2	9.21	S
	b. Muslim	13	2				
	c. Christian	1	8				
5.	**Family type**						
a.	b. Nuclear Family	14	27	12.882	1	6.64	S
c.	d. Joint family	9	0				
6.	**Family Size**						
	a. less than 4 members	16	17	13.158	2	9.21	S
	b. 5-8 members	1	10				
	c. more than 8 members	6	0				
7.	**Total number of children in the family**						
	a. One	15	1	24.326	2	9.21	S
	b. Two	8	17				
	c. Three and above	0	9				
8.	**Total number of earning members in the family**						
	a. One	12	19	1.746	1	6.64	NS
	b. Two	11	8				
9.	**Family income**						
	a. Less than 4000	7	3	18.357	2	9.21	S
	b. Rs. 4001-8000	16	9				
	c. Rs. 8001 and above	0	15				

NS: No significant association, S: Significant association

DISCUSSION

Findings related to selected personal variables.

Findings in the present study shows that majority (n=29, 58%) of the subjects fall under the age group 31-35 years and least number of parents (n=3, 6%) fall under less than 30 years of age. Maximum number of subjects (n=18, 36%) had the education qualification of PUC and least number of parents (n= 2, 4%) were not literate. Maximum number of parents (n=28, 56%) were house wives and least number of parents (n=4, 8%) were private employees. Maximum number of families (n=26, 52%) belongs to Hindu religion, 30% (n=15) were Muslim and remaining n= 9, 18% were Christian religion. Majority (n=41, 82%) of the sample lives in nuclear families and remaining (n=9, 18 %) of the family were joint families. Maximum number of families (n=33, 66%) have less than 4 members and least number of families (n=6, 12%) have more than 8 members in the family. Maximum number of families (n=25, 50%) had child and least number of families (n=9, 18%) had 3 children. Maximum number of families (n=31, 62%) had one earning member and remaining (n=19, 38%) families had two earning members. Majority (n=25, 50%) of the sample had income Rs. 4001-8000 and least number of families income (n=10, 20%) was less than Rs.4, 000.

Finding related to knowledge scores of the parents regarding child labour.

Findings of the study revealed that majority 64% of the parents had moderate knowledge while 34% parents had inadequate knowledge regarding effects of child labour. The total mean of overall knowledge score was 2.68. This indicates that parents had lack of awareness regarding child labour and they need to provide awareness program.

Finding related to association of knowledge scores with personal variables.

Findings shows that Variables such as education, occupation, religion, family type, family size, total

number of children and family income were significant 0.01 level. But total number of earning members in the family and age of parents were not significant. Thus it can be inferred that there is significant association between knowledge level of the parents and selected variables.

CONCLUSION

Study also revealed that there was a statistically significant association between the knowledge score of the parents with demographic variables such as family size, education, occupation, family income and number of children at the probability level of P<0.01.

The samples had inadequate knowledge regarding the effects of child labour. Hence the health professionals and social workers should take the responsibilities for conducting the awareness program on effects of child labor among parents having children aged between 5-14 years in community and schools.

Acknowledgement: We acknowledge our sincere gratitude the Parents who has enthusiastically participated in the study and without their cooperation the study would not have been possible. Also we acknowledge our heartfelt thanks to the Medical Officer, PHC, Kengeri Upangara, Bangalore for giving permission to conduct the study.

Conflict of Interest - Nil

Ethical Clearance: The ethical clearance was obtained from the ethical committee. The informed consent was taken from the participants of the study.

Source of Funding: The investigator themselves funded for the study.

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Effectiveness of Self Instructional Module on Knowledge of Autism among Pre School Teachers

Sheela Upendra

Assoc. Professor, Symbiosis College of Nursing, Symbiosis International University, Pune

ABSTRACT

Background: Autism is a disorder of neural development characterized by impaired social interaction and verbal and non-verbal communication, and by restricted, repetitive or stereotyped behavior

Aims and Objectives: The study focused on the effectiveness of self Instructional Module on Autism among pre- School teachers with objectives to evaluate the effectiveness of self Instructional module with reference to the knowledge of autism among pre school teachers and to find the association between knowledge of preschool teacher and selected demographic variables.

Methods: Sample size was 30 Pre School teachers from Permanent Unaided School, MNC, Unaided School and Private aided school. Stratified random technique was used. The results were analyzed and interpreted using descriptive and inferential statistics.

Results: Pre-test and post-test knowledge scores of the teachers were compared using paired t-test. T-value was 12.9 and corresponding p-value at 29 degrees of freedom was found to be 0.000. Since p-value is very small (less than 0.05), the null hypothesis is rejected. Average knowledge score in the pretest was 20.7 which changed to 38.4 after the use of self-instructional module. The self-instructional module has improved the knowledge of the teachers significantly.

Age has significant association with knowledge of teachers regarding autism.

Educational status, Years of teaching experience, whether the teacher come across the child with autism before does not have significant association with knowledge of teachers regarding autism.

Conclusion: The present study revealed the Pre school teachers had considerably poor knowledge regarding Autism. The self-instructional module on Autism has improved the knowledge of the teachers significantly.

Keywords: *Self Instructional Module, Autism, Pre School Teachers*

INTRODUCTION

Autism was first described by Dr. Leo Kanner in 1943[1]. Almost all the characteristics described in Kanner's first paper on the subject, notably "autistic aloneness" and "insistence on sameness", are still regarded as typical of the autistic spectrum of disorders[2].

Data released from the CDC in April 2012 placed the prevalence of autism in the U.S. at approximately 1 in 88 children. No data are available from India to provide an India-specific estimate of the prevalence, and it is unknown whether there are variations in this rate worldwide[3].

Autism is a disorder of neural development characterized by impaired social interaction and verbal and non-verbal communication, and by restricted, repetitive or stereotyped behavior 4. It is distinguished not by a single symptom, but by a characteristic triad of symptoms: impairments in social interaction; impairments in communication; and restricted interests and repetitive behavior

The prevalence of autism is about 1–2 per 1,000

people worldwide, and it occurs about four times more often in boys than girls[5].

Overt symptoms gradually begin after the age of six months, become established by age two or three years[6].

While estimates suggest that India could have more than 2 million people with autistic spectrum disorder, this has never been directly tested.

Though the number of autistic children in the world is quite substantial, yet the levels of awareness about autism is still very low, especially in developing countries like India

A 2009 US study found the average age of formal ASD diagnosis was 5.7 years, far above recommendations, and that 27% of children remained undiagnosed at age 8 years[7].

Autism is a complex neurodevelopmental disorder. Many causes have been proposed, but its theory of causation is still incomplete[8].

According to reports by the American Academy of Pediatrics[9] and the National Research Council[10], educational interventions thought to help children with ASDs are those that provide structure, direction, and organization for the child. Educational interventions must be tailored to the child and take into account his or her overall developmental status and specific strengths and needs.

The alarming proportion by which it is rising can make India the most populous country in the world having such neurological disorder.

Benefit to raising awareness about Autism is that the more people that know about autism, breakthroughs in autism treatment are more likely. Self instructional module focused on Autism awareness and provided necessary knowledge to recognize early warning signs .Focus of the study is to help raise awareness about Autism among pre school teachers.

STATEMENT OF THE PROBLEM

"Effectiveness of Self Instructional Module on Knowledge of Autism Among Pre School Teachers"

AIMS AND OBJECTIVES

Aim: The study focused on to raise awareness about Autism among pre school teachers.

Objectives: 1. To evaluate the effectiveness of self Instructional module on level of knowledge of Autism among Pre School teachers.

2. To find the association between knowledge of preschool teacher on Autism and selected demographic variables.

MATERIAL AND METHOD

Research design and setting: The researcher adopted Pre Experimental evaluative research design for the study. Setting for the study was Pre schools of Pune city from Permanent Unaided School, MNC, Unaided School and Private aided school.

Sample size and technique Sample: Sample size comprised of 30 Pre School teachers. Stratified random technique was used for the study.

Study Instrument A Structured knowledge questionnaire on five domains of Autism used. These areas has selected after extensive literature review and consultation with experts of concerned discipline.

Section I: It consisted of Information on demographic variables like the Age, Gender, education, educational role, teaching experience, Autism Training attended and have you come across with Autistic child before.

Section II: This section consisted of Structured knowledge questionnaire that comprised of total of sixty (60) – item questions in five domains on knowledge of Autism such as meaning, causes, sign and symptoms, diagnosis and Management.

Study variables: Study had Independent variable like Self Instructional Module on Autism and Dependent variable was Knowledge on Autism. Extraneous variables included in the study were Age, Gender, education, educational role, teaching experience, Autism Training attended and have you come across with Autistic child before.

Data Collection Procedure: The study was approved by the ethical committee. After obtaining permission from the concerned authority and

informed consent from the samples, the investigator administered the tool. Structured knowledge questionnaire on Autism was administered along with baseline Proforma. After the assessment of knowledge, Self Instructional Module on Autism was provided to Pre School teachers. Post test was conducted after fifteen days to evaluate the effectiveness of Self Instructional module.

RESULTS

Table 1. Frequency and percentage distribution of demographic variables of preschool teachers.

Parameters		No of cases	Percentage (n=30)
Age (Yrs)	21 – 25 26 – 30 31 – 35	9 17 4	30 56.67 13.33
Gender	Male Female	0 30	0 100
Educational status	Diploma Graduate Post graduate	5 10 15	16.67 33.33 50
Teaching experience (Yrs)	< 5	14 16	46.67 53.33
Training attended related to Autism	Yes No	0 30	0 100
Educational Role	General Education teacher Special school education teacher School psychologist Other	30 0 0 0	100 0 0 0
Come across with Autistic child before	Yes No	5 25	16.67 83.33

Effectiveness of self Instructional module on level of knowledge of Autism among Pre School teachers.

Table 2: Comparison of pre and post test Knowledge score in study group

	Mean	SD	T	df	p-value
Pretest	20.7	3.8	12.9	29	0.000
Post test	38.4	8.8			

Pretest and posttest knowledge scores of the teachers were compared using paired t-test. T-value was 12.9 and corresponding p-value at 29 degrees of freedom was found to be 0.000. Since p-value is very small (less than 0.05), the null hypothesis is rejected. Average knowledge score in the pretest was 20.7 which changed to 38.4 after the use of self-instructional module. The self-instructional module has improved the knowledge of the teachers significantly.

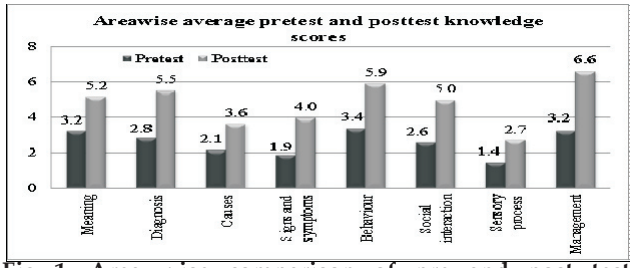

Fig 1: Area wise comparison of pre and post test Knowledge score in study group

Association between knowledge of preschool teacher on Autism and selected demographic variables

Table 3: Comparison of pretest knowledge score according to age in study group

Age (Years)	n	Mean ± SD
21 – 25	9	20 ± 3.87
26 – 30	17	22.06 ± 3.75
31 – 35	4	26 ± 1.41
F Value		3.85
P Value		<0.05

The pretest knowledge scores of teachers from

different age groups were compared using ANOVA. Since p-value is small (less than 0.05), the null hypothesis is rejected. Age has significant association with knowledge of teachers regarding autism.

Table 4: Comparison of pretest knowledge score according to educational status in study group

Educational status	n	Mean ± SD
Diploma	5	21 ± 4.85
Graduate	10	20.60 ± 3.13
Post graduate	15	23.20 ± 3.99
F Value		1.54
P Value		>0.05

The pretest knowledge scores of teachers with different educational status were compared using ANOVA. Since p-value is large (greater than 0.05), there is no evidence against null hypothesis. Educational status does not have significant association with knowledge of teachers regarding autism.

Table 5: Comparison of pretest knowledge score according to teaching experience in study group

Knowledge score on	Teaching experience		F Value	P Value
	< 5 Yrs	≥ 5 Yrs		
	Mean ± SD (n=14)	Mean ± SD (n=16)		
Pre test	20.64 ± 3.54	23.13 ± 4.01	1.86	>0.05

The pretest knowledge scores of teachers with different teaching experience levels were compared using ANOVA. Since p-value is large (greater than 0.05), there is no evidence against null hypothesis. Years of teaching experience does not have significant association with knowledge of teachers regarding autism.

Table 6: Comparison of pretest knowledge score according to autism child comes across before in study group

Knowledge score on	Have you come across with autism child before		F Value	P Value
	Yes	No		
	Mean ± SD (n=5)	Mean ± SD (n=25)		
Pre test	22.20 ± 4.32	21.92 ± 3.96	0.03	>0.05

Since p-value is large (greater than 0.05), there is no evidence against null hypothesis. Whether the teacher come across the child with autism before does not have significant association with knowledge of teachers regarding autism.

DISCUSSION

The findings of the study revealed that there Average knowledge score in the pretest was 20.7 which changed to 38.4 after the use of self-instructional module. The self-instructional module has improved the knowledge on Autism of the Pre school teachers significantly.

Similar findings are obtained by Jariya Chuthapisith, Benedict diMambro, Gillian Doody[11]. The Computer Assisted Learning package developed was an effective method of educating people on Autism.

Similar findings were seen in the study conducted by Heatherann Schwartz,Kathryn D. R. Drager[12] the majority of respondents reported that they could have benefited from additional training in the area of autism. As a result, it may be necessary to consider strategies for providing this training.

CONCLUSION

The present study revealed the Pre school teachers had considerably poor knowledge regarding Autism. The self-instructional module on Autism has improved the knowledge of the teachers significantly. Age has significant association with knowledge of Pre School teachers regarding autism. Educational status, Years of teaching experience, whether the teacher come across the child with autism before does not have significant association with knowledge of Pre School teachers regarding Autism.

Acknowledgement: Great owe and praise to almighty god whom leads to completion of this study**.** I express my deep sense of gratitude, to my Guide Dr. Saroj V Upasani and my Co- Guide Dr Geeta Karambelkar whose guidance, support and encouragement helped a lot. I am immensely thankful to my husband and my son for their support and motivation without their cooperation the study would have remained as incomplete. A special note of thanks to my beloved parents for their unconditional love and encouragement. Thoughtful words of gratitude to all participates who participated in the study.

Source of Funding- Self

Conflict of Interest - Nil

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Disclosing versus Concealing: Marital Prospects of Female Epileptic Patients in Karachi, Pakistan

Erum Lalwani[1], Fauziya Ali[2], Mughis Sherani[3], Asho Ali[4], Nasreen Sulaiman[5], Saima Sachwani[6]

[1] Senior Instructor, The Aga Khan University School of Nursing and Midwifery, [2]Instructor, Faculty of Health and Community Studies | NorQuest College, [3]Associate Dean Post Graduate Medical Education & Associate Professor PGME, The Aga Khan University, [4]Associate Professor, Microbiology King Abdul Aziz University Jeddah, KSA, [5]Instructor, University of Alberta, [6]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan

ABSTRACT

Background: Globally, epilepsy is the third most common neurological disorder in primary health care settings. It has severe implications on women's social domain of life especially in matrimonial affairs. Epileptic women face hurdles, discrimination, and rejection, due to the negative perception and social stigma attached to this disease. The purpose of the current study was to identify the prevalence rate of disclosure of epilepsy prior to marriage, disclosure after marriage, and the manners in which the disease was revealed after Marriage.

Method: A descriptive cross-sectional study included 381 married women with epilepsy, from a tertiary healthcare setting in Karachi, Pakistan. A self-reported questionnaire was administered to collect the data.

Findings: The study showed that 64% female disclosed the diagnosis to their prospective spouse and in-laws, at the time of marriage negotiations; whereas, 36% concealed it. Participants who had concealed the epilepsy disorder prior to marriage, majority, 92% (n=128), of these cases were discovered after marriage. It was identified that 60% cases were discovered by their husband due to non-compliance with the medication.

Conclusion: This study concludes that pre-marriage disclosure of epilepsy is a crucial and a complex decision because it carries numerous benefits as well as harms for women in the different domains of life. However, honestly sharing the history of epilepsy at the time of marriage negotiation is more helpful, as epilepsy requires follow-up in the clinic and compliance to medication for a prolonged period. Moreover, disclosure helps to get financial support, physical assistance, and affectionate support.

Keywords: *Epilepsy, Disclosure, Concealment, Marriage negotiation*

INTRODUCTION

Epilepsy is characterized by repeated, unprovoked, and sudden attacks of seizure activity that occurs due to the abnormal flow of electrical discharges in the neurons of the cerebral cortex[1]. Worldwide, approximately 50 million people have epilepsy, and about 85 percent of the burden lies in the developing world[2]. Epilepsy is a disease, which has severe implications related to women's physical, psychological, economical, and social domains[3]. A cross-sectional study was conducted in Pakistan to assess the social issues faced by female epileptic patients. It was revealed that women with epilepsy

Corresponding author:
Erum Lalwani
Senior Instructor, The Aga Khan University School of Nursing and Midwifery, Ph: 92-346-2345085,
E-mail: erum.lalwani@aku.edu

faced significant problems in major aspects of their life including marriage, education, job, driving, pregnancy, and motherhood[4]. Social challenges faced by women are not always an adverse effect of epileptic seizures, but these can be attributed to the social stigma and negative perceptions of people about epilepsy, which leads to devastating consequences in the marital prospects[3-5]. Studies conducted in developed as well as developing countries have reported that marriage rate is low among female epileptic patients as compared to the general population [6-8]. South Asian countries, like Pakistan, are predominantly considered to have a patriarchal society, where women are suppressed and undermined in the society, and they are an easy target for social stigma that leads to rejection, discrimination, and unfairness in different spheres of life especially on the matrimonial affairs[9]. Most of the people believe that epilepsy is an inheritable disease and offspring will be born with morphological abnormalities. Due to these negative perceptions regarding epilepsy, parents do not allow their sons to get married to an epileptic girl[10-12.] Thus, considering the stigma and negative perceptions of epilepsy, female patients and their family members are anxious and hesitant about disclosing epilepsy diagnosis at the time of marriage negotiations[13]. Hence, the purpose of the current study was to identify the burden, reasons and consequences of disclosure or concealment of epilepsy diagnosis at the time of women's marriage negotiations. This paper will present the rate of disclosure of the diagnosis prior to marriage, disclosure after marriage, and the manners in which the disease was revealed after Marriage.

MATERIAL AND METHOD

A descriptive cross-sectional study design was employed for this study. The study was conducted at the one of the largest Epilepsy center in Karachi, Pakistan. This research site was purposely chosen in order to capture a larger number of patients. 381 married females, who had history of active epilepsy, were recruited in study. A self-reported questionnaire designed by Santosh and colleagues[13] was administered to collect the data, which fulfilled the purpose of the current study. After obtaining the ethical approval from the Ethical Review Committee, Aga Khan University, and Institutional approval; informed consent was taken from the participants.

FINDINGS

Socio-demographic Characteristics

In total, 381 married women with epilepsy, belonging to different educational backgrounds and socio-economic strata, participated in this study. The socio-demographic characteristics of the study participants are provided in table 1.

Table 1: Socio-demographic Profile of Married Women with Epilepsy (n=381)

Socio-demographic Variables		Married Epileptic Women (n=381)	
		Frequency (n)	(%)
1	**Age in years** 28.7 ± 6.13*		
2	**Age Range**		
	15-24	88	23%
	25-34	223	59%
	35 years and above	70	18%
3	**Ethnicity**		
	Muhajir	128	34%
	Sindhi	100	26%
	Pathan	70	18%
	Punjabi	65	17%
	Balochi	18	5%
4	**Education Status**		
	Educated	170	45%
	Uneducated	211	55%
5	**Employment Status**		
	Earning	61	16%
	Non-earning	320	84%
6	**Type of Family System**		
	Extended Family	257	67%
	Nuclear Family	124	33%
7	**Type of Marriage**		
	Arranged Marriage	318	83%
	Love Marriage	63	17%

Prevalence of Disclosure and Concealment of Epilepsy

An astonishing finding of the current study

was that 64% (n=242) of the participants disclosed to their prospective spouse and in-laws, at the time of marriage negotiations, that they were suffering from epilepsy; whereas, 36% (n=139) concealed their diagnosis.

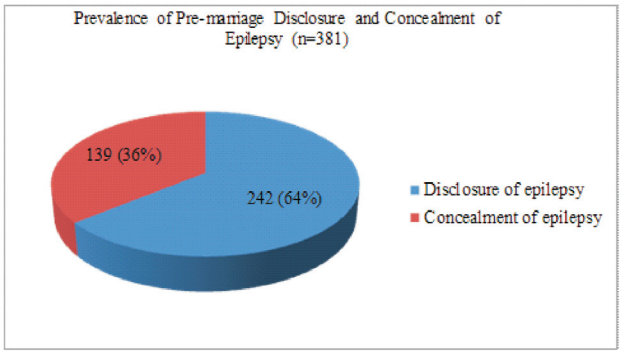

Figure 1: Prevalence of Pre-marriage Disclosure and Concealment of Epilepsy (n=381)

Disclosure of Epilepsy after Marriage

One of the findings, identified in this study, is that of the participants who had concealed (n=139) the epilepsy disorder at the time of marriage negotiations, majority, 92% (n=128), of these cases were discovered after marriage; whereas, only 8% (n=11) of the participants could still conceal it from their spouses.

Prevalence of Disclosure of Disease after Marriage (n= 139)

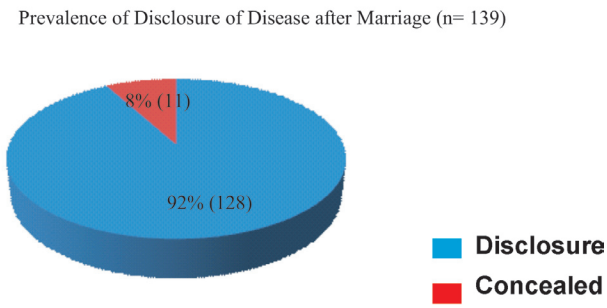

Figure 2 Prevalence of Disclosure of Epilepsy after Marriage (n=139)

Manner in which the Disease was Revealed after Marriage

60% (n=77) participants shared that their husbands had witnessed the seizure episode after marriage, while in 46 cases others (relatives or neighbors) had leaked the diagnosis to the participant's husband and in-laws. Moreover, only five participants' diagnosis was discovered through medication.

Table 2 Manner in which the Disease was Revealed (n=128)

Ways through which disease revealed		Disclosed after marriage (n=128)	
		Frequency	Percentage
1	Seizure witnessed by the husband	77	60%
2	Informed by others (relative or neighbors)	46	36%
3	Discovered through medication	5	4%

DISCUSSION

The reported prevalence of pre-marriage disclosure of epilepsy in the current study is higher than the prevalence identified in previous studies[6-8]. A study conducted in Kanpur, India, which revealed that 95.54% of the women had kept their diagnosis secret from their spouse[6]. The above findings highlight that the prevalence rate of disclosure or concealment of epilepsy prior to marriage varies among different cultures as well as among countries, and this may be attributed to the differences in the knowledge, attitude, and perception of people, related to epilepsy[14]. Moreover, the reason for the high prevalence of pre-marriage disclosure of epilepsy in the current study may be attributed to the increased awareness of these epileptic women about epilepsy, provided to them by the selected health care setting. These sessions may have empowered the women to take the decision of disclosing the diagnosis before marriage; thus, literature corroborates the existing findings that acquiring knowledge about the causes, treatment, prevention, and adjustment of lifestyle can, eventually, have positive effects on the individuals' self-esteem and self-efficacy[15-16].

Despite awareness about epilepsy, still, 36% of the women concealed the diagnosis of epilepsy prior to marriage. Studies have found that women conceal the diagnosis due to the shame and disgrace attached to being an epileptic patient, and the negative perceptions of others towards the marriage of female epileptic patients[13].

Epileptic seizures often occur without any warning sign, and can happen anytime[17]; therefore, married female epileptic participants find it

troublesome and challenging to mask the symptoms of epilepsy; eventually, the disease has to be revealed to the partner and family members. However, some participants successfully manage to conceal the disease from their partners because they can feel a "seizure coming on through a sensation known as aura" [1]

The findings of the current study correlate with the study conducted in Japan that in a majority of the cases the disease was uncovered through witnessing the seizure[8]. The reason for this may be non-compliance with medication by the wife, to hide the disease from the partner; but this leads to the worsening of seizure frequency, and the husband eventually gets to know about the disease, which provides him with a legitimate reason for divorce[13]. Furthermore, this study has identified that others, including relatives or neighbors, leaked the diagnosis; this can be attributed to our cultural traditions, where the family and society are close-knit. Therefore, if anyone (relative or neighbor) observes the seizure episodes of the female then, due to the marked stigma attached with epilepsy, this news is quickly spread in the whole society.

Moreover, according to the literature, epileptic patients require taking medication to control seizure activity for longer periods[18]; and the present study has identified that this was another way through which the disease was revealed to the husband.

LIMITATION OF THE STUDY

Findings of studies on stigma related to epilepsy report that it varies from context to context. As the current study was primarily focused on one setting, it might be interpreted as a limitation of the study.

RECOMMENDATION

The findings of the current study suggest that awareness among general public about the disease process of the epilepsy must be created. Such interventions will prevent the female epileptic patients from social injustice and stigmatization.

CONCLUSION

This study concludes that pre-marriage disclosure of epilepsy is a crucial and a complex decision because it carries numerous benefits as well as harms for women in the different domains of life. However, honestly sharing the history of epilepsy at the time of marriage negotiation is more helpful, as epilepsy requires follow-up in the clinic and compliance to medication for a prolonged period; therefore, it would be difficult to continue the treatment plan without informing the prospective husband.

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Ethical Clearance: The study had an approval from the University Ethical Review Committee (ERC).

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Effectiveness of Self Instructional Module (SIM) Regarding Multicomponent Diabetic Care among Diabetic Patients Admitted in Selected Hospitals at Vadodara

Priyanka Patel[1], Pavan Kumar Jain[2], Ravindra H N [3]

[1]Student, [2]Associate Professor; Department of Medical Surgical Nursing, [2]Principal, Sumandeep Nursing College, Sumandeep Vidyapeeth, Piparia, Vadodara-391760, Gujarat, India

ABSTRACT

Introduction: Diabetes mellitus is most common metabolic disease in India. Prevalence of diabetes mellitus is increasing globally, more so in developing countries like India. It is an ice berg disease posing a serious threat to be met within 21st century. One of the primary objectives in the care of diabetes patient is to educate the patient regarding multicomponent diabetic care include diet, exercise, medication, monitoring, and education. Hence the investigator decided to assess the knowledge of diabetic patients regarding multicomponent diabetic care.

Aims and Objectives: The study aimed at assessing the pretest level of knowledge regarding Multicomponent diabetic care among diabetic patient, to administer self instructional module regarding Multicomponent diabetic care, to evaluate the effectiveness of Self instructional module , to associate the post test level of knowledge regarding multicomponent diabetic care with selected demographic variables.

Material And Method: An evaluative research approach with pre-experimental design was used. The sampling technique used was non - probability convenient sampling. Data was collected from 50 diabetic patients from selected hospital at Vadodara. Data collection was done from 7-11-2013 to 22-11-2013. Permission taken from the medical superintendent and Medical director of selectd Hospitals was obtained prior to data collection process. The tool consist of section : 1 Demographic profile, section : 2 – knowledge regarding multicomponent diabetic care consisting 25 items. The reliability of the tool was established by using test retest method. Hence the tool was found to be reliable. Data was analyzed using descriptive and inferential statistics Descriptive statistics used were frequency, mean, range and standard deviation. The data was also presented graphically.

Results: result of study indicate that the post test mean knowledge score is significantly greater than the pre-test mean knowledge score. The T calculated value of **-14.539** which is less than the tabulated value of **-1.676 at 0.05 level of significance**. So we **accept H_1** and conclude that there is significant difference between pre-test and post- test knowledge score of diabetic patients.

Interpretation and Conclusion : The study findings revealed that self instructional module was highly effective in improving knowledge of diabetic patients regarding multicomponent diabetic care.

Keyword*: Assess Effectiveness, Knowledge, Self instructional module, multicomponent diabetic care, and diabetic patients.*

Corresponding author:
Mrs. Priyanka Patel,
Student, 2nd year M.sc. Nursing, Sumandeep Nursing College, Sumandeep, Vidyapeeth.
ADDRESS: 55, Rajdeep Society, Nr. Gaytri temple, Ranip, Ahmedabad-382480
E-mail: piyupatel.1318@yahoo.com,
Mob.: 9173803118, 9998580117

INTRODUCTION

According to WHO, health is state of complete physical, mental and social well being and not merely the absence of disease or infirmity.

Diabetes Mellitus is group of metabolic disease Characterized by hyperglycemic resulting from

defect in insulin secretion, insulin action or both the basis of the abnormalities in carbohydrates, protein, and fat metabolism[1].

Diabetes mellitus is a chronic multi system disease related to the abnormal insulin production, impaired utilization of insulin or both[2]. Diabetes mellitus is a serious health problem in the world and its prevalence is increasing rapidly.

It is estimated 30 million people in India are affected by diabetes and India is the country with highest rate of diabetes. The WHO estimated that India would be the home for 57 million diabetes by 2025[3]

The therapeutic goal for diabetes management is to achieve normal blood glucose levels without hypoglycemia while maintaining a high quality of life. For the management of the diabetes has multicomponent like diet, medication, monitoring, exercise, and education. (DMMEE) [4]

The importance of diet in the management of diabetes dates back to 3500 BC. Dietary principals to control Madhumeha for diabetes was mentioned in Shusruta and Charaka hold good even today. Adapting diet therapy to the specific needs and individual is most essential and dietary recommendations differ in cases of pregnancy, Childhood, sickness or in cases of diabetes mellitus.[5]

The main goal for diabetic management is to try and normalize blood sugar level in order to reduce the development of vascular and neuropathic complications. The management of diabetes varies from lifestyle, physical and emotional status as well as advances in treatment methods. The diabetes management is a complex issue that requires constant assessment and modification of treatment plan by health professional and daily adjustment in therapy by the patient. Although, the health care team directs the treatment, it is the individual patient who must manage the complex therapeutic regimen.[6]

Monitoring of blood glucose should be carried out three or more times daily for patients using multiple insulin injections or insulin pump therapy. For patients using less-frequent insulin injections, noninsulin therapies, or medical nutrition therapy (MNT) alone, SMBG may be useful as a guide to management. To achieve postprandial glucose targets, postprandial SMBG may be appropriate.[7]

During the clinical experience investigator identified that diabetic patients has lack of knowledge regarding all component of diabetic care. All the literature has not include the all the component like diet, exercise, medication, monitoring and education to provide knowledge regarding diabetic care. So researchers want to improve the knowledge regarding multicomponent diabetic care to diabetic patients

MATERIAL & METHOD

Research Approach: Evaluative research approach was used.

