

ISSN-0974-9349 (Print) • ISSN-0974-9357 (Electronic)

Volume 11

Number 4

October-December 2019

International Journal of Nursing Education



www.ijone.org

International Journal of Nursing Education

Editor-in-Chief

Amarjeet Kaur Sandhu

Principal & Professor, Ambika College of Nursing, Mohali, Punjab

E-mail: editor.ijone@gmail.com

INTERNATIONAL EDITORIAL ADVISORY BOARD

1. **Dr. Arnel Banaga Salgado** (*Asst. Professor*)
Psychology and Psychiatric Nursing, Center for Educational Development and Research (CEDAR) member, Coordinator, RAKCON Student Affairs Committee, RAK Medical and Health Sciences University, Ras Al Khaimah, United Arab Emirates
2. **Elissa Ladd** (*Associate Professor*)
MGH Institute of Health Professions Boston, USA
3. **Roymons H. Simamora** (*Vice Dean Academic*)
Jember University Nursing School, PSIK Universitas Jember, Jalan Kalimantan No 37. Jember, Jawa Timur, Indonesia
4. **Saleema Allana** (*Assistant Professor*)
AKUSONAM, The Aga Khan University, School of Nursing and Midwifery, Stadium Road, Karachi Pakistan
5. **Ms. Priyalatha** (*Senior lecturer*) RAK Medical & Health Sciences University, Ras Al Khaimah, UAE
6. **Mrs. Olonisakin Bolatito Toyin** (*Senior Nurse Tutor*)
School of Nursing, University College Hospital, Ibadan, Oyo State, Nigeria
7. **Mr. Fatona Emmanuel Adedayo** (*Nurse Tutor*)
School of Nursing, Sacred Heart Hospital, Lantoro, Abeokuta, Ogun State, Nigeria
8. **Prof Budi Anna Keliat**, Department of Mental Health Nursing University of Indonesia
9. **Dr. Abeer Eswi** (*Associate Prof and Head of Maternal and Newborn Health Nursing*) Faculty of Nursing, Cairo University, Egypt
10. **Jayasree R** (*Senior Teacher, Instructor H*)
Salalah Nursing Institute, Oman
11. **Dr. Khurshid Zulfiqar Ali Khowaja**
Associate Professor, Aga Khan University School of Nursing, Karachi, Pakistan
12. **Mrs. Ashalata Devi** (*Assist. Prof.*)
MCOMS (Nursing Programme), Pokhara, Nepal
13. **Sedigheh Iranmanesh** (*PhD*)
Razi Faculty of Nursing and Midwifery, Kerman Medical University, Kerman, Iran
14. **Billie M. Severtsen** (*PhD, Associate Professor*) Washington State University College of Nursing, USA International Journal of Nursing Education
15. **Dr Nahla Shaaban Khalil** (*Assist Professor*)
Critical Care and Emergency Nursing, Faculty of Nursing Cairo University

NATIONAL EDITORIAL ADVISORY BOARD

1. **Dr. G. Radhakrishnan** (*PhD, Principal*)
PD Bharatesh College of Nursing, Halaga, Belgaum, Karnataka, India-590003
2. **Dr Manju Vatsa** (*Principal, College of Nursing*)
AIIMS, New Delhi.
3. **Dr Sandhya Gupta** (*Lecturer*) College of Nursing, AIIMS, New Delhi

NATIONAL EDITORIAL ADVISORY BOARD

4. **Fatima D'Silva** (*Principal*)
Nitte Usha Institute of nursing sciences, Karnataka
5. **G.Malarvizhi Ravichandran**
PSG College of Nursing, Coimbatore, Tamil Nadu
6. **S. Baby** (*Professor*) (PSG College of Nursing, Coimbatore, Tamil Nadu, Ministry of Health, New Delhi)
7. **Dr. Elsa Sanatombi Devi** (*Professor and Head*)
Meidcal Surgical Nursing, Manipal Collge of nursing, Manipal
8. **Dr. Baljit Kaur** (*Prof. and Principal*)
Kular College of Nursing, Ludhiana, Punjab
9. **Mrs. Josephine Jacqueline Mary.N.I** (*Professor Cum Principal*) Si-Met College of Nursing, Udma, Kerala
10. **Dr. Sukhpal Kaur** (*Lecturer*) National Institute of Nursing Education, PGIMER, Chandigarh
11. **Dr. L. Eilean Victoria** (*Professor*) Dept. of Medical Surgical Nursing at Sri Ramachandra College of Nursing, Chennai, Tamil Nadu
12. **Dr. Mary Mathews N** (*Professor and Principal*)
Mahatma Gandhi Mission College of Nursing, Kamothe, Navi Mumbai, PIN-410209, Cell No.: 09821294166
13. **Dr. Mala Thayumanavan** (*Dean*)
Manipal College of Nursing, Bangalore
14. **Dr. Ratna Prakash** (*Professor*) Himalayan College of Nursing, HIHT University, Dehradun, Uttarakhand
15. **Pramilaa R** (*Professor and Principal*)
Josco College of Nursing, Bangalore
16. **Babu D** (*Associate Professor/HOD*)
Yenepoya Nursing College, Yenepoya University, Mangalore
17. **Dr. Theresa Leonilda Mendonca** (*Professor and Vice Principal*) Laxmi Memorial college of Nursing, A. J. Towers, Balmatta, Mangalore, Karnataka
18. **Madhavi Verma** (*Professor*) Amity College of Nursing, Amity University Haryana
19. **Latha Srikanth** (*Vice Principal*)
Indirani College of Nursing, Ariyur, Puducherry
20. **Rupa Verma** (*Principal*)
MKSSS College of Nursing for Women, Nagpur
21. **Sangeeta N. Kharde** (*Professor*) Dept. of OBG Nursing KLES's Institute of Nursing Sciences, Belgaum
22. **Dr. Suresh K. Sharma** (*Professor*)
(*Nursing*) College of Nursing, All India Institute of Medical Sciences, Rishikesh (UK) 249201
23. **Sudha Annasaheb Raddi** (*Principal & Professor*)
Dept of OBG Nursing, KLEU's Institute of Nursing Sciences, Belgaum
24. **Rental Sreevani** (*Professor & HOD*)
Dept. of Psychiatric Nursing, Sri. Devaraj Urs College of Nursing, Kolar, Karnataka
25. **Accamma Oommen** (*Associate Professor and Head*)
Department, Child Health Nursing, Sree Gokulam Nursing College, Trivandrum, Kerala, India
26. **Shinde Mahadeo Bhimrao** (*Professor*)
Krishna Institute Of Nursing Sciences Karad Tal-Karad Dist Satara Maharashtra State

International Journal of Nursing Education

NATIONAL EDITORIAL ADVISORY BOARD

27. **Dr. Judith A Noronha** (*Professor and HOD*)
Department of Obstetrics and Gynaecological Nursing,
Manipal University
28. **Prof. Balasubramanian N** (*Head*)
Psychiatric Nursing, Shree Devi College of Nursing,
Mangalore
29. **Mrs. Harmeet Kaur** (*Principal*) Chitkara School of Health
Sciences, Chitkara University, Punjab.
30. **Mrs. Chinnadevi M** (*Principal*) Kamakshi Institute of Nursing,
Bassa wazira, Bhugnara Post, The Nurpur, Dist Kangra, HP,
31. **Dr. Linu Sara George** (*Professor and Head*)
Department of Fundamentals of Nursing, Manipal College of
Nursing Manipal
32. **Juliet Sylvia** (*Professor and H.O.D*)
Community Health Nursing, Sacred Heart Nursing College,
Madurai
33. **Dr. (Prof.) Raja A** (*Professor & HOD*)
Department of Medical Surgical Nursing, Sahyadri College of
Nursing, Mangalore-575007
34. **Beena Chako** (*Professor*)
PSG College of Nursing, Coimbatore. Tamil Nadu 35.
35. **Anitha C Rao**, Professor and Principal, Canara College of
Nursing, Kundapur, Karnataka
36. **Dr. N.Gayathripriya** (*Professor*) Obstetrics and
Gynaecological Nursing, Sri Ramachandra
University, Chennai
37. **Vijayaraddi B Vandali**, *Principal*
Surendera Nursing Training Institute,
Sri Ganganagar, Rajasthan
38. **T Siva Jeya Anand**, *Vice Principal*, Chitra College of
Nursing, Pandalam, Pathanamthitta Dist, Kerala
39. **Anil Sharma**, *Principal*, Manikaka Topawala Institute of
Nursing CHARUSAT-Changa
40. **Vasudevan N.J**, *Associate Professor*, Chitra College of
Nursing, M.C Road, Pandalam. Pathanamthitta District,
Kerala
41. **Col. Jayalakshmi Namasivayam Pillai**, *Principal & Director*
Symbiosis College of Nursing Pune, Maharashtra
42. **Mrs Ashia Qureshi**, *Dean Cum Principal* Prakash Institute
of Nursing, Physiotherapy and Rehabilitation & Allied Medical
Sciences
43. **Sonopant Joshi**, *Professor & HOD - Research & Statistics*
Symbiosis College of Nursing Pune (Maharashtra) India
44. **Prof. Dr. Parimala K. Samuel**, *Principal*, Chitra College of
Nursing, Chitra Institute of Medical Sciences and Research
Center, Pandalam, Kerala
45. **Ravindra HN**, *Principal*, Sumandeep Nursing College,
Vadodara, Gujarat
46. **Sateesh Basanagouda Biradar**, *Vice-principal*, Maniba
Bhula Nursing College, Uka Tarsadia University, Bardoli,
Surat, Gujarat

International Journal of Nursing Education is an international peer reviewed journal. It publishes articles related to nursing and midwifery. The purpose of the journal is to bring advancement in nursing education. The journal publishes articles related to specialities of nursing education, care and practice. The journal has been assigned international standard serial numbers 0974-9349 (print) and 0974-9357 (electronic). The journal is covered by Index Copernicus, Poland and is included in many international databases. We have pleasure to inform you that IJONE is a double blind peer reviewed indexed international journal and is now covered by EMBASE (Scopus), Indian citation index, GOOGLE SCHOLAR, INDEX COPERNICUS (POLAND), EBSCOHOST (USA), and many other international databases.