Research Design: A one group pre-test post-test Pre experimental research design was adopted

Setting of the Study: The study was conducted in two selected hospital, may permitting at Vadodara .

Sample: The sample for the present study comprises of 50 diabetic patients who fulfilled the sampling criteria and expressed willingness to participate in the study

Sampling technique: convenient sampling technique was used.

Development of tool for data collection: it consists of 2 parts:-

Part 1:- dealt with the demographic data of the sample

Part 2:- Consisted of multiple choice questions constructed to assess the knowledge of the diabetic patients regarding multicomponent diabetic care. Total 25 items are included in the questionnaire.

Validity of instrument: To ensure content validity of the tool, the self reportive structured questionnaire is send to 11 experts. The experts are selected based on their clinical expertise, experience and interest in the problem being studied. They are requested to give their opinions on the appropriateness and relevance of the items in the tool. The experts are from the field of nursing. Modifications of items in terms of simplicity and order are made.

Reliability: In order to establish the reliability of the tool it is administered to five diabetic patients. To establish the reliability of the structured interview schedule, split half method is used; Spearman-Brown's Prophecy formula is used for correlation

coefficient, which is found to be 0.9. Thus the tool is found reliable.

Data collection procedure: The data collected from 7 November to 22 november 2013 Sample are selected according to the selection criteria of the study. Consent was obtained from sample. A good rapport is maintained. Self introduction is given by the investigator to the subjects and the purpose of conducting the study is explained.

On the first day, the pre-test data is obtained using the structured questionnaire. On the same day self instructional module is administered. On the seventh day, post-test is conducted using the same tool to assess the knowledge of patient regarding multicomponent diabetic care.

Analysis of data: Both descriptive and inferential statistics analyzed on the basis of the objectives and hypotheses of the study. Mean, median, range and standard deviation calculated. 't' test is used to assess the effectiveness of Self instructional module on knowledge regarding multicomponent diabetic care among diabetic patients. The analysis of variance (ANOVA) is used to find out the association between post test knowledge score and selected demographical variables. Data would be presented in the form of tables and graphs.

FINDINGS

Organization of Study Findings: The data is analyzed and presented under the following sections:

SECTION I: Description of Sample Characteristics.

SECTION II: Knowledge of diabetic patients regarding multicomponent diabetic care admitted in hospitals.

SECTION III: Analysis of effectiveness of self instructional module regarding multicomponent diabetic care among diabetic patients.

SECTION IV: Association of demographic variable with the level of diabetic patients.

SECTION I: Description of Sample Characteristics.

- The majority of patients 46% belongs to the age group of 50-60 years while in the age group of 40-50 years has 30% patients, in the age group of 60-above has 20% patients.
- Majority of the patients 56% were male and 44% patients were female.
- Majority of patients 68% were married and 32%patients were widow.
- Majority of patients 44% have primary level education, 40% of patients have higher secondary level of education, and only 7% patients were graduate.
- Majority of patients 44% have income of 5000-10000, 22% patients have 2500-5000, 9% patients have income of 20000-above only 8% patients have income of 10000-20000.
- Majority of patients 64% have present family history of diabetes and only 36% patients have not present any family history of diabetes.
- Majority of patients 60% are having the diabetes mellitus since 0-5 years, 20% have since 5-10 years, 12% patients having disease since 6 years only 8% patients having diabetes since 15-above.
- Majority of patients 72% patients receive the health information from health personnel, 24% patients from family members and only 2% patients receive the health information from friends and mass media.
- Majority of patients 62% were overweight and only 38% patients were normal BMI.
- Majority of patients 50% have high abdominal girth, 38% patients have low, and only 12% patients have very high abdominal girth

SECTION II: Knowledge of Diabetic Patients Regarding Multicomponent Diabetic Care

In the pre test, diabetic patients are having on average **45.36%** knowledge regarding multicomponent diabetic care and mean score was **11.34±2.086.**

Table-1 Pre test knowledge regarding Multicomponent Diabetic Care among diabetic patients

Total No. of question	Min-Max Marks	Obser-vation	Perce-ntage	Mean	S.D
25	0-25	PRE-TEST	45.36 %	11.34	2.086

SECTION III: Analysis of effectiveness of Self

instructional module regarding multicomponent diabetic care among diabetic patients.

- In post test, diabetic patients were having on average 72.00 % knowledge regarding multicomponent diabetic care and mean score was 18.00±1.654.

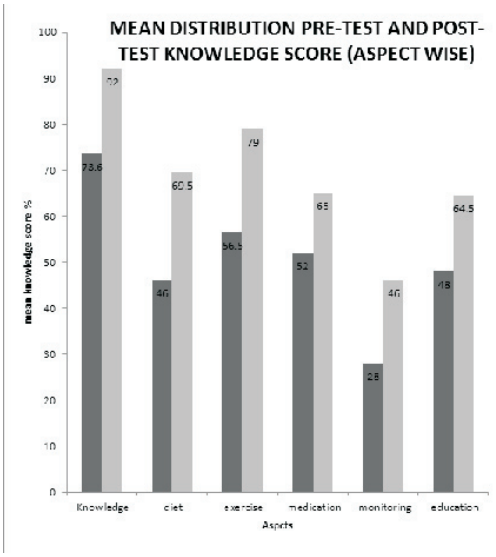

Fig.1 Bar diagram depicting mean distribution of pre-test and post- test knowledge score (aspect wise)

- The post test mean knowledge score is significantly greater than the pre-test mean knowledge score. The T calculated value of -**14.539** which is less than the tabulated value of **-1.676 at 0.05 level of significance**. So we **accept** $\mathbf{H_{1\ and}}$ conclude that there is significant difference between pre-test and post- test knowledge score of diabetic patients.

Table-2 Distribution of frequency and percentage of pre-test and post-test knowledge score according to category of knowledge

Category of knowledge		PRE-TEST		POST-TEST	
		freq-uency	percent	freq-uency	%
Valid	Inadequate	5	10.0 %	0	0%
	Moderate adequate	45	90.0%	8	16.0%
	Adequate	0	0%	42	84.0%

SECTION IV: **Association between post-test knowledge score and selected demographic variables**

Analysis of variance (ANOVA) was used instead of chi-square to determine the association between the post test knowledge score and selected demographic variables that from the entire variable only three variables that is Age, Educational qualification, Monthly family income significantly associated with post test knowledge score hence the hypothesis (H_2) was partially accepted for these variables.

CONCLUSION

Conclusion deals with the conclusion, implications, recommendations and limitations of the study to A Study To Assess The Effectiveness Of Self Instructional module Regarding Multicomponent Diabetic Care Among Diabetic Patients Admitted In Selected Hospitals At Vadodara."

CONCLUSION

In the present study 50 diabetic patients were selected using Non- probability convenient sampling technique.

The research approach adopted in the present study is an evaluative research approach with a view to measure the knowledge on multicomponent diabetic care. Effectiveness was assessed by analysis of pre test and post test knowledge score to know the effectiveness of self instructional module. The data was interpreted by suitable and appropriate statistical method.

This chapter deals with the following conclusions

- The overall pre -test mean knowledge score of the diabetic patients was **11.34±2.086** and post-test mean knowledge score of the diabetic patients was **18.00±1.654.** The post test mean knowledge score is significantly greater than the pre-test mean knowledge score. So self instructional module was effective.

- Analysis of variance (ANOVA) was used instead of chi-square to determine the association between the post test knowledge score and selected demographic variables. From the entire variable only three variables that is Age, Educational qualification; Monthly family income significantly associated with post test knowledge score hence the hypothesis (H2) was partially accepted for these variables.

LIMITATION OF THE STUDY

The following points were beyond the control of the investigator.

- A limited time available for data collection.
- Sample was selected only from few hospitals of Vadodara city.
- The study was confined to 50 subjects, which resulted in reduced power in statistical analysis.
- The study is limited to multicomponent diabetic care who are willing to participate in the study.

RECOMMENDATION

- Similar study can be conducted on a larger sample.
- A comparative study can be conducted with control group.
- Similar study can be conducted with different population and setting.
- Study can be done to assess the effectiveness of STP regarding multicomponent diabetic care.

Acknowledgement: I express my gratitude and thanks towards all who have directly or indirectly helped me to complete this study and their support in each major step of the study.

Source of Funding: The authors did not receive any financial support from any third party related to the submitted work.

Conflict of Interest: The authors had no relationship/condition/circumstances that present a potential conflict of interest.

Ethical Standards: This study was conducted after getting approval from the Institutional Ethics Committee and after obtaining written consents from all subjects

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Hand Hygiene Practices of Nursing Students

Shams Ul Hua[1], Kiran Qaisar Ali[2]

[1]MSc N Year I, [2]Senior Instructor, Aga Khan University School of Nursing and Midwifery Karachi, Pakistan

ABSTRACT

This descriptive study was done to determine compliance, and knowledge of BSc Nursing year II students regarding hand hygiene. Data were collected using questionnaire as well students' observation clinical for 15 days. Poor compliance to hand hygiene is the most important source of hospital acquired infection. We determined that students Hand hygine practices are different at different times and movements. At most 80% times student practice hand hygine after contact with blood body fluid, and only 31% time after contact with paitent surroundings. Moreover, 67% times student do hand hygine before any procedure, 35% time before contact with patient and 50% times after contact with patient. Only 56% students were aware about effectiveness of hand hygiene.

Keywords: *Hand hygine, Infection, Nursing students.*

INTRODUCTION

Nosocomial infections are the major reason of prolong hospital stay and complication of patient in developing as well developed countries. Hands of health care workers are the frequent source of hospital acquired infections. Patients in developing countries usually come across with nosocomial infection more as compared to developed countries (1, 2). European studies show the prevalence of nosocomial infections to vary between 6.1% and 10.7% (1); on other hand in Pakistan the prevalence is about 31% (3). The main reason of nosocomial infection is poor compliance of health care professionals towards hand hygiene. According to a study on trainee physician in tertiary care hospital only 4.7% of the physicians reported to cleanse their hands before having direct contact with their patients (4). The burden of infectious disease account for 13 million deaths annually and majority of death occur in developing countries (5). Student nurses do hand hygiene 80.2% in Turkey (6). There is substantial evidence that hand antisepsis reduces the incidence of Hospital acquired infections. Health care workers hands are the most effective method of preventing transmission of infection (3). However, unacceptably low compliance with hand hygiene is universal in health care. This contributes to the transmission of microbes capable of causing avoidable Hospital acquired infections.

PURPOSE

The purpose of this research project was to determine compliance, current practices and knowledge of BSc Nursing year II students regarding hand hygiene. Moreover, we will find some barriers related to low compliance of hand hygiene.

SIGNIFICANCE

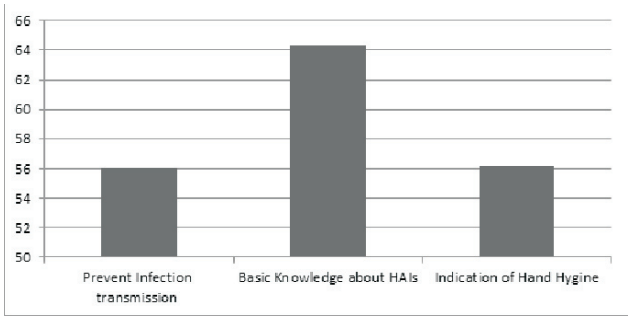
This study is significant to nursing field. This will help the stake holder to develop policies, and train their student to provide safe and effective care to patient.

Method: Quantitative survey method along with observation was used to conduct the study. Data were collected using questionnaire and direct observation. Twenty students were randomly selected from year II BSc Nursing. In first phase their Practices were observed using "Hand Hygiene Five Moments Model for two weeks". In second phase questionnaire were distributed among student to assess their knowledge and practices. The questionnaires were derived from WHO- frame work of 2010 on hand Hygiene. The setting for study was private sector tertiary care hospital.

RESULTS

The result form suvery as well observation are follow.

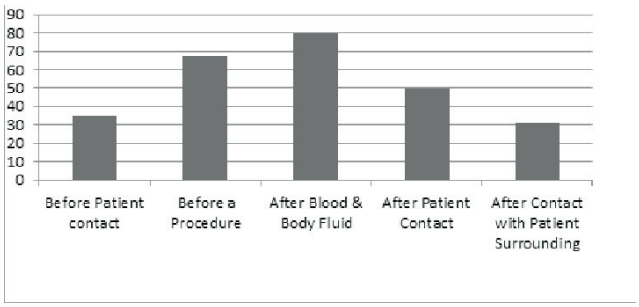
Table 1: Self reported result of student knowledge and awarness



The result from survey questionnaire was as follow. Only 56%students were aware about effectiveness of hand hygine, 64.3% of students were knowledgable regarding Hospital acquired infections and only 56.2% correctly list indicaiton of hand washig or hand rubbing. Moreover, some barriers were identified by the participant such as work load, time limitation, lack of resources, practice of of seniour collegues and nurses, and lack of awarness. Moreover, the students reported that over all they do hand hygiene 75%; this was not related with students observation.

Through observation follwing results were obtained

Table 2: Observation of studens Practices at different movements



Hand hygine Practice varies in different time and movements. At most 80% time student practice hand hygine after contact with blood body fluid, and only 31% time after contact with paitent surroundings. Moreover, 67% times student do hand hygine before any procedure, 35% time before contact with patient and 50% times after contact with patient.

DISCUSSION

In turkey students wash their hands 80% times (6), where we observed 51% time. They further mention that students are using soap more than hands sanitizer and similar findings were drawn from our studies. Students usually exaggerate their practice of hand hygiene. Contrary to students nurses do hand hygiene 74% time (7). Some studies concluded that students over-estimated their knowledge and skills (8). Students self-report in turkey that they their hands 96% time (6), while in this study student report 76% time. Some studies concluded that main barriers to hand hygiene are high work load, limited resources, and time limitation are some of the barriers to hand hygiene (6); where we also find lack of resources, high work load, limited time and lack of proper knowledge as barriers to hand hygiene. Their results showed that the nursing students can be a source of infection owing to the colonized pathogens in their hands acquired as a result of their insufficient hand hygiene during clinical procedures. Barrett (2007) find that lack of education and training decreases compliance of hand hygiene (10); so training and education are very important to increase the compliance of students.

RECOMMENDATIONS AND CONCLUSION

In conclusion the issue is very important and pertinent to nurses. Nurses' academia should incorporate content related to infection control and hand hygiene practices. Further researches should be conducted to explore the issue in detail. I have arranged a workshop of three hours for students and shared results of this research project with them.

Following are some recommendations

1) Training and educational session of student on infection control especially on hand hygiene in each semester before clinical, for recap information and update their knowledge.

2) Faculties observe the student practices related to hand hygiene on clinical and evaluate the student on the basis of their safe practices of infection control.

3) The concept of coach and coacher are very useful to monitor the student's practices, the coach observe the coacher practice and give feedback accordingly, as faculty was not there with students all the time.

4) The students going outside for clinical the institute provides hand sanitizer, tissues and soap,

because in some areas there are not enough facilities of hand hygiene.

5) A card should be provided to each student with slogan of hand hygiene, so that this reminds about hand hygiene.

LIMITATION OF STUDY

The study was done only in private sector hospital and with small sample size; so, finding cannot be generalized to whole country.

Acknowledgment: BSc Nursing year II students.

Conflict of Interest: I do not have any financial or other conflict of interest with this project.

Support: The study was self-supported by the Co-authors and no financial support is taken from any person or organization.

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To Assess the Under Five Mortality Pattern in Tertiary Care Hospital, Krishna Hospital, Karad

Vaishali R Mohite[1], Prabhuswami Hiremath[2]

[1]Professor & Principal, Krishna Institute of Nursing Sciences, Karad, [2]Lecturer, Mental Health Nursing, Krishna Institute of Nursing Sciences, Karad, District-Satara Maharashtra, India

ABSTRACT

Background: Child mortality is sensitive indicator of a country's development & telling evidence its priorities & values. Mortality data from hospitalized patients reflect the causes of major illnesses and care-seeking behavior of the community as well as the standard of care being provided. A better understanding of childhood mortality could contribute to a more effective approach to saving these lives.

Material and Method: A retrospective analysis was conducted with records of under five children who died in Krishna hospital & medical Research Center Karad the over a 12-month period from 1 September to 31 august 2009.

Result & Recommendations: A total of 4245 children which include 56% male & 44% female were admitted to the hospital during study period. Total 145 under five deaths are noted. Anemia is the leading cause for 46(31%) deaths. The risk of death in pediatrics age group is highest during neonatal period which constitutes in this study 123 (84.82%) as per gender study shows that the early neonatal deaths in males 79 (54.4%) were more than the Females 66 (45.5%).

Keyword: *Mortality, anemia, neonates.*

INTRODUCTION

Child mortality is sensitive indicator of a country's development & telling evidence its priorities & values. Every day more than 26,000 children under the age of 5 die around the world mostly from preventable causes nearly all of them live in the developing countries, more than 1/3 rd of this children die during the first month of life, usually at home & without access to essential health services & basic commodities that might save their lives. The causes of mortality are often poorly documented in developing countries. Mortality data from hospitalized patients reflect the causes of major illnesses and care-seeking behavior of the community as well as the standard of care being provided. A better understanding of childhood mortality could contribute to a more effective approach to saving these lives. This would be vital information for patient care and helps the healthcare professionals in managing day-to-day hospital affairs. The present study was conducted to finding the pattern of mortality Krishna hospital.

Corresponding authors:
Mrs. Vaishali R Mohite - +91-9822975170
Mr. Prabhuswami Hiremath - +91-9665620425
Fax numbers: 02164242170
E-mail: kinsprincipal@rediffmail.com
prabhu252003@yahoo.co.in

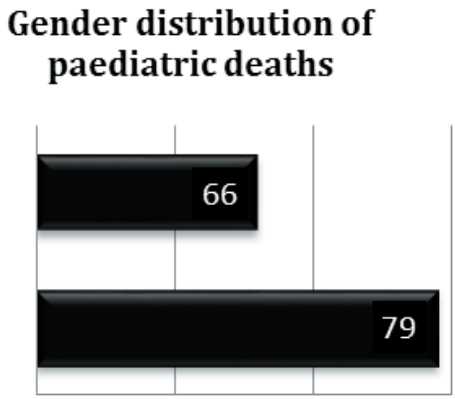
MATERIAL AND METHOD

A retrospective analysis was conducted with records of under five children who died in Krishna hospital & medical Research Center Karad the over a 12-month period from 1 September to 31 august 2009. Children who took discharge against medical advice were excluded from study. Data was gathered regarding age, gender and cause of death. Using frequency, proportion and Z-test data were analyzed.

FINDINGS

A total of 4245 children which include 56% male & 44% female were admitted to the hospital during study period. Total 145 under five deaths are noted. Mortality rate was observed 3.41%. Out of 145paediatric deaths, 79 (54.4%) were males and 66 (45.5%) were females.

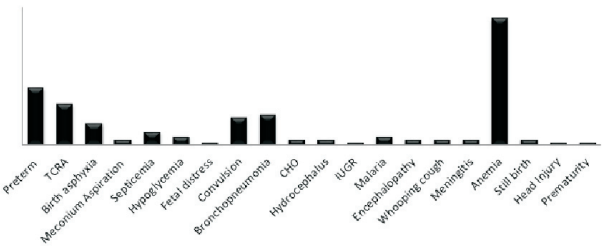
Total No. 1: Gender distribution of pediatric deaths



As per as diagnosis is concerned Anemia, is the leading cause for 46(31%) deaths, followed by pre term death 21(14.48%), TCRA 15(10.34%), Convulsion disorder 10 (6.89%), Bronchopneumonia 11 (7.58%), Birth asphyxia 8 (5.51%), Septicemia 5 (3.08%) and least deaths are due to Fetal distress, Hydrocephalus, IUGR, Malaria, Encephalopathy, Whooping cough, Meningitis which constitutes for one death in one year period. As age is concern, 123 (84.82%) deaths are below one year of age, 10 (6.89%) deaths are 1to 2 year, 8 (5.51%) for 2-3 year.

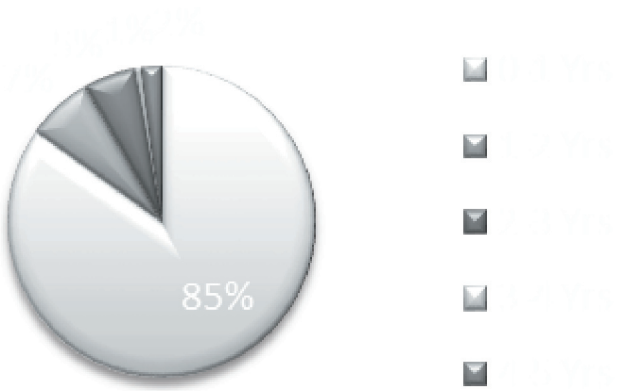
Total No.2: Distribution of causes of death

The risk of death in pediatrics age group is highest



during neonatal period.[1] In this study, approximately 123 (84.82%) neonatal cases died out of total of 145 deaths in all age groups, indicating that neonatal period being the highest risk of death, followed by deaths in the post-neonatal period which was around, 10 (6.89%) of total child deaths. Gulati P. Et. al [2]and Deivanayagam N. Et. al [3] also had similar finding that children mortality is higher within one year of age.

Total No.3: Number of Death According to Age.



Current study shows that the early neonatal deaths in males 79 (54.4%) were more than the Females 66 (45.5%), this indicates that males are more biologically vulnerable to infection than Females as they are biologically stronger in their early ages. Same results were found in Godale L. Et. Al[4] study.

Acute Respiratory Infections (ARI) proved to be the leading cause of death in pediatric age group worldwide but in the present study pneumonia being the fourth cause, anemia, preterm, TCRA, are major leading causes for children mortality. Roy R. Et. al [3]study conducted in 2008 shows the same causes of neonatal mortality. Singh M. Et. al [5] from hospital-based data shows that bacterial sepsis was a major cause of neonatal mortality in India.

CONCLUSION

Malnutrition contributes to more than one-third of all under-five deaths. WHO report says almost half of under-five deaths are because of infectious diseases & Pneumonia is being responsible for nearly 1.4 million deaths every year. Diarrheal disease accounts for 840 000 deaths among under-five children (WHO 2011). As our study indicates anemia is a major cause for under five mortality rate it vital role of health professionals as well as administrator to focus on this issue seriously. Interventions includes school based comprehensive nutritional education, building healthy public policy, community participation, preventing chronic diseases, collaboration with other

disciplines, particularly environmental health and agriculture, Research institutions, nongovernmental organizations and the media. Political will is essential: ministers of health and finance need to understand that anemia control is cost-effective and yields substantial health benefits.

Another risk for child mortality in our study is age group. In our study high risk group is 0 to 1year of age. The World Health Organization also reported that risk of death among under-fives is highest at birth and then decreases over the subsequent days, months, and years and globally 71% of all under-five deaths happened within the first year of life. WHO guidelines suggests that most of these deaths can be prevented by known, simple, affordable and low cost interventions such as antenatal care, skilled care during birth and in the weeks after childbirth, early initiation of breastfeeding, exclusive breastfeeding up to 6 months of age, immunization, appropriate use of antibiotics, oral rehydration therapy and zinc, insecticide treated bed nets, and anti-malarial, while bolstering nutrition[6].

Conflict of Interest : The authors have no conflict of interests related to the conduct and reporting of this research.

Source of Funding: Source of fund for this project was by author itself. This study was not supported by any external funding.

Ethical Clearance: Before conduct of the study ethical clearance was obtained by Principal of institute. Participation was made voluntary and students were told that they were free to leave at any time, that being involved would have no harm on course progression, and that confidentiality would be maintained at all times.

Acknowledgement: We would especially like to express our sincere gratitude to the Medical Director, for his permission to conduct the study and support. We would like to thank record section of the Krishna Hospital Karad for their reliable information.

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Nursing Student's Attitude Towards Nursing Profession as they Progress through 4- year's Baccalaureate Program

Bharat Pareek[1], Kiran Batra[2], Raman Kalia[3], Deepak Sethi[4]

[1]PhD Scholar National Consortium for PhD in Nursing New Delhi, [2]Principal, Silver Oaks College of Nursing Abhipur Mohali Punjab,[3]Principal, [4]Lecturer, Saraswati Nursing Institute Kurali Ropar Punjab

ABSTRACT

Attitude plays a principal role in guiding human behavior toward achieving goals, awareness of its consequences and effective processing of complex information about living environment. A cross-sectional survey study carried out among B.sc nursing students to assess changes in their attitude towards nursing profession as they progress through 4- years' baccalaureate program. A five point attitude scale was prepared and used for data collection from 108 B.sc nursing students of different grades (1st, 2nd 3rd &4th year) of Saraswati College of nursing kurali by using stratified random sampling after getting ethical clearance from institutional ethical committee of SNI & participants consent. Data were analyzed by using statistical software SPSS version 16.0. Finding revealed that the attitude of nursing students gradually change from first year where attitude observed more favorable (Mean= 179.7667) which has become comparatively less favorable among second year, third year and final year nursing students (Mean of 170.95, 143.64, 158.44) respectively. Further statistical significance difference in attitude observed among all four groups (p<.001**) by using ANOVA & Post Hoc test Thus, the present study concluded that attitude of nursing students remain favorable initially which gradually changes and becomes less favorable., that shows that there are some major factors that aversively influencing attitude of nursing students. Therefore, it is recommended that more emphasis must be given on working conditions and professionalism in nursing

Keywords: *Attitude, Nursing profession, Nursing students.*

INTRODUCTION

It seems that achieving the objectives of organizations is highly dependent on the capacity of human resources[1] Nurses are the key members and play the major part of service-providing system in almost all countries.[2,3] Nursing is also the largest group of health system, possessing considerable potential power that could be influential on the quality of health care services system.[2]

In reality, knowledge, skill, and positive outlook are the characteristics recommended to develop nursing education and new nursing strategies today.[4] In the past, there has been a lot of negative attitude toward the nursing profession among the students due to unpleasant hard work in the hospital, lack of respect for work, and low salary [5] Loss of nursing students and nurses' interest in what they do not only leads to work quality decline and irreparable damage to patients and help-seekers but also contributes to demoralization.[6] Mental and occupational burnout syndrome along with feelings of helplessness and frustrations come from negative attitude toward their career.[7]

Low morale of the nursing students results in the lack of motivation and eventually dropping out of school.[8] Even in several investigations, incomprehension of the nurse's role has been accounted as the main cause of students' low spirit[9]

Corresponding author
Mr. Bharat Pareek
Vice Principal
Saraswati Nursing Institute Kurali Ropar Punjab
Phone No:-9914583417
E-mail: pareekbharat10@gmail.com

and familiarizing them with the nursing profession and modifying negative attitude before entering this field has been emphasized to boost their morale, especially the male students.[10]

Improved job performance followed by a positive outlook and job satisfaction will enhance the quality of patients' care and increased productivity[4] hence as reported in different studies, the internal factors are far more than external factors in job motivation among nurses.[1] In a study by Katsuki et al. on 189 nurses working in a psychiatric hospital in Japan, a positive correlation has been observed between the nursing attitude and the occupational burnout.[11]

The investigator while working as nurse educator noticed that majority of the students join nursing profession with great enthusiasm and positive outlook but gradually they start losing interest, feel frustrated and develop negative attitude about nursing that not only affect their carrier but also result in many academic problems such as poor grades, absenteeism, misconduct, discontinuation of course and many other which badly affecting the image of nursing profession. Keeping this in mind the present study conducted to assess changes in nursing student's attitude towards nursing profession as they progress through 4- years' baccalaureate program

The objectives of this study was to:

1. Assess changes in nursing student's attitude towards nursing profession as they progress through 4- years' baccalaureate program

METHODOLOGY

This cross-sectional survey study was conducted among B.sc nursing students of different grades (1st to 4th year) from Saraswati College of nursing kurali. Sample of 108 students were selected using stratified random sampling technique. Tool was prepared in English that composed of two parts. Part-1 consisted of 04 items to collect information of sample characteristic and part-II: A five point attitude scale contained 44 statements which reflect subject's views about nursing profession. All the questions are framed as 'positive' statements and subject asked to select one response that matches most closely with his/her perception of the statement.

Five experts from the field of nursing, two from psychology and two from management (human resource) checked validity of the tool. Ethical clearance to conduct study was obtained from intuitional ethical committee of Saraswati College of Nursing. After revision final tool was pre-tested on 16 subjects (4 from each group) to check its clarity, feasibility, and practicality. It took around twenty minutes on an average to complete the tool (part-1 &2). The responded clearly and easily understood the language and no change made in final tool. The reliability of the tool was tested through split half method and reliability coefficient was found to be statically significant (p=0.82). The permission for data collection obtained from the concern authority, the investigator assured the anonymity to the subjects, and their consent obtained. The data collected during August and September months of 2013. The nursing students first grouped into four strata then simple random sampling used to select students from each stratum.

Data was analyzed with the help of SPSS (version 16.0). Descriptive statistics (mean, median, standard deviation & NPar Tests) was used to describe sample characteristics; whereas inferential statistics (one-way ANOVA & Post Hoc-test) used to observe between and within group difference of attitude. Furthermore chi-square test to find out association between socio-demographic variables & attitude of different groups.

Results (Section-A) Identification profile and frequency of study participants

Total 108 nursing students (25 from 4th year,31 from 3rd year, 22 from 2nd year and 30 from 1st year) enrolled for the study (table:-1)

Table: - 1 : Frequency percentage of study partic ipants N=108

Descriptives total score				
Group	Frequency	Percent	Valid Percent	Cumulative Percent
4th yr	25	23.14	23.14	23.15
3rdyr	31	28.70	28.70	51.85
2ndyr	22	20.37	20.37	72.22
1styr	30	27.77	27.77	100.0
Total	108	100.0	100.0	

Results (Section-B) Assessment of changes in nursing student's attitude towards nursing profession as they progress through 4- years' baccalaureate program

Table 3:- represents the pattern of attitude of nursing students about nursing profession. The attitude of subjects gradually changes from 1st year where attitude was observed more favorable (mean=179.7667) which gradually becomes unfavorable among 2nd, 3rd & slightly positive among 4thyear (mean= 170.95, 143.64 & 158.44 respectively) students that shows a pattern which gradually changes from favorable to unfavorable. (table:- 3)

Table:-3: Mean, SD & standard error of study participants N= 108

Descriptives total score Descriptives total score								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
4 th year	25	158.4400	11.63715	2.32743	153.6364	163.2436	130.00	188.00
3rd year	31	143.6452	23.01673	4.13393	135.2026	152.0878	107.00	198.00
2nd year	22	170.9545	17.01394	3.62738	163.4110	178.4981	142.00	208.00
1st year	30	179.4333	16.89661	3.08488	173.1240	185.7426	130.00	212.00
Total	108	162.5741	22.69431	2.18376	158.2450	166.9031	107.00	212.00

Figure:-1 shows pattern of attitude changes among nursing students N= 108

One way ANOVA test used to determine the between groups and within group mean difference of score and it was observed statistically significant at 0.001 levels (p<.001**) (table: - 4)

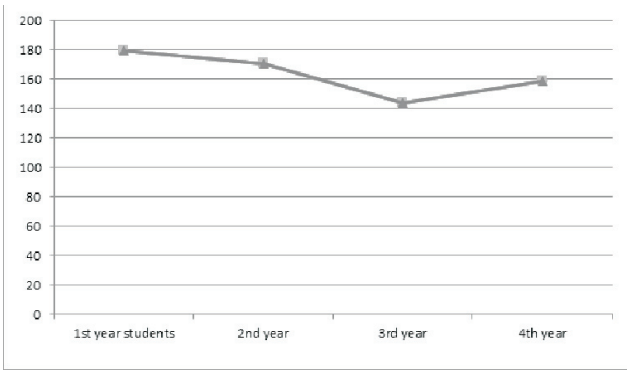

Table:-4: Difference between measures

N= 108

Sum of Squares Df Mean Square				
Between Groups	21606.829	3	7202.276	22.358**
Within Groups	33501.578	104	322.131	
Total	55108.407	107		

Note:- P <.001**

Table:- 5 Post-hoc test has been used to determine the multiple comparisons among the mean of all groups. Significant difference of attitude among all the groups except between 2nd & 4th, 2nd & 1st year were observed

Table:-5: Multiple Comparisons of different groups N= 108

(I) YEAR	(J) YEAR	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
4 th year	**3rd year**	**14.79484(*)**	4.82458	.014	2.1976	27.3921
	2nd year	-12.51455	5.24667	.086	-26.2139	1.1848
	1st year	**-20.99333(*)**	4.86034	.000	-33.6840	-8.3027
3rd year	**4 th year**	**-14.79484(*)**	4.82458	.014	-27.3921	-2.1976
	2nd year	**-27.30938(*)**	5.00336	.000	-40.3735	-14.2453
	1st year	**-35.78817(*)**	4.59663	.000	-47.7902	-23.7861
2nd year	**4 th year**	12.51455	5.24667	.086	-1.1848	26.2139
	3rd year	**27.30938(*)**	5.00336	.000	14.2453	40.3735
	1st year	-8.47879	5.03786	.338	-21.6329	4.6753
1st year	**4 th year**	**20.99333(*)**	4.86034	.000	8.3027	33.6840

DISCUSSION

At present, health care systems are encountering enormous challenges in our country; among them is the poor quality of services considered to be the most important. One of the significant factors for poor quality of health care services is human agents.

The results of the study demonstrated that The attitude of nursing students towards nursing profession gradually change from first year where attitude observed more favorable which is becoming less favorable among second year, third year and final year respectively. The attitude of nurses and nursing teachers were also observed unfavorable toward nursing profession as compare to nursing students.

It has been clear in the present study that there is significant difference between the various groups in their attitudes toward nursing profession, which is in agreement with Banaderakhshan et al.'s survey, who reported the nurses and nursing students with different attitude towards nursing profession but found inconsistent with the Toth's study in which no meaningful difference was observed between the nurses' and the nursing students' viewpoints on this profession.[2,12]

Significant difference of attitude among all the groups except between 2nd & 4th, 2nd & 1st year were observed these findings are inconsistent with the study done by Koushali AN which showed that the difference of attitude between nurses and nursing students was not statistically significant (P > 0.05). [13]

Nursing students are the profession's essence therefore it is recommended that students must be provided an appropriate and admirable professional environment seem to be necessary for creating a positive attitude. The study also recommended that lobbying for nursing profession to influence policy makers to take required initiative for improve the image of nursing profession so younger generation not only select nursing as carrier choice but also maintain positive view about profession. Nursing educators play very important role in nursing and they should be role model for their students

Cross-sectional survey approach was used to study attitude changes among nursing students in present study and sample were belongs to only institution which can be the possible limitation in generalizing these findings to the whole population of nursing students therefore it is recommended that longitudinal survey with multiple setting need to be done for assessing the attitudinal changes among nursing students, so the validity of the findings can be generalize in larger nursing communities

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Effectiveness of Participatory Learning Activity (PLA) and Lecture Method on Knowledge in HIV/AIDS among Nursing Students

Neetha Kamath[1], N Udayakiran[2]

[1]Ph D Student, Nitte University, Mangalore, [2]Professor and HOD, Department of Community Medicine, K S Hegde Medical Academy, Nitte University, Mangalore

ABSTRACT

Introduction: The present study aimed to determine if there were differences in the effects of two-teaching learning strategies participatory learning activity and Lecture method on the outcome of nursing student performance.

Materials and method: An evaluative approach with Quasi experimental non-equivalent two group pre-test post-test design was adopted with the sample of 500 first year nursing students selected by convenient sampling technique studying in different nursing institutions.

Results: Effectiveness of teaching methods in two groups was done by comparing the difference in mean pre test and post test knowledge score. The calculated't' value in PLA Method (t=43.41) and lecture method (t=43.03) is greater than the table value (t_{249}=1.96) at 0.001 level of significance. Effectiveness of two teaching methods was done by comparing the difference in mean effectiveness of post test knowledge scores of two groups. The calculated't' value (t=0.480) is lesser than the table value (t_{498}=1.96) at 0.001 level of significance.

Conclusion: The study results show that PLA and Lecture methods are equally effective teaching methods. The teacher can incorporate both the teaching methods.

Keywords: *Participatory learning Activity, Lecture. Effectiveness, Nursing students, Knowledge.*

INTRODUCTION

Health care teaching institutes have a greater challenge to prepare globally competent and trainable workforce. Therefore there is a need to provide teaching learning atmosphere which makes the learner motivated, actively participating and maintain a cooperative learning environment within the classroom.

Nurse educators are challenged with determining the most effective and efficient teaching methods that can influence the highest level of student nurse competence. This endeavour requires research comparing commonly used teaching methods, such as traditional lecture, with those that best utilize participation, such as participation learning activity teaching[1]. Studies worldwide have found that a competent and effective teacher is the one who applies appropriate teaching methods to ensure successful learning outcomes. If a teacher observes that one teaching method is failing to achieve desired learning objectives, it may become necessary to try another. It is the teacher's expertise that determines what method suits the instruction best in maximising positive learning outcome. Many health care educators are moving away from passive learning to active learning teaching strategies. In the classroom, participatory learning strategies are common for developing critical thinking skills.

Corresponding author:
Neetha Kamath
Associate Professor, Sahyadri College of Nursing, Mangalore-575009, Mobile 91 9845472309
Email: neetha.jayavanth @gmail.com

Students work together in small groups analyzing a case while the faculty member serves as a facilitator of learning. Through active learning, students develop comprehensive thinking skills and integrate theoretical content related to professional practice. Nursing education incorporates active learning in the classroom, laboratory, and clinical settings[3].

So the investigator had a research question which pedagogical method is effective in teaching nursing students to equip them with recent methods of teaching. Therefore, an attempt was done to find out the effectiveness of two methods of teaching regarding HIV/AIDS among the nursing students.

STATEMENT OF THE PROBLEM

Effectiveness of participatory learning activity (PLA) and lecture method on knowledge in HIV/ AIDS among nursing students

Objectives:

The study aimed at

- To find the effectiveness of PLA method in teaching HIV/AIDS in experimental group I.
- To find the effectiveness of lecture method in teaching HIV/AIDS in experimental group II.
- To compare the effectiveness of two methods in teaching HIV/AIDS among nursing students.

HYPOTHESIS: (all hypotheses will be tested at 0.05 level of significance)

- **H_1:** The mean post test knowledge score on HIV/AIDS after PLA method will be significantly higher than their mean pre test knowledge score among nursing students
- **H_2:** The mean post test knowledge score on HIV/AIDS after lecture will be significantly higher than their mean pre test knowledge score among nursing students.
- **H_3:** There will be significant difference between the mean post test knowledge score of nursing students participating in two teaching methods.

METHODOLOGY

An evaluative approach with Quasi experimental non-equivalent two group pre-test post-test design was adopted in order to achieve the objectives of the study. The samples of 500 first year nursing students were selected by convenient sampling technique. The study was conducted in different nursing institutions of Mangalore and Udupi district. The independent variable in this study was use of two teaching methods such as Participatory learning activity method and lecture method to teach nursing students regarding HIV/AIDS. Assessment of knowledge on HIV/AIDS was the dependent variable. The conceptual framework of the study was based on the Imogene Kings Goal attainment model (1981). The investigator proceeded the present study on basis of assumptions such as 1. Teaching process involves active participation and interaction between the teacher and the students. 2. The teaching method adapted by the teacher influence the learning. 3. Most learners are motivated to learn.

The researcher used the structured knowledge questionnaire on HIV/AIDS to assess the knowledge level of nursing students. The development of the tool involved the steps of item construction, i.e. preparing the blueprint, item writing, item analysis, and content validity, pre-testing and establishing reliability. The items which were having difficulty index between 40-70% and discrimination index between 0.25 and above were included in the questionnaire. The content validity of the developed tool was established by seven experts opinion and suggestions in the field of community health nursing and education. The reliability of the tool was established using split half method and found to be 0.83. The investigator prepared lesson plan to conduct the session on HIV/AIDS using PLA and lecture method[4]. This also was validated by the experts. Ethical clearance certificate was obtained from Ethical committee of Nitte University prior to the data collection. Formal administrative permission was obtained from the principals of nursing colleges. The pilot study was conducted with 92 samples of two nursing colleges of Mangalore. The experience of the pilot study was found to be feasible and practicable. The main study was conducted with 500 I year nursing students who were selected using convenient

sampling technique. The selected subjects were informed of the purpose of the study and consent was obtained. The subjects were randomly assigned to Group I consisted of 250 students and Group II consisted of 250 students. The knowledge regarding HIV was assessed by administering Knowledge questionnaire to the two groups. The students had taken 45 minutes to answer all the items in questionnaire.

For the Group I students the investigator delivered teaching using participatory learning techniques[5]. The different PLA methods used to teach the students were group discussion, Timeline, concept mapping, body mapping, skill matrix and role play. For each session the investigator had selected 35-40 students and the duration of session was 3 hrs. For teaching Group II students, the investigator used lecture method .The maximum numbers of students in each session were 40 students. The lesson plan content on HIV/AIDS included following heading such as Introduction, epidemiology, Incidence, mode of transmission, clinical features, management and prevention. Post-test was conducted using the same questionnaire on the seventh day to find the effectiveness of two teaching methods on components of HIV/AIDS. The collected data was entered in master data sheet for analysis. The data was analysed using descriptive and inferential statistics using SPSS package.

RESULTS

Descriptive analysis: The demographic characteristics of nursing students were analysed using descriptive statistics such as frequency and percentage. Majority 207(82.8%) of the subjects in the Group I, 199(79.6%) of subjects in Group II were females. With regard to religion, 208 (83.2%) of subjects in the Group I, 211 (84.4%) of subjects in Group II, were Christians. Majority of 222(88.8%) of subject in the Group I, 224 (89.6%) of subjects in Group II, were belonging to nuclear family. Regarding current residence of the sample 214(85.6%) of subjects in the Group I, 216(86.4%) of subjects in Group II, were residing in hostel. All the participants had prior knowledge of HIV/AIDS and 212(84.8%) of subjects in the Group I 286(87.2%) of subjects in Group II, received the information on HIV through T.V/Radio.

Inferential analysis: As shown in Table No 1 in Group I (PLA method) the mean post test knowledge score (38.23) was higher than the mean pre test score (23.16). The calculated 't' value (t=43.41) is greater than the table value (t_{249}=1.96) at 0.001 level of significance. This shows that there is significant difference in pre-test and post-test knowledge score. Therefore PLA method is an effective teaching method. In group II (lecture method) the mean post test knowledge score (37.72) was higher than the mean pre test score (23.27). The calculated't' value (t=43.03) was greater than the table value (t_{249}=1.96) at 0.001 level of significance. Therefore H_{01} was rejected. This means that there is significant difference between the mean pre test and mean post test knowledge scores of students taught through the participatory learning method and those taught through lecture method.

Table1: Mean, SD, Paired t test showing the difference between pre test and post test knowledge score of nursing students regarding HIV/AIDS in Group I (PLA) and in group II (lecture method)

n_1+ n_2=500

Groups	Mean		Mean difference	SD		t value	df
	Pre-test	Post-test		Pre-test	post-test		
Group I (PLA method)	23.16	38.23	15.13	5.1	1.2	43.41*	249
Group II (Lecture method)	23.27	37.72	14.46	4.9	1.4	43.03*	249

According to Table No 2 in Group I (PLA method) the mean effectiveness score was 15.13 and in group II (lecture method) the mean effectiveness score was 14.46. The calculated't' value (t=0.480) is lesser than the table value (t_{498}=1.96) at 0.001 level of significance. This infer that there is no significant difference in the mean post test knowledge score between the students taught using participatory learning and taught through lecture method. This signifies that both the teaching methods are equally effective.

Table 2: Mean difference, SD difference, Independent t test showing the difference between knowledge scores of nursing students regarding HIV/AIDS in Group I (PLA) and in group II (lecture method)

$n_1 + n_2 = 500$

Variable	Mean pre and post test difference		Mean difference	SD difference		Standard error	t value	P value
	PLA	lecture method		PLA	lecture method			
Knowledge score	15.13	14.46	0.64	5.5	5.3	0.403	0.480	0.632

't'498=1.96; p=0.632>0.0001 level

DISCUSSION

The present study results reveals that PLA and lecture methods effective teaching strategies as there was significant increase in mean post test knowledge score than the mean pre test knowledge score. Further while comparing the effectiveness of two methods, the results shows that both are equally effective teaching methods in teaching nursing students. The study results are in line with the study results conducted by Baghaei which aimed to compare the effects of lecturing method and problem solving method in nursing students, the results showed that both lecture and problem-solving method had the same effects on learning[6]. Moreover, in a study to compare the effects of two methods of lecturing and using PLA on teachers' knowledge of chickenpox in primary schools of Tehran, no significant difference was found between the effects of education and teaching methods[7]. In another study by Sagharvanian aimed to compare the effects of two teaching methods of program and lecture on university students' knowledge about AIDS transmission ways, no significant relationship was found between increase of knowledge and teaching method[8]. A study was conducted by Vatsa M to determine the effectiveness of innovative teaching strategy in neonatal nursing for Bsc nursing students. The finding of the study showed that there were no significant difference between the post intervention knowledge score (t=0.35,p>0.05) , attitude score (t=1.56,p>0.05) ,skill core(t=1.015, p>0.05) in innovative teaching group and lecture teaching groups[9]. This indicates that lecture and innovative teaching group students performed equally in their performance. Therefore, group I (PLA Method) and group II (Lecture Method) are equally effective teaching method.

NURSING IMPLICATION

Nursing research: The nurse researchers have to take keen interest identifying various educational methods adapted in health care institutions. Despite increasing popularity of teaching methods, challenges continue on how to quantify the benefits. Multiple nursing studies have shown significant differences in knowledge gain for the participatory method compared to the traditional lecture.

Nursing practice: Patient education is a vital component of heath care. Nurses are having key role in providing it in hospital, school, and industry or in community. Various teaching strategies used in combination were similarly successful. In addition, structured teaching, culturally appropriate teaching and teaching targeted to patient's individual situation were found to be better than ad hoc teaching or teaching that only provides general information about the disease condition in the hospital. In community health, the grass root level workers like public health nurse, ANM, Anganwadi workers have a keen role in identifying the health needs and problems of the people through community need assessment. This requires knowledge on participatory learning action methods to assess the health status of the community people.PLA teaching methods help the community health nurses to educate the public as it involves motivation, participation and interaction between the nurse and the client.

Nursing administration: The nurses in the administrative position have an important role in ensuring that the nurses working under their supervision are competent, knowledgeable and skilful in delivering quality patient care. In this regard in-service education for staff nurses become important

factor. To achieve the goal of continuous nursing education—improvement in health care delivery—the use of effective evidence based educational methods are necessary. Educational methods have to evolve from didactic lectures to active educational methods that have been shown to have the potential for changing professional practice.

Nursing education: Educators need to continue to define best practices in how to use participatory learning most effectively for student learning. The level of the learner and the amount of teacher interaction are important considerations when developing teaching strategies. Empirical research supports PLA and lecture learning as an effective active-learning teaching strategy to engage students. Students have an opportunity to work collaboratively with other students and provide nursing care for patients with acute illnesses such as HIV.

The evidence on the effectiveness of different teaching strategies, there is no best method identified for teaching students to attain competency. One has to keep in mind the principles of teaching and learning, feedback, motivation, cooperation among students, respect for individual differences while developing lesson plan. The present study confirms the impact of learning methods on outcome. It is desirable for the nursing students to become more self directed in their learning process. The nurse educator also need to recognise the individual differences among students, identify learning style and learning preference of each student from time to time.

CONCLUSION

The findings of the study suggests that the PLA and lecture method used to teach HIV/AIDS significantly increased post test scores on knowledge of nursing students. It is also evident that there is no significant difference in the mean effectiveness scores of nursing students who were taught using PLA method and lecture method. Therefore the study results recommend using both the teaching methods while teaching nursing students in classroom and clinical setting. The nursing students need to get acquainted with multiple teaching methods, so that they are constantly motivated, actively participating and maintain a good student teacher relationship in the teaching learning process.

Acknowledgement: I extend my gratitude to all nursing students for their participation in the study. I owe my thanks to the experts for their suggestion and the administrative authorities for permitting to conduct the present study in their institution.

Conflict of Interest: The present study is original study conducted as a part of my higher studies. The study is not been sponsored by any person, or agency or governmental institute. The present article does not have any conflict with any person or agency.

Source of Funding: The present study conducted by the investigator is a self sponsored project to fulfil the higher education requirement.

Ethical Clearance:

- The investigator had submitted and presented the research proposal to the Ethical committee of Nitte University and obtained ethical clearance certificate to conduct the study.
- Prior to the data collection permission was obtained from the Principal of colleges of nursing where study was conducted.
- Informed written consent was taken from the study subjects(nursing students)

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Effectiveness of Video Assisted Childbirth Preparation on Knowledge, Childbirth Experience & Stress

Divya G Nair[1] , Sweety J Fernandes[2] , Erna J Roach[3]

[1]Ex-Vice Principal, Brij Chikitsa Sansthan School of Nursing and Paramedical College, Mathura, [2]Lecturer, Department of OBG Nursing, Manipal College of Nursing Manipal, Manipal University, Manipal, [3]Professor and Associate Dean, Manipal College of Nursing Manipal, Manipal University, Manipal

ABSTRACT

Purpose: To assess the effectiveness of video assisted childbirth preparation in terms of gain in knowledge, difference in childbirth experience and reduction in post partum maternal stress.

Study design: The design of the study was quasi experimental pre-test post-test control group design.

Method: A purposive sampling technique was used to select samples. The data was obtained using Demographic proforma, Knowledge Questionnaire on Childbirth, Childbirth Experience Scale and Maternal Stress Scale. A video of 16 minutes on childbirth preparation was developed for the purpose of giving information on childbirth preparation.

Results : Independent sample' t' test showed significant gain in the knowledge in the experimental group (p=0.001) but no statistical significance was found in childbirth experience (p=0.054) scores and post partum maternal stress(p=0.878).

Conclusion: As a preventive health care measure to improve the outcome of future pregnancies, this childbirth preparation video can be used in the outpatient units to enhance knowledge, have a pleasant childbirth experience and reduce stress.

Keywords: *Childbirth preparation, Childbirth experience, post partum maternal stress.*

INTRODUCTION

Childbirth is an important life experience for any woman. Childbirth education has been a traditional midwifery practice, for providing information to prepare the expectant mother to be competent and confident for the birthing process. Childbirth is a multifaceted experience. Negative experiences of first childbirth increase risks for maternal postpartum depression and may negatively affect mothers' attitudes toward future pregnancies and choice of delivery method.[1]

More recently, programs have incorporated information on infant care and parenting. However, a great variety exists in the approach to antenatal education, with little evaluation of the programs. Where evaluation of childbirth education has occurred, the focus tends to be on labor and birth outcomes.[2]

A review on information giving and education in pregnancy to determine which educational approaches were most welcomed by women and most helpful to them in learning about labor, birth, and early parenting. A systematic review was conducted on peer-reviewed studies on antenatal education, women's views and experiences published in English from 1996–2006. Findings confirmed women's preference for a small-group learning environment in which they could talk to each other as well as the educator, ask questions, seek clarification and could relate information to their individual circumstances. It was also found that pregnant women liked to receive emotionally demanding or intellectually

complex information from a health-care professional in person.[3]

A study on assessment of social-psychological determinants of satisfaction with childbirth to explore the extent to which the results can be generalized between Belgian and Dutch maternity care system. The data was collected from 560 women in two separate timings, one at 30 weeks of pregnancy and one with in first two weeks of childbirth. Satisfaction with childbirth experience was measured by the Mackey Satisfaction with Childbirth Rating Scale. Labor pain was rated retrospectively using Visual Analogue Scales. Personal control was assessed with the Wijma Delivery Expectancy/Experience Questionnaire and Pearlin and Schooler's mastery scale and a hierarchical linear analysis was performed. The results revealed a high childbirth satisfaction (Mean = 4.21; SD = 0.53; Max. = 5) for both the groups. Women giving birth in hospitals reported lower satisfaction in total ($p < 0.001$). Longer labors resulted in lower general satisfaction ($p < 0.001$). [4]

MATERIAL AND METHOD

Evaluative approach was adopted for the study with a quasi experimental pre-test post-test non-equivalent control group design. A video on childbirth preparation was prepared by the researcher .Pilot study was conducted in Sonia Clinic, Manipal, Karnataka, a 30 bedded Maternity clinic with an average of 20-30 normal deliveries per month. Sample size was calculated based on the pilot study and was 30 per group. The study was conducted in Dr. TMA Pai Hospital, Udupi, Karnataka, a 150 bedded maternity hospital with an average of 100-120 normal vaginal deliveries per month. Primigravid womenwith 36 completed weeks of gestation who attended antenatal clinic were recruited for the study. Purposive sampling technique was used.

Eighty primigravid women with 36 completed weeks of gestation were recruited for study who fulfilled the sampling criteria between 10th to 30th January 2012. Data collected by four data collection instruments prepared by the researcher which were Demographic Profoma, Knowledge Questionnaire on Childbirth, Childbirth Experience Scale and Maternal Stress Scale. One the first day after selecting the samples the demographic characteristics, knowledge on childbirth (pre-test) and maternal stress of primigravid women in both the experimental and control group were assessed using Demographic Profoma and Knowledge Questionnaire on Childbirth and Maternal Stress Scale respectively. Video assisted childbirth preparation was given to for 20 minutes to the experimental group. The control group received the routine care in the hospitals. On the eighth day of pre-test assessment of knowledge, the post-test was administered for both experimental and control group. Samples who underwent vaginal deliveries were followed up and on their 2nd postpartum day, their childbirth experience and postpartum maternal stress was assessed using and Childbirth Experience Scale and Maternal Stress Scale respectively.

RESULT

Sample Characteristics: Data presented in table 1 shows that majority of primigravid women belonged to the age group 23-26 years in experimental (48.4%) and control group (63.6%).Most of them were SSLC qualified (38.7%) in experimental group and PUC qualified (36.4%) in control group. Majority of the primigravid women in experimental (67.7%) and control group (69.9%) were housewives. Most of their husbands were PUC qualified both in experimental group (45.2%) and in control group (39.4%) and were self employed (58.1% and 51.5%) respectively. Data presented in table 1 also shows that majority of primigravid women were married since <3 years in both experimental (96.8%) and control group (93.9%) and belonged to joint family (58.1% and 45.5%), respectively. Majority of the primigravid women in experimental group (51.6%) were staying in mothers' house and in control group most of them were (57.6%) staying in husband's house.

Table 1: Frequency and Percentage Distribution of Sample Characteristics (n=31+33=64)

Sl.No	Sample Characteristics	Experimental group		Control group	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1.	**Age (years)**				
	• 18-22	4	12.9	5	15.2
	• 23-26	15	48.4	21	63.6
	• 27-30	12	38.7	7	21.2
2.	**Educational status**				
	• Primary education	0	0	1	3
	• Secondary school	7	22.6	4	12.1
	• SSLC	12	38.7	12	36.4
	• PUC	9	29.0	15	45.5
	• Graduate and above	3	9.7	1	3
3.	**Occupation**				
	• House wife	21	67.7	23	69.7
	• Health professional	2	6.4	3	9.1
	• Non health professional	6	19.5	5	15.2
	• others	2	6.4	2	6.0
4.	**Husband's education**				
	• Primary education	0	0	3	9.1
	• Secondary school	2	6.4	5	15.2
	• SSLC	6	19.4	10	30.3
	• PUC	14	45.2	13	39.4
	• Graduate and above	9	29.0	2	6.0
5.	**Husband's Occupation**				
	• Agriculture	3	9.7	6	18.2
	• Health professional	1	3.2	2	6.1
	• Non health professional	9	29.0	8	24.2
	• others	18	58.1	17	51.5
6.	**Years of married life**				
	• 1-3years	30	96.8	31	93.9
	• >3years	1	3.2	2	6.1
7.	**Type of family**				
	• Nuclear	10	32.3	14	42.4
	• Joint	18	58.1	15	45.5
	• Extended	2	6.4	3	9.1
	• Others	1	3.2	1	3
8.	**Place of stay**				
	• Mother's house	16	51.7	14	42.4
	• Husband's house	13	41.9	19	57.6
	• others	2	6.4	0	0

Sample Characteristics

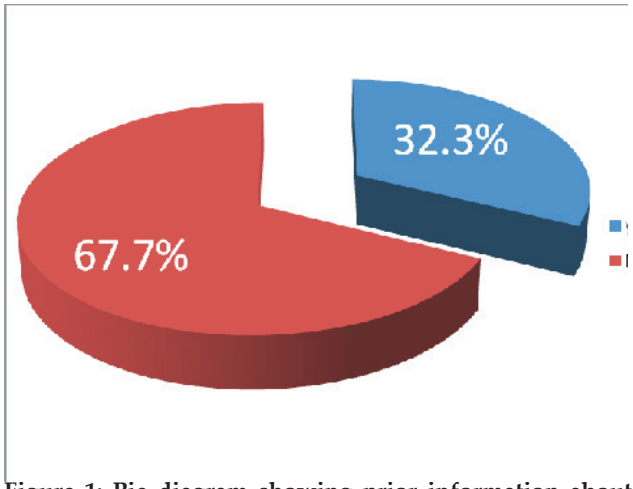

Figure 1: Pie diagram showing prior information about childbirth in experimental group

With respect to having prior information about childbirth Figure 1 shows that in the experimental group majority (67.7%) did not have any prior information about childbirth at 36 completed weeks of gestation and only 32.3% had prior information.

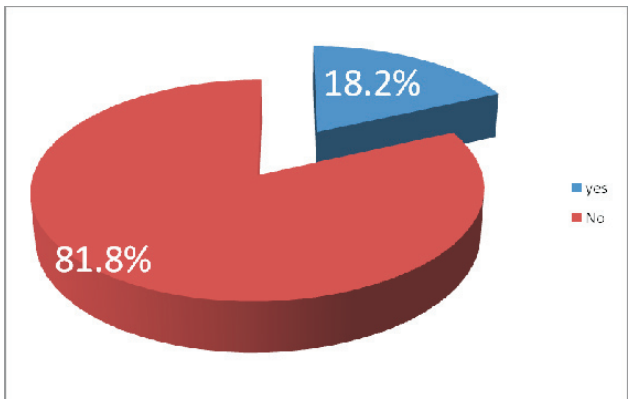

Figure 2 : Pie diagram showing prior information about childbirth in control group

SAMPLE CHARACTERISTICS

EFFECTIVENESS IN TERMS OF KNOWLEDGE

Mean post-test scores in the experimental group (19.81+2.57) is greater than the mean post-test scores of the control group (12.91+2.36). Mean difference in the experimental group (6.96) between the pre-test and post-test score is greater when compared to the control group (0.85). Independent sample t test of the knowledge scores shows p <0.05 (p=0.001).Hence the null hypothesis is rejected and it is inferred that the video assisted childbirth preparation helped in improving the knowledge of the primigravid woman on childbirth.

Table 2: Mean, standard deviation, mean difference and 't' value of pre-test and post-test knowledge scores
(n=31+33=64)

Know-ledge	Experimental group		Control group		df	't'	p value
	Pre-test	Post-test	Pre-test	Post-test			
Mean	12.94	19.81	12.06	12.91	62	8.41	0.001*
S D	±2.52	±2.57	±2.55	±2.36			
Mean Difference	6.96		0.85				

t(62) =8.41,p<0.05 *
significant at 0.05 level of significance

EFFECTIVENESS IN TERMS OF CHILDBIRTH EXPERIENCE

Mean childbirth experience score in the experimental group (46.61) is greater than that of the control group (44.12) with a mean difference of 2.49.The independent sample 't' test computed shows that the p value 0.054 is >0.05,which is not significant.. Hence, there is no significant improvement in the childbirth experience and video assisted childbirth preparation is not effective in terms of childbirth experience.