© All Rights reserved The views and opinions expressed are of the authors and not of the International Journal of Nursing Education. The Journal does not guarantee directly or indirectly the quality or efficacy of any products or service featured in the advertisement in the journal, which are purely commercial.

SCIENTIFIC COMMITTEE

1. **Padmavathi Nagarajan** (*Lecturer*)
College of Nursing, JIPMER, Puducherry
2. **Mrs. Rosamma Tomy** (*Associate Professor*)
MGM College of Nursing, Kamothe, Navi Mumbai
3. **T. Sivabalan** (*Associate Professor*)
Pravara Institute of Medical Sciences (DU), College of
Nursing, Loni, Maharashtra
4. **Ms Daisy J Lobo** (*Associate Professor*) MCON, Manipal,
Karnataka
5. **Sanjay Gupta** (*Assistant Professor*)
M.M. College of Nursing, Mullana (Haryana)
6. **Prashanth PV** (*Nursing Supervisor*) M.O.S.C Medical
College Hospital, Kerala
7. **V. Sathish** (*Academic Officer*) Allied Health Sciences,
National Institute of Open Schooling, Ministry of Human
Resource, Development, Government of India
8. **Dr. Suman Bala Sharma** (*Associate Professor*)
Govt. Medical College and Hospital (GMCH)
9. **Smriti Arora** (*Assistant Professor*)
Rufaida College of Nursing, Faculty of Nursing, Hamdard
University, New Delhi-110062
10. **Rajesh Kumar** (*Asst. Professor*)
SGRD CON(SGRDISMR), Vallah Amritsar Punjab
11. **Baskaran. M** (*Assistant Professor*)
PSG College of Nursing, Coimbatore, Tamil Nadu,
12. **Mr. Kishanth** (*Olive. Sister Tutor*)
Department of Psychiatric Nursing, College of Nursing,
JIPMER, Pondicherry - 06
13. **Mr. Mahendra Kumar** (*Associate Professor*)
Savitribai Phule College of Nursing, Kolhapur
14. **Bivin Jose** (*Lecturer*) Psychiatric Nursing, Mar Baselios
college of Nursing, Kothamangalam, Kerala
15. **Poonam Sharma** (*Assistant Professor*), INE, Guru Teg
Bahadur Sahib (C) Hospital, Ludhiana, Punjab
16. **Kapil Sharma** (*Associate Professor*), INE, G.T.B.S.(C)
Hospital, Ludhiana (Punjab)
17. **Simer Preet Kaur** (*Lecturer*), U.P R.I.M.S N R,
Saifai, Nursing College
18. **Mr. Vineeth Joseph**, Asst. Professor, St. Thomas College of
Nursing, Chethipuzha, Chengannasherry
19. **Dr. Sameer Babu M**, Assistant Professor, Central University
of Rajasthan India.
20. **Anjali Kaushik**, Faculty, Dept of Pediatric Nursing Rufaida
College of Nursing Jamia Hamdard

Print-ISSN: 0974-9349, Electronic - ISSN: 0974-9357,
Frequency: Quarterly (Four issues in a year)
www.ijone.org

Editor

Dr. R.K. Sharma
Institute of Medico-legal Publications
Logix Office Tower, Unit No. 1704, Logix City Centre Mall,
Sector- 32, Noida - 201 301 (Uttar Pradesh)

Printed, published and owned by

Dr. R.K. Sharma
Institute of Medico-legal Publications
Logix Office Tower, Unit No. 1704, Logix City Centre Mall,
Sector- 32, Noida - 201 301 (Uttar Pradesh)

Published at

Institute of Medico-legal Publications
Logix Office Tower, Unit No. 1704, Logix City Centre Mall,
Sector- 32, Noida - 201 301 (Uttar Pradesh)



Contents

Volume 11, Number 4

October-December 2019

1. A Study to Assess the Level of Anxiety and Coping Strategies Regarding Pubertal Changes among Pre Adolescent Girls in Selected Schools of Tiupati.....1
A. Leelavathi, A. Padmaja
2. A Study to Assess the Prevalence of Malnutrition & its Association with Dental Caries among Pre-schoolers at Selected Anganwadies of Vadodara City5
Aadil I Kadiwala, Varsha Hun, Ekta Patel
3. Assessment of Anthropometric Measures and Prediction of Obesity among Selected Nursing College Students9
Abirami. P, Silambu Selvi, Jayabharathi. B, C. Kanniammal
4. The Effects of Music Therapy Intervention on the Pain and Anxiety Levels of Cancer Patient: A Systematic Review14
Adi Try Wurjatmiko
5. A Study to Assess the Effectiveness of Structured Teaching Programme on Infant and Young Child Feeding (IYCF) Practices among Mothers at Paediatric Wards of S.V.R.R.G.G. Hospital, Tirupati.....19
P. Anil Kumar, A. Padmaja
6. A True Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding III – Effects of Alcohol Consumption among Adolescents in Selected Senior Secondary School at Panipat Haryana.....24
Anju, Sathish Rajamani
7. A Study to Assess the Knowledge on Protein Energy Malnutrition among Mothers of Under Five Children in Selected Areas at Kanchipuram District, Tamil Nadu29
Asha M., Jessily Elsa George, Nithya S., Priya T., Sandhiya Priya P., Suvitha M., N. Thivya
8. A Study to Assess the Knowledge of Primigravida Mothers Regarding Exclusive Breastfeeding in Selected Hospital at Guntur District, Andhra Pradesh31
Bathina Amarendra, Indira vemuri, Joseph Mary Meena
9. A Study to Assess the Knowledge on Menstrual Hygiene among Adolescent Girls in Selected Schools, Mangalagiri, Guntur District, Andhra Pradesh.....35
D. Bhanu Priya, Aleti Kumari, Joseph Mary Meena
10. Effectiveness of Health Awareness Programme on Knowledge Regarding Cervical Cancer and Human Papilloma Vaccine among Adolescent’s Girls at Waghodia Taluka.....39
Bhavna Baria, Vruti C. Patel, Robby Solamki

II

11. Effectiveness of Hoffman Exercise on Breastfeeding among Primipara Mothers with Flat and Retracted Nipple: A Narrative Review44
Debalina Ghosh, Anupam Singh
12. A Descriptive Study to Assess the Knowledge Regarding Tuberculosis among Males Aged between 20-50 Years in Selected Rural Areas of Moradabad, Uttar Pradesh: A Original Study.....46
Debalina Ghosh
13. National Skills Training Centre– “Daksh”- An Evaluative Study to Assess the Effectiveness of Training in terms of Knowledge Retention and Expressed Practice, among Participants from Delhi State, India50
Gulista Saifi, Manju Chhugani, Merlin Mary James
14. Prevalence of Superstitions in Indian Society in 21st Century.....56
Gurleen Kaur Sethi, Navreet Kaur Saini
15. A Study to Assess the Effectiveness of Child to Child Approach on Knowledge and Practices Regarding Hand Washing among the Primary School Children of a Selected School Faridkot, Punjab.....61
Kaur Parminder, Mal Hardeep Kaur, Kaur Bhupinder
16. Effectiveness of Structured Teaching Program Regarding Knowledge on Adolescent Psychological Problems among Teachers.....65
Kharol Mahendra Kumar, Digpal Singh Chundawat
17. A Comparative Study to Assess the Effectiveness of Laughter Therapy Versus Meditation on Stress and Anxiety among Nursing Students at Selected College, Bangalore.....70
Laishram Montina Devi, Mangaiyarkkarasi. K
18. Video Teaching Programme: It’s Effectiveness on Knowledge of Students.....75
Parvinder Kaur, Amrita A.S., Smitha Nair
19. Common Perceptions about Cancer: North Indian Female Cancer Patients and Normal Public’s Perspectives about Cancer80
Pragya Singh
20. A Study to Assess the Knowledge of Postnatal Mothers Regarding Prevention of Puerperal Complications in Selected Hospital at Chinakakani, Guntur (Dt), Andhra Pradesh83
Pratap Kumar H, Subha Sri Ch, Mary Meena. J
21. A Study to Assess the Knowledge of Staff Nurses Regarding Neurorehabilitation in Dhiraj Hospital.....87
Sonal Patel, Pritika Rathod, Savita Rathva, Darshita Raval, Nihareka Shrivastav, Archana Somanathan, Hiten Trivedi
22. A Study to assess the Effectiveness of SOP on Knowledge and Practice Regarding Urinary Catheterization Procedure among Staff Nurses of Dhiraj Hospital, Vadodara92
Ravindra H.N., Sanket M. Patel, Sonal Patel
23. Substance Use and Rave Parties – Global Scenario97
Rinki Ghosh