Table 3: Mean, standard deviation mean difference and 't' value of childbirth experience scores.
(n=31+33=64)

Childbirth experience	Experimental Group	Control group	df	t	p value
Mean	46.61	44.12	62	1.97	0.054
S D	±5.47	±4.65			
Mean Difference	2.49				

t(62)=1.97, p>0.05

EFFECTIVENESS IN TERMS OF MATERNAL STRESS

Mean difference in the experimental group (-1.21) and control (-1.39) group between the pretest and post test score does not show much difference, where, t=0.154 and p =0.878. Hence, the video assisted childbirth preparation is not effective in terms of

postpartum maternal stress.

Table 4: Mean, standard deviation, mean difference and 't' value of maternal stress scores

(n=31+33=64)

Maternal stress	Experimental group		Control group		df	't'	p value
	Pre-test	Post-test	Pre-test	Post-test			
Mean	14.32	13.13	14.30	12.91	62	0.154	0.878
S D	±4.75	±3.85	±3.50	±4.06			
Mean Difference	-1.21		-1.39				

t(62)=0.154, p>0.05

DISCUSSION

Effectiveness in terms of gain in knowledge.

In the present study the video was effective in terms of gain in knowledge regarding childbirth. The finding of the present study is supported by the following study.

Malata A and Chirwa E conducted a quasi experimental study on effectiveness of childbirth education in Malawi, Africa. Antenatal, labor and birth, and post-natal learning needs were addressed in the intervention. The mean pre-test and post-test scores for the control group across the three domains were analyzed and did not differ significantly from each other (P>0.05) where as in intervention group, there were significant differences (P<0.05). The results showed that the childbirth education program imparted knowledge to the intervention group who received more effective childbirth education.[5]

Effectiveness in terms of childbirth experience

In the this study the video assisted childbirth preparation was not effective in terms of difference in childbirth experience. The finding of the present study is supported by the following studies.

Bergstro M, Kieler H and Waldenstro U conducted a randomized controlled multicentre trial in Sweden on effects of natural childbirth preparation versus standard antenatal education Natural group consisted of antenatal education focusing on natural childbirth preparation and standard care group consisted of standard antenatal education focusing on both childbirth and parenthood.No significant improvement was found in the childbirth experience (Mean of 49.6+/-26 in natural group and Mean =50.1+/-25 in standard group) in women between the groups.[6]

A quasi experimental study conducted by Karkada EC, Noronha JA, and D'souza SRB to determine the effectiveness of childbirth preparation class in terms of behavioral responses during first stage of labor and outcome of labor in terms of maternal and neonatal outcome, among primigravid women in selected hospitals of Udupi district, Karnataka. The study concluded that childbirth preparation class for pregnant women focuses on preventive and promotive care and creates a childbirth experience that is safer, positive and satisfying for the childbearing women.[5] This study contradicts the present findings by giving objective evidence on behavioral responses and outcome of labor of primigravid women.[7]

Effectiveness in terms of maternal stress

In the present study the video assisted childbirth preparation is not effective in terms of postpartum maternal stress. The finding of the present study is supported by the following study.

Bergstro M, Kieler H and Waldenstro U conducted a randomized controlled multicentre trial in Sweden on effects of natural childbirth preparation versus standard antenatal education. Natural group consisted of antenatal education focusing on natural childbirth preparation. Standard care group consisted of standard antenatal education focusing on both childbirth and parenthood. No significant difference was found in parental stress (mean of 2.3+/-0.5 in natural group and 2.3+/- 0.5 in standard) between the group.[6]

CONCLUSION

Majority of the samples did not have any prior information about childbirth.Video assisted childbirth preparation in terms of enhancing knowledge about childbirth was found to be effective. In the present study, even though there was difference in mean childbirth experience scores between the groups, it was not statistically significant. Thus, it can be concluded that video assisted childbirth preparation

can be used for providing information regarding childbirth.

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Prevalence of Bullying/Mobbing behaviour among Nurses of Private and Public Hospitals in Karachi, Pakistan

Rozina Somani[1], Rozina Karmaliani[2], Judith Mc Farlane[3], Nargis Asad[4], Saima Hirani[5]

[1]Assistant Professor, [2]Professor, Aga Khan University School of Nursing and Midwifery, & Community Health Sciences [3]Professor and Perry Chair, Texas Women University of Houston, [4]Assistant Professor, Department of Psychiatry, Aga Khan University, [5]Assistant Professor, Aga Khan University; PhD Student, University of Alberta, Canada

ABSTRACT

Background: Workplace violence towards nurses is a worldwide problem, with professional nurses at the greater risk of being subjected to workplace violence. While the actual prevalence of workplace violence towards nurses remains unknown, it is expected that a lack of respect towards the nursing profession in the Pakistani society is a significant factor that contributes to workplace violence towards nurses.

Objective: This study aimed to identify the prevalence and characteristics of bullying/mobbing behaviour experienced by nurses, working at the in-patient units and Emergency Departments of two private and two government hospitals in Karachi, Pakistan.

Method: The study employed the cross-sectional design and included 458 nurses from 02 private and 02 government hospitals in Karachi, Pakistan. A simple random sampling technique was used to recruit the participants. Data was collected using an instrument that was jointly developed by International Labour Office (ILO), International Council of Nurses (ICN), World Health Organization (WHO), and Public Services International (PSI).

Findings: The study found 33.8% prevalence of bullying/mobbing behaviour among nurses. The study also reported highest prevalence of bullying /mobbing behaviour among young (19 to 29 years of age) female nurses with less than 5 years of work experience. Nurse participants belonged to the Medical Surgical units, Intensive Care Units, and Emergency and Psychiatric departments. The most common perpetrators of bullying behaviour were nurses in managerial positions.

Conclusion : The study identified the prevalence of bullying behaviour towards nurses in healthcare settings of Pakistan. The findings of the study may serve as a milestone towards the implementation of "Harassment of Women at Workplace, Act 2010" and may help to achieve the violence free healthcare environment.

Keywords: *Workplace violence, Bullying/Mobbing Behaviour, Lateral Violence, Perpetrators.*

INTRODUCTION

Workplace violence towards nurses refers to physical assaults, verbal abuse, bullying/ mobbing/ behaviour, racial violence, and sexual harassment from patients, their relatives and other staff at the workplace or outside the workplace. [1] Many studies have identified that an estimated prevalence of workplace violence towards nurses is up to 76%.[2,3] This paper will focus on the prevalence of bullying/ mobbing behaviour against nurses in the healthcare settings of Pakistani society.

Bullying/mobbing behaviour towards nurses can be defined as violent behaviour of nurses towards other nurses in any healthcare setting.[4, 5] The prevalence of bullying/mobbing behaviour is higher in healthcare settings globally. [6] A British survey

of healthcare workers reveals that 44% nurses were exposed to peer bullying at their workplace.[7]

Bullying/mobbing behaviour leads to a multitude of problems on nurses, patients and organizations. Many studies have reported the delivery of poor quality patient care as a result of higher stress among nurses related to bullying/mobbing behaviour.[8, 9, 10, 11,12] Lee and Saeed (2001) reported it, as one of the most challenging constraints towards nurses' empowerment and respect.[13] A substantial amount of evidence reports that often nurses experience bullying/mobbing behaviour, from nursing management and senior nurses.[6, 9, 13] Most of the time, this becomes one of the common reasons for nurses to leave the profession.[13, 14, 15,16]

Bullying/mobbing behaviour among nurses also brings some harmful effects to organizations, such as the loss of competent and trained staff, loss of productivity by nurses, a high turnover rate of the staff, professional dissatisfaction of nurses, and compromised patient care. [17, 18] Legal issues related to the security of the employees are also significant concerns for organisations. These consequences to organisations may create unsafe workplace environment and could affect the quality health care.[19, 20] Literature also endorses that incidents related to bullying/mobbing behaviour towards nurses are under reported due to feelings of shame and guilt, lack of support from colleagues and organizations, and lack of structured reporting systems.[6, 9, 13] In the context of Pakistan, no such study has ever been conducted that reports the prevalence and factors associated with bullying/mobbing behaviour among nurses.

METHOD

Study Design and Sampling : A cross- sectional study design was used to conduct this study. The study population included all registered nurses working in all the in-patient units and the emergency departments of two purposively selected public and two private healthcare settings in Karachi, Pakistan. The sample size was calculated based on the available prevalence of violence among nurses. The reported prevalence of physical and psychological violence among nurses ranges between 3% and 98%. [2, 10, 17, 20] The calculated sample size for the study was 450 nurses; however, 458 nurses were recruited based on adjusted sample size. The sample included 143 nurses from Private hospital I, 147 nurses from Private hospital II, 83 nurses from government hospital I and 85 nurses from government hospital II. A simple random sampling method was used for the recruitment of study participants.

The inclusion criteria for the participants involved registered nurses who were working in the in-patient units and emergency departments of their respective healthcare settings, and who willingly participated in the study. The study was approved from the Aga Khan University- Ethics Review Committee (AKU-ERC).

Data Collection and Analysis : Data was collected from May 2011 to June 2011. The instrument used to collect the data was "workplace violence in the health sector country case studies research instrument" This tool was prepared by ILO, ICN, PSI, and WHO in Geneva, 2003. [1] The content and face validity of the instrument has been established in a number of studies. [2, 10, 17, 21] For this study, the questionnaire was pilot tested and experts' opinion was also taken to check the context and language used in the form. Descriptive and inferential analyses were carried out to achieve the purpose of the study.

RESULTS

Demographic and Professional Characteristics of the Study Participants

Out of the 458 study participants, 37.3% (n=171) nurses were working in the government healthcare settings and 62.7% (n=287) nurses were working in the private healthcare settings. The majority (58.3%, n=267) of the nurses ranged between 19-29 years of age. 88.2% (n=404/458) nurses were working as Nursing Interns or Staff Nurses at both the private and the government healthcare settings. On the other hand, only 11.8% nurses were working at various management positions such as Head Nurse, Supervisor, Manager, and Chief Nursing Superintendent. 54.5% (n=250/458) nurses had work experience between less than a year to five years. A majority of the nurses (78.8% n=361/458) were working in shift duties.

Prevalence of Bullying/Mobbing Behaviour

The study reported 33.8% prevalence of bullying/ mobbing behaviour among all kinds of violence. No statistically significant difference was found between

the government and private settings pertaining to the prevalence of bullying/mobbing behaviour. The analysis revealed that nurses who belonged to age group between 19 and 29 years were mostly found the victims of bullying/mobbing behaviour**.** The reported prevalence of bullying/mobbing behaviour under this age group was (58.1%, n= 90/155). The higher occurrence of violence was reported among female nurses (71.6% n= 111/155) than male nurses (28.4% n= 44/155) Medical and Surgical units (32%) and Intensive Care Units (21%) reported more incidents of bullying/mobbing behaviour than other patient care settings in the hospitals (See Tables 1 & 2). Data analysis also indicated that the prevalence of bullying/mobbing behaviour was the highest amongst nurses working as Nursing Interns and Staff Nurses i.e. 89.7%, and among nurses with less than five years of work experience i.e. 54.8%. Similarly, nurses who work in shift duties reported the highest prevalence of bullying/ mobbing behaviour i.e. 81%, relative to nurses who worked in fixed shifts.

Table: 1 Prevalence of Bullying/mobbing behaviour by Age

Variable	**Bullying mobbing (n=155/458)**
Age	**n (%)**
19 -24 years	37 (23.9)
25-29 Years	53 (34.2)
30-34 Years	21 (13.5)
35-39 Years	21 (13.5)
40 and above	23 (14.8)

Table: 2 Prevalence of Bullying/Mobbing behaviour by Work Setting

Work Settings	**Bullying (n=155/458)**
General Medicine	n (%) 27 (17.4)
General Surgery	22 (14.2)
Psychiatric	4 (2.6)
Emergency	21 (13.5)
Intensive Care Unit	32 (20.6)
Specialized Units: 1. Orthopedics 2. Pediatrics 3. Oncology 4. Neurology	27 (17.4) 6 (3.9) 15 (9.7) 1 (0.6) 5 (3.2)
Other units: 1. Obs and Gynae 2. Management staff	14 (9) 12 (7.7) 02 (1.3)

Perpetrators of Bullying/ Mobbing behaviour

The analysis related to the perpetrators of bullying/ mobbing behaviour showed that a majority (48%) of the nurses experienced bullying/ mobbing behaviour from the staff members; staff members included other nurses, supervisors, and other paramedical staff.

Nurses' Responses towards Bullying/ Mobbing behaviour

In case of bullying/ mobbing behaviour, 45.8% of nurses had not taken any action or had pretended that the incident had never taken place. However, 39.4% nurses did report the incident to the management. 28.4% nurses reported that they discussed the incident with colleagues and only 6.5% nurses had taken the help from counsellor after the experience of bullying/ mobbing behaviour (see Table 3).

Reasons for not reporting the Incident of Bullying/ Mobbing behaviour

The reasons revealed by nurses for not reporting the incidents of bullying/ mobbing behaviour are reported in table 4 (see Table 4). 63.8% of the nurses who were victims of bullying/ mobbing behaviour believed that it was useless to report such an incident. 36.2% of the nurses were afraid of the negative consequences of reporting violence incidents and 6.7% nurses felt ashamed and guilty for experiencing such incidents.

Table: 3 Nurses' Responses towards Bullying/ Mobbing behaviour

Nurses' Response towards Bullying/Mobbing	**Bullying Mobbing 155/458 n (%)**
Took no action	71 (45.8)
Pretended it never happened	26 (16.8)
Asked to stop	25 (16.1)
Told friends and family	32 (20.6)
Sought counselling	10 (6.5)
Told a colleague	44 (28.4)
Reported to management	61 (39.4)
Took transfer	03 (1.9)
Defended physically	0 (0)

Note: The percentages do not equal to 100% as multiple responses were possible in this question

Table: 4 Overall Reasons for not reporting

Bullying/ Mobbing behaviour

Reasons for not Reporting Bullying/ Mobbing	Bullying n=105/155 n (%)
It was not important	17 (16.2)
Felt ashamed	05 (4.8)
Felt guilty	02 (1.9)
Afraid of negative consequences	38 (36.2)
Useless	67 (63.8)
Did not know who to report	05 (4.8)

Note: The percentages do not equal to 100% as multiple responses were possible in this question.

DISCUSSION

The prevalence of bullying/ mobbing behaviour among nurses came out to be 33.8%, which is relatively high when compared to similar studies in other countries such as Jamaica 12.4%, [20] Australia 10.5%, [3] and Brazil 18.5% public and 17.9% private healthcare sectors. [22] In New Zealand, it has been found that 16% of the nurses faced emotional neglect, 31% reported to be undervalued by management staff, 17% felt their learning opportunities had been blocked, 16% felt distressed because of workplace conflict, and 23% reported being overburdened without getting appropriate support. [4] The findings of the current study correlate with the study conducted in Hong Kong where the reported prevalence of lateral violence was 45% and staff members, colleagues, and supervisors were the main perpetrators. [2]

The research studies mentioned above highlighted that the lack of competence in novice nurses in performing patient care is a major cause of workplace bullying towards nurses. This may relate to healthcare settings of the current study as well, since the proportion of novice nurses was considerably higher in comparison to senior nurses. Novice nurses usually have less expertise in performing patient care and in dealing with critical situations. Moreover, in nursing division, nurse managers and supervisors consider themselves accountable for the overall ward management. It is quite usual for them to exhibit bullying/ mobbing behaviour towards nurses which includes: being rude and abusive in behaviour, unjust in criticism, and passing teasing remarks towards nurses. Hence, nurse managers and supervisors might not consider it as workplace bullying as for them, it could be part of their job responsibility to make nurses more competent in providing quality patient care. Moreover, workplace values and policies define the overall culture of the organization.[23] Therefore, it is likely that in the government healthcare settings of Pakistan, the high prevalence of bullying/ mobbing behaviour could be because of the traditional hierarchical system, where senior nurses exhibit bullying attitudes towards junior nurses.[13]

RECOMMENDATIONS

Based on the study findings, some recommendations have been derived. Awareness sessions should be arranged for nurses to make them aware about the existing policies to prevent them from bullying such as Zero tolerance policy. Secondly, nursing services must arrange structured training sessions for nurses to enhance their soft skills, such as effective communication skills, conflict management strategies, and ways to deal with aggressive clients. Trainings and refresher courses should be arranged for nurses in management positions, such as team leaders, head nurses, nurse managers, nurse supervisors, nursing directors, and chief nursing superintendents. Training should include strategies of dealing with subordinates, effective supervisory skills, mentorship, positive criticism, and handling difficult employees. Along with the nursing management group, the training and awareness sessions for multidisciplinary groups is also considered to be essential. A majority of the nurses reported being harassed by physicians and members from other disciplines.

Novice nurses must receive proper mentorship and competency based orientation for effective transition from being a student nurse to becoming a staff nurse; this would decrease the chances of error from the nurses' side and a bullying attitude from management's side.

Developing reporting systems in organizations may help in reducing bullying/ mobbing behaviour. All nurses should be aware about the reporting system and must know that reporting the incidents would have a positive outcome.

CONCLUSION

This study attempted to identify the extent of bullying/ mobbing behaviour towards nurses in the healthcare settings of Karachi, Pakistan, This study could provide strong basis to implement the "Harassment of Women at Workplace, Act 2010" and could help to achieve one of the goals of the World Health Organization (WHO), that is, a violence free healthcare environment. Eventually, a violence free

healthcare environment would bring better health outcomes and better quality nursing care to patients.

Conflict of Interest: Nil

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Assess the Knowledge and Practice Regarding Drinking Water at Selected Households of Udupi District

Navaneetha M

Assoc. Prof., PIMS College of Nursing, Pondicherry-14

ABSTRACT

The world celebrates "World Water Day" on March 22nd every year to express the concern for safe drinking water and to maintain sanitation. In this context a study to assess the knowledge and practice regarding drinking water at selected households of udupi district was conducted with the following objectives:i)Identify the common sources of drinking water, its accessibility, ii) Assess the knowledge and practice regarding water safetyand iii)Associate the knowledge and practice with selected demographic factors. The Research design used was Descriptive survey, the study was conducted atAthrady-Herebettu panchayat, Udupi district by selecting 50 houses randomly for collecting water samples and survey was conducted at 500 households. The survey found that 97.6% took water from shallow well. 93% had an open well which is an unprotected water source which leads to the contamination of the water and lead to water borne diseases. The results also show that there is a relation between socioeconomic status and knowledge and practice of safe water. It reveals that there is a relationship between practice and occupation and income of the family.

Keywords: *Water safety, Knowledge and Practice.*

INTRODUCTION

The world celebrates "World Water Day" on March 22nd every year to express the concern for safe drinking water and to maintain sanitation.

World Water Day 2013 Theme-"**Water Cooperation**"

World Water Day Theme 2007 - "Coping With Water Scarcity"

World Water Day Theme 2006 - "Water and Culture"

This was to march towards the Millennium Development Goal (MDG) of halving by 2015, the proportion of people without sustainable access to safe water supply.[1]

Water supply and sanitation has been a concern in India from the first five year plan made in 1951-1956. A National Water Policy was adopted in 2002 giving primary importance to drinking water. The states of Karnataka, Tamilnadu, Madhya Pradesh, Orissa and Rajasthan are working with this policy. According to 2002 data, between 69-74% of India's rural population and 91-93% urban population take drinking water from protected sources. Even then the problems of quality of water does exist in relation to fluoride, arsenic, varying iron levels, presence of nitrates and heavy metals, bacteriological contamination and salinity.

Along with this the contamination of water either at source, or transport in pipe lines or at home, when not stored properly, results in water borne diseases. The common diseases are hepatitis A, cholera, worm infestations, etc. [2]

With the concern for achieving the MDG goal and the situation in India, numerous activities are being carried out by World Health Organization (WHO), United Nation's Children's Fund (UNICEF) and Danish International Development Agency (DANIDA) in India to facilitate safe drinking water and to help prevent the water borne diseases. The inadequate knowledge of the people and the

Corresponding address:
Dr. M Navaneetha, Ph.D,
Assoc. Prof., PIMS College of Nursing,
Pondicherry-14
Email: navamd11176@gmail.com
Mobile No. 09448159718

unhygienic practices are the main causes of concern and therefore a major focus of these activities. Hence a study was conducted to assess the knowledge and practice regarding drinking water at selected households of udupi district.

The objectives of the study were to identify the common sources of drinking water, its accessibility,assess the knowledge and practice regarding water safety and associate the knowledge and practice with selected demographic factors.

MATERIALS AND METHOD

The studied used a survey approach with a descriptive design.The setting of the study was Athrady-Herebettu panchayat, Udupi district.500 houses were surveyed, 50 houses were selected for taking water sample from the total of 500 houses using Random sampling technique.

To identify the common sources of drinking water, its accessibility, knowledge and practice regarding water safety and that of preventing water borne diseases a interview was conducted with a Knowledge questionnaire with 7 questions and a practice questionnaire with 8 questions.

FINDINGS AND DISCUSSION

Table-1: Socioeconomic status (SES): Arbitrary grading

N=500

SES	Frequency	%
Low(2-5)	268	53.6
Medium(6-9)	204	40.8
High(10-11)	28	5.6

The survey found that 97.6% took water from shallow well. 93% had an open well which is an unprotected water source which leads to the contamination of the water and lead to water borne diseases. The below table[3] also shows that the use of different water sources and the proximity to water source from house holds(HH) and shows that well and tap make a major source of water in many states in India as in Udupi district. According to the 2002 Indian Planning Commission survey the overall ground water resource is only 10,812 Billion Cubic Metres, hence the water source for the years to come has to be addressed. The same survey also indicates that Karnataka has not fulfilled its rural water requirement.[2] Hence some other measures have to be taken for fulfilling the water requirements for which government has taken initiatives.

Table-2: Location of Water Source and Source of Water: 2001 Census

State	Haryana	Madhya Pradesh	Gujarat	Orissa	Tamil Nadu	Meghalaya
Location of Water Source						
Within HH	30.7	14.0	29.3	13.7	12.0	12.1
Near HH	42.7	58.6	49.9	53.9	74.7	55.6
Away HH	26.6	27.3	20.8	32.4	13.3	32.3
Total	100	99.9	100	100	100	100
Water Source						
Tap	37.8	10.7	49.1	2.8	60.5	24.4
Handpump	35.7	48.0	22.8	31.3	20.3	2.2
Tubewell	7.6	2.8	5.0	28.8	4.5	2.8
Well	16.5	35.6	18.3	29.1	11.3	31.7
Tank, Pond, Lake	0.7	0.3	0.6	2.1	1.6	6.5
River/Canal	0.5	1.7	0.7	2.9	0.4	5.2
Spring	0.2	0.7	0.3	2.5	0.5	25.1
Other	1.0	0.2	3.3	0.5	0.9	2.1
Total	100	100	100.1	100	100	100
No. of HH	2,454,463	8,124,795	5,885,961	6,782,879	8,274,790	329,678

Water storage was by aluminium pots with lid for majority of the people(79.4%)

48% boil and cooled water before consumption. A survey conducted by water Aid on Water Quality states that it is the users and in large the communities which have to play a key role in maintaining hygiene near water sources to maintaine the water quality.The survey also mentions that it is the people who have to improve the ways in which they collect and store water so as to avoid contamination while collection, storage and use.[4]

From the data collected only 9 families had suffered from any water borne disease.According the survey conducted by water aid also the health burden of poor water quality is enormous in India. They estimate that around 37.7 million of Indians are affected by waterborne diseases annually, 1.5 million children are estimated to die of diarrhoea alone and 73 million working days are lost due to waterborne disease each year. The small number affected in the present study may be due to the less number of household surveyed. [4]

The results also show that there is a relation between socioeconomic status and knowledge($t=12.606$, $p<0.001$) and practice of safe water ($t=13.26$, $p<0.001$).

It also showed that occupation and income affect the practice of people. The obtained chi square value for occupation and practice 59.06 is significant at $p=0.001$ and the value for income and practice 34.264 is significant at $p=0.034$

Fig-1-Line diagram showing the relationship of socioeconomic status and mean of Knowledge and Practice scores

The figure shows that in the high socioeconomic status group (scores of 10-11) the mean knowledge and practice scores are similar but in the low socioeconomic status (scores of 2-5) the mean practice score is high even though the knowledge score is low. This suggests that people follow hygienic practices but they do not have knowledge regarding water safety. A World Health Organization sponsored study in India on Disease Burden Due to Inadequate Water & Sanitation[5] reveals that rural studies commonly observe that poor people's economic dependence on natural resources makes them particularly vulnerable to environmental degradation, which supports the findings of correlation of socio economic status and practices of water hygiene.

Table-3: Opinion on contamination of water

Opinion	Frequency	%
Nil	19	3.8
Fall of leaves/animals/waste, etc	176	35.2
Unhygienic practice/washing, etc	103	20.6
Drainage/water stagnation/toilet	116	23.2
Long storage of water at home	70	14.0
Open well and well not cleaned regularly.	16	3.2

CONCLUSION

93% had an open well which is an unprotected water source which leads to the contamination of the water and lead to water borne diseases.

Thus the major concern is the use of ground water sources which are diminishing rapidly and the use of open unprotected wells which is likely to increase water contamination.

The results also show that there is a relation between socioeconomic status and knowledge and practice of safe water. It reveals that there is a relationship between practice and occupation and income of the family.

RECOMMENDATIONS

The knowledge and practices regarding water safety is poor, hence awareness programmes on giving appropriate Information and Education should be undertaken in this regard.

Resources should be provided for the closure of fully contaminated wells as open wells leads to water contamination.

Water purification is done by boiling by most of them but only 56.6% (283) know what is 'boiling scientifically', therefore demonstration of home purification of water is necessary.

People opine that dirty well leads to water contamination and diseases, hence household well water purification should also be demonstrated.

Children are the leaders of the future so a School Health Programme can be organized on "water safety: storage, purification and consumption."

Ethical Clearance- Taken from College of Nursing, Research committee

Source of Funding- Self

Conflict of Interest - Nil

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Association between Breast Feeding and Childhood Obesity among School-going Children, 5-16 years of Age in Karachi, Pakistan

Saima Sachwani[1], Rozina Karmaliani[2], Shela Akbar Ali Hirani[3], Asif Raza Khowaja[4], Erum Lalwani[1]

[1]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, [2]Professor, School of Nursing and Midwifery, and Community Health Sciences Department, [3]Assitant Professor, School of Nursing and Midwifery, [4]Senior Instructor-Reasearch, Department of Pediatrics, The Aga Khan University, Karachi, Pakistan

ABSTRACT

Background: Overweight and obesity in children are major risk factors for adult obesity, associated chronic diseases, and premature deaths worldwide. In Pakistan, the rate of overweight and obesity among children is on rapid rise. A substantial body of evidences has suggested breast feeding, as being protective against childhood obesity. However, such an association is neither conclusive in literature nor has it been explored in the Pakistani context.

Objective: This study aimed to investigate the association between breast feeding and childhood obesity in school going children, 5-16 years of age in Karachi. Pakistan.

Methodology: In this study, 528 school going children, aged 5-14 years of age (132 cases and 396 controls) matched on age and gender, were recruited from public and private schools of Karachi.

Findings:: Conditional logistic regression results showed that being breast fed for less than 12 months [mORadj= 1.96; 95% CI (1.0-3.7)],having a history of not being exclusively breast fed [mORadj= 5.5; 95% CI (2.3-12.9)], exclusively breast fed for less than 3 months [mORadj= 4, 95% CI (2.0-7.8)], and exclusively breast fed for 4-5 months in school going children was [mORadj= 2.6; 95% CI (1.5-4.7)] associated with a higher obesity risk.

Conclusion: Longer duration of breast feeding, and exclusive breast feeds have a protective effect against childhood obesity in a dose-response manner. In Pakistan, future longitudinal studies are urged to confirm this association because of its implications for public health.

Keywords: *Obesity, childhood, breastfeeding, protective.*

INTRODUCTION

Approximately, 40-50 million school aged children are obese, with an increased threat for developing chronic diseases[1]. The comparative results from two separate studies, Urban National Health survey of Pakistan (NHSP, 1990-1994) and Karachi survey (2004-2005) indicated rapid rise of obesity from 3% to 5.7% in ten years' time [2]. The same study indicated persistent under nutrition, besides indicating an alarming two-fold rise in proportion of overweight and obese children of urban Pakistan[2].

Corresponding author:
Saima Sachwani,
Senior Instructor, The Aga Khan University School of Nursing and Midwifery, Ph: +92-305 8481964,
Email: Saima.Sachwani@aku.Edu

CONSEQUENCES

Obesity in childhood has a major impact on health in terms of premature deaths and disabilities worldwide[3,4]. Furthermore, it accounts for several health problems (atherosclerosis, hypertension,

insulin resistance, dyslipidemia, orthopedic problems and depression) leading to serious health problems such as cardiovascular diseases, stroke, diabetes, orthopedic disorders, and cancers in adulthood leading to death and disability worldwide [3, 5]. Childhood obesity is the predictor of later obesity and health problems [3].

STUDY PURPOSE

The study aims to investigate the association between breast feeding and obesity among school-going children, 5-16 years of age in Karachi, Pakistan.

BREAST FEEDING AND OBESITY

Breast feeding and its short term benefits are well established and have been studied widely in literature [7, 8, 9]. However, little has been known about long term effects of being breast fed [7,8].Where there has been a rapid rise in obesity in last few decades few studies have linked breastfeeding to be protective against obesity in childhood [7,10]. 28 studies from a systematic review of sixty-one studies reported shielding effect of breastfeeding in terms of obesity [11].The possible explanation for later life low level of cholesterol such as exclusively breastfed infants' exposure to the breast milk to the high cholesterol content of breast milk affecting long-term cholesterol metabolism could be attributed to nutritional programming [12,13, 14,15]. Yet, few studies have reported that breast feeding does not prevent obesity in children. Such as, A longitudinal study of biological and behavioral risk factors for CVD including 489 participants from Northern Ireland), concluded no significant association found between breast feeding and BMI, "skin fold thickness measurements, blood pressure or plasma lipid profile" in adolescence or adulthood. However, those who had been breast fed were significantly taller in adulthood than those who had not been breast fed [16]. Likewise, the meta-analysis from nine studies (69,000 participants) concluded breast feeding to be effective against childhood obesity [17].