24. A Descriptive Study to Assess the Knowledge and Practices Regarding Prevention of Puerperal Infection among Postnatal Mothers in Civil Hospital, Panipat, Haryana..... 102
Rita Sarkar, Sunita Ahalawat, Meena Kumari
25. Peer Education Method Better in Improving First Aid Skills of Traffic Accidents than Demonstration: A Comparative Study 108
Riyan Dwi Prasetyawan, Loeki Enggar Fitri, Setyoadi
26. A Descriptive Study to Assess the Cognitive Style among Teachers Working in Selected Schools of Vadodara (With a View to Improve Cognitive Process)..... 113
Rizavana M. Rathod, Suresh V., Bhoomika Patel
27. Modified Early Warning Score (MEWS) as Predictor of Deterioration Risk on Patient with Stroke in Emergency Unit in Malang..... 117
Rizka Hayyu Nafiah, Ahsan, Toni Suharsono
28. A Video Assisted Teaching on Preventing Method of School Bullying among Secondary School Teachers in Selected Urban Area of Vadodara..... 122
Robby Solanki, Pavan Patel, Pyal B Patel, Payal Patel, Priyal Patel, Rachana Patel
29. A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Recent Trends in Infertility Management among Staff Nurses Working in SC Hospital, Hassan, Karnataka..... 126
Robby Solanki
30. Satisfaction and Confidence in Using Clinical Simulation Models among Undergraduate Nursing Students in a Public University in Malaysia: A Cross-sectional Study..... 130
Syahfina Sarman, Kasmah Wati Pardi
31. A Descriptive Study to Assess the Perception and Attitude of Primary School Teachers towards Delinquent Children among Selected Schools of Vadodara District..... 135
Sachin Sharma, Nirmal Raj E.V., Rajesh P. Joseph
32. Assessment of the Effectiveness of Planned Teaching on Knowledge Regarding Cardiac Catheterization among Staff Nurses Working in Selected Hospitals..... 140
Sonam Kalra, Ancy Ramesh
33. Effectiveness of Video Teaching Programme on Knowledge about Anaemia among Countryside Children with Anaemia..... 144
Srinivasan Gandhi
34. A Study to Evaluate Effectiveness of Triaging the Triage: Reducing Waiting Time to Triage in the Command Post to Emergency Department in Selected Hospitals..... 149
Srinivasan Gandhi, Jothimani K.
35. Assess the Living Experiences of Men Suffering from Prostate Cancer in Selected Hospital of North India: A Qualitative Study..... 154
Sudhir Gupta, Srinivasan. P, Sanasam Bankim

IV

36. A Study to Evaluate the Impact of Internet Exposure on Academic Performance and Social Behavior of Adolescents: A Narrative Review 159
Sumit Kumar, Siva N., Alamelu M.
37. Effectiveness of Kangaroo Mother Care (KMC) on Lactation among Mothers of Low Birth Weight (LBW) Newborn..... 162
Supriya A. Shinde, Jyoti A. Salunkhe, Vaishali Mohite, Avinash Salunkhe, S.V. Kakade
38. Assess the Impact of Strained Interpersonal Relationship with Parents on Juvenile Delinquency among Delinquent Children in Haryana: A Retrospective Case Control Study..... 165
Talwinder Kaur, Srinivasan. P, Manpreet Sharma
39. Prevalence of Pelvic Floor Dysfunction among Women in South India..... 171
Vijayalakshmi R, Kanchana S
40. Innovative Teaching Pedagogy in Nursing Education 176
Beulah Jasmine Rao
41. Determinants of High Neonatal Mortality Rates in Migori County Referral Hospital in Kenya..... 181
Brian Barasa Masaba, Rose Mmusi-Phetoe
42. Planning and Implementing Objective Structured Clinical Examination (OSCE) as a Clinical Examination Method in Mental Health Nursing: Perceptions of Undergraduate Nursing Students in Oman; A Pilot Study..... 186
Divya K. Y., Blessy Prabha Valsaraj, Mohammed Ghalib Qutishat, Khulood Rashid Saif Al Abri
43. Nurses' Perception of Ethics and Legal Training of Nurses in Ghana..... 191
Konkamani Francis Xavier, Rose Mmusi-Phetoe, Gloria Thupayagale-Tshweneagae
44. The Lived Experience of Doctors of Nursing Practice in Pursuit of a Doctor of Philosophy Degree in Nursing 195
Michael Greco
45. A Comparative Study to Assess the Efficacy of Salbutamol Nebulization Versus 3% Hypertonic Saline Nebulization among the Under Five Children with Acute Bronchiolitis. A Quasi-Experimental Study. Narrative Review..... 200
Murja Yusuf T., N. Siva, Ranjit Ghuliani
46. A Study to Assess the Knowledge on Decubitus Ulcer and its Management among the Staff Nurses in Selected Tertiary Care Hospital of Moradabad, Uttar Pradesh: A Original Study..... 203
Debalina Ghosh, Yuha Nida², Umasanker Yadav²

A Study to Assess the Level of Anxiety and Coping Strategies Regarding Pubertal Changes among Pre Adolescent Girls in Selected Schools of Tiupati

A. Leelavathi¹, A. Padmaja²

¹M.Sc. Nursing II year, ²Professor, I/C Vice Principal (Administration), Child Health Nursing, College of Nursing, SVIMS, Tirupati

Abstract

Background of the Study: The word Puberty is derived from a Latin word “Pubertas”, which means ‘age of manhood’. Adolescent establish patterns of behaviour and make life style choices that affect both their current and future health. During this period they have more confusions and conflict among them.

Objectives: To assess the level of anxiety and coping strategies, to find the relationship between the level of anxiety and coping strategies and to associate the relationship between level of anxiety and coping strategies with selected demographic variables regarding pubertal changes among pre adolescent girls in selected schools of Tirupati, during 2018-19.

Method: Descriptive research design was chosen by using purposive sampling technique. The study was conducted at selected schools of Tirupati, which includes 110 pre adolescent girls. Descriptive and inferential statistics was used for data analysis.

Results: With regard to level of anxiety and coping strategies among 110 pre adolescents 49.1% (54) percent were having mild anxiety, 42.7% (47) had moderate anxiety and 8.2% (9) had severe anxiety levels and coping 38.2% (42) poor coping strategies, 50.0% (55) good coping strategies, and 11.8% (13) had very good coping strategies. The result of the study shows that there is significant relationship between anxiety and coping strategies regarding pubertal changes among pre adolescent girls.

Conclusion: The study findings revealed that most of the pre adolescent girls had mild anxiety levels and moderate adequate coping strategies. And there is need to conduct educational programmes in schools regarding pubertal changes.

Keywords: Anxiety, coping strategies, pubertal changes, pre adolescent girls.

Introduction

The word Puberty is derived from a Latin word “Pubertas”, which means ‘age of manhood’. It refers to physical rather than behavioural changes which occur when the individual become sexually mature and is capable of producing off springs.¹

During this transition period dramatic physical, cognitive, psychosocial and psychosexual changes take place that are exciting and at the same time frightening. This time is pressure packed with conflicts as the adolescent experience further collision between their own needs and the demands of their family and social environment.

In most girls the initial indication of puberty is the appearance of breast buds, an event known as thelarche, which occurs between 9 and 13 1/2 years. This is followed in approximately 2 to 6 months by growth of pubic hair on the mons pubis, known as adrenarche. The initial appearance of menstruation or menarche occur

Corresponding Author:

Dr. A. Padmaja

Professor, I/C Vice Principal (Administration),
Child Health Nursing, College of Nursing,
SVIMS, Tirupati.

Email: karanipadmaja@gmail.com

about 2 years after the appearance of the first pubescent changes, approximately 9 months after attainment of peak height velocity and 3 months after attainment of peak weight velocity.²

Girls experience puberty as a sequence of events but their pubertal changes usually begin before boys of same age. During puberty the biological changes reach a climax and their id sexual maturity in both boys and girls. The pubescent girls and boys will have more concerns about their bodily changes, which will bring about psychological consequences.³

Adolescent establish patterns of behaviour and make life style choices that affect both their current and future health. During this period they have more confusions and conflict among them. In this situation it is necessary to parents to prepare their adolescents children to cope with this changing situation, as it can lead to risky behaviour among them including problems related to sexuality.⁴

Stress is the response of the body and mind towards various changes in physical environment of a person. Though a human being undergoes changes throughout his life, adolescence id one period that witnesses most type of changes including physical, emotional, social and academic. Teenage is the period that is accompanied by maximum stress levels as they witness the puberty.⁵

The major landmark of puberty for females, it is menarche, the onset of menarche is menstruation, which occurs on average, between ages 12 and13. The age of menarche is influenced by heredity but a girl’s diet and lifestyle contribute as well. Girls usually reach full physical development by ages 15-17. Any increase in height beyond these ages is uncommon. Girls attain reproductive maturity about 4 years after the first physical change of puberty appear.

Material and Method

The research design selected for the present study was **descriptive research design**. The study was conducted at Sri Padamavathamma Girls High School and Sri Venkateswara High School in Tirupati. 110 pre adolescent girls regarding their pubertal changes were selected for the study by using purposive sampling technique. The results were tabulated, it was planned to analyse the data by using descriptive and inferential statistics for anxiety and coping strategies.

Section-I: Consists demographic data of pre adolescent girls such as age, class, religion, birth order,

medium of instruction, type of family, education of mother, occupation of mother, occupation of father, income of the family, residence of girls, type of diet, knowledge on pubertal changes, if yes.

Section-II: Consists of anxiety scale to assess the level of anxiety among the pre adolescent girls regarding pubertal changes. It is a self structured questionnaire prepared by the investigator. It consist of 20 items based on three levels (Never, Sometimes, Everytime)

Section-III: Consists of a coping scale to assess the coping strategies among the pre adolescent girls regarding pubertal changes. This [A-COPE] scale was developed by Dr. Hamilton Mc Cubbin and Dr. Jone Patterson. It was first published in June 1 2013 in “European Journal of Psychological Assessment”. It consist of 54 items which five scoring points. And the scale was modified by the researcher accordingly to the study and it consist of 20 items which has five possible answers (Never, Rarely, Sometimes, Quite often, Always).

Findings

Table:1 Distribution of Level of Anxiety regarding Pubertal Changes among pre adolescent girls

n=110

Level of Anxiety on pubertal changes	Frequency (F)	Percentage (%)
Mild	54	49.1
Moderate	47	42.7
Severe	9	8.2
Total	110	100

Table: 1 shows that 9(8.2%) pre adolescent girls had severe anxiety, 47(42.7%) had moderate anxiety and 54(49.1%) had mild anxiety levels.

Table: 2 Distribution of Coping Strategies regarding puberty changes among pre adolescent girls

n=110

Coping strategies regarding pubertal changes	Frequency	Percentage
Poor	42	38.2
Good	55	50.0
Very good	13	11.8
Total	110	100

Table: 2 shows that 42(38.2%) of pre adolescent girls had poor coping strategies, 55 (50.0%) of girls had good coping strategies and 13(11.8%) had very good coping strategies.

Table: 3 Relationship between the level of anxiety and coping strategies regarding pubertal changes among pre adolescent girls

n=110

Pair-1	Mean	N	SD	Std error mean	t-value	Sig
Anxiety scores	35.45	110	6.027	0.575	37.452**	0.000
Coping scores	67.14	110	8.970	0.855		

Table: 3 Shows that there is significant relationship between anxiety and coping strategies regarding pubertal changes among pre adolescent girls.

Association of level of anxiety and coping strategies with selected demographic variables regarding pubertal changes among pre adolescent girls.

There was association between level of anxiety and demographic variables such as age, class, religion, birth order, medium, education of mother, occupation of father, family income were significant at $p < 0.05$ level, diet was significant at $p < 0.01$ level and type of family, occupation of mother, residence, knowledge on pubertal changes and if yes were not significant at any level.

There was association between coping strategies and demographic variables such as age, class, religion, education of mother, occupation of mother, diet, knowledge on pubertal changes were significant at $p < 0.05$ level, type of family and income of the family were significant at $p < 0.01$ level and birth order, medium, occupation of father, residence and if yes were not significant at any level.

Discussion

This part deals with discussion according to the results obtained from statistical analysis based on the data of the study, the reviewed literature, hypothesis which was selected for the study is to reveal the facts about assessment of anxiety and coping strategies regarding pubertal changes among pre adolescent girls.

The first objective of the study to assess the level of anxiety and coping strategies regarding pubertal changes among pre adolescent girls

The result of the study shows that among 110 pre adolescents 49.1% (54) percent were having mild anxiety, 42.7% (47) had moderate anxiety and 8.2% (9)

had severe anxiety levels. And coping strategies shows that among 110 pre adolescent 38.2% (42) poor coping strategies, 50.0% (55) good coping strategies, and 11.8% (13) had very good coping strategies.

Sequeira D.F et al (2016) conducted a descriptive study on Anxiety and Coping patterns regarding pubertal changes among 540 pre adolescent girls of Udupi of 10-12 years by using cluster sampling technique. The results of the study showed that out of 231 pre adolescents who attained menarche (55%) had moderate anxiety and 52.4% had adaptive coping pattern.³

The second objective of the study is to associate the relationship between the level of anxiety and coping strategies regarding pubertal changes among preadolescent girls in selected schools of Tirupati.

The result showed that there is significant relationship between anxiety and coping strategies regarding pubertal changes among pre adolescent girls. The hypothesis formulated for this study was rejected.

Ghaydaa A Shehata conducted a study on “anxiety and coping strategies among patients with type 2 diabetes mellitus,” 90 sample of type 2 diabetes mellitus patients were selected for the study. The results showed that significant positive correlation was found between the coping strategies of total emotional security and total anxiety scale ($p=0.0001$).⁶

The third objective of the study was to associate the level of anxiety and coping strategies regarding pubertal changes among pre adolescent girls with selected demographic variables.

Present study showed that there is significant association between the level of anxiety regarding pubertal changes with selected demographic variables such as age, class, religion, birth order, medium, education of mother, occupation of father, family income were significant at $p < 0.05$ level and diet was significant at $p < 0.01$ level. The present study showed that there is significant association between the coping strategies regarding pubertal changes with selected demographic variables such as age, class, religion, education of mother, occupation of mother, diet, knowledge on pubertal changes were significant at $p < 0.05$ level and type of family and income of the family were significant at $p < 0.01$ level.

K.M. Jolly and Molly Babu et al (2018)

conducted a study by using explorative descriptive design purposive sampling technique was used, for “psychosocial problems of adolescent girls with early onset of puberty,” 100 adolescent girls between the age group of 10-12 years and attained menarche from 5, 6, 7 standards. Majority of 69% of pre adolescent were residing in rural areas and 53% had first menstruation between the age group of 11-12 years. There was as association between substance abuse with age, anxiety, eating disorders with religion, depression and education of mother at 0.05 level of significance.⁷

Conclusion

The study concluded that all study participants had anxiety regarding pubertal changes and had adaptive coping strategies. Therefore this study recommends that all the pre adolescent girls should be provided with educational programmes in the schools before and after pubertal changes to decrease the anxiety and improve the coping strategies in the pre adolescent girls.

Ethical Clearance: Was taken from the research committee of college of nursing, SVIMS, Tirupati.

Source of Funding: The funding for the study was self.

Conflict of Interest: Nil

Reference

1. Kevin Maddison David, “Psychiatric Nursing” 5th edition, Churchill Livingstone, pp-58-59.
2. Whalley and Wongs, “Essentials of Pediatric Nursing”, 5th Edition, Mosby publications, pp 466-483.
3. Sequeira D.F, D Souza A & Sanatombi Devi E “Anxiety and Coping Patterns regarding Pubertal Changes Among Pre adolescent girls”, Nitte University Journal of Health Sciences; 2016, 6(1); pp 33-38.
4. Bane.S, and Mc Auley E “Bodily image and exercise”, WV Fitness Information Technology pp 311-322.
5. Norman I Keltner, “Psychiatric Nursing anxiety related disorders, childhood emotional disorders”, 2nd edition, 1995; pp 423-425.
6. Ghaydaa A Shehata, Huda S Hassan, Ahmed Kamal, Ahmed H Yosef, “ anxiety and coping strategies among patients with type 2 diabetes mellitus”, Journal of Behavioural and Neurosciences; 2018, 1(1); 11-13.
7. K.M Jolly and Molly Babu “Psychosocial Problems of Pre adolescent with Early Onset of Puberty”, International Journal of Current Research and Academic Review; 2018, 6(2); pp 12-18.

A Study to Assess the Prevalence of Malnutrition & its Association with Dental Caries among Pre-schoolers at Selected Anganwadies of Vadodara City

Aadil I Kadiwala¹, Varsha Hun², Ekta Patel²

¹M.Sc. Nursing, ²Assistant Professor, Community Health Nursing, Sumandeep Nursing College, Sumandeep Vidhyapeeth, Vadodara, Gujarat, India

Abstract

Background of the study: Nutrition is an input to and a foundation for health and development. Brawler et al. (2009) stated that the interaction of infection and malnutrition is well-documented. Better nutrition means stronger immune system. In this research descriptive approach with non-experimental research design is used, data is collected from the sample who were attending the selected anganwadies such as Parsuram sayajiganj, Rampura akota, Govardhan ni haveli.

Objectives of the Study:

1. To assess the prevalence of malnutrition among pre-schoolers at selected anganwadies of Vadodara city.
2. To assess the prevalence of dental caries among pre-schoolers at selected anganwadies of Vadodara city.
3. To find out correlation between malnutrition and dental caries among pre-schoolers at selected anganwadies of Vadodara city.
4. To find out the association between malnutrition and with selected demographic variables among pre-schoolers at selected anganwadies of Vadodara city.

Material & Method: In this research study a quantitative research approach with non-experimental descriptive survey research design is used. The sampling techniques was non probability convenient sampling is used to collect the 80 samples of pre-schooler children and data collection done by assessment of anthropometric measurement. Data is analyzed by using descriptive and inferential statistics such as median, frequencies and chi-square test.

Result: With regards to the assessment, out of 80 pre-schooler children 59 (73.8%) had grade-I malnutrition, 12 (15%) had grade-II malnutrition, 9 (11.3%) had grade-III malnutrition and 80 pre-schoolers, and 10 had dental caries. Researcher found that there is no significant association between malnutrition with selected demographic variables except, the child having illness in the last month hence, hypothesis H_2 is rejected. The observed r value is + 0.79 that means there is a positive correlation between dental caries and malnutrition, Hence, H_1 is accepted.

Discussion and Conclusion: The purpose of the study is to assess the prevalence of malnutrition and its association with dental caries among pre-schoolers at selected anganwadies of Vadodara city. The findings of the study concluded that there is significant correlation between malnutrition and dental caries. Most of the pre-schooler having grade-I malnutrition and few pre-schooler had dental caries.

Keywords: Malnutrition, dental-caries, anthropometric assessment, pre-schoolers, anganwadies.

Introduction

“Today’s children are the citizens of tomorrow’s world”

Children are one of the most valuable groups of the society. Their development and wellbeing is influenced by a variety of factor including economic condition of family, education status of parents, availability of water, food and other facility approachability to health care service and availability of educations. Food is the prime necessity of life.¹

Their survival protection and development is prerequisites for the future development of humanity. Children are the important part of communities. Children can affect the health of the community and the community can affect them (John 1974). A child’s entire life is determined in large measures by the food given to him during first five years of his life, because childhood is a period of rapid growth & development. Nutrition is a one of the influencing factor in this period (shills & young 1998). The health of children is of great importance as rapid growth occur during this period (SHASHI-1990). Good nutrition is basic requirement for good health and a living organism is a product of nutrition. Nutrition is a one of the influencing factor in this period (SHILLS & YOUNG).²

Need of the Study

Nutrition is an input to and a foundation for health and development. **Brawler et al.(2009)** stated that the interaction of infection and malnutrition is well-documented. Better nutrition means stronger immune system. Less illness and better health. **Tripathi et al, (2006)** quoted that the children between 1 to 6 year of age in India constitute 15% of the total population as against 7% in the developed countries of the world. Nutrition of these children between 1 to 6 year of age is of prime importance as they are most vulnerable to deficiencies or malnutrition.⁸

Malnutrition is a serious global issue and is considered a health problem in developing countries. The World Bank estimates that India is ranked 2nd in the world of the number of children suffering from malnutrition, and the prevalence of underweight children in India is among the highest in the world. A report by WHO states that socioeconomic inequality in childhood malnutrition existed throughout the developing world.⁹

The primary causes of morbidity and mortality among children aged less than 5 years are pneumonia,

diarrhea diseases, low birth weight, asphyxia and in some parts of the world. One out of every two such deaths has malnutrition as the underlying cause (Murray and Lopez,1997). However, malnutrition is rarely cited as being among the leading causes of death even though it is prevalent in developing countries (WHO.2000). Malnutrition is currently the leading cause of global burden of disease (Ezzati et al, 2002) and has been identified as the underlying factor in about 50% of deaths of children under 5 years of age in developing countries (Black et al, 2003). The condition may result from lack of food or from infections that cause loss of appetite while increasing the body’s nutrient requirements and losses. Children between 12 and 59 months old are especially at risk since they are the most vulnerable to infections such as gastroenteritis and measles (WHO,2000) it is estimated that, in developing countries, more than one-quarter of all children younger than 5 years of age are malnourished (UNACC,2000)¹⁰

Research Design: Non-experimental descriptive survey research design is used for this study.