MATERIAL AND METHOD

For this study, a matched case-control study design was used to examine the association between breast feeding and childhood obesity. The current study was conducted in public and private schools of largest and central (Jamshed Town) of Karachi (City District Government of Karachi [18]. These settings were used to allow for greater generalizability by catering diversity of socio-demographic characteristics of school going children.

For this study, school going-children (5-16 years of age) registered at the public and private schools in the Jamshed Towns were captured. For Cases children with Body Mass Index (BMI) more than or equal to 85 percentile or greater with reference to CDC growth charts, 2000, and for controls children with BMI less than 85 percentile with reference to CDC growth charts, 2000. Matching was done for age [±6months] and gender in each respect to each case. Total sample size for the study was a total of 528 (132 cases; and 396 controls).

DATA SOURCES

Data was collected by structured questionnaire and anthropometric measurements (height in cms and weight in kilograms). Date of birth was determined using school's registration record. The questionnaire modified from population-based representative, Control of Blood Pressure and Risk Attenuation (COBRA) study trial on 1,675 school aged children of 5-14 years in Karachi, Pakistan was used with permission for its life style domains of diet and physical activity[2]. Whereas, breast feeding domain from mothers perspective was assessed through another questionnaire used by Novotny, et al [19]. The questionnaire was pre-tested on 10 percent of the total sample size

Ethical approval was obtained from Ethics Review committee of Aga Khan University Karachi Pakistan. Whereas, the formal permission to conduct study at schools were obtained from school administration / Principle. Consent was sought from parents of randomly selected children. Moreover, assent from children above 8years was also sought.

FINDINGS

A total of 528 children were recruited as cases and controls from the participating schools. There were 132 cases; and 396 age-gender matched controls enrolled in the study. Mothers of 528 children were also part of the study. A total of 73(55%); 59 (45%) matched pairs of cases and controls were recruited

from private and public schools respectively based on Population proportion to size (PPS). The mean age of cases (10.45 ± 2.56 years), and controls (10.47± 2.51 years) were almost identical because it was age matched sample. However, majority of cases/controls (57%) age ranged between 10 -14 years; and remaining (43%) age ranged 5 – 10 years.

BREAST FEEDING

As shown in Table 1. more controls 296 (74.8%) were breast fed for breastfed for more than 12 months as compared with cases 93 (70.5%). Similarly, more controls 352 (88. 9%) were exclusively breastfed as compared to cases 108 (81.8%). Among those who were exclusively breastfed, more controls 190 (47.98%) were breastfed for at least 6months as compared to the case 32 (14.4%).

UNIVARIATE ANALYSIS

As shown in Table 2, Only statistically significant variables of breast feeding, and exclusive breast feeding are described here.While taking exclusive breast feeding as a reference, our findings revealed that the risk of being overweight or obese almost doubled for those who were ever breastfed. Furthermore, the those cases who were ever breast for less than 12 months were at the greater risk of obesity. In respect to history of exclusive breast feeding, those who were not exclusively breast fed were about twice a times at risk of being cases as compared to the controls. When the duration of exclusive breast feeding for at least six months was taken as a reference; the results indicated that those who were never exclusively breastfed were at a very risk as compared to those who were exclusively breastfed for any duration. Subsequently, the odds of being overweight or obese decreased with increased duration of exclusive breast feeding.

However, several variables such as maternal covariates, personal sociodemographic covariates, and lifestyle practices related covariates were insignificant at univariate analysis.

MULTI-VARIATE ANALYSIS

As shown in table 2, after adjusting for effects of other variables in the model, it was found that breast feeding had a protective association with childhood obesity. Being breast fed for less than 12 months, doubled the risk of obesity among cases. Similarly, exclusive breast feeding was also found to be highly associated with childhood obesity. History of not being exclusively breastfed among cases was five times as compared to the controls, while keeping the exclusive breast feeding for at least 6 months as a reference, exclusively breastfed for less than 3 months, exclusively breast fed for only 4-5months were all related to higher odds of obesity in a dose-relationship manner.

Table 1. Conditional logistic regression for risk factors of childhood obesity comparing cases and healthy controls aged (5-14) years in Karachi, Pakistan.

Variables	**Cases N= 132 n (%)**	**Controls N= 396 n (%)**	**Unadjusted mOR (95% CI)**	**P-value** (χ^2 test)	**Adjusted mOR (95% CI)**
Personal Characteristics					
Gender			_	_	_
Male	50 (37.9)	150 (37.9)			
Female	82 (62.1)	246 (62.1)			
Mean age of all children (S.D)	10.45 (2.6)	10.47 (2.5)	_	_	_
Mean age in respect to age categories					
5 - 10 years	57 (43.2)	170 (42.9)	1.2 (0.22-6.47)	0.83	
10 - 14 years	75 (56.8)	226 (57.1)	1.0		

Table footnote: Adjusted for socio-demographic, maternal, and life style practices covariates, History and duration of (any breast feeding and exclusive breast feeding).

N.S (Not significant in multivariate model), *(P-value <0.2), **(P-value <0.05)

Table 2. Association between breastfeeding and childhood obesity in school going children aged (5-14) years in Karachi, Pakistan.

Variables	Cases N= 132 n (%)	Controls N= 396 n (%)	Unadjusted mOR (95% CI)	P-value (χ^2 test)	Adjusted mOR (95% CI)
History of breastfeeding					
Never	3 (2.3)	9 (2.3)	1.65 (0.48 -5.64)	0.43	
Ever	21 (15.9)	35 (8.8)	1.94 (1.06 -3.55)	0.03**	N.S
Exclusive	108 (81.8)	352 (88. 9)	1.0		
Duration of ever breast feeding					
Never					
0-12 months	3 (2.3)	9 (2.3)	1.33 (0.34-5.25)	0.68	
13-24 months	36 (27.3)	91 (23)	1.63 (0.87-3.01)	0.12*	1.96 (1.0-3.7)
24 + months	69 (52.3)	201 (50.8)	1.37 (0.81-2.33)	0.24	
	24 (18.2)	95 (24)	1.0		
History of exclusive breast feeding					
No	24 (18.2)	44 (11.1)	1.95 (1.09-3.5)	0.02**	N.S
Yes	108 (81.8)	352 (88.9)	1.0		
Duration of exclusive breast feeding					
Never	24 (18.2)	43 (10.86)	3.58 (1.85-6.94)	0.0002**	5.5 (2.3-12.9)
< 3 months	34 (25.76)	64 (16.16)	3.05 (1.75-5.32)	<0.0001**	4.0 (2.0-7.8)
4-5 months	42 (31.82)	99 (25)	2.42 (1.44-4.05)	0.0008**	2.6 (1.5-4.7)
> 6 months	32 (14.41)	190 (47.98)	1.0		

Table footnote: Adjusted for socio-demographic, maternal, and life style practices covariates, History and duration of (any breast feeding and exclusive breast feeding).

N.S (Not significant in multivariate model), *(P-value <0.2), **(P-value <0.05)

DISCUSSION

In this study, among cases and controls, the prevalence of overweight and obesity was 20.3% and 4.7%, respectively. These results are consistent with the other studies conducted in Pakistan [20, 21]. To best of available knowledge, this is the first matched case-control study in Pakistan to investigate the association between breastfeeding and childhood obesity in school going children 5-16 years of age. The results from the current study showed the protective effect of breastfeeding against childhood obesity in a dose-response relationship manner. Furthermore, this association was consistent even after adjustment for confounding variables through conditional logistic regression analysis.

There could be two possible mechanisms through which breast feeding protects against obesity. The first mechanism involves the physiological pathway of nutritional programming (metabolic imprinting), and the second mechanism involves behavioral programming. Hence, breast feeding prevents the permanent alteration in growth, proliferation, and differentiation patterns at the cellular, metabolic, and as well as neuroendocrine level during the critical

plastic period of growth and development [22].

STRENGTHS

To best available knowledge, this is the first study that has used a matched case control design to investigate the association between breast feeding and childhood obesity in school going children of 5-16 years of age in Pakistan. Furthermore, the widely used age-gender-specific-BMI (which isa good indicator of excess body fat as well risk of metabolic diseases), using CDC growth chart was calculated. Moreover, these measurements were calculated and verified using the standardized-CDC-BMI calculator. Matching at the design stage and the analysis stage was employed to controls for possible confounders, allowing for stable odds ratio and narrower confidence intervals. Pairs of (1 case and 3 controls) were selected to ensure adequate power of the study. The estimated sample size was adequate to examine the defined objective of the study.

LIMITATIONS

Re-call bias is the major limitation in case-control studies. However, we conducted a study in an urban setting where most of the women were forty or less than forty years of age (remote memory may be more impaired in older women). In our study we relied on self-reported data. To best of available knowledge, no validated tool to study the association between breasts feeding and childhood obesity was available in Pakistani context, therefore, the modified version of questionnaire from "Control of Blood Pressure and Risk Attenuation-COBRA TRIAL" (not-validated) was utilized. This tool has already been translated and used a multiple of times in the similar Pakistani context.

RECOMMENDATIONS

Breast feeding should be promoted at all maternal and childcare units, in accordance with the world health organization recommendations. All the practicing health care professionals should be educated about full scope of breast feeding benefits. Further researches should be conducted to study the association of breast feeding and childhood obesity in school age children from different parts of country, to get evidences related to the protective role of breast feeding.

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Ethical Clearance: The study had an approval from the University Ethical Review Committee (ERC).

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A Descriptive Study to Assess the Knowledge and Attitude of the Staff Nurses Regarding Nursing Informatics in Selected Hospital, Bangalore

P M Arulmozhi Baskaran[1], Prasanna Baby[2]

[1]Assistant Professor, Head of the Department of Community Health Nursing, Narayana Hrudayalaya College of Nursing, Bangalore, [2]Principal, Sri Ramachandra University, Chennai

ABSTRACT

Introduction: Health and Nursing Information Science is the study of how health care data is acquired, communicated, stored, and managed, and how it is processed into information and knowledge. This knowledge is useful to nurses in decision-making at the operational, tactical, and strategic planning levels of health care. Healthcare professionals should be able to utilize IT in both an efficient and effective manner to promote optimal outcomes for both inpatient and outpatient patient populations, as well as to meet nursing sensitive outcomes. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) (2002) suggested that IT could play a significant role in the prevention of medical errors and improve client care.

Objectives: 1. Toassess the knowledge regarding nursing informatics of the staff nurses. 2. To assess the attitude regarding nursing informatics of the staff nurses. 3. To determine the association between knowledge regarding nursing informatics among staff nurses with selected demographic variables.

Method: Quantitative, Descriptive study was conducted in ESIC Medical College & Model Hospital at Rajajinagar, Bangalore. The convenient sampling was used for the study. The knowledge questionnaire and attitude scale were distributed among 60 staff nurses. The data were analyzed by using descriptive, inferential statistical methods.

Results: Demographic description of samples by frequency and percentage shows that majority of the samples (31)51.7% belong to the age group of 26-27 years, (24)40% of the samples were BSc (N) & (24) 40% of the samples were PCBSc (N) and (51)85% of nurses not had any previous knowledge and (9)15% were had knowledge regarding nursing informatics. Distribution of knowledge scores regarding nursing informatics shows that (54)90% of nurses had poor knowledge , whereas (6) 10% of nurses had average knowledge. Attitude scores shows that (32)53% of staff nurses had negative attitude, whereas (27)45% of staff nurses had neutral attitude and (1)2% of staff nurses had positive attitude regarding nursing informatics. There was significant association between knowledge and education, years of experienceat $p < 0.05$.

Discussion: The study shows that most of the staff nurses have poor knowledge and negative attitude towards nursing informatics. At present, nursing informatics is an emerging field in Health care industry to improve information management and communications in nursing to improve efficiency, reduction of costs and enhance the quality of care. National nursing organizations also support the need for nurses to update their knowledge on computer literate and in the nursing informatics.

Keywords: *Nursing informatics, Health Information, Nurses, Knowledge, Attitude.*

Corresponding author:
P M Arulmozhi Baskaran
Assistant Professor, Head of the Department of Community Health Nursing, Narayana Hrudayalaya College of Nursing, Bangalore
E-mail Id: arulmozhi76@gmail.com

INTRODUCTION

Health and nursing information science is the study of how health care data is acquired, communicated, stored, and managed, and how it is processed into information and knowledge. This

knowledge is useful to nurses in decision-making at the operational, tactical, and strategic planning levels of health care. Information systems used in health care include the people, structures, processes, and manual as well as automated tools that collect, store, interpret, transform, and report practice and management information.

At present, nursing informatics is an emerging field of study. National nursing organizations support the need for nurses to become computer literate and versed in the dynamics of nursing informatics. We are at a transition period. Becoming educated in nursing informatics is, for the most party, a self-directed and independent endeavour. Programs that offer basic and further education in nursing informatics are beginning to spring up around the globe, but many more are needed to provide easy access for motivated nurses.[1]

As we live in dynamic times, the future is here today. Technology advances have apro found effect on disease prevention and detection, and have become more embedded within healthcare. These changes drive healthcare and have increased consumer demand for professional accountability for both quality and cost-effective service. Healthcare professionals should be able to utilize IT in both an efficient and effective manner to promote optimal outcomes for both in patient and outpatient patient populations, as well as to meet nursing sensitive outcomes. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) (2002) suggested that IT could play a significant role in the prevention of medical errors.[2]

Compared to the 1990s, recent times have witnessed considerable progress in the level of awareness and acceptance regarding health informatics in India. The Ministry of Health and Family Welfare (MOHFW), Government of India, constituted an Expert Committee on Standards for Electronic Medical Records in September 2010, and therefore, it is high time to introduce the concepts of Electronic Health Records, mobile Health, and other relevant topics and associated training protocols into the mainstream, healthcare professional education. The Working Group, which had been formed by the MOHFW for the proposed India Health Portal, is now close to the materialization of the Health Literacy program, with the final clearance of the bill being awaited from the Cabinet.[3]

MATERIAL AND METHOD

The objectives of the study were:

1. To assess the knowledge regarding nursing informatics of the staff nurses.

2. To assess the attitude regarding nursing informatics of the staff nurses.

3. To determine the association between knowledge regarding nursing informatics among staff nurses with selected demographic variables.

HYPOTHESES

- H1: There will be a significant correlation between knowledge and attitude of staff nurses regarding nursing informatics among staff nurses working in ESIC hospital at Rajajinagar, Bangalore.

- H2: There will be a significant association between knowledge of staff nurses towards nursing informatics and selected demographic variables.

- All hypotheses were tested at 0.05 level of significance

Research approach: Quantitative approach was adapted to accomplish the objectives.

Research design: Research design is a descriptive plan for the study.

Sample and Sampling Technique: The sample for this is staff nurses working in ESIC Medical College & Model Hospital at Rajajinagar, Bangalore, who fulfill the inclusive criteria were the study samples. The convenient sampling technique adopted for this study.

Sample size: 60

Setting: ESIC Medical College & Model Hospital, Rajajinagar, Bangalore.

INCLUSION CRITERIA

- Nurses who are working in ESIC Hospital, Bangalore.

- Who are willing to participate in the study

- Staff nurses who have the qualification of GNM, PCBSC and BSC Nursing and who are registered as nurse.
- Nurses who are available during data collection.

EXCLUSION CRITERIA

- Nurses who have undergone MSC Nursing and ANM
- Who are not willing to participate in the study

DATA COLLECTION TOOLS AND TECHNIQUES

In order to meet the objectives a structured knowledge questionnaire and modified ITASH (Information Technology Attitude Scales for Health) attitude scalewasprepared. The tool consisted of 3 sections:

Section A: demographic characteristics of samplesuch as age, sex, educational status, experience.

Section B: Structured Questionnaire on Assessment of Knowledge Nursing Informatics

Section C: This section consists of modified ITASH (Information Technology Attitude Scales for Health) attitude scale

SCORING TECHNIQUE

Section A: Scoring key for demographic data variables.

It consists of demographic profile related to the staff nurses. Demographic profile includes Age in years, education, age, years of experience.

Section B: Scoring key for structured interview schedule format.

Knowledge Questionnaire consists of 15 questions to assess knowledge. Each correct answer was given a score of one mark and wrong answer or unanswered was given a score of zero. The maximum score was 15.

To interpret level of knowledge the scores were distributed as follows;

- Poor Knowledge < 34%
- Average Knowledge 34-67%
- Good Knowledge >67%

Section C: Scoring key for modified ITASH (Information Technology Attitude Scales for Health) attitude scale format.

Attitude scale consists of 12 questions to assess their attitude. Respondents were invited to agree or disagree, using a Likert scale with four points: strongly disagree, disagree, agree and strongly agree, which were assigned values of 1, 2, 3 and 4 respectively.

PROCEDURE FOR DATA COLLECTION

The formal permission for conducting the study was obtained from the Medical Superintendent of ESIC Medical College & Model Hospital, Rajajinagar, Bangalore. After getting formal administrative approval from concerned authorities, informed consent was taken from selected subjects and was appraised about the purpose of study and the confidentiality of their responses was assured. The following steps were followed for data collection. Structured knowledge questionnaire and attitude scale was distributed and after 3 hours of duration the tool was collected from the sample on the same day itself.

DATA ANALYSIS PLAN

The investigator will analyze the data obtained by using descriptive and inferential statistics and the plan of data analysis will be as follows:

- Organize the data in a master sheet in Microsoft excel.
- Mean, mode and median will be used to analyze the knowledge and attitude regarding Nursing informatics among staff nurses.
- Chi-square will be used to analyze the association of knowledge of nursing informatics among staff nurses with selected demographic variables.

FINDINGS

Section A: sample characteristics:

Table - 1 Frequency and percentage distribution of sample characteristics:

Characteristics	Category	Frequency (N)	%
Age Group (years)	Below 22	Nil	0
	23 – 25	10	16.6
	26 – 27	31	51.6
	Above 27	19	31.6
Educational status	GNM	12	20
	PC BSc	24	40
	BSc	24	40
Years of experience	Less than one year	Nil	0
	2-4 years	20	33
	4-6 years	24	40
	More than 6 years	16	27
Previous knowledge of the topic	Yes	9	15
	No	51	85

Section B: Structured Questionnaire on Assessment of Knowledge Nursing Informatics

Objective-1: To assess the knowledge regarding nursing informatics among staff nurses

Table -2 Assessing the level of knowledge of staff nurses regarding nursing infomatics

N=60

Level of knowledge	No of Respondents	
	Frequency (No)	Percentage %
Poor (< 34%)	54	90
Average (34-67%)	6	10
Good (>67%)	0	0
Total	**60**	**100**

The above table shows that the level of knowledge of nurses regarding nursing informatics. Table shows that 54 (90%) of nurses had poor knowledge, whereas 6(10%) of nurses had average knowledge regarding nursing informatics.

Table – 3 Overall percentages, mean and standard deviation of knowledge of staff nurses regarding nursing informatics **N=60**

S. No	Level of knowledge	Maximum Statements	Maximum Minimum Scores	Mean	SD	Mean Percentage %
1.	Overall Knowledge	15	0-15	6	2	39.46

The above table shows that the mean and standard deviation of the level of knowledge obtained by nurses regarding nursing informatics. Table shows that the percentage of the staff nurses regarding nursing informatics was 39.46 with overall mean 6 and standard deviation 2.

Section C: This section consists of modified ITASH (Information Technology Attitude Scales for Health) attitude scale

Objective-2: To assess the attitude regarding nursing informatics of staff nurses.

Table -4 Assessing the level of attitude of staff nurses regarding nursing informatics N=60

Level of Attitude	No of Respondents	
	Frequency (No)	Percentage %
Negative attitude (12-24)	32	53
Neutral attitude (25-35)	27	45
Positive attitude (36-48)	1	2
Total	60	100

The above table shows that the level of attitude of staff nurses regarding nursing informatics. The table shows that 32 (53%) of staff nurses had negative attitude, whereas 27(45%) of staff nurses had neutral attitude and 1 (2%) of staff nurses had positive attitude regarding nursing informatics.

Table– 5 Overall percentages, mean and standard deviation of attitude of staff nurses regarding nursing informatics N=60

S. No	Level of Attitude	Maximum Statements	Maximum Minimum Scores	Mean	SD	%
1.	Overall Attitude	12	12-48	24.1	6.3	40.35

The above table shows that the mean and standard deviation of the level of attitude obtained by staff nurses regarding nursing informatics. The table shows that the percentage of the staff nurses regarding nursing informatics was 40.35% with overall mean and standard deviation 6.3.

Objectives 3: To determine the association between knowledge regarding nursing informatics among staff nurses with selected demographic variables

Table– 6: Association between knowledge regarding nursing infromatics with selected demographic variables of staff nurses

Baseline variable	Category	Knowledge score of staff nurses			Chi-square
		Poor (< 34%)	Average (34-67%)	Good (>67%)	
Age	23-25yrs	8	2	0	2.68 Not Significant P<0.05 Df:1
	26-27 yrs.	29	2	0	
	>27 yrs.	17	2	0	
Educational level of the staff nurses	GNM	20	4	0	14.73 Significant P<0.05 Df:2
	PCBSC	23	1	0	
	BSC	11	1	0	
Years of experience	2-4 Yrs.	19	1	0	12.75 Significant P<0.05 Df:2
	5-6 Yrs.	23	1	0	
	> 6 Yrs.	12	4	0	

Table-5 shows the association between knowledge regarding Nursing Informatics among staff nurses with their selected demographical variables, using Chi –square test. The analysis revealed that there is significant association was found with Education and Years of experience at $p < 0.05$ and no association could be found with demographic variables of Age and Gender regarding Nursing Informatics.

CONCLUSION

The use of technology in nursing is not new; in fact nurses have become proficient in utilizing and adapting complex technology into caring nursing practice for decades, since the time of Florence Nightingale in the United Kingdom and even earlier, when Jeanne Mance (1606-1673) founded the first hospital in Montreal, Canada in 1642. Various forms of machinery such as ventilators and physiological monitors were first used in intensive and critical care settings, and are now currently used in adapted form in less acute areas, even in home care. Nursing has evolved significantly over the past few decades, with many of the changes being driven by advances in information and communication technology (ICT).[4]

In landmark nursing informatics research, Staggers and colleagues (2001) formulated four levels of practice competencies for nursing practice and informatics ranging from beginning nurse, experienced nurse, informatics nurse specialist, and informatics innovator.[5]

We believe one way to help decrease healthcare costs is better use of available information technology in proving better patient care. This course provides nurses with some of the basic computer informatics skills required to deliver evidence-based nursing care.[6]

Acknowledgement: The authors are thankful to Medical Superintendent, ESIC Medical College & Model Hospital, Rajajinagar, Bangalore for giving the permission to carry over the study and also extent the thanks to the participants.

Above all I thank God, the Almighty, for all the successes and blessings in my life.

Conflict of Interest : None

Source of Funding: Funded by the primary researcher itself

Ethical Clearance: Obtained from the concerned institution.

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Effectiveness of STP on Oral Health Practices among the Children (6-14 Yrs)

Sudha Gauba

Nursing Tutor, Govt. Nursing Training Institute, Sangrur, Punjab

ABSTRACT

Oral health is an integral component of general health. Good oral health is important to overall well being. An experimental study was conducted to assess the effectiveness of STP on oral health practices among the children (6-14 yrs) in selected schools, Ludhiana. Data was collected from 42 children – 21 in control group and 21 in experimental group of two schools i.e. Ewing Christian Senior Secondary School and Jain Public Senior Secondary School. Data was collected by preparing structured questionnaire to assess knowledge regarding oral health practices and observational checklist to assess practices regarding brushing technique. Data was collected in the month of November, 2009. Findings revealed that structured teaching was effective in raising the knowledge level regarding oral health practices and improving the practice level regarding brushing technique.

Objectives

1. To assess and compare pretest and posttest knowledge on oral health practices among children.
2. To assess and compare pretest and posttest practices on brushing technique among children.

Materials and Method: The study was conducted in two schools of Ludhiana i.e. Ewing Christian Senior Secondary School and Jain Public Senior Secondary School. 42 school children were selected through random sampling technique – 21 in control group from one school and 21 in experimental group from other school. A structured questionnaire was prepared to assess knowledge regarding oral health practices and observational checklist was prepared to assess practices regarding brushing technique.

Results: In both control and experimental group, maximum children had average pretest knowledge (66%) regarding oral health practices and unsatisfactory pretest practices (95% and 100% respectively) regarding brushing technique. But in control group, maximum children had average posttest knowledge (52%) and unsatisfactory posttest practices (95%) whereas in experimental group, majority of children had good posttest knowledge (66%) followed by excellent posttest knowledge (29%) and satisfactory posttest practices (86%).

Conclusion: Structured teaching was effective and helped children in enhancing their knowledge regarding oral health practices and in improving their practices regarding brushing technique.

Keywords: *Effectiveness, Structured teaching programme, Oral health practices, Brushing technique, Children.*

INTRODUCTION

The school age is a period of overall development. During this period child learns to become productive member of peer group. If proper habits are inculcated during this period, it will be helpful for the child's health and also he can practice it throughout his life. Important thing is that during this period only permanent tooth erupts. Good dental hygiene and regular attention to dental caries can be achieved through health education. Children who learn to maintain oral hygiene through use of correct brushing

technique, intake of balanced diet, etc. can become accustomed to it at an early age.[1]

Oral health is an integral component of general health. It has also been found to profoundly influence the quality of life.[2] Oral disease is the fourth most expensive disease to treat.[3] In order to face this ever growing problem of dental caries, WHO in 1994 had selected the theme "Oral Health for Healthy Life". Idea behind this was to make the people aware about various diseases of oral cavity and to educate them in relation to prevention of these diseases.

Good oral health does not mean pretty teeth. Whole mouth needs care to be in good health. The word "oral" refers to mouth which includes teeth, tongue, gums, jawbone and supporting tissues. The Child's Dental Bill of Rights was stated by Blackerby: - "Freedom from pain, freedom from infection, freedom from disfigurement". Oral health can also affect the health of the body.

Oral hygiene is the practice of keeping the mouth and teeth clean in order to prevent dental problems and bad breath. Good oral hygiene results in a mouth that looks and smells healthy. Maintaining good oral hygiene is one of the most important thing people can do for their teeth and gums. The three main steps in maintaining good oral hygiene are tooth brushing, flossing teeth and visiting dentist regularly. Correct technique of brushing teeth is essential for good oral health. Regular tooth brushing is very important in preventing tooth decay and gum diseases. Good oral health is important to overall well being. Levine R (1996)[4] stated that tooth brushing is associated with a significantly reduced risk of caries. Dominguez-rojas V et al (1993)[5] and Verrips GH et al (1993)[6] stated that the more frequent brushing is performed, the less cries children experience.

MATERIALS AND METHOD

The study was conducted in Ewing Christian Senior Secondary School and Jain Public Senior Secondary School, Ludhiana, Punjab. The data collection was carried out from 9th to 21st Nov, 2009. Target population was school children of age 6-14 years. Sample consisted was 42 children – 21 in control group and 21 in experimental group. Control group was taken from Ewing Christian Senior Secondary School and experimental group was taken from Jain Public Senior Secondary School in order to prevent contamination. Systematic random sampling technique was used to select samples. After extensive review of literature, researcher prepared structured questionnaire to assess knowledge regarding oral health practices which consists of 14 items. The possible range of scores varied from 0 (min) to 14 (max). This helped the researcher to categorize the knowledge under 4 levels i.e. excellent knowledge (score > 11), good knowledge (score 9-11), average knowledge (score 6-8) and below average knowledge (score < 6). The researcher also prepared observational checklist to assess practices regarding brushing technique which consists of 10 items. The possible range of scores varied from 0 (min) to 10 (max). This helped the researcher to categorize the practice under 2 levels i.e. satisfactory practice (score $\geq$ 8) and unsatisfactory practice (score < 8). The researcher also prepared STP on oral health practices which include structure and function of teeth, function of gums, reason of dental caries, stages of dental decay, signs and symptoms of dental caries, definition and causes of gum diseases signs and symptoms of gum diseases, preventive measures for maintaining good oral health and correct brushing technique. The reliability of knowledge questionnaire was computed by Split half technique and was calculated by Spearman's Brown Prophecy Formula which was 0.88. The reliability of observational checklist was calculated by inter-rater reliability which was found to be 0.9. So the tool was reliable.

Content validity of the tool was established by seeking the opinion of guide, co-guide and experts from various nursing specialties. Modification in the tool was made according to the suggestions and the guidance. Pilot study was conducted in the month of September, 2009 on 6 subjects.

Analysis and interpretation of data was done by using descriptive and inferential statistics such as Mean, Standard deviation, Chi square, t-test and ANOVA.

RESULTS

TABLE– 1: Frequency and Percentage Distribution of Children According to Level of Knowledge Regarding Oral Health Practices in

Control and Experimental Group

N = 42

Level of Knowledge	Score	Knowledge Score							
		Control Group				Experimental Group			
		Pre test (n = 21)		Post test (n = 21)		Pre test (n = 21)		Post test (n = 21)	
		n	%	n	%	n	%	n	%
Excellent (>80%)	>11	-	-	-	-	-	-	6	29
Good (60-80%)	9-11	4	19	8	38	5	24	14	66
Average (40-60%)	6-8	14	66	11	52	14	66	1	5
Below Average (>40%)	<6	3	15	2	10	2	10	-	-

Table 1 depicts frequency and percentage distribution of children according to level of knowledge regarding oral health practices. In control group, maximum number of children had average pretest and posttest knowledge (66%, 52%) followed by good (19%, 38%) and rest were below average (15%, 10%) respectively.

In experimental group, majority of children had average pretest knowledge (66%) followed by good (24%) and remaining 10% were below average whereas 66% of children had good posttest knowledge score followed by excellent (29%) and remaining 5% were average.

Hence, it is concluded that structured teaching was effective and helped the children to enhance their knowledge regarding oral health practices.

TABLE – 2: Frequency and Percentage Distribution of Children According to Level of Practice Regarding Brushing Technique in Control and Experimental Group

N = 42

Level of Practice	Score	Practice Score							
		Control Group				Experimental Group			
		Pre test (n = 21)		Post test (n = 21)		Pre test (n = 21)		Post test (n = 21)	
		n	%	n	%	n	%	n	%
Satisfactory (≥80%)	≥8	1	5	1	5	-	-	18	86
Unsatisfactory (<80%)	<8	20	95	20	95	21	100	3	14

Table 2 depicts frequency and percentage distribution of children according to level of practice regarding brushing technique. In control group, majority of children had unsatisfactory pretest and posttest practices (95%) followed by satisfactory (5%).