Sample: Sample is the representative part of the population, in this study samples 80 Pre schooler who were attending the selected Anganwadies of Vadodara.

Selection Criteria

1. Inclusion Criteria

- The pre-schooler who are regularly attending the selected Anganwadies.

2. Exclusion Criteria

- The parents of pre-schooler who doesn’t allow their child to participate in study.
- The pre-schooler who are not available at the time of data collection.

Section 1: Demographic variables such as age, Gender, residential area, Income, food preference, History of consanguineous marriage, Duration of month of exclusive breast feeding of the child, When did you stop breast feeding, Did the child have any illness of the last month?.

Section 2: Assessment of malnutrition and dental carries.

Data Collection Procedure

The data for main study was collected from 80 pre-schoolers who were attending the selected Anganwadies

of Vadodara, who fulfilled the inclusive criteria by convenient sampling technique and the anthropometric measurement tool is used to assess the “Prevalence of malnutrition and its association with dental caries among pre-schoolers at selected Anganwadies Vadodara. The data for main study is collected from 1/10/2018 to 10/10/2018. Consent was taken from the participants.

Statistical Desing

Data were verified prior to computerized entry, The statistical package for social science (SPSS version 20.0) was used,.

Section I: Analysis of socio demographic characteristics of the respondent

The distribution of pre-schoolers children according to their age shows that among 80 participants 12(15%) belonged to the 3 years, 36(45%) belonged to the 4 years, 5 year 31(38.7%) belonged to the 5 years,1(1.3%) belonged to 6 years,

The distribution of pre-schoolers children according to their gender shows that among 80 participants 42 (52.5%) belonged to the male group, 38(47.5%) belonged to the female group.

The distribution of pre-schoolers children according to their residential area shows that among 80 participants 80 (100%) belonged to urban area and, 0(0%) belonged to rural area.

The distribution of pre-schoolers children according to their income shows that among 80 participants 16(20.0%) belonged to the 5000-10000, 37(46.3%) belonged to the 10000-15000, belonged to the m 27(33.7%) belonged to the more than,

The distribution of pre-schoolers children according to their food preference shows that among 80 participants 50 (62.5%) belonged to the vegetarian, 30(37.5%) belonged to the mix diet.

The distribution of pre-schoolers children according to their history of consanguineous marriage shows that among 80 participants 15 (18.8%) had history of consanguineous marriage whereas, 65(81.2%) didn't have history of consanguineous marriage.

The distribution of pre-schoolers children according to their duration of month of exclusive breast feeding of child shows that among 80 participants 61 (76.2%)

belonged to the 6-8 month, 19(23.8%) belonged to the 9-10 month. 0(0%) belonged to the more than 11> month.

The distribution of pre-schoolers children according to when they stopped taking breast feeding shows that among 80 participants 69(86.3%) have stopped taking breast feeding at the one year of age after birth, 6(7.4%) have stopped taking breast feeding at 2 year after birth, 5(6.3%) have stopped taking breast feeding after 2 year of age.

The distribution of pre-schoolers children according to their recent illness in last month shows that among 80 participants 23(28.7%) had illness in recent times and 57(71.3%) doesn't had any recent illness.

Table 1: To assess the prevalence of malnutrition and dental caries among pre-schoolers at selected Anganwadies of Vadodara city

Sr. No.	Malnutrition	Frequency	Percentage
1.	Grade-1	59	73.8%
2.	Grade-2	12	15.0%
3.	Grade-3	9	11.3%
4.	Grade-4	0	0%
	Total	80	100%

Table 2: Correlation between malnutrition and dental Caries among Pre Schoolers

Sr. No.	Variables	Mean score	Mean percentage	“r” value
1.	Malnutrition(Y)	1.37	1.72%	+0.79
2.	Dental caries(Y)	1.12	1.4%	

Table 3: To find out the association of malnutrition with selected demographic

The obtained χ^2 value for recent child illness is 8.173, that is more than the table value 7.815 at 0.05 level. Hence the obtained χ^2 value is significant at 0.05 level. That shows there is significant association between recent illness of child and malnutrition.

It shows only one variable, recent child illness is significant to the malnourishment of child, and all other variables ; age, gender, residential area, income, food preference history of consanguineous marriage, duration of month of exclusive breast feeding of child, when did you stop breast feeding, are not associated with the malnourishment of child .So except one variable H_2 is

rejected. The observed r value was + 0.79 that means there is a positive correlation between dental caries and malnutrition. Hence H_1 is accepted.

Discussion

The present study was conducted to assess the prevalence of malnutrition & its association with dental caries among pre schooler at selected Anganwadies of Vadodara city This chapter discuss the major findings of the study and reviews them in terms of results from other studies.

Conclusion

The study undertaken to assess the prevalence of malnutrition & its association with dental caries among pre schooler at selected Anganwadies of Vadodara city. The size of sample 80 and selection of the sample was done according to inclusion criteria. The results were analyzed by using both descriptive and inferential statistics.

Conflicts of Interest: The authors declare that there is no conflict of interest statement

Source of Funding: Fund for this research is researcher own.

Ethical Clearance: Ethical clearance for this dissertation was obtained from the ethical committee SVICE of Sumandeep Vidyapeeth University.

Reference

1. World Health Organization, WHO Global School Health Initiative. Research to improve implementation and effectiveness of school health programmes. World Health Organization; 1996.
2. Williams CL, Berry JW. Primary prevention of acculturative stress among refugees: application of psychological theory and practice. *American psychologist*. 1991 Jun;46(6):632
3. Ashok NC, Kavitha HS, Kulkarni P. A comparative study of nutritional status between government and private primary school children of Mysore city. *International Journal of Health & Allied Sciences*. 2014 Jul 1;3(3):164.
4. Sahu SK, Kumar SG, Bhat BV, Premarajan KC, Sarkar S, Roy G, Joseph N. Malnutrition among under-five children in India and strategies for control. *Journal of natural science, biology, and medicine*. 2015 Jan;6(1):18.
5. Gunjalli G, Kumar KN, Jain SK, Reddy SK, Shavi GR, Ajagannanavar SL. Total salivary anti-oxidant levels, dental development and oral health status in childhood obesity. *Journal of international oral health: JIOH*. 2014 Jul;6(4):63.
6. Yasuda Y, Takada K, Kitai N, Kuriyama R, Sakuda M, Hirase E, Kitaguchi T, Sakamoto M. Prevalences of malocclusions and dental caries in molars in female adolescents. *The Journal of Osaka University Dental School*. 1990 Dec;30:139-47.
7. Lenters L, Wazny K, Bhutta ZA. Management of severe and moderate acute malnutrition in children. *Reproductive, Maternal, Newborn, and Child Health*. 2016 Apr 11;205.
8. Shanks NH, editor. *Introduction to health care management*. Jones & Bartlett Publishers; 2016 Mar 28.
9. Shakya A, Shenoy R, Rao A. Correlation between malnutrition and dental caries in children. *Journal of Nepal Paediatric Society*. 2013 Oct 7;33(2):99-102.
10. Kanté AM, Nathan R, Helleringer S, Sigilbert M, Levira F, Masanja H, De Savigny D, Abdulla S, Phillips JF. The contribution of reduction in malaria as a cause of rapid decline of under-five mortality: evidence from the Rufiji Health and Demographic Surveillance System (HDSS) in rural Tanzania. *Malaria journal*. 2014 Dec;13(1):180.
11. Figueiredo MJ, De Amorim RG, Leal SC, Mulder J, Frencken JE. Prevalence and severity of clinical consequences of untreated dentine carious lesions in children from a deprived area of Brazil. *Caries research*. 2011;45(5):435-42.
12. Thompson C, James K, Holder-Nevins D, Willie-Tyndale D, Eldemire-Shearer D. Sinking Teeth into Dental Health of Older Adults in Jamaica. *West Indian Medical Journal*. 2018 Nov 1;67(5).

Assessment of Anthropometric Measures and Prediction of Obesity among Selected Nursing College Students

Abirami. P¹, Silambu Selvi², Jayabharathi. B¹, C. Kanniammal³

¹Professor, ²Associate Professor, ³Dean, SRM college of Nursing, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu

Abstract

Introduction: Obesity is a global epidemic that affects 500 million people worldwide and is predicted to increase to one billion people by 2030. Overweight and obesity are linked to more deaths worldwide than underweight. Obesity is now also a global epidemic

Objective: The aim of the present study was to estimate the prevalence of overweight and obesity among selected nursing college students and to explore the association between BMI with Waist Hip ratio

Method: A Quantitative approach and Descriptive survey design was conducted on a sample of students who were studying in the SRM College of Nursing during the academic year 2015–2016. A Non Probability convenient sampling technique was used to select a sample. The Sample size was 200. Based on the Inclusion and Exclusion Criteria the Sample were selected. The tool comprises of two sections. Section A: Demographic variables and Section B: Anthropometric measurements. A total of 203 students who fulfilled the inclusion criteria were chosen as samples using non-probability convenient sampling technique. The study was conducted at SRM College of Nursing, Kattankulathur.

Results: Our study included 203 students at SRM college of Nursing. We found that 11.8% of the studied participants (24 students) were overweight, 1% (2 students) were obese and 56.7% (115 students) represent normal and 30.5% (62 students) were underweight. The p-value from the table above is less than 0.05 showed that there is significant association between “BMI” and “WHR” at 5% level of significance.

Conclusion: The Waist hip ratio (WHR) is a simple measure of central obesity. WHR was shown to be a good predictor of health risk

Keywords: Obesity, Global epidemic, prevalence, Overweight.

Introduction

Overweight and obesity were found to be a rising public health crisis. The worldwide prevalence of obesity nearly tripled between 1975 and 2016. The CDC defines overweight and obesity as “ranges of weight that are greater than what is generally considered healthy for a given height” and which may “increase the likelihood of certain diseases and other health problems.”⁽¹⁾ Changes

in body composition vary in different stages of life and are always reflected in anthropometric measurements. Anthropometric evaluation is economical, non-invasive and provides detailed information on the different components of muscular and fat components and can support in assessing the nutritional status of a population⁽²⁾. Anthropometric measurements include height, weight, BMI, Waist hip ratio, skin-fold thickness etc. Body mass index or BMI is a simple and broadly used method for estimating body fat mass. Body Mass Index is a person’s weight in kilograms divided by the square of height in meters. BMI from 18.5 up to 25 kg/m² indicates optimal weight, a BMI lower than 18.5 suggests underweight, 25 to 30 indicate the person is overweight, and a number greater than 30 suggests the

Corresponding Author:

Abirami. P

Professor

SRM College of Nursing, SRM IST, Kattankulathur

e-mail: abiramikarnamurthy@gmail.com

person is obese^(3,4) Obesity is an excessive accumulation of body fat. "Overweight" is defined as having any excess weight outside of the ideal range. Although adolescents have fewer weight-related health problems than adults, overweight students are at high risk of becoming overweight adults Overweight people of all ages are prone to a number of health problems⁽⁵⁾

The Waist hip ratio (**WHR**) is a simple measure of central obesity. WHR was shown to be a good predictor of health risk^[6]. The WHO states that abdominal obesity is defined as a waist-hip ratio above 0.90 for males and above 0.85 for females, or a body mass index (BMI) above 30.0^[7] These anthropometric indices have been frequently used in epidemiological studies as they can be determined easily and at low cost^[8] Maintaining good health status during college stage is very crucial. Obese students are more likely to become obese adults^[9,10] students are overweight, obesity in adulthood is likely to be more severe.. BMI and WHR measurements can be utilized as a screening mechanism to gauge the risk for disease that can develop due to being overweight or obese.^[11] Perfect anthropometric measurements helps in assessing the health of individuals and to choose suitable treatments and interventions essential to maintain or improve good health. Hence the present study was conducted to assess the anthropometric measures and predict obesity among selected nursing college students.

Objective

The aim of the present study was to estimate the prevalence of overweight and obesity among selected nursing college students and to explore the association between BMI with Waist Hip ratio

Variables

Study Variable: Assessment of Anthropometric Measures and Prediction of Obesity

Demographic Variables: Age, Year of Study, Gender, Residence, parents' educational level, Father occupation, Mother occupation, Family size and Numbers of Siblings

Subjects and Method

Study design: A Quantitative approach and Descriptive survey design was conducted on a sample of students who were studying in the SRM College of Nursing during the academic year 2015–2016

Study population and sampling: All the students from the Nursing College were the Study population A Non Probability convenient sampling technique was used to select a sample. The Sample size was 200. Based on the Inclusion and Exclusion Criteria the Sample were selected.

Inclusion criteria

- Students aged between 18 and 22 years were included,.
- Students who are interested to participate in the study
- Students who are willing to participate

Exclusion Criteria

- Children with chronic illness as well as those on corticosteroid therapy or growth hormone replacement therapy and children with chromosomal disorders were excluded. chronic illness, metabolic diseases and physically challenged.
- Participants taking medications that potentially cause significant weight gain (eg, risperidone, olanzapine, clozapine)
- Participants using medications for weight loss

Data collection procedure: Permission was obtained from Head of the Institution.. Then the researcher visited the College Students to inform them about the survey. All the students from the Bsc(N)I yr to BSc(N)IV yr were included in the study. To each Student consent form was given. After having got the agreement consent from the Dean and the students, data were collected by the following tools.

A-Questionnaire: The contents of the prepared questionnaire were explained to the students before handling. The included questionnaires were.

Demographic Variables: Age, Year of Study, Gender, Residence, parents' educational level, Father occupation, Mother occupation, Family size and Numbers of Siblings

B-Anthropometric measurements: The researcher personally took different anthropometric measurements at the examination room .All measurements were taken using the same type of apparatus and followed the same procedures recommended by Cameron.

- Height was measured to the nearest 1 cm while the students stood straight on the stadiometer barefoot and the head aligned so that the auditory canal and lower rim of the orbit were in a horizontal plane.
- Weight was measured to the nearest 0.5 kg using digital scales while the students wore a light school uniform and were barefoot.
- Body mass index: it was calculated by dividing weight in kg by square height in meters.
- Waist Hip ratio was measured by making the student stand up straight and breathe out. Use a tape measure to check the distance around the smallest part of their waist, just above their belly button. This is the waist circumference.
- Then measure the distance around the largest part of the hips — the widest part of the buttocks. This is the hip circumference.
- Calculate the WHR by dividing the waist circumference by the hip circumference.

Statistical analysis: The information collected from the study participants was scored and tabulated. The data were entered into the master coding sheet and saved in Microsoft Excel. Statistical analysis was conducted using Statistical Package for Social Sciences-16. Mean, percentage, and standard deviation were used to explain the demographic variables, and Chi-square test was used to associate the BMI with Waist Hip ratio

Results

Table 1: Frequency and Percentage Distribution of Body Mass Index

N=203

S. No.	BMI Level	No. of adolescent girls	Percentage
1	Under Weight	62	30.5%
2	Normal	115	56.7%
3	Over Weight	24	11.8%
4	Obese	2	1.0%
Total		203	

Our study included 203 students at SRM college of Nursing. We found that 11.8% of the studied participants (24 students) were overweight, 1% (2 students) were obese and 56.7% (115 students) represent normal and 30.5% (62 students) were underweight.

Table 2: Frequency and Percentage Distribution of Waist Hip Ratio

N=203

S. No.	WHR Level	No. of adolescent girls	Percentage
1	Normal	78	38.4%
2	Obese	125	61.6%
Total		203	

We found that, 61.6 % (125 students) were obese and 38.4% (78 students) represent Normal.

Table 3: Association between BMI with WHR

S. No.	Body Mass Index	Waist Hip Ratio		Chi-Square value	Degrees of Freedom	P-value
		Normal	Obese			
1	Under Weight	18	44	9.539	3	0.023*
2	Normal	44	71			
3	Over Weight	14	10			
4	Obese	2	0			

*-Significant at 5% level

** -Significant at 1% level

The p-value from the table above is less than 0.05 hence we conclude that there is significant association between “BMI” and “WHR” at 5% level of significance.

Discussion

Global scenario: Obesity is a global epidemic that affects 500 million people worldwide and is predicted to increase to one billion people by 2030. Overweight and obesity are linked to more deaths worldwide than underweight. Obesity is now also a global epidemic. Globally there are more people who are obese than underweight Worldwide obesity has more than doubled since 1980. Globally, the prevalence of childhood obesity has risen in recent years. The International Association for the Study of Obesity (IASO) and International Obesity Task Force (IOTF) estimate that 200 million school children are either overweight or obese [8]. According to **WHO-2016**. Obesity has increased from 4.2% in 1990 to 6.7% in 2010 worldwide and is expected to reach 9.1% in 2020. Worldwide 43 million children were estimated in year 2010 including 35 million (81.4%) from developing countries. Mexico ranks second to the United States in rates of pediatric obesity^[12]

International scenario: Globally, the prevalence of childhood obesity has risen in recent years. The International Association for the Study of Obesity (IASO) and International Obesity Task Force (IOTF) estimate that 200 million school children are either overweight or obese [13].

According to **centers for disease control and prevention** (2011-2014) among children and adolescents aged 2-19 years in the united states the prevalence of obesity has remained fairly stable at about 17% and affects about 12.7 million children and adolescents. The prevalence of obesity was higher among Hispanics (21.9%) and non-Hispanic blacks (19.5%) than among non-Hispanic whites (14.7%). The prevalence of obesity was 8.9% among 2- to 5-year-olds compared with 17.5% of 6- to 11-year-olds and 20.5% of 12- to 19-year-olds. [14]

Recent figures from the IOTF website showed prevalence rates of overweight/obesity as 40 per cent in both genders in US.

UK National schools measurement program suggest that 21.90% children are overweight (>85th percentile) and 9.1% of children are obese (>95th percentile). (23). By the age of 11 years 33.2% of children are overweight and 19.1 % obese.

The Times of India, **Jul 4, 2015** reported across the globe 42 million children were affected by obesity in 2013 and the prevalence rate of obesity worldwide rose by 47% or children between 1580 and 2013

National scenario

The Times of India, Jul 4, 2015 reported that in India, over 15 million children are currently estimated to be overweight and added that if current trends continues over 70 million infants and young will be overweight or obese by 2025

According to national family health survey 2015-16 report, Women 15-49 years who are overweight or obese (BMI \geq 25.0 kg/m²) 14 (%) 36.2 % in urban 25.4% in rural area is obese. Men 15-49 years who are overweight or obese (BMI \geq 25.0 kg/m²) (30.6% in urban, 25.6 in rural areas in women age 20 In Tamil Nadu

Healthy people 2010 identified obesity is largely preventable but the incidence continue to increase worldwide. childhood obesity is associated with higher chance of premature death and disability in

adulthood. Schools are a potentially important channel of intervention because they offer access to large populations of students and provide the opportunity to institutionalize programs in communities; Improvements in anger, mood, bodily pain, physical functioning and vitality are associated with gains in aerobic fitness (capacity of the Circulatory and respiratory systems to supply and utilize oxygen during sustained physical activity

While intensive lifestyle programs can have positive clinical outcomes in adults, few studies have reported successful interventions in children and adolescents. The prevention of child obesity has been recognized as a public health priority considering the difficulty in curing obesity and overweight in adults and many long term adverse effects of childhood obesity

Statement of Human and Animal Rights All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008

Statement of Informed Consent Informed consent was obtained from all the study participants for being included in the study.