In experimental group, all the children had unsatisfactory pretest practices (100%) whereas 86% children had satisfactory posttest practices followed by unsatisfactory (14%).

Hence, it is concluded that structured teaching was effective and helped the children to improve their practice of brushing technique.

DISCUSSION

Dental caries is still a major health problem affecting 60-90% of school children and the vast majority of adults. Awareness regarding the importance of oral hygiene has significantly increased in the developed countries but contrary to that the modern dietary lifestyle habits are posing a greater risk for oral health. Daily preventive care including proper brushing and flossing will help stop problems before they develop and are much less painful, expensive and worrisome than treating conditions that have been allowed to progress. Various studies have done and found that educational intervention was successful in improving dental health awareness of most children.

The findings of the study revealed that structured teaching was effective in enhancing knowledge regarding oral health practices among children as majority of children had average pretest and posttest knowledge score (66%, 52%) respectively in control group whereas majority of them had average pretest knowledge score (66%) but posttest knowledge score was good (66%) and 29% had excellent posttest knowledge score in experimental group. The findings also revealed that structured teaching was effective in improving practice regarding brushing technique among children as majority of children had unsatisfactory pretest and posttest practice score (100%, 100%) respectively in control group whereas in experimental group majority of them had unsatisfactory pretest practice score (100%) but 86% had satisfactory posttest practice score. These findings are in agreement with the various studies.

Goel P et al (2005)[7] conducted a study to evaluate the effectiveness of Dental Health Programs among school children of different socio-economic groups. 500 children were studied and found that educational intervention was successful in improving the dental health awareness of most children.

Worthington HV et al (2001)[8] conducted a study to assess the effectiveness of dental health education program designed to improve the oral hygiene and dental knowledge of 10 year old children and found that the children receiving the program had significantly lower mean plaque scores and greater knowledge about toothbrushes than the control children who had not received the program.

Russel BA et al (1989)[9] conducted study to assess the effectiveness of school based preventive regimens and oral health knowledge and practices of 6th graders and found that posttest knowledge score of experimental group was significantly higher than that of control group and STP was found to be effective in enhancing knowledge of children.

Shyama M et al (2003)[10] conducted study to assess effectiveness of supervised tooth brushing and oral health education programme in Kuwait for children and young adults with Down syndrome and also found that posttest knowledge score of experimental group was significantly higher than that of control group due to structured teaching programme.

Simmon S et al (1983)[11] conducted a study to assess the effect of oral hygiene instruction on brushing skills in preschool children and found that posttest tooth brushing skills of experimental group was significantly higher than that of control group due to structured teaching programme.

RECOMMENDATIONS

Oral disease such as dental caries, periodontal diseases, tooth loss, oral mucosal lesions, oropharyngeal cancers, oral manifestations of HIV/AIDS, and orodental trauma, is a serious public health problem. Poor oral health can have a profound effect on quality of life. The experience of pain, endurance of dental abscesses, problems with eating and chewing, embarrassment about the shape of teeth and about missing, discoloured or damaged teeth can adversely affect people's daily lives and well being. Good oral hygiene is necessary for the prevention of dental caries, periodontal diseases, bad breath and other dental problems. Correct technique of brushing teeth is essential for good oral health. Hence while trying to improve the status of oral health among school children; nurses should also focus on inculcating good oral hygiene practices among school children and educating them the right technique of tooth brushing.

Source of Funding – Self

Ethical Clearance – Permission was taken from participants. Confidentiality of the participants was

maintained. Written permission was taken from the Principal of Ewing Christian Senior Secondary School, Ludhiana and Jain Public Senior Secondary School, Ludhiana for the collection of data from the participants. Written permission was also taken from Principal, College of Nursing, CMC & H, Ludhiana for the conduction of the study.

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Conflict of Interest: Nil

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Effectiveness of Deep Breathing Exercises vs Incentive Spirometry on Pulmonary Function among Patients with Chronic Airflow Limitation

Nidhi[1], Shilpi Sarkaar[2], EKE Lama Tamang[2]

[1]M Sc Nursing Student, Jamia Hamdard, [2]Tutor, Jamia Hamdard, New Delhi

ABSTRACT

Introduction: A study to evaluate the effectiveness of deep breathing exercises vs. incentive spirometry on pulmonary function among patients with chronic airflow limitation with the primary objectives were to compare the effect of incentive spirometry vs. deep breathing exercises on pulmonary function test in patients with chronic airflow limitation and to seek association between post intervention FEV_1/ FVC% values and selected demographic variables i.e. age, gender, duration of illness, smoking history.

Method: After the ethical clearance from the Institutional Review Board was obtained. The conceptual framework adopted was Dorothea E. Orem's Self- Care Deficit Theory of Nursing. The research approach selected for the study was quantitative approach with "two group post- test only design". Samples were selected by using convenient sampling from among patients with airflow limitation who were taking treatment on COPD basis in Metro group of hospitals, Noida were allocated in the two groups respectively. The exercises practiced by group I was deep breathing exercises and group II practiced incentive spirometry.

Results: The mean post FEV_1 score in group I (2.23) was slightly higher than the mean post FEV_1 score in group I (2.16) with a mean difference of 0.07. The obtained't' value was found to be statistically not significant at 0.05 level of significance. This indicates that both deep breathing exercises and incentive spirometry are equally effective on FEV_1**.** The mean post test FVC values in group I (3.31) was higher than the mean post FVC values in group I (3.19) with a mean difference of 0.12. The obtained't' value was found to be statistically not significant at 0.05 level of significance. This indicates that both deep breathing exercises and incentive spirometry are equally effective on FVC**.** The mean post test FEV_1 /FVC % values in group I (67.867) was slightly higher than the mean post FEV_1/FVC values in group I (67.167) with a mean difference of 0.7. The obtained't' value was found to be statistically not significant at 0.05 level of significance. This indicates that both deep breathing exercises and incentive spirometry are equally effective on FEV_1, FVC and FEV_1/FVC % values**.** There was no significant association between post intervention FEV_1/FVC % values pain score and any selected demographic variables in group II but there was significant association between post intervention FEV_1/FVC % values and age in group I.

Conclusion: Both deep breathing exercises and incentive spirometry are equally effective on PFT in patients with chronic airflow limitation.

Keywords: *Incentive spirometry, chronic airflow limitation.*

INTRODUCTION

Disease conditions affecting lungs can be broadly classified as obstructive lung disease and restrictive lung disease. Shortness of breath and exertion are the two common symptoms which are presented by these two conditions. The most common causes of obstructive lung disease are:

- Chronic obstructive pulmonary disease

(COPD), which includes emphysema and chronic bronchitis

- Asthma[1]: According to WHO estimates, COPD affects 65 million people ranging from moderate to severe forms. COPD corresponds to 5% of deaths globally. Even the high income countries are not spare by this condition and the major data comes from these countries about its prevalence, mortality and morbidity rates.[2] On the other hand the same source (WHO) estimates 235 million people worldwide suffer from asthma. Irrespective of the development of the country it is one of the major concerns in the health sector. The percentage of death caused by asthma is 80% in the underdeveloped and developing countries.[3]Over the time period of 1999-2008. India was positioned 15th in asthma research among the other 23 countries researches.[4]

Need of the Study: India is reeling under a severe burden of chronic respiratory diseases (CRDs). According to the report released by Indian Council of Medical Research asthma is diagnosed in 13 million people aged 15 years and above. 69.8 lakh men suffered from asthma compared to 60.18 lakh women above the age of 15. In India, there is no national programme to address the cause and its prevention. Pollution and tobacco use are the root cause yet it is preventable.[5]

BENEFITS OF DEEP BREATHING EERCISES AND INCENTIVE SPIROMETRY

- Improvement in gas exchange, exercise tolerance and quality of life.[6]

- Reduces dead space ventilation.[7]

Statement of the Problem: A study to evaluate the effectiveness of deep breathing exercises vs. incentive spirometry on pulmonary function among patients with chronic airflow limitation in a selected hospital of NCR.

Objectives

- To compare the effect of incentive spirometry vs. deep breathing exercises on pulmonary function test in patients with chronic airflow limitation.

- To seek association between post intervention FEV_1/ FVC% values in both the groups with selected demographic variables i.e.

  - Age
  - Gender
  - Duration of illness
  - Smoking history

Hypotheses of the study: H_1- There will be significant difference between the post intervention pulmonary function test values in patients undergoing deep breathing exercises and patients undergoing incentive spirometry at 0.05 level of significance.

H_2- There will be significant association between post intervention FEV_1/ FVC% values in group I with selected demographic variables i.e.

- Age
- Gender
- Duration of illness
- Smoking history

H_3- There will be significant association between post intervention FEV_1/ FVC% values in group II with selected demographic variables i.e.

- Age
- Gender
- Duration of illness
- Smoking history

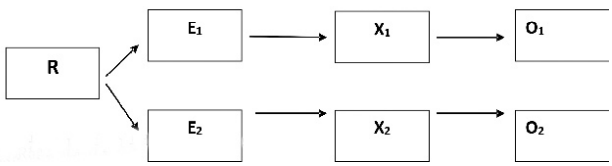
MATERIALS AND METHOD

For the present study, the design selected post test only two group design to measure the effectiveness of DBE and incentive spirometry.

Independent variable: - deep breathing exercises and incentive spirometry.

Dependent variable: - pulmonary function

The design can be represented in **Figure 1**:



R= Randomization of the two groups.

E_1= Group 1

E_2 – Group 2

X_1= is the intervention for group 1; deep breathing exercises. (Pursed lip breathing, Diaphragmatic breathing, Bhastrika pranayama (bellow breathing) , Nadi Shodhan or Anuloma Viloma (Alternate Nostril Breathing), Surya Bhedan (Right Nostril Breathing or Revitalizing Breath)

X_2=is the intervention for group 2; incentive spirometry.

O_1= Observation following the intervention in group 1.

O_2= observation following the intervention in group 2.

Convenience sampling was used to select the samples and then they were randomized in two groups using replacement lottery method.

Development and Selection of Tool

Based on the objectives and the conceptual framework (based on nursing process theory) of the study, the following tools were developed and selected in order to generate data:

1. Subject data sheet

2. Modified Borg scale (to assess the dyspnoea before and after exercise, reliability of the Modified Borg scale was established by inter-rater reliability on 5 subjects. The reliability percentage was found to be 80)

3. Respiratory questionnaire (was prepared to assess the symptoms of subjects in both the groups to ensure homogeneity in terms of their symptoms, Reliability of respiratory questionnaire was done by test- retest method and the reliability was found to be r = 0.89.)

Spirometry to measure lung volumes (The correct functioning must be frequently checked with some form of calibration. Calibration was done by the technician as per the manufacturer's instructions.)

Training on both deep breathing exercises and pranayama was taken for 15 days separately by the researcher. Validation of the procedure was done by experts in the field of yoga and physiotherapy. Inter-rater reliability of deep breathing exercises while the researcher was teaching it to the subjects was established through observation by two experts from yoga and physiotherapy respectively and calculation of percentage of agreement between them. Inter – rater reliability was found 100%.

Section I: Description of Sample Characteristics of the Two Groups.

- 1.1 Findings related to the Demographic characteristics of subjects in group I and group II.
- 1.2 Findings related to symptoms of subjects using respiratory assessment questionnaire in group I and II.

TABLE 1a: Demographic characteristics and their comparability of group I and group II.

Sample Characteristics	Group I n_1 = 30		Group II n_2 = 30		Test applied	Test value	DF	p value
	F	%	F	%				
Age in years								
a. 40- 49 years	10	33.3	06	20	Fisher exact	0.91	2	0.82
b. 50- 59 years	15	50	18	60	Test			
c. ≥ 60 years	5	16.7	06	20				
Gender								
a. Males	12	40	15	50	Chi square	0.55	1	0.45
b. Females	18	60	15	50	test			
Educational qualification								
a. No basic education (illiterate)	01	3.3	01	3.3	Fisher exact	0.25	3	0.35
b. Primary	04	13.3	01	3.3	test			
c. Secondary	14	46.7	12	40				
d. Graduate and above	11	36.7	16	53.4				

TABLE 1a: Demographic characteristics and their comparability of group I and group II. (Cont...)

Occupation									
a.	Homemaker	14	46.7	07	23.3	Fisher exact test	0.67	3	0.56
b.	Private job	09	30	09	30				
c.	Government job	05	16.6	10	33.4				
d.	Others	02	6.7	04	13.3				
Monthly income									
a.	Between Rs. 10,001 – 20,000	01	3.3	-	-	Fisher exact test	0.26	2	0.26
b.	Between Rs 20,001 – 30,000	13	20	17	56.7				
c.	Above Rs 30,000	16	76.7	13	43.3				
Duration of illness									
a.	Less than 5 years	19	63.3	16	53.3	Chi square test	0.11	1	0.73
b.	Between 5 – 10 years	11	36.7	14	46.7				
History of smoking									
a.	Non smoker	20	66.7	18	60	Chi square test	0.00	1	1.00
b.	Smokes presently	-	-	-	-				
c.	Used to smoke	10	33.3	12	4				

Thus, it can be concluded from **Table no. 1a**, that both the groups were homogeneous with respect to the selected demographic variable like age, gender, monthly income, educational qualification, occupation, duration of illness, smoking history.

TABLE 1b: Description regarding homogeneity between the two groups with regards to their symptoms $n=n_1 + n_2 =60$

S. No.	Questions	Group I ($n_{1)}$		Group II ($n_{2)}$		Test applied	Test value	df	p value
		f	%	%	%				
1.	**Troubled by** shortness of breath when hurrying on level ground or walking up a slight hill ?								
	Yes	24	80	19	63.3	Chi square	0.03	1	0.85
	No	06	20	11	36.7				
2.	**Have to stop for breath (take rest) when walking at your own pace on level ground?**								
	Yes	14	46.7	20	66.7	Chi square	0.18	1	0.89
	No	16	53.3	10	33.3				
3.	**Running, do you ever**								
	a. Wheeze?								
	Yes	01	3.3	04	13.3	Fisher exact test	0.00	1	0.13
	No	29	96.7	26	86.7				
	b. Cough?	30	100						
	Yes	-		29	96.7	Fisher exact test	0.00	1	1.00
	No			01	3.3				
	c. Feel tightening in the chest?	15	50	11	36.7	Chi square	2.22	1	0.26
	Yes	15	50	19	63.3				
	No								

TABLE 1b: Description regarding homogeneity between the two groups with regards to their symptoms n=n_1 + n_2 =60

4	**Climbing stairs, do you** ever								
	a. Wheeze?					Fisher exact test.			
	Yes	02	6.7	04	13.3		0.25	1	0.11
	No	28	93.3	26	86.7				
	b. Cough ?					Fisher exact test			
	Yes	30	100	28	93.3		.000	1	0.492
	No	-	-	02	6.7				
	c. Feel tightening in the chest?					Chi square			
	Yes								
	No	22	73.3	18	60		0.85	1	0.77
		08	26.7	12	40				
5.	**Sleep ever broken**								
	a. by wheeze?								
	Yes	02	6.7	01	3.3	Fisher exact test.	1.00	1	0.78
	No	28	93.3	29	96.7				
	b. Shortness of breath?					Chi square			
	Yes	21	70	19	63.3		0.06	1	1.000
	No	09	30	11	36.7				
6.	**Wake up in the morning**								
	a. With wheeze?								
	Yes								
	No	03	10	07	23.3	Fisher exact test	1.00	1	0.31
		27	90	23	76.7				
	b. With shortness of breath?								
	Yes								
	No	22	73.3	26	86.7	Fisher exact test	1.00	1	0.93
		08	26.7	04	13.3				
7.	**Coughs during the day**?								
	Yes	13	43.3	18	56.7	Chi square	0.36	1	0.54
	No	17	56.7	12	43.3				
8.	**Coughs during night?**								
	Yes								
	No	17	56.7	12	40	Chi square	0.74	1	0.78
	13.	13	43.3	18	60				
9.	**Exacerbations of symptoms?**								
	Yes	29	96.7	28	93.3	Fisher exact test	0.71	1	0.54
	No	01	3.3	02	6.7				

In terms of respiratory assessment questionnaire, both the groups were found to be homogeneous as there was no significant relationship with p value significant at 0.05 level.

SECTION II

Findings Related to Comparison of PFT Values Between the Two Groups.

2.1 Determination of the significant difference between the post intervention $FEV_{1,}$ FVC, FEV_1/ FVC % and FEV_1 score in group I and group II.

Table 2: Comparison of PFT values in group I and group II

$n= n_1+n_2=60$

PFT	Mean ± Standard deviation	Mean difference	't' value	p value
FEV_1				
Group I (n_1=30)	2.16 ± 0.37	0.07	0.59	0.55
Group II (n_2=30)	2.23± 0.51			
FVC				
Group I (n_1=30)	3.19 ± 0.55	0.12	0.74	0.45
Group II (n_2=30)	3.31± 0.71			
FEV_1/FVC %				
Group I (n_1=30)	67.86 ± 1.47	0.7	1.53	0.13
Group II (n_2=30)	67.16 ± 2.01			

It can be concluded that both deep breathing exercises and incentive spirometry are equally effective on pulmonary function test.

Section-III:

Findings Related to Association between Outcome findings of pulmonary function test (FEV_{1}/FVC %) in group I and group II with their selected demographic variable.

3.1 Determination of association between the post intervention FEV_1/ FVC% values and their selected demographic variable in group I.

3.2 Determination of association between the post intervention FEV_1/ FVC% values and their selected demographic variable in control group II.

Table 3a: Association between post intervention FEV_1 / FVC % values and the selected demographic variables in group I.

n_1 =30

Variable	Category	f	FEV_1 / FVC % values			
			Mean (SD)	Test applied	Test value	p
Age (years)	30 – 39 40 – 49 50- 59 ≥60	- 10 15 05	- 68.4(1.34) 68.07 (1.09) 66.86	One way Anova	5.07	.013*
Gender	Male Female	12 18	67.3 (1.15) 68.2 (1.59)	't' test	1.66	0.08
Duration of illness (years)	< 5 5 – 10	19 11	67.89 (1.26) 67.8 (1.73)	't' test	1.37	0.14
History of smoking	Non smoker Smokes presently Used to smoke	20 - 10	68.2(1.36) - 67.2 (1.55)	't' test	1.81	0.08

***p value significant at 0.05 level of significance.**

As seen in **Table no. 3a**, in group I, the association of post FEV1/ FVC % values with age was assessed using one way ANOVA and association of FEV1/ FVC % values was assessed using 't' test and found that there was no significant association between post FEV_1/ FVC % values with gender, duration of illness and history of smoking but there was significant association of post FEV1/ FVC % values and age indicating with advancement in age the degree of obstruction in lungs is more

Table 3b: Association between post intervention FEV_1 / FVC % values and the selected demographic variable in group II.

n_2=30

Variable	Category	F	FEV_1%/FVC values			
			Mean (SD)	Test applied	Test value	P
Age (years)	30 – 39 40 – 49 50- 59 ≥60	- 06 17 07	- 67.3(1.73) 67.3 (2.12) 66.6 (2.15)	One way ANOVA	0.38	.687
Gender	Male Female	15 15	67.5 (2.10) 66.8 (1.93)	't' test	0.99	0.32
Duration of illness (years)	< 5 5 – 10	16 14	67.6 (1.90) 66.4 (2.02)	't' test	1.51	0.14
History of smoking	Non smoker Smokes presently Used to smoke	18 - 12	67.3(2.02) - 67 (2.09)	't' test	0.36	0.70

As seen in **Table no. 3b**, in group II there was no significant association between post FEV1/ FVC % values with age, gender, duration of illness and history of smoking.

DISCUSSION

Pulmonary rehabilitation is a corner stone in controlling the symptoms and preventing exacerbations in patients affected with obstructive lung disease. From a societal perspective, the positive effects and improvement in functional capacity are clear, pulmonary rehabilitation renders the patient physically more active and thereby less dependent on care

Implication for nursing practice

- Both the interventions can be taught and practiced by patients with chronic airflow limitation and nurses must be well trained and aware about different breathing exercises and respiratory devices.

Implication for nursing education

- Nursing curriculum needs to cover the complementary and alternative medicine and use of respiratory devices to improve pulmonary functions. Student nurses may be provided with learning experience for use of deep breathing exercises and effective use of incentive spirometry to improve pulmonary functions.

Implications for nursing research

Incentive spirometry was conventionally used only to prevent post operative pulmonary complications but it can be used to improve pulmonary functions in patients with airflow limitation. Future research can be done on patients with severe obstructive lung disease to compare the findings with those of mild and moderate cases.

LIMITATION OF THE STUDY

Sample size was small owing to limited time for data collection, and only one hospital was taken making the generalization difficult.

RECOMMENDATIONS

The study can be replicated on a larger sample to have generalization.

The study could be done for a longer duration.

Further study can be done on restrictive lung diseases.

Effectiveness of different forms of deep breathing exercises on PFT can be evaluated individually.

Conflict of Interest: This paper has not been published in any other journal nor is the author interested to send to any other.

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Whether Maternal Factors are Associated with Childhood Obesity: a Matched Case-Control Study

Saima Sachwani[1], Rozina Karmaliani[2], Shela Akbar Ali Hirani[3], Asif Raza Khowaja[4], Erum Lalwani[1],

[1]Senior Instructor, The Aga Khan University School of Nursing and Midwifery, [2]Professor, [3]Assitant Professor, School of Nursing and Midwifery, [4]Senior Instructor-Reasearch, Department of Pediatrics, The Aga Khan University, Karachi, Pakistan

ABSTRACT

Background: Obesity in childhood has a major impact on health in terms of premature deaths and disabilities worldwide. Evidences from several robust studies has linked maternal obesity has with childhood obesity. Early identification of modifiable risk factors is the key to prevention in this vulnerable group that accounts for 45 percent of the total population in Pakistan.

Objective: The association between childhood obesity, life style factors, and childhood history of breast feeding are mentioned elsewhere. This paper will only address whether maternal factors are related with the obesity in childhood.

Methodology: An age- and sex-matched case–control study conducted from April 2012 to July 2012. Total sample size for the study was 528 school going children, aged 5-14 years of age (132 cases and 396 controls).

Findings: Most of the mothers (64.4%), among the cases, and the controls were between 31-40 years of age. Maternal education was comparatively high for the cases (41%) as compared to the controls (32.1%). The rate of employment among cases and controls was (16.7%), and (13.6%) respectively. 12.9% of mothers among the cases, had positive history for chronic illnesses such as (Hypertension, Diabetes Mellitus, Asthma), and obesity as compared to (7.3%) of mothers among the controls had these diseases. Likewise, a higher percentage more mothers among the cases (5.3%) reported self-perception of obesity, as compared to controls (2.3%).

Conclusion: We found no conclusive evidence of association between maternal risk factors and childhood obesity. In Pakistan, prospective studies are needed to develop understanding of modifiable risk factors to address the fast flowing epidemic by employing population based studies.

Keywords: *Childhood obesity, maternal age, maternal education, maternal weight.*

INTRODUCATION

Globally, 2.8 million deaths annually are caused due to overweight and obesity. Another, 35.8 million DALYs (Disability Adjusted Life Years) are attributed to overweight or obesity[1]. Compelling body of evidences has indicated a link between parental over weight and childhood obesity. Results from a large birth cohort of Toyama, concluded that the risk of childhood obesity doubled for those whose parental BMI was greater than the desired one[2]. Another study, involving mother group in low-income group in Birmingham, Alabama, also suggested that the risk of becoming overweight at even at 5 years of age increases, if a mother was overweight and obese mothers[3]. In addition, several researches have also indicated an association between mother work hours and the obesity in children suggesting promoting role of life style modification in era where more and more mothers work outside of their homes[4].

Corresponding author:
Saima Sachwani,
Senior Instructor, The Aga Khan University School of Nursing And Midwifery, Ph: +92-305 8481964,
Email: saima.sachwani@aku.edu

STUDY PURPOSE

This paper seeks to determine whether is there an association between maternal factors and childhood obesity among school-going children, 5-16 years of age in Karachi, Pakistan.

MATERIAL AND METHODS

A matched case-control study design was used for this study. For each over weight/obese school going child, three age-and sex-matched normal weight children were randomly selected from the same class. To allow for generalizability, this study was employed population based setting of public and private schools of largest and central (Jamshed Town) of Karachi[5]. For this study, children aged 5-16 years of age, who showed willingness to participate through parental consent and assent were recruited. Children on any hormonal treatment, secondary obesity due to endocrinopathy (hypothyroidism) or serious illness, Diabetes Miletus or co-morbid affecting weight were excluded from the study. Both the groups were compared with regard to factors such as maternal age,Level of maternal education, Maternal occupation, History of chronic illnesses (HTN, DM, Asthma) / obesity in mothers, and Mothers' perception of self-obesity. Conditional Logistic Regression was used to analyze these factors.

DATA SOURCES

Data was collected by structured questionnaire and anthropometric measurements (height in cms and weight in kilograms). The study modified and utilized the questionnaire from Control of Blood Pressure and Risk Attenuation (COBRA) study trial in Karachi [6].

ETHICAL CONSIDERATIONS

The study was conducted after the ethical approval from Ethics Review committee of Aga Khan University Karachi, Pakistan. Permission to conduct the study was also taken from school administration / Principle. Parental consent and assent were also sought keep in line with ethical principles.

FINDINGS

A total of 528 children were included as cases and controls in this study. The response rate for cases and controls was 100%. There was no significant difference in the mean age of cases, and controls. There were more female participants in the study as compared to males. However, there were no differences in the comparative groups as they were matched on age, and gender. More participants in the study aged more than 10 years in this study.

Most of the mothers among cases 85 (64.4%), as well as, controls 255 (64.4%) were between 31-40 years of age. Maternal exposure to secular education was found as low as Primary as compared to mothers of cases. Majority of mothers (32.1%) mothers in control group attended up to primary level schooling; whereas, mothers (41%) of cases attended higher level of education i.e. college or university. A small proportion of the mothers among cases 22 (16.7%), and the controls 54 (13.6) were working either at home or outside. A considerably large portion of mothers among the cases 17 (12.9%) had positive history for chronic illnesses such as (Hypertension, Diabetes Mellitus, Asthma), and obesity as compared to 29 (7.3%) mothers among the controls. Likewise, more mothers among the cases 7 (5.3%) reported self-perception of obesity, as compared to controls 9 (2.3%).

UNIVARIATE ANALYSIS

Analysis was carried out on information collected from 132 cases and 396 controls. Only variables with p-value of 0.20 or less, and that are related to maternal covariates are described here. As shown in Table 1, when taking maternal age between 20 to 30 years as reference, maternal age 40 years or more it increased the risk of obesity. Furthermore, maternal education at college or higher also added the odds of being obese. In our study, case were more likely to have mothers with history of chronic illnesses (hypertension, diabetes mellitus, asthma), and obesity as compared to controls. Similarly, maternal self-perception of obesity was also associated with obesity. However, maternal occupation was insignificant at univariate analysis. Therefore, it was not retained in the final model for multivariate analysis.

MULTI-VARIATE ANALYSIS

As shown in table 2, after adjusting for effects of other variables such socio-demographic, and life style practices covariates, history and duration of

(any breast feeding and exclusive breast feeding), the association of maternal factors including maternal age, higher Level of maternal education,history of chronic illnesses, and maternal perception of self-obesity were not associated with childhood obesity.

Table 1.

Variables	**Cases N= 132 n (%)**	**Controls N= 396 n (%)**
Gender		
Male	50 (37.9)	150 (37.9)
Female	82 (62.1)	246 (62.1)
Mean age of all children (S.D)	10.45 (2.6)	10.47 (2.5)
Mean age in respect to age categories		
5 - 10 years	57 (43.2)	170 (42.9)
10 - 14 years	75 (56.8)	226 (57.1)

Table 2. Conditional logistic regression for Maternal Risk Factors of childhood obesity comparing cases and healthy controls aged (5-14) years in Karachi, Pakistan.

Variables	**Cases N= 132 n (%)**	**Controls N= 396 n (%)**	**Unadjusted mOR (95% CI)**	**P-value** (χ^2 test)	**Adjusted mOR (95% CI)**
Maternal Characteristics					
Maternal age categories in years					
20 – 30	17 (12.9)	67 (16.9)	1.0		
31 – 40	85 (64.4)	255 (64.4)	1.40 (0.74-2.64)	0.29	
41 +	30 (22.7)	74 (18.7)	1.73 (0.82-3.64)	0.14*	N.S
Level of maternal education					
None – Primary	34 (25.8)	127 (32.1)	1.0		
Middle – Secondary	44 (33.3)	119 (30.1)	1.5 (0.88-2.59)	0.13*	N.S
College – University	54 (40.9)	150 (37.9)	1.68 (0.86-3.27)	0.12*	
Maternal occupation					
Working mothers	22 (16.7)	54 (13.6)	1.27 (0.73-2.19)	0.38	_
Housewife	110 (83.3)	342 (86.4)	1.0		
History of chronic illnesses (HTN, DM, Asthma) / obesity in mothers					
Yes	17 (12.9)	29 (7.3)	1.85 (0.98-3.48)	0.05*	N.S
No	115 (87.1)	367 (92.7)	1.0		
Mothers' perception of self-obesity					
Yes	7 (5.3)	9 (2.3)	2.33 (0.86-6.26)	0.09*	N.S
No	125 (94.7)	387 (97.7)	1.0		

Table footnote: Adjusted for socio-demographic, maternal, and life style practices covariates, History and duration of (any breast feeding and exclusive breast feeding).

N.S (Not significant in multivariate model), *(P-value <0.2), **(P-value <0.05)

DISCUSSION

The prevalence of overweight and obesity among school going children of our study is in line with the studies conducted nationally and internationally [6,7]. Similarly, a recent study on school going children of 5-12 years of age from public and private schools of Lahore, reported 15% overweight, and 4% obesity in reference to CDC growth charts[8]. Likewise, in a study on primary school children of Iran indicated prevalence of overweight and obesity were 12.3%, and 5.8%, respectively[9]. The results from the our current study showed no significant association between maternal risk factors and childhood obesity. The possible reason could be that in our study, most of the women were younger in age. Moreover, in the local context it is important to understand that the female marry at an early age, and subsequently they have their children in early 20s, and 30s years of age. However, evidences from the large number of studies has related the increased age as the risk factor for obesity in children. However, a study of 277 children 3-10years of mentioned that increased maternal age is directly proportional to offspring height, and inversely proportional to offspring's abdominal fat distribution[10]. In regard to the maternal employment, most of the women (more than 80%) either among case or controls were housewives in our study. Moreover, further studies are also needed to investigate the underlying mechanism that prevails in children in children of both the groups. In the Pakistani scenario, bread earning is still considered the sole responsibility of the male counterpart. Hence, effect of maternal employment could not be understood clearly. Moreover, history of chronic illnesses (HTN, DM, Asthma)/obesity in mothers, and maternal self-perception of obesity was positive for a very small percentage in both the groups, that could have diluted the effect of this risk factors. In addition, our study was not adequately powered to investigate this association. However, our large sample size could not have affected it greatly.

STRENGTHS

The study employed the larger sample size. Differential misclassification bias was reduced by a very stringent enrollment for cases and controls groups. Experienced data collectors were trained to administer structured questionnaire, and to carryout height and weight measurement using standardized equipment and guidelines. For this purpose, rigorous training of data collectors on study purpose and data collection process was done. The matched control study design, and use of conditional logistic regression in the analysis strengthened the rigor of the study.

LIMITATIONS

One of the important limitations of a case-control study design is re-call bias; we reduced this bias by recruiting participants from the young women living in urban part of Pakistan Moreover, we did not have enough power to detect association between maternal risk factors and childhood obesity.

RECOMMENDATIONS

Even though, our study findings do not establish any association between maternal risk factors and childhood obesity. However, further prospective studies must be done to understand this link. As childhood obesity is public health concern, broad based interventions must be carried out to identify as well modify risk factors including the parental obesity, life style practices in the initial critical window of childhood.

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Comparative Efficacy of Heparin Saline and Normal Saline Flush for Maintaining Patency of Peripheral Intravenous Lines: a Randomized Control Trial

Mamta Choudhary[1], Anurag Bhai Patidar[2], Bindu K[2]

[1]Assistant Professor, Institute of Nursing, GTBS Hospital, Ludhiana, [2]Lecturer, College of Nursing, Dayanand Medical College and Hospital, Ludhiana

ABSTRACT

Background and Aims: The purpose of this study was to compare the efficacy of normal saline with heparin saline flush in keeping peripheral intravenous (IV) lines patent among patients admitted in medical and surgical wards of selected hospital.

Subjects and Method: Conveniently recruited 75 patients were equally randomized into 3 groups i.e. Control Group, Normal Saline group and heparin saline group. Normal saline flush (1ml) using SAS technique (Saline flush, Administration of drug, followed by Saline flush) and heparin saline flush (10 units heparin in 1 ml of normal saline) using SASH technique (Saline flush, Administration of drug followed by Saline Flush proceeded by Heparin saline flush) was administered in normal saline and heparin saline group respectively each-time following IV medication administration consecutively for 72 hours; with no intervention in control group.

Results: There was significant difference ($p<0.05$) in duration of patency of IV line between control group (53.84 ± 19.46 hours) and normal saline group (64.44 ± 14.70 hours); and between control group and heparin saline group (66.96 ± 11.70 hours). However, normal saline and heparin saline group had no significant difference in duration of patency of IV line ($p=0.50$).

Conclusion: The study concludes that normal saline is as effective as heparin saline in maintaining patency of IV lines.

Keywords : *Heparin saline flush; Intravenous lines; Normal saline flush; Patency; Phlebitis.*

INTRODUCTION

In rapidly growing number of patients who do not require continuous fluids intravenously, it is desirable to provide an immediately accessible, established intravenous route for intermittent intravenous drugs administration in the form of Peripheral Intravenous Devices. Maintenance of the patency of these indwelling catheters in a peripheral vein is an important concern. Once placed, the peripheral lines may be left in place for days. However, if they become occluded by clotted blood or some other mechanical obstruction then flushing agents cannot clear them. Thus while a person is hospitalized, the nurse need to check the IV site off and on to make sure the catheter remains in the vein. If the IV line is not delivering a continuous solution, the nurse has to flush the catheter routinely to prevent it from clotting.

Maintenance of the patency of indwelling catheters in a peripheral vein is important for minimizing patient's discomfort and the expense associated with replacement. Heparin Flush solutions in low doses i.e.10-100 units of preservative free heparin in 1 ml of preservative free normal saline can be used to flush the I/V lines .On the other hand Saline is compatible with most of the medications

Corresponding author:
Mamta Choudhary
E-mail: mamta24.c @gmail.com
Telephone number: 9803227705

when administered intravenously, less expensive, less irritating to veins and incidence of phlebitis and pain is less.

Heparin sodium used to be the traditionally used medication as anticoagulant in Intravenous catheters in order to prevent clotting, & minimize the incidence of phlebitis[1]. Heparin infusion prolongs the duration of peripherally inserted central venous catheter usability, which permits a higher percentage of therapy completion without increasing adverse effects[2]. Jeannette Robertson (1994)[3] also found heparinized saline solution as a superior flushing agent to normal saline for IV lines in a randomized control trial on one fifty two inpatients between the ages of 2 months and 18 years.

However, although health caregivers believe that small doses of heparin used in flushing of peripheral intravenous lines are harmless, heparin could cause many side effects like hemorrhage, allergic reactions, thrombocytopenia and pain at the injection site. (Hamilton et al, 1988, Walenga and Bick, 1998)[4,5]. Heparin could also have interaction with many other frequently used medications, like acetylsalicylic acid, antihistamines, digoxin etc. So its use premises good knowledge of incompatibility between drugs. (Goode et al, 1991)[6].

Various studies performed all over the world in various racial and ethnic groups to compare the effect of heparin versus saline solution on intermittent infusion device irrigation showed normal saline as better option for flushing IV lines than Heparin saline as it overcomes the hazards of later (Cook L. 2011, Tzortzi MM2008; Mock E 2007;ASHP 2006; Myrianthefs P 2005,Niesen KM 2003;Fatma Demir 2003;John Heilskov M & Kleiber C 1993; **Jerri Shoaf** 1992)[7-15] . However, fewer data is available from India regarding this issue.

The hospital protocols for flushing IV lines vary from the no flushing, use of 0.9% NS solution to the use of 10-100 units of heparin in India. There were lots of differences about maintaining the peripheral IV lines, even in the same hospital. Also, in this current era of economic crisis, cost-effectiveness has become a top priority for healthcare organizations as well as the patients. LeDuc K(1997)[16] in a prospective study to assess efficacy of normal saline solution versus heparin solution for maintaining patency of peripheral intravenous catheters estimated annual savings of nursing time and unit cost of solutions equaling $27,594 in normal saline group. The savings per procedure was estimated at $9.45. Cost saving with the use of Normal Saline Flush as compared to Heparin Saline flush is also reported in few western studies.(Dion Forcier 1998; Carducci B 1994;)[17-18]

There are no universal directives governing the most appropriate form in which to implement it, while maintenance of the patency of these catheters is essential as re-citing a catheter may produce discomfort to patients and increases health care cost.

As balancing the risks and benefits of catheter maintenance techniques is becoming need of the hour, the researcher decided to compare efficacy of heparin versus normal saline to provide patient with cost effective and evidenced based care.

MATERIALS AND METHOD

Setting and Sample: The volunteer adult subjects (N=75) with newly inserted peripheral intravenous lines admitted in medical and surgical wards of selected hospital, and meeting inclusion and exclusion criteria were recruited in this study. Criteria for inclusion in the study included patients having newly inserted peripheral intravenous line of size 22 G and braun brand, inserted by staff nurses, patients receiving IV medicine thrice a day and those who were willing to participate. However patients with coagulopathy, altered coagulation profile, hypertensive disorder, aneurysm, history of hemorrhagic stroke, receiving chemotherapy, steroid therapy, perioperative heparin, anti - coagulants and thrombolytic therapy, with absolute contraindication to heparin and receiving stat ordered IV drugs, Platelet and blood transfusion within 72 hours of IV line insertion were excluded from the study.

Operational Definitions: Patency was defined as free flow of 1ml of normal saline and medication through a peripheral venous catheter and absence of phlebitis.

Phlebitis was defined as the presence of one or more of symptoms like pain, erythema at access site, edema, streak formation, palpable venous cord, and purulent discharge at access site as per infusion

nursing standard of practice, 2011.[21]

DATA COLLECTION PROCEDURE

Written permission was taken from Institutional Ethics Committee of selected Hospital. Permission has also been taken from Medical Superintendent and concerned heads of the department. Written consent was taken from the subjects before starting the study. It was ensured that prescribed treatment of patient was not affected.

Subjects from medical and surgical wards of the institute were selected for the study. None of the flushing technique was being followed in these respective wards. Subjects who agreed to participate in the study and who met inclusion criteria were randomly assigned to control, normal saline and heparin saline group using lottery method with 25 subjects in each group. The time of insertion of peripheral IV lines was noted. In all the three groups' patency was assessed by ability to irrigate the IV lines with 1 ml of normal saline without resistance before administering medicine. In the normal saline group following patency assessment and medication administration, IV lines were flushed with 1 ml of normal saline by using push and pause method and SAS technique. In the heparin saline group, following patency assessment and medication administration IV lines were flushed with 1 ml of normal saline proceeded by 1ml of heparin saline which contains 10 units heparin in 1 ml of normal saline by using push and pause method and SASH technique. No intervention was done following IV medication in the control group. Patency was assessed in all the three groups thrice a day for consecutive 72 hours (3days), every time before administering medicine. If lines were found to be non patent they were removed and time and date of removal along with the reason of removal was mentioned in the observation checklist. Inferential and descriptive statistics were used to analyse the data. (Figure 1)

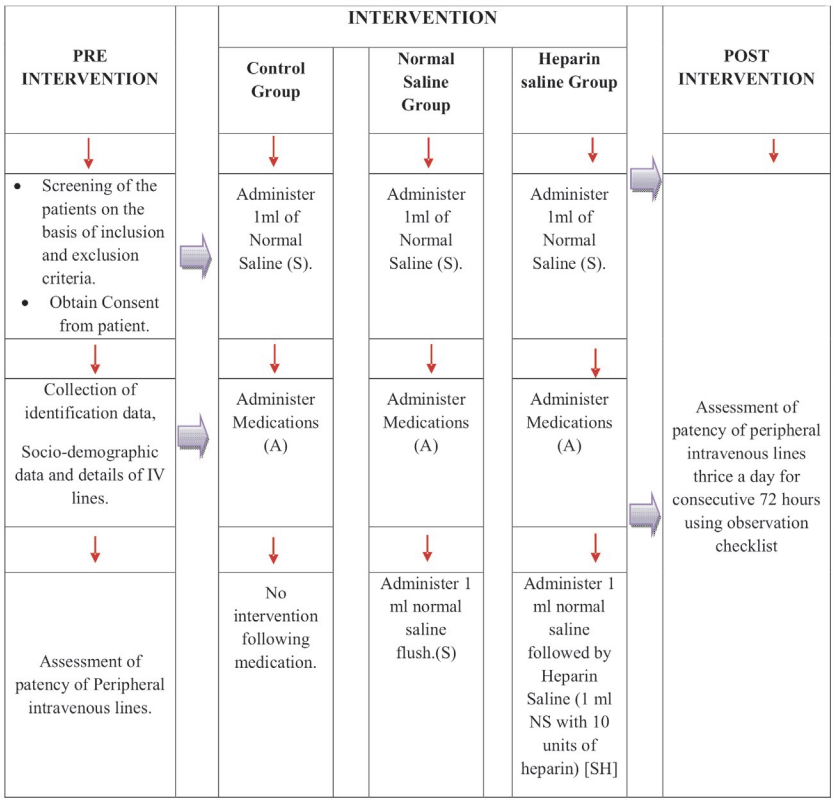
MEASUREMENTS AND VARIABLES

Sociodemographic variables as age, gender, occupation and habitat were included in the study to describe the sample characteristics. Intravenous line variables such as Site of cannulation, Attempt of IV cannulation, Avoidance of previous puncture mark for cannulation, Avoidance of Joint for cannulation, Total amount of IV fluid per day and Type of medication administered were included in the study. An observational checklist to assess the patency of IV lines and reason for removal of IV lines was used.

STATISTICAL ANALYSIS

The data was analyzed using statistical software i.e. SPSS (19). The various statistical measures used for analysis included frequency distribution, measures of central tendency (mean), measures of dispersion (standard deviation) t- test and chi square test was applied to find out the statistical significance.

Figure 1: Algorithm of data collection & intervention



RESULTS

The present study was conducted on subjects with age 18 years or above. Maximum number of subjects

in all three groups i.e. Control Group, Normal saline and Heparin saline group were between age group of 18 – 40 years. All the 75 patients had IV cannula of same brand, of size 22 G and IV cannulation done by nurses.

The study found that there was significant difference ($p < 0.05$) in duration of patency of IV line between control group (53.84 ± 19.46 hours) and normal saline group (64.44 ± 14.70 hours); and between control group and heparin saline group (66.96 ± 11.70 hours). However, normal saline and heparin saline group had no significant difference in duration of patency of IV line ($p = 0.50$). Control group had double the prevalence of phlebitis with 6 (24%) than normal saline (12%) and heparin saline (12%) group ($p = 0.40$).

At the end of 3rd day, significantly more (13) IV lines in control group became non patent as compared to 6 lines in normal saline group (p=0.04), depicting intermittent flushing with normal saline 1ml is effective than no flushing of peripheral IV lines (Table 1).

In the course of time 20 lines remained patent in heparin saline group at the end of 3rd day as compared to just 12 IV lines in control group, which was statistically significant at 0.05 level (p=0.02), signifying flushing of IV lines with heparin saline as an effective measure to keep IV lines patent (Table 2).

Table 1: Comparison of Patency of IV Line in Control and Normal Saline Group

n= 50

Patency of IV lines as per days	**Control Group (n=25)**	**Normal Saline Group (n=25)**	**χ2 statistics**
	f (%)	**f (%)**	
Day 1 Patent Lines Non-Patent Lines	25(100) -----	25(100) -----	N/A
Day 2 Patent Lines Non-Patent Lines	17 (68) 08 (32)	22 (88) 03 (12)	χ^2=2.91 df=1 p = 0.08^{NS}
Day 3 Patent Lines Non-Patent Lines	12 (48) 13 (52)	19 (76) 06 (24)	χ^2= 4.15 df=1 p = 0.04*

* = significant at p < 0.05 NS = Non-significant N/A= Non-applicable

Table 2: Comparison of patency of IV line in Control and Heparin saline group. n= 50

Patency of IV lines as per days	**Control Group (n=25)**	**Heparin Saline Group (n=25)**	**χ2 statistics**
	f (%)	**f (%)**	
Day 1 Patent Lines Non-Patent Lines	25(100) -----	25(100) -----	N/A
Day 2 Patent Lines Non-Patent Lines	17 (68) 08 (32)	24 (96) 01 (04)	χ^2= 6.63 df=1 p = 0.009**
Day 3 Patent Lines Non-Patent Lines	12 (48) 13 (52)	20 (80) 05 (20)	χ^2= 5.55 df=1 p = 0.02*

* = significant at p < 0.05 **=significant at p < 0.01

NS = Non-significant N/A= Non-applicable

However almost equal number of lines became non patent in both the groups at the end of 3rd day with 6 and 5 non patent lines in normal saline and heparin saline groups respectively, indicating no difference in efficacy of normal saline and heparin saline in maintaining patency of peripheral IV lines (Table 3).

Table 3: Comparison of patency of IV lines in Normal saline and Heparin saline group. n= 50

Patency of IV lines as per days	Normal Saline Group (n=25)	Heparin Saline Group (n=25)	$\chi 2$ statistics
	f (%)	f (%)	
Day 1 Patent Lines Non-Patent Lines	25(100) -----	25(100) -----	N/A
Day 2 Patent Lines Non-Patent Lines	22 (88) 03 (12)	24 (96) 01 (04)	$\chi^2 = 1.08$ df=1 p = 0.29^{NS}
Day 3 Patent Lines Non-Patent Lines	19 (76) 06 (24)	20 (80) 05 (20)	$\chi^2 = 0.12$ df=1 p = 0.73 ^{NS}

NS = Non-significant N/A= Non-applicable

Maximum lines (16%) were removed in normal saline group due to resistance in IV lines, followed by pain (12%) and erythema at access site (12%). However, tenderness was present in least (4%) IV lines, in Normal saline group. No IV line flushed with normal saline developed palpable venous Cord and streak formation. On the contrary pain (16%) was the dominating reason for removal of IV lines in heparin saline group, followed by erythema at access site (8%). Furthermore, resistance (4%), edema (4%) and palpable venous cord (4%) were minimum reason for removal of IV lines in the respective group. None of the IV line flushed with heparin saline had streak formation (Figure 2).

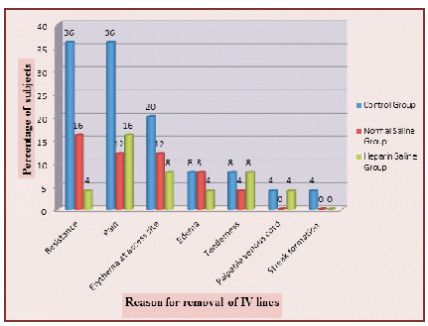


Figure 2: Reason for removal of peripheral IV lines before completion of 72 hours of therapy

CONCLUSION

The study found non-significant difference between duration of patency of IV lines in normal saline and heparin saline group, concluding normal saline as effective as heparin saline flush for maintaining patency of peripheral IV lines. We suggest using saline flush instead of heparin flush to maintain the peripheral intravenous lines. Switching to normal saline will eliminate the risk related to heparin saline such as drug incompatibilities, thrombocytopenia and will be cost effective.

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Conflict of Interest: None

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Effectiveness of Psycho-education on Emotional Maturity of Adolescents

Tajpreet Kaur[1], S K Maheshwari[2], Mamta Bahetra[3], Mandeep Kaur[4]

[1]M.Sc Nursing, [2]Lecturer, University College of Nursing, BFUHS, [3]Assistant Professor, GGSM Hospital, Faridkot, Punjab, [4]Lecturer, University College of Nursing, BFUHS, Faridkot, Punjab

ABSTRACT

Adolescence is the stage where extreme emotions are expressed with the intensity of adulthood but devoid of adult perspective. Literature reports that 55%-63% of adolescents are at low level of emotional maturity. Considering this high prevalence and lack of standard intervention to manage emotional immaturity, this experimental study was done to assess the effectiveness of psycho-education on emotional maturity among emotional immature adolescents. Total 307 eligible adolescents were randomly recruited from eight conveniently selected schools of dist Faridkot, Punjab. Schools were randomly assigned to either experimental or control group. From each school, 10-12 emotional immature adolescents were selected randomly (lottery method). Finally eighty emotional immature subjects completed the study. Emotional maturity scale and socio demographic data sheet was used to collect data. Five sessions of psycho-education were given for five consecutive days to experimental group for one hour each day. The findings revealed that 57% of adolescents were emotionally immature. Psycho education significantly enhanced the emotional maturity at 0.05 level in experimental group. Hence it can be concluded that psycho-education is effective intervention for emotional immaturity. Adolescents should be early identified if they are emotionally immature and can be managed with help of school health nurse in school setting by providing psycho education.

***Keywords**: Emotional immaturity, adolescent, psycho-education.*

INTRODUCTION

Now a day, emotional maturity has attracted the interest of researchers. The word emotional means " of or relating to emotion," "dominated by or prone to emotion," "appealing to or arousing emotion" and "markedly aroused or agitated in feeling or sensibilities". A person is said to be emotionally mature when he feels proper emotion in a proper situation and express it in a proper quantity.[1]

Today, 1.2 billion are adolescents worldwide.[2] Adolescence is the stage where extreme emotions are expressed and experienced with the intensity of adulthood but devoid of adult perspective. At this stage, emotional energy is strong and very difficult for an adolescent to control over their emotions. The sudden functioning of sexual glands and tremendous increase in physical energy makes them restless. Emotions during this stage fluctuate very frequently and quickly. While each area of the brain develops at a different rate during childhood, the onset of puberty marks one of the most sweeping periods of pruning throughout the brain. Several brain areas critical for emotional life is among the slowest to mature. While the sensory areas mature during early childhood, and the limbic system by puberty, the frontal lobes-seat of emotional self- control, understanding, and artful response continue to develop into late adolescence, until somewhere between sixteen and eighteen years of age. It is a crucial time for young people to develop their capacity for empathy, abstract thinking and future time perspective; a time when the close and dependent relationships with parents begin to give way to more intense relationships with peer and other adults.[3]

Corresponding author:
S K Maheshwari,
Lecturer, University college of Nursing, BFUHS, Faridkot, Punjab, Mob: 9356864460
E-mail: skmbfuhs@gmail.com

Individuals classified as having emotional disturbance (or behavioral disorders) represent 8.1% of all students ages 6–21, or 0.72% of the school population. However, prevalence studies have suggested that the actual percentage may be much higher. Boys outnumber girls[2] in this category by about 3.5 to 1. **Resmy jose & Sujatha R (2012)[4]** reported that 46% of adolescent boys were emotionally immature. Similarly **Sharma Bharti (2012)**[5] concluded that 52% of adolescents of first year college students were emotionally immature. **Shobha Nandwan & KushagraJoshi (2010)[6]** found that 55% of the tribal adolescents of age 16-18 years were at poor level of emotional intelligence followed by 35% of subjects in average category.

Lack of emotional maturity may results in frequents fights, aggressive behavior, restlessness, emotional outburst and high impulsivity which may be dangerous for self as well as for others.[7]

Various interventions are available with their limited efficacy to manage emotional maturity such as yoga, counseling and yoga plus counseling, creative group training, lecture, media, storytelling, mentors, group therapy and medical treatment, time management, money management, social and emotional coping skills, assertiveness training, emotional literacy interventions on group involvement, self awareness, stress management techniques, anger management, peer modeling, adult modeling.[8,9,10,11,12]

The term psycho-education comprises systemic, didactic-psychotherapeutic interventions, which are adequate for informing patients and their relatives about the illness and its treatment, facilitating both an understanding and personally responsible handling of the illness and supporting those afflicted in coping with the disorder.[13]

Considering this stage as a crucial stage of emotionality, the investigators felt the need to assess the prevalence of emotional immaturity among adolescents, to develop psycho educational program for emotionally immature adolescents and to assess the effectiveness of psycho-education on emotional immaturity among adolescents.

MATERIAL AND METHOD

The present study was conducted by experimental exploratory research approach with two group pre test post test design at selected schools of district Faridkot. The schools were selected on the basis of availability of adolescents, giving permission to conduct the study and convenience in terms of distance.

After random assignment of schools in experimental and control group, subjects were chosen from a class which was selected by simple random sampling technique (lottery method). Initially 307 adolescents of age 14 to 16 years were screened for emotional maturity and the result stated that 175 adolescents were emotionally immature. From them, 80 subjects were selected randomly by lottery method (40 in experimental group and 40 in control group). Independent variable was psycho education and dependent variable was emotional maturity. Ethical approval for the study was taken from the college and university. Permission from various concerned school was taken before data collection. Written consent was taken from parents and assent was taken from subjects.

TOOLS AND TECHNIQUES

Tool 1: Socio Demographic Sheet

It was developed by researchers which consist of sex items to measure demographic data of the subjects. These variables were Age (date of birth), gender, standard / class, residence, type of family, family income (in rupees per month). Participants were instructed to put a tick mark on appropriate response of each item. Total administration time for this tool was approx. two minutes. Content validity of tool was determined by experts in the field of psychiatry, psychiatric nursing and psychology respectively. Content appropriateness, clarity and relevance were ascertained by language expert. Reliability was done by test – retest method and was 0.9.

Tool no. 2: Emotional Maturity Scale

The emotional maturity scale is a 48 items standardized, self reporting, five point scale developed by Dr. Yashvir Singh and Dr. Mahesh Bhargava[14] and used in present study to measure

emotional maturity among adolescents. All the items are divided under the five categories: a) Emotional stability b) Emotional progression c) Social adjustment d) Personality integration e) Independence. There are 10 items per factor except the fifth factor which has 8 items. Items of the scale are in question form asking information for each in any of the 5 options: Always, Mostly, Uncertain, Usually, Never. The items were scored as 5,4,3,2,1 respectively. Participants were asked to put a tick mark on the appropriate response of each item and total administration time was 15 minutes. The higher the score on the scale, greater the degree of the emotional immaturity and vice versa. Reliability of the scale was determined by test retest reliability which was 0.75 and internal consistency for various factors ranged from .42-.86. Scoring was done as per the manual. The researchers have taken the permission from the author to use this scale.

INTERVENTIONS

After an intensive review of literature and discussions with subject experts in the field of psychiatry, psychiatric nursing and psychology, planned intervention of five sessions of psycho-education i.e. emotional stability, emotional progression, social adjustment, personality integration and independence for five days one hour each day is provided for five consecutive days in experimental group.

Data collection was carried out in two phases:

Phase 1: Selection of schools was done by convenient method (based on permission) and schools were randomly assigned in experimental and control group by lottery method.

Phase 2: From randomly selected class in a school, screening of population was done by emotional maturity scale and from those emotionally immature adolescents subjects were selected by simple random sampling (lottery method) and five sessions of psycho education were provided. On sixth day post test screening was done by emotional maturity scale.

FINDINGS

Table no 1 shows that majority of the adolescents were of age 15 years and were females. About 38% of them were studying in class ninth and tenth and equally distributed in type of family. Except one subject, all were residing in rural area.

Table no.1- Socio demographic characteristics of study subjects N=307

S. No	Characteristics	f	%
1	**Age**		
	a) 14	95	35
	b) 15	118	40
	c) 16	94	25
2	**Gender**		
	a) Male	133	43.3
	b) Female	174	56.7
3	**Standard / class**		
	a) 8	72	23.5
	b) 9	119	38.8
	c) 10	116	37.8
4	**Type of family**		
	a) Joint	158	51.5
	b) Nuclear	149	48.5
5	**Residence**		
	a. Urban	1	0.3
	b. Rural	306	99.7
6	**Family income (in rupees per month)**		
	a) < 5000	146	47.6
	b) 5001 - 10000	110	35.8
	c) 10001 – 20000	34	11.1
	d) 20001 – 30000	13	4.2
	e) > 30001	4	1.3

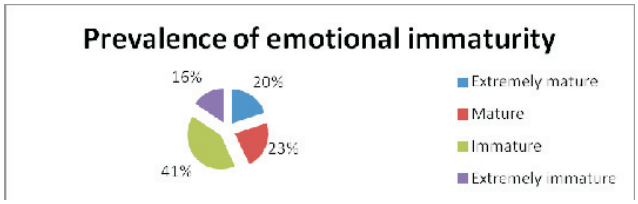

Figure 1: Prevalence of emotional immaturity among adolescents

Figure 1 illustrates that majority (57%) of the adolescents were emotionally immature (41% emotional immature and 16% were extremely emotional immature) and 43% were emotionally mature (23 % mature and 20% extremely emotionally mature)

Table no 2 - Base line comparison of socio demographic of study subjects in experimental and control group. (N=80)

Characteristics	Experimental (n=40)	Control (n=40)	Total (n=80)	Chi square	df	p value
	f (%)	f (%)	f(%)			
Age						
a. 14	9 (11.25%)	17 (21.25)	26 (32.5%)	4.595	2	.101 (NS)
b. 15	19 (47.5%)	11 (27.5%)	30 (37.5%)			
c. 16	13(30%)	11 (27.5%)	24 (30%)			
Gender						
a. Male	21 (52.5%)	12 (30%)	33 (41.25%)	4.178	1	.051 (NS)
b. Female	19 (47.%)	28 (70%)	47 (58.75%)			
Standard/class				26.667	2	.000
a. 8th	0 (0%)	20 (50%)	20 (25%)			
b. 9th	20 (50%)	10 (25%)	30 (37.5%)			
c. 10th	20 (50%)	10 (25%)	30 (37.5%)			
Type of family				2.464	1	.116 (NS)
a. Joint	18 (45%)	25 (62.5%)	43 (53.75%)			
b. Nuclear	22 (55%)	15 (37.5%)	37 (46.25%)			
Residence				1.013	1	.314 (NS)
a. Urban	1 (2.5%)	0 (0%)	1 (1.25%)			
b. Rural	39 (97.5)	40 (100%)	79(98.75%)			
Family income (in rupees per month)				4.536	4	.338 (NS)
a. < 5000	30 (75%)	26 (65%)	56 (70%)			
b. 5001 - 10000	7 (17.5%)	9 (22.5%)	16 (20%)			
c. 10001 – 20000	1 (2.5%)	9 (22.5%)	1 (1.25%)			
d. 20001 – 30000	2 (5%)	0 (0%)	4 (5%)			
e. > 30001	0 (0%)	2 (5%)	3 (3.75%)			

Table no 2 demonstrates that association of socio demographic variables in experimental and control group and it was found that both the groups were same and comparable at base line except the class in which students were studying.

Table no 3: Comparison of emotional maturity after interventions in experimental and control group. (N=80)

	Pre test	Post test	t	df	p value
	Mean+SD	Mean+SD			
Experimental	104.70+10.405	85.60+5.956	16.417	39	.000
control	105.43+12.904	106.03+14.691	-.637	39	.528

The mean difference of emotional maturity score between pre test and post test was 19.100. As per paired t test, there was significant difference (t value 16.417and p value .000) within experimental group at p value <0.05. Hence it can be concluded that there was significant difference in pre test and post test score of emotional maturity score and psycho education seems to be effective in improving emotional maturity.

DISCUSSION

Findings of the present study revealed that 57% subjects were emotionally immature. These findings are supported by **Resmy jose & Sujatha R (2012)**[4] who reported that 46% of adolescent boys were emotionally immature. Similarly **Sharma Bharti (2012)**[5] concluded 52% of adolescents of first year college students were emotionally immature.

Shobha Nandwan & Kushagra Joshi (2010)[6] assessed emotional intelligence of tribal adolescents of age 16-18 years and found 55% of adolescents were at poor level of emotional intelligence followed by 35% of subjects in average category.