Conclusion

Nurses have a role in promoting preventive measures and identifying and treating obesity-related co morbidity. Pediatric obesity is not an individual child's problem, but a problem that involves the whole family and the community. Recommending a healthy diet and increased physical activity and counseling families on behavior change is the best approach to preventing and managing childhood obesity

References

- Centers for Disease Control and Prevention. Healthy weight – it's not a diet, it's a lifestyle! Centers for Disease Control and Prevention. <http://www.cdc.gov/healthyweight/>. Published 2011. Accessed March 29, 2012.
- Sergio Sánchez-García, Carmen García-Peña Email author, María Ximena Duque López, Teresa Juárez-Cedillo, Alma Rosa Cortés-Núñez and Sandra Reyes-Beaman Anthropometric measures and nutritional status in a healthy elderly population. *BMC Public Health* 2007;7:2. <https://doi.org/10.1186/1471-2458-7-2>

3. Defining obesity". NHS. Archived from the original on 18 December 2014. Retrieved 19 December 2014.
4. Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee" (PDF). *World Health Organization Technical Report Series. World Health Organization*. **854**: 1–452. 1995.
5. Obesity: Weight Gaining Among College Students ...[https://www.bridgehousecollege.com/obesity-among-college-students/Mar 29, 2016](https://www.bridgehousecollege.com/obesity-among-college-students/Mar%2029%2C%202016)
6. Bjorntorp P. The associations between obesity, adipose tissue distribution and disease. *Acta Med. Scand. Supplementum*. 1988;723:121–134.
7. http://whqlibdoc.who.int/publications/2011/9789241501491_eng.pdf
8. ceZhou Z, Hu D, Chen J. Association between obesity indices and blood pressure or hypertension: which index is the best? *Public Health Nutr*. 2009;12(8):1061–71. doi: 10.1017/S1368980008003601.
9. Cunningham SA, Kramer MR, Venkat Narayan KM. Incidence of childhood obesity in the United States. *New England Journal of Medicine* 2014; 370 : 403-411.
10. Kelsey MM, Zaepfel A, Bjornstad P, Nadeau KJ. Age-related consequences of childhood obesity. *Gerontology* 2014; 60(3):222-8.
11. Body Mass Index, BMI Calculator, Healthy BMI. Available at:http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/bmitools.htm. Accessed February 13, 2012
12. Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013.
13. International Obesity Task Force. [accessed on November 22, 2013]. Available from: <http://www.iaso.org/iotf/obesity/obesitytheglobalepidemic/> for Saudi, Canada, South Africa, Australia and NZ estimates
14. Trends in Nutrition / Physical Activity / Obesity Winnable Battle Indicators

The Effects of Music Therapy Intervention on the Pain and Anxiety Levels of Cancer Patient: A Systematic Review

Adi Try Wurjatmiko

Department of Nursing, Nursing Academy of PPNI Kendari, Indonesia

Abstracts

Cancer constitutes one of illnesses which frequently causes pain and anxiety. The management of cancer pain comprises the pharmacology and non-pharmacology. The pharmacologic management, at some points, fails to provide a complete relief from the pain and instead gives rises to unwanted side-effects on the patients that necessitate the employment of non-pharmacologic management such as music therapy. The purpose of this systematic review is to discover the effects of music therapy on the pain and anxiety levels on the cancer patient.

Systematic Review encompasses literature obtained from library research and internet research using search engine such as PubMed, Medline, Proquest, dan Elsevier. The articles comprise the full text journals published between the years of 2009-2016.

87.50% out of 8 articles (1 systematic review) demonstrates that music therapy effectively alleviates the pain to 75.00% and lowers the anxiety level, and 12.50% of insignificant palliative effect in terms of the pain and anxiety. Music therapy is an effective non-pharmacologic therapy to alleviate or relieve the cancer patients of the resultant pain and anxiety.

Keywords: *Music Therapy, Pain, Anxiety, Cancer.*

Introduction

That all people experience anxiety and pain is very common. Pain itself is responsible for the immediate seeking for medical attention¹⁴. Pain can be defined as a subjective sensation of discomfort and emotional distress associated with an actual or potential tissue damage which comprises acute and chronic pain. Acute pain is viewed as a sudden onset which develops into a chronic pain when it is not well treated⁶. Pain is a symptom of an illness from which one suffers and may also be a sign of damaged tissue following an invasive procedure administered. The high frequency of pain can give rises to and elevate the anxiety level of a patient¹².

Anxiety is a spreading ill-defined unease related to the feelings of uncertainty and helplessness. The anxiety

level hinges on the individual response and the length of exposure to the stress-inducing situation or object¹⁷. Anxiety can be aggravating when it consistently intensifies to a point of debilitating and distressing effect on the one's life¹⁸. Anxiety tends to stimulate the secretion of *epinephrine* and *norepinephrine* that increase the blood pressure, heart beat, cardiac need of oxygen, breathing frequency and pain that one³.

Pain and anxiety constitute a provoker of frequent complaint in the case of advanced stage cancer such as breast cancer and so forth¹⁶. They generally range from the moderate to severe level that necessitates a proper management of medical administration by health practitioners including the nurses¹⁰. The management comprises the pharmacology and non-pharmacology. The pharmacologic management sometimes does not help to relieve or alleviate the pain and anxiety disorders completely in line with the research conducted by Ling Chun Chiang which found that the pharmacological administration encounters difficulty with the management of the pain and anxiety which patients of advanced stage of cancer experience in their terminal illness. Therefore,

Corresponding Author:

Adi Try Wurjatmiko

Nursing Academy of PPNI Kendari, Indonesia

e-mail: dhistowurjatmiko@gmail.com

non-pharmacologic management of the pain and anxiety is needed to ramp up the pharmacological therapy applied to the cancer patients⁵.

According to Marion Good, non-pharmacologic therapy which the nurses can offer to decrease the pain and anxiety level comprising 3 ways: jaw relaxation, guide imagery, and music therapy¹⁴. Out of the three alternatives, music therapy is suggested to be the promising technique to alleviate the anxiety and pain level on the cancer patients. Music therapy is a non-pharmacologic intervention for the treatment of pain and anxiety which has been applied in the nursing practices since the year of 2005. The American Music Therapy Association states that music therapy is interventional technique to decrease the pain and anxiety, boost positive emotion, and reduce the psychological symptoms¹². All the reasons and information above considered, the writer is interested in conducting systematic review analysis in terms of the effects of music therapy on the anxiety and pain levels of the cancer patients.

Method

This research takes the form of systematic review. The sources were obtained from the library research and electronic search using search engine such as PubMed, Medline, roquest, and Elsevier with the following key words intended for the international journal, music therapy, patients, cancer, pain, and anxiety. Criteria guiding the selection of the sources are as follows: (1) Articles, scientific writings, and researches dealing with the music therapy used in the care of patients whose the focus is on the management of the pain and anxiety. (2) Patients indicated as the samples in the articles are those who complain the painful physical symptoms and anxiety from cancer (3) the research articles published between the year of 2009-2019, (3) the article reveals the experimental method employment.

Results

In this systematic review the initial step of the literature search began with the identification of 95 abstracts which boiled down to 12 articles of potential relevance to full-size evaluation. The further evaluation led to the selection of 8 articles which were considered having met the criteria to be included in the systematic review (1 article of systematic review). Out of 8 articles, 7 of them are classified as medium quality and 1 low quality.

The result of the research conducted by Huang, Good, & Zauszniewski on the effects of music therapy on the pain cancer patients experience reveals that a significant reduction or lower pain scale ratings is associated with the application of interventional technique compared to a group of patients which is not subject to the intervention ($P < 0,001$)⁸. This result is in conformity with the research conducted by Li *at al* which indicates that significant reduction of the pain level associated with the implementation of the intervention compared to the control group ($P < 0,001$)¹¹.

Chuang, Han, & Young conducted a research in terms of the music therapy intervention effect on the anxiety level of cancer patient which resulted in the enhanced relaxation or significantly reduced anxiety after the implementation of music therapy compared to a state before the implementation of the intervention $P = 0,03$ ($P < 0,05$), followed by the increasing sympathetic nervous system activity after the music therapy was implemented at $P = 0,04$ ($P < 0,05$)⁵. The result of the research conducted by Jasemi, Aazami, & Zabih consistently revealed that there was a significantly reduced level of anxiety and depression on the group subjected to the intervention ($P < 0,001$) as compared to the control group⁹.

Sharafi in his systematic review stated that there were two research showing a significant result that music could alleviate the level of anxiety of breast cancer patients ($P = 0,0006$, $P < 0,001$), one research showing significant lowering of the pain level of the breast cancer patients ($P = 0,0008$, $P < 0,001$), one research showing that music therapy did not significantly alleviate the pain level of cancer patients ($P = 0,002$, $P < 0,001$), one research showing that music therapy decreased the depression level of the breast cancer but statistically it was not significant ($P = 0,002$, $P < 0,001$), one research revealing that music therapy could reduce the anxiety and depression level of the breast cancer patients ($P = 0,0009$, $P < 0,001$), and one research showing that music therapy significantly decreased the level of pain, depression, and anxiety of the breast cancer patients ($P = 0,0008$, $P < 0,001$)¹⁶.

Chiang in his research on 117 cancer patients through the graphed data found that the anxiety and pain scores significantly decreased on the part of the intervention group after the implementation of music therapy on the first, second and third day, whereas there was no significant difference in the patients of the

control group⁴. This is in line with the result of research conducted by Bradt, J *et al* which showed that both music therapy and music medicine are of benefit to decrease the pain and anxiety of the cancer patients, yet 77.4% of the total sample showed music therapy has greater effect on reducing the pain and anxiety level on the level of the pain and anxiety than the music medicine². Furthermore, research conducted by Krishnaswamy & Nair revealed that there was a significant decrease in the level of pain after the music therapy was implemented on the intervention group ($P = 0,003$), and no significant reduction of the pain level with the control group ($P = 0,356$). When comparison is made between the intervention and control group, music therapy is found to have a positive effect on the reduction of the pain level of the cancer patients $P = 0,034$ ($P < 0,05$). Nonetheless, the anxiety level remains even after the intervention is performed showing that there is statistically no significant decrease ($P = 0,051$)¹⁰.