Findings of present study revealed that psycho education is effective in improving emotional maturity of adolescents. These findings are supported by **Alan Mc Cluskey(1999)**[15] who highlighted the importance of emotional intelligence to find their way in school curriculum. **Duhan et al. (2009)**[16] assessed effect of intervention on emotional intelligence on 120 children and found significant difference in emotional intelligence score at post test level.

Grobmen (2010)[17] studied psychodynamic psychotherapy approach to the emotional problems of adolescents and found significant difference. Similarly **Ciliska (1998)**[18] gave group psycho-educational intervention on problem solving, assertiveness, self esteem and found significant difference at post level. **Rocco et al. (2001)**[19] given psycho-education interventions for normal development in adolescents and found participants in experimental group reduction in anxiety, bulimic attitudes, feelings of ineffectiveness as compared to adolescents.

IMPLICATIONS AND RECOMMENDATIONS

Psycho education can be implemented in the clinical settings for emotional immature persons. Periodic sessions of psycho-education can be given to students having behavioral and emotional problems in school by school health nurse. Emotions, emotional maturity, emotional intelligence and its components should be included in nursing curriculum, so that sufficient emphasis can be given to emotional problems. Findings of the study will act as a catalyst to carry out more extensive research in a large sample and in other settings and such research work enforces evidence based practice.

Study recommends that psycho education should be given to the emotionally immature adolescents. A longitudinal study may be conducted on large sample to assess the effects of psycho education on emotional immaturity with comparison of the different interventional strategies for emotional immaturity. Psychiatric nurses and school health nurses must be given regular training regarding emotional maturity.

CONCLUSION

Majority (57%) of the adolescents were emotionally immature (41% emotional immature and 16% were extremely emotional immature). Adolescent students studying in schools should be regularly assessed for their emotional maturity. Psycho education is effective in managing emotional immaturity among school adolescents and it can be used in school setting by school health nurse.

LIMITATIONS

Study is limited to selected classes of selected schools of district Faridkot.

Conflict of Interest: None

Source of Funding: Self

Acknowledgement : Nil

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Sexual Harassment towards Nurses in Pakistan: Are we Safe?

Rozina Somani[1], Rozina Karmaliani[2], Judith Mc Farlane[3], Nargis Asad[4] , Saima Hirani[5]

[1]Assistant Professor, The Aga Khan University School of Nursing and Midwifery, [2]Professor, The Aga Khan University, School of Nursing and, Midwifery & Community Health Sciences, [3]Professor and Perry Chair, Texas Women University of Houston, [4]Assistant Professor, Department of Psychiatry, The Aga Khan University, [5]Assistant Professor, The Aga Khan University School of Nursing and Midwifery & PhD Student, University of Alberta, Canada

ABSTRACT

Background: Sexual harassment towards nurses has negative consequences, both for the nurses and for the health care organizations.Female nurses are more at risk for sexual violence because their caring attitude is misperceived by male patients as sexual signals. This study aimed to explore the prevalence of sexual harassment towards nurses.

Method: A descriptive Cross-sectional study was conducted with 458 registered nurses from all the In-patient units and the Emergency departments of two government and two private healthcare settings in Karachi, Pakistan. The data was collected through a tool known as "workplace violence in the health sector country case studies research instrument" (2003).

Results: The study found 10% prevalence of sexual harassment. Sexual harassment was almost the same at both the government and private healthcare settings. The common perpetrators were found to be patients' relatives (47.8%) and the staff members (32.6%). Nurses, who were between 19 and 29 years of age, were mostly the victims ofsexual harassment.

Conclusion: Considering the study findings, it is recommended that acceptable and non-acceptable behaviors for patients and their relatives must be communicated very clearly in the hospitals, so that they may get aware of and practice acceptable behaviors. Moreover, a structured reporting system should be formulated in the private and government health care organizations.

Keywords: *Sexual harassment, Verbal sexual abuse, Physical sexual abuse, Healthcare settings, Nurses.*

BACKGROUND

Sexual harassment at healthcare settings has a devastating impact on individual nurses. It includes offensive and unwanted sexual conducts, such as sexual jokes, showing of sexual body parts, touching body parts of nurses, and showing of sexual materials.[1] Besides the reported cases, there are many unreported cases in which nurses experienced rape, offers for sexual involvement, and actual sexual harassment at the workplace.[2] Findings of various studies on sexual violence in healthcare settings reveal that female nurses are more prone to sexual violence because their gentleness, caring attitude, and compassionate nature is wrongly perceived by male patients as sexual signals.[1,3,4]

A descriptive survey was conducted with 622 nurses working at the Ministry of Health in Turkey; 231 (37.1%) nurses mentioned having experienced sexual harassment during their professional life. [5]A study on the prevalence of workplace violence towards nurses in Hong Kong reveals that out of 420 nurses, 12% nurses reported experiencing sexual

Corresponding author:
Rozina Somani
Senior Instructor, The Aga Khan University School of Nursing and Midwifery
113 Ground Floor, School of Nursing and Midwifery, The Aga Khan University, Hospital, Stadium Road, Karachi, Pakistan, 74800
Email ID: rozina.somani@aku.edu

harassment, while working in healthcare settings.[6] The literature reveals that the frequency of verbal sexual harassment is much higher than that of physical sexual harassment. A study conducted in a public heath care setting of Pakistan identified that 21% nurses had experienced verbal sexual harassment and 16.9% nurses had experienced physical sexual harassment from male physicians, male patients, and male attendants. [7] Similarly, the findings of a study on the types of sexual harassment mention that prevalence of verbal sexual harassment among nurses is 55.7%, whereas physical sexual harassment is 39.1% .[8] The study by Bronner, Peretz, and Ehrenfeld (2003), on sexual harassment of nurses, identified that overall 91% nurses reported experiencing various kinds of sexual harassment at the workplace.[9] It also stated that 78.8% nurses encountered teasing sexual remarks from patients and their relatives, 55.2% nurses were asked by patients to initiate a romantic relationship with them, 48.5% nurses experienced sexual jokes from patients, 45.8% nurses experienced nonsexual and 20.8% nurses experienced sexual touches during the performance of nursing tasks at healthcare settings. These evidences clearly suggest that sexual harassment of nurses is very common in many healthcare settings.

This study aimed to explore the prevalence of physical and psychological workplace violence towards nurses; sexual harassment towards nurses is one of the significant components of workplace violence. Sexual harassment in this study refers to demonstrating an overly friendly behavior, trying to touch the nurse's private body parts, having a sexualized attitude, or asking for involvement in unwanted sexual acts by patients, their relatives, physicians, and other paramedical staff.

METHODOLOGY

A descriptive Cross-sectional study was conducted with 458 registered nurses working in all the In-patient units and the Emergency departments of two government and two private healthcare settings in Karachi, Pakistan. The data was collected with a tool known as "workplace violence in the health sector country case studies research instrument" (2003). In this instrument, the psychological violence has been divided into four components, i.e. verbal abuse, bullying/ mobbing behavior, sexual harassment, and racial harassment. Each of these components has 12 questions within it. This paper includes all the data pertaining to sexual harassment towards nurses. A simple random sampling method was used for the study. Ethical approval was sought from the Aga Khan University's Ethics Review Committee (AKU, ERC). The instrument's content validity was ensured by the experts; it was also pilot tested before the data collection. The data was entered in the Epi info version 3.5.1, and was then transferred to the Statistical Package for social Scientists (SPSS) version 19. Descriptive and inferential analyses were carried out to achieve the purpose of the study.

STUDY FINDINGS

The study reported 10 % (46 nurses out of n= 458) prevalence of sexual harassment, which was the lowest among all other kinds of workplace violence reported in the study. The Chi Square test was run to measure the statistical difference in the prevalence of such behavior in both the settings. Sexual harassment was almost the same at both the government and private healthcare settings.A descriptive analysis was carried out to identify the prevalence of sexual harassment in relation to the demographic and professional characteristics of the study participants.Nurses who fell in age group ranging between 19 and 29 years were mostly the victims ofsexual harassment; the reported prevalence under this age group was(54.4%, n= 25/46). Similarly, female nurses encountered these forms of violence more frequently than did male nurses (89.1% n=41/ 46 female versus 10.9% n=05/46male).Sexual abuse was common in the Medical Surgical units and in the Emergency departmentsas compared to all other in patient units. Data analysis also disclosed that among the total 46 nurses who experienced sexual violence, 95.7% were either nursing interns or staff nurses.Work experience was also analyzed in relation to sexualharassment.Prevalence of sexualharassment was common (50%) in nurses with less than five years of work experience.Similarly, nurses who worked in shift duties reported the highest prevalence of sexual harassment as compared to the nurses who worked in fixed shifts; it ranged from 80% to 85% in nurses who performed shift duties. 93.5% of nurseparticipants had considered the incident of sexual abuse as a typical case of workplace violence.

The analysis related to the perpetrators of workplace violence showed thatsexual harassment towards nurses was most generally exhibited by the patients' relatives (47.8%) and the staff members (32.6%).These findings reported statistical significance in both government and private healthcare settings (for patients' relatives p = 0.003; and for staff members p = 0.005).Findings about actions that the nurses had taken towards the sexual harassment indicate that 69.6% (n= 32/46) nurses had not taken any action or had pretended that the incident had never taken place.The reasons for not reporting the incidents of sexual harassment mentioned by nurses indicate that 58.8% nurses felt ashamed, while 55.9% nurses were afraid of negative consequences because of their reporting of those incidents. There were no significant differences in the nurses' responses at either of the two healthcare settings. The physical and psychological consequences faced by nurses indicate that repeated memories and disturbing thoughts were experienced at moderate to extreme levels by 72% nurses who had experienced sexual harassment. Findings about the support provided by the organization to the nurses, who had experienced sexual harassment, reveal that 67.4% of the nurses who were victims of sexual abuse did not receive any counseling session from management after being victims of sexual harassment.

DISCUSSION

The present study reportedan overall prevalence of sexual abuse as 10%. The reported prevalence of sexual abuse in the government healthcare settings was 11.7 % and in the private settings it was 9%. The findings are relatively low in comparison with international studies, such as in Israel it was 90%, [9]in Turkey 37%, [1] and in Hong Kong 12%.[6] The low prevalence of sexual abuse in the mentioned study as compared to the above mentioned studies may be due to under reporting of findings secondary to various individual and cultural factors. However, the prevalence of sexual abuse in some countries was also found lower as compared to the data found in this study, such as in Thailand (0.7%). In Thailand, the low prevalence of sexual abuse could be because of the better image of nursing, where it is considered a respectable profession. Secondly, it has been mentioned by authors in the article that the hospitals that they had chosen for the study had structured training facilities for nurses to provide quality care to the patients and to prevent violence against them. [3]

It is likely that the mentioned prevalence of sexual abuse found in this study could be because of less favorable image of nurses in thesociety, absence of training for nurses in dealing with violence of all kinds including sexual harassment. Moreover, cultural factors inhibit reporting of such incidents especially by young females. Few more factors could be:lack of security measures taken to prevent sexual harassment, lack of policies towards addressing sexual harassment,and a feeling of discomfort and shame associated with experience of sexual harassment. Some social factors such as media, unfortunately reinforces stereotypical images of nurses in the society.[10] Lastly, the high influx of patients and overcrowding in the healthcare settings may make nurses more vulnerable to sexual abuse.[6] The findings of the current study also reveal that as compared to male nurses, female nurses had reported a higher prevalence of sexual harassment.It has also been observed that in the healthcare settings of Pakistan, nurses are predominantly females, which is why many times they are responsible for providing care to male patients; this may result in sexual harassment towards them.

LIMITATIONS/RECOMMENDATIONS

Under reporting is one of the limitations of this study. Due to the sensitive nature of the topic, nursesmay have feltuncomfortable sharing their incidents which they had encountered.Since this was the first interaction of the primary investigator with the participants,nurses'hesitancy may have influenced the study outcome.

Dealing with sexual harassment towards nurses is one of the challenging tasks for healthcare management.Some evidence based recommendations can make difference such as, the study reveals that a lack of training facilities for nurses to assess and deal with situations of violence contributes towards its high prevalence. The healthcare management needs to allocate a budget to develop structured training facilities and in-service sessionsfor nurses. In addition, it is the social responsibility of the media regulatory bodies to highlight a positive image of nurses in the

society, and the media should report cases of violence towards nurses. That might discourage people from exhibiting harassment towards nurses.Moreover, clear descriptors of acceptable and non acceptable behaviors for patients and their relatives must be explicit in hospital units such as by pasting them on the wallsso that they may get aware of and practice acceptable behaviors. There is need to develop structured reporting systems in the private and government organizations, non-availability of well-structured reporting systemscould be a significant contributing factor for the high prevalence of sexual harassment. Furthermore, counseling must be conducted by qualified clinical psychologists for nurses who are victims of harassment,and nurses must be aware about the availability of the counseling facilities in the organizations.Recently the government approved the "Protection against Harassment of Women at Workplace, Act 2010". However, there is a need to add a separate clause in the act for the protection of nurses at the workplace, and nurses working in the entire healthcare systems mustbe wellaware about this act.

CONCLUSION

This study is probably the first study in Pakistan that explored the prevalence of sexual harassment towards nurses at four major hospitals of Karachi, Pakistan. This study explored that the reported prevalence of sexual harassment was 10%.Young female nurses who work at the patients' bedside in shift duties were more frequent victims of sexual harassment. Organized training mechanisms within the healthcare organizations and structured reporting systems may help to eradicate this social issue.

Conflict of Interest: Nil

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Interpersonal Verbal and Physical Abuse against Female Nurses and Doctors in Karachi, Pakistan

Azmat Jehan Khan[1], Rozina Karmaliani[2], Tazeen Saeed Ali[3]

[1]Senior Instructor, Aga Khan University, School of Nursing and Midwifery, Karachi, Pakistan, [2]Professor, [3]Associated Professor, Aga Khan University, School of Nursing and Midwifery and at the Community Health Sciences (CHS), Karachi, Pakistan

ABSTRACT

Verbal and physical abuse is a global social and criminal issue against women. The aim of the study is to estimate the prevalence of verbal and physical abuse against married female nurses and doctors working in the tertiary care hospitals in Karachi, Pakistan. A descriptive cross-sectional study done with 350 married female nurses and doctors. This study used the self administered modified truncated WHO Multi-Country Study (2005) tool. Descriptive and univariate analysis were performed. The result showed that verbal abuse (97.1%) was the most frequent form followed by physical (59.4%) abuse. The most common responses of verbal and physical abuse are fought back and remain quiet. The main reason for using silence was fear of escalating the violence. This study has identified that verbal and physical abuses are highly prevalent among nurses and doctors

Keywords : *Nurses and doctors, verbal abuse, physical abuse, interpersonal abuse*

INTRODUCTION

Verbal and physical abuse against women is a global, social and criminal issue. Verbal and physical abuses are the common forms of domestic violence. Verbal abuse includes yelling, name calling, blaming, and shaming.[1] It leads to other types such as physical and sexual abuse.[2]

Mostly women consider physical abuse including being kicked, dragged or beaten up, hit with a fist or something else that could hurt, choked or burned on purpose, been threatened with a gun or a knife, or had been attacked with one, slapped, pushed, shoved, or had something thrown at them by their intimate partners at some point in their lives.[3]

In Pakistani culture, there are some professions which are not acceptable due to their negative impression, such as airline hostesses, nursing, and other allied healthcare professions. Nursing is usually considered as a feminine profession[4] and nurses are perceived as powerless and subordinate to the doctors. Furthermore, the image of a nurse portrayed by media at the beginning of 20th century was of a girl Friday, a heroine, and a sex object [5, 6]; largely due to their duty schedule; as being nurses they have to do night duties. In Pakistan the situation is still unchanged and nurses are still not given the status they deserve, because in the Pakistani culture, women are not allowed to work at night or to be away from home for the whole night. As a result, there is a very negative image about nursing and their work and not considered as prestigious profession by society.

On the other hand, lady doctors have a high prestige in Pakistani society because the medical profession is considered as a noble profession imbue with eminence, dignity, high ideals, and ethical values. It is dedicated to save human life and consider as a God profession, who not just heal them, but eventually they ease the pain of dying[7]. Moreover doctors get handsome amount of salary.

In spite of extensive literature search, no study reporting the prevalence of verbal and physical abuse among married female nurses and doctors. Hence the present study explore that due to professionals image difference the prevalence of verbal and physical abuse would be change in Pakistani context.

DATA AND METHOD

A descriptive cross-sectional study was used. The three different sampling techniques, including

purposive sampling, simple random sampling and quota sampling were adopted.

Sample size calculation was done by using Epi info version 16.0. The WHO Multi-country Study (2005) tool was used after modified and truncated. Epi info 3.5.1 was used to enter the data and later transferred to SPSS version 19 for analysis purpose. Descriptive statistics was done and approval was taken from Aga Khan University-Ethical Review Committee and administrative approvals were taken from the heads of the selected hospitals.

RESULT

Flow chart 1 showed the response rate and flow of enrolling the participants for the study initially, 500 nurses and doctors were contacted for the required 400 sample size; among them five refused to participate from the beginning and finally 350 recruited for the study.

The demographic characteristics of 350 participants are about more than half of the participants (n=195, 55.7%) were living in extended family system. The household property index was divided into four categories: lower Socio-economic status (SES), lower middle SES, upper middle SES, and upper SES. Moreover, about half of the participants were between 20-30 years of age. Of the 350 participants, more than eighty percent of the participants had diplomas and undergraduate degrees and more than half of them were nurses. The participants had a mean professional experience of 11.3 (SD) of $\pm$ 8.9%.

In table 1, most of the (n=332, 97.1%) participants reported the exposure to verbal abuse by husbands and in-laws at some point in their married life. The majority of the participants were exposed to anger (88.6%, n=294) and 86.7 % (n=288) participants were exposed to shouting at some point in their married life.

Turning to table 2, those study participants who were exposed to physical abuse, a majority (77.8%; n=158) was exposed to slapping and 67.5% (n=137) something thrown at them which could hurt at some point in their married life.

Table 3 showed that, 96.8% (n=331) participants 'fought back'; against verbal 74.9% (n=256) and physical abuse 53.5% (n=183). About seventy percent (69.3%, n=237) of the participants reported that they 'remain' quiet when faced with verbal and physical abuse; 61.7% (n=212) and 12.9% (n=44) respectively. A few (6.7%, n=23) participants reported that they 'attempted suicide' in response to verbal (1.5%, n=5), and physical abuse (1.2%, n=4). This table also showed the several reasons to used silence against verbal and physical abuse. Overall, two thirds (68.4%, n=234) of the participants kept quiet because of fearing to escalating the violence; verbal 55.7% (n=185) and physical abuse 17.3 % (n=36). 'House chore' was the most common reason for the abuse; verbal 32.2% (n=110) and 7.6% (n=26) physical abuse and husband and mother in-law were the most common perpetrators.

DISCUSSION

A majority (57.7%) of the participants in this study belonged to the upper middle socio-economic class. As majority of the Pakistani population belonged to the upper middle socio-economic class in the urban areas.[8]

In the present study, overall, the most prevalent form was verbal abuse (97.1%, n=332). The current study revealed that verbal abuse was the most common form of violence reported by the nurses and doctors. This is supported by the literature that verbal abuse is the most common form of domestic violence.[9, 10] Even though, nurses and doctors are highly educated, financially independent, and quite competent, but due to their gender and the expectations from them by the Pakistani society they are exposed to violence. The Pakistani society expects a woman to be a 'good woman' who has all kinds of good qualities i.e. she is expected to be unselfish, calm, tolerant, empathetic, reliable, organized, compromising, and to coordinate and maintain hospitality within the house, and has a good relationship with her in-laws. Moreover, she is expected to do all the household chores, care for her children, husband, and in-laws, and support financially when needed. If the woman is not able to fulfill these requirements or does not have these ideal qualities she is labeled as a bad woman and is often prone to violence.[10]

Among verbal abuse showing of anger and

shouting were the most common forms.. National and international studies on married male and married female also support the present study findings and mention higher rates of verbal abuse as the educated people were believed to abuse women verbally instead of physical abuse. [10, 11]

In the present study the physical violence was 59.4% (n=203) it is also supported by the developing countries data include Bangladesh and India which revealed that the prevalence of physical violence was 50.8%, 45% respectively the frequent reasons in these studies were reported that wife inquiring the husband in day-to-day matters, followed by wife failing to fulfill household chores. In the current study also the most common reason was household chores; this indicates that the common reasons for violence are similar among the uneducated women and the nurses and doctors. [11, 12]

This study also reported that verbally fighting back, staying quiet, and sharing with family/friends were the three most common responses to of the participants. These findings are quite consistent with literature, which reports verbally fighting back, staying quiet, and making suicidal attempts were the most common response to violence.[13, 14] Additionally, large number of participants remained quiet because of fear of enhancing the violence, respect for elders/in-laws, similar findings have been reported by previous Pakistani study.[14] However, in the present study the point to ponder was that more than two percent (n=9, 2.7%) of the study participants reported that they attempted suicide in response to verbal and physical abuse. Although only a small percentage of the participants reported attempting suicide, however, considering the criticality of this finding, it was deemed significant. A study in the USA revealed that 8.8% of the female physicians ended up with depression or attempted suicide due to domestic violence.[15]

In the present study, husband and mother in-law were the most common perpetrators of verbal and, physical abuse; these findings are consistent with the national literature. [10]

CONCLUSION

Our study identified that verbal and physical abuse is highly prevalent among female nurses and doctors. In response to violence, nurses and doctors tried to fight back, remained quiet. The reasons for being quiet were: fear of increasing violence and respect of elders/in-laws. House chore was the most frequent reason for abuse and main perpetrators are husband and in-laws. Moreover, the study concluded that women who are educated and professional were confronting verbal and physical abuse to the same extent as those who are uneducated and poor.

Flow Chart 1. Flow of Participants Enrolled in the Study and Response Rate

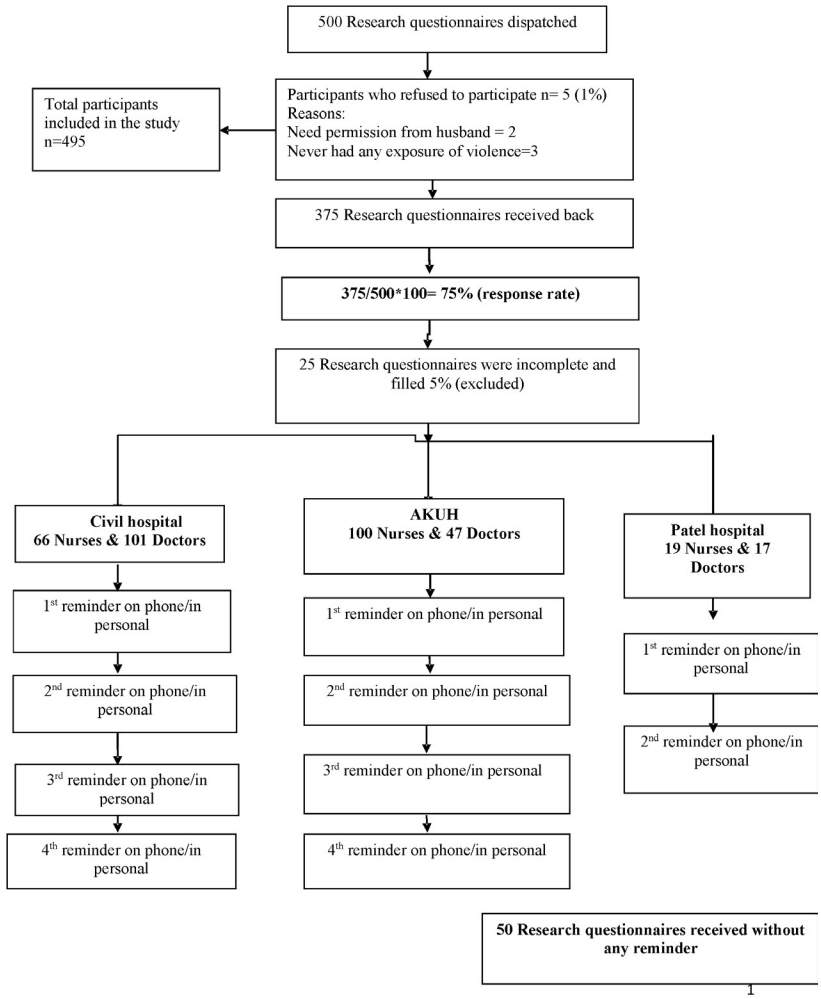

Table 1. Prevalence of Verbal Abuse in the last 3, 6 and 12 months, among Married Female Nurses and Doctors (n=332, 97.1%)

Variables	Ever happened in life 332 (97.1%)	Happened in last 3 months n (%)	Number of times last 3 months			Happened in last 6 months n (%)	Happened in last 12 month n (%)
			1-2	3 -10	More than 10		
Used abusive language	287 (86.4)	200 (60.2)	66 (33)	101 (50.5)	33 (16.5)	258 (77.7)	271 (81.6)
Teased (taunted)	275 (82.8)	192(57.8)	39 (20.3)	114 (59.4)	39 (20.3)	254 (76.5)	259 (78.0)
Threatened to remarry	112 (33.7)	7 (2.1)	2 (28.6)	5 (71.4)	0 (0)	44 (13.3)	95 (28.6)
Threatened to harm physically	90 (27.1)	14 (4.2)	9 (64.3)	4 (28.6)	1 (7.1)	41 (12.3)	75 (22.6)
Scolding	270 (81.3)	214 (64.5)	59 (27.6)	124 (57.9)	31 (14.5)	249 (75.0)	255 (76.8)
Anger	294 (88.6)	238 (71.7)	66 (27.7)	111 (46.6)	61 (25.6)	269 (81.0)	279 (84.0)
Shouting	288 (86.7)	231 (69.6)	95 (41.1)	101 (43.7)	35 (15.2)	255 (76.8)	269 (81.0)
Insulted or made you feel bad about yourself	249 (75.0)	154 (46.4)	42 (27.3)	87 (56.5)	25 (16.2)	203 (61.1)	231 (69.6)
Belittled or humiliated	215 (64.8)	62 (18.7)	19 (30.6)	36 (58.1)	7 (11.3)	135 (40.7)	194 (58.4)
Threatened to use loved ones (threatened with respect to kids or parents)	63 (19.0)	10 (3.0)	6 (60)	4 (40)	0 (0)	19 (5.7)	51 (15.4)
Ever used silence (stopped talking)	276 (83.1)	210(63.3)	118(56.2)	(40)	8 (3.8)	225 (67.8)	242 (72.9)

Table 1. Prevalence of Verbal Abuse in the last 3, 6 and 12 months, among Married Female Nurses and Doctors (n=332, 97.1%)

The percentages do not add up to 100, due to multiple responses possible

Table 2. Prevalence of Physical Abuse in the last 3, 6 and 12 months, among Married Female Nurses and Doctors (n=203, 59.4%)

Variables	Ever happened in life 203 (59.4%)	Happened in last 3 months n (%)	Number of times			Happened in last 6 months n (%)	Happened in last 12 month n (%)
			1-2	3 -10	More than 10		
Slapped	158 (77.8)	6 (3.0)	5 (83.3)	1 (16.7)	0 (0)	57 (28.1)	147 (72.4)
Threw something that could hurt	137 (67.5)	8 (3.9)	6 (75)	2 (25)	0 (0)	47 (23.2)	118 (58.1)
Pushed	86 (42.4)	4 (2.0)	4 (100)	0 (0)	0 (0)	40 (19.7)	82 (40.4)
Pulled hair	35(17.2)	5 (2.5)	5 (100)	0 (0)	0 (0)	13 (6.4)	24 (11.8)
Hit with fists/with something else that could hurt	27 (13.3)	3 (1.5)	3 (100)	0 (0)	0 (0)	8 (3.9)	21 (10.3)
Kicked	27 (13.3)	3 (1.5)	3 (100)	0 (0)	0 (0)	5 (2.5)	23 (11.3)
Dragged	87 (42.9)	3 (1.5)	3 (100)	0 (0)	0 (0)	20 (9.9)	74 (36.5)
Beaten up	67 (33.0)	4 (2.0)	4 (100)	0 (0)	0 (0)	22 (10.8)	58 (28.6)
Choked	19 (9.4)	2 (1.0)	2 (100)	0 (0)	0 (0)	6 (3.0)	13 (6.4)
Burnt on purpose	7 (3.4)	1 (0.5)	1 (100)	0 (0)	0 (0)	1 (0.5)	5 (2.5)

The percentages do not add up to 100, due to multiple responses possible

Table 3. Descriptive Analysis of How Participants Responded to Verbal and Physical abuse

Variables	Over all (n=342, 97.7%)	Verbal Abuse (n=332, 97.1%)	Physical Abuse (n=203, 59.4%)
Verbally fought back	331(96.8)	256 (74.9)	183 (53.5)
Kept quiet	237 (69.3)	212 (61.7)	44 (12.9)
Talked to husband, family/friends	170 (49.7)	70 (20.5)	24 (7.0)
Returned to parents	76 (22.2)	41 (12.0)	15 (4.4)
Attempted suicide	23 (6.7)	5 (1.5)	4 (1.2)
Took legal action	8 (2.3)	6 (1.8)	3 (0.9)
Did nothing	7 (2)	0 (0)	1 (0.3)
Reasons Why Participants Kept Quiet			
Fear of escalating violence	234 (68.4)	185 (55.7)	36 (17.3)
Respect for elders/in-laws	103 (30.1)	86 (25.9)	6 (3)
No one to confide in	7 (2)	6 (1.8)	0 (0)
Husband will leave/ make her leave	36 (10.5)	24 (7.2)	4 (2)
Won't make a difference/Helplessness	151 (44.5)	105 (31.6)	22 (10.8)
For the sake of children	78 (22.8)	39 (11.7)	22 (10.8)
Hope abuse will stop	7 (2)	4 (1.2)	2 (1)
Husband's right	11(3.2)	4 (1.2)	1 (0.5)
Self-respect	71 (20.8)	35 (10.5)	5 (2.5)
Self-blame	30 (8.8)	7 (2.1)	6 (3)
Others will blame you	25 (7.3)	2 (0.6)	0 (0)
Husband's illness	1 (0.3)	0 (0)	1 (0.5)

The percentages do not add up to 100, due to multiple responses possible

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