Based on the information above, it may be inferred that out of 8 articles (1 systematic review) 87.50% (of the 8 researches) state that music therapy has a potential effect on the lowering level of the pain, 75% (of the 8 researches) reveal that music therapy alleviates the anxiety level of the cancer patients and 12.50% (of the 8 researches) indicate that music therapy does not significantly reduce the pain and anxiety level of the patients.

Discussion

Music therapy is a non-pharmacologic therapy which health care providers such as nurses can implement to lower the level of the pain and anxiety of the patients. This has been evidenced by the existing repertoire of research. Music therapy constitutes an interventional nursing technique included in the nursing practice theory introduced by Marion Good¹⁴. Besides, music therapy is developed out of the nursing middle range theory which is introduced by Katharine Kolcaba in her comfort theory that a nurse should contribute to the fulfillment of the patients' needs for comfort and pain analgesia. One of the ways to meet the very needs is to conduct non-pharmacologic therapeutic techniques such as music therapy on the patients with the complaints of the pain and anxiety¹.

The result of this systematic review indicates that music therapy has a significant beneficial effect on the pain in people with cancer to 87.50% (of 8 researches),

and 75.00% (of 8 researches) on the level of anxiety in cancer patients. This is consistent with the finding made by Krishnaswamy & Nair that cancer patients frequently experience the concomitant symptoms of pain and anxiety. Since the pharmacologic therapy is decreased to prevent unwanted side effects non-pharmacologic interventions are needed as alternatives such as music therapy which is of benefit to effectively reduce the level of anxiety and pain in patients with cancer¹⁰.

Physiologically, music therapy can activate the natural analgesia in human body that leads to the alleviation of the pain which is known as Endorphine. Endorphine is a neurohormone provoking the pleasant sensations. When endorphine is released by the brain, the pain will be relieved along with the activation of the parasympathetic system which triggers the relaxation of the body. Aside from endorphine, *norepinephrine* and *serotonin* are also contributors to the pain relief through the modulated transmission of the descending impulse from the brain. The descending control system is a sensory nerve fiber extending from the mid brain (particularly the periaqueductal gray matter) and ending up in the interneuronal inhibitor which is located in *cornu dorsalis* of the *medulla spinalis*. With the stimulus of the soft music being played, the system will remain active that inhibits the transmission of pain stimulus (Phaneuf, 2009).

Music therapy can stimulate the axons or the nerve fibers on the ascending tracts to RAS neurons (*Reticular Activating System*). The stimulus is transmitted to the cerebral cortex, limbic system and *corpus callosum* through the autonomous nervous system and neuroendocrine system. When one is absorbed in the streams of soft music the limbic system will be aroused to secrete phenylethylamine (*neuroamin*) which controls the impulse and mood emotion. While on the autonomic nervous system, music stimulates the parasympathetic nervous system to work on the sympathetic nerves that engender the switching to alpha type brain wave to produce calming¹⁵.

The physiological explanation corroborates the result of the research that music therapy has a positive effect on reducing or relieving the level of anxiety and pain in patients with cancer. Nurses should employ a combination of pharmacologic and non-pharmacologic interventions to alleviate the pain and prevent the undesired side effects of the medication on the cancer patients. This provides a theoretical groundwork for the

management of the pain and anxiety in health care clinics that it is important for professional or credentialed nurses to develop a knowledge of other method effective in relieving the level of the pain and anxiety on the cancer patients such as the employment of music therapy. This is in agreement with the statement made by Huang, Good & Zauszniewski that music therapy is one of the interventional techniques to effectively alleviate the anxiety and pain which has evidence-based nursing theories⁸.

In the implementation of music interventions, some cares need to be taken to achieve the best result and ensure that the music therapy has an effect on the pain and anxiety. The therapy is applied with the use of wordlessly soft music, a sustained style/melody of 60-80 times in a minute without percussion or hard rhythm, advisably including harps, piano, orchestra, *slow jazz*, dan flute (Bradt, J *at al*, 2015). Besides, the volume should be controlled by the therapist with caution to keep it flowing at a sweet sounding level for 30 minutes where the patients are seated in a semi fowler position which is well-suited to the patients' needs. The player may include Handphone, CD player, or MP4 player coupled with the headphone or earphone¹³

Conclusion

Music therapy is a nursing interventional technique which has a beneficial effect on the pain, anxiety of the cancer patients which is of non-pharmacologic measures. Music therapy is a useful adjunct or complementary to pharmacologic agents for treatment that it is considered in no way a substitution or replacement to the pharmacological management of the pain. It is therefore a viable measure or action to go with the pharmacologic intervention such as music therapy. In nursing practices, music therapy should always be advisably implemented as the intervention to alleviate the pain and anxiety in cancer patients and included in the clearly defined standard of operation.

Conflict of Interest: There was no conflict of interest in writing this systematic review.

Sources of Funding: This study used private funds researchers and did not get funding from any party.

Ethical Clearance: This study taken ethical clearance from STIKes Widya Nusantara Palu Ethics Committee

References

1. Alligood, M. R. Nursing theory & their work (8thed). The CV Mosby Company St. Louis. Toronto, Missouri: Mosby Elsevier. 2014
2. Bradt, J *at al*. The impact of music therapy versus music medicine on psychological outcomes and pain in cancer patients: a mixed method study. *Support Care Cancer* 2016; 23:1261–127. Doi 10.1007/s00520-014-2478-7
3. Bradt & Dileo. Music for Stress and Anxiety Reduction in Coronary Heart Disease Patients. *Cochrane Database of Systematic Reviews*. 2009; 2-19. Doi: 10.1002/14651858.CD006577.
4. Chiang L C. The Effects of Music and Nature Sounds on Cancer Pain and Anxiety in Hospice Cancer Patients. A Dissertation. Frances Payne Bolton School of Nursing: Case Western Reserve University. 2012.
5. Chuang, C.Y., Han, W.R., Li, P.C., & Young, S.T. Effects of music therapy on subjective sensations and heart rate variability in treated cancer survivors: A pilot study. *Complement Ther Med*. 2010; 18(5):224–6. doi: 10.1016/j.ctim.2010.08.003.
6. Demir, Y. Non-Pharmacological Therapies in Pain Management. Turkey: Intech. 2010
7. Forsblom, A., *et al*. The Effect of Music and Audiobook Listening on People Recovering From Stroke: The Patient's Point of View. *Music and Medicine*. 2010; 2(4):229–234. Doi: 10.1177/1943862110378110.
8. Huang, S.T., Good, M., & Zauszniewski, J.A. The effectiveness of music in relieving pain in cancer patients: A randomized controlled trial. *International Journal of Nursing Studies*. 2010; 47:1354–1362. Doi: 10.1016/j.ijnurstu.2010.03.008.
9. Jasemi, M., Aazami, S., & Zabihi, R.E. The Effects of Music Therapy on Anxiety and Depression of Patients Cancer. *Indian Journal of Palliative Care*. 2010; 22(4):455–458. Doi: 10.4103/0973-1075.191823. Doi: 10.4103/0973-1075.185042
10. Krishnaswamy, P., & Nair, S.. Effect of Music Therapy on Pain and Anxiety Levels of Cancer Patients: A Pilot Study. *Indian Journal of Palliative Care*. 2016; 22(3):308–311.

11. Li, M.X., et al. Effects of music therapy on pain among female breast cancer patients after radical mastectomy: results from a randomized controlled trial. *Breast Cancer Res Treat.* 2011;128(2):411-419. Doi: 10.1007/s10549-011-1533
12. Liu, Y., & Petrini, M.A. Effects of music therapy on pain, anxiety, and vital signs in patients after thoracic surgery. *Complementary Therapies In Medicine Elsevier.* 2015;23:714-718.
13. Marion, J. Music Therapy, Pain, and Anxiety in Short-Term Adult Inpatient Orthopedic Rehabilitation: A Randomized Controlled Trial (Doctoral dissertation, MOLLOY COLLEGE). 2013
14. Peterson, S.J., & Bredow. *Midle Range Theories : Application to Nursing Research.* Wolters Kluwer Health. 2013
15. Phaneuf, M. (2009). Music as a nursing intervention, not as crazy as it sounds. *Journal of neurology.* 2009;131,866-876.
16. Sharafi, S. The Effect of Music Therapy on Psychological Signs and Pain in Women with Breast Cancer. *Cancer Press.* 2016;2(4). 59-63. Doi: 10.15562/tcp.33.
17. Stuart & Laraia. *Principles and Practice of Psychiatric Nursing.* USA: Mosby Company. 2012
18. Susanne et al. Effect of the Combination of Music and Nature Sounds on Pain and Anxiety in Cardiac Surgical Patients: A Randomized Study. *Alternative Therapy Health Med.* 2011;17(4):16-23.

A Study to Assess the Effectiveness of Structured Teaching Programme on Infant and Young Child Feeding (IYCF) Practices among Mothers at Paediatric Wards of S.V.R.R.G.G. Hospital, Tirupati

P. Anil Kumar¹, A. Padmaja²

¹M.Sc. Nursing Final Year, College of Nursing, S.V. Institute of Medical Sciences, ²Professor & Vice Principal, Dept. of Child Health Nursing, College of Nursing, SVIMS, Tirupati

Abstract

Background: Breast feeding practices play an important role in reducing mortality and morbidity among children. The optimal infant and young child feeding practices during the first 2 years of life is of paramount important. Infant need to be fed 5-6 times a day in addition to breast feeding.

Objectives of the Study: The objectives of this study was to assess the knowledge and knowledge on practices on IYCF among mothers of infants and young children, to assess the effectiveness of structured teaching programme on IYCF practices among mothers of infants and young children and to find the association between demographic characteristics and the knowledge on IYCF practices among mothers of infants and young children.

Material and Method: A pre experimental research design was adopted using non-probability convenient sampling technique among 50 respondents from 1st march to 31st march 2019.

Results: Of the total 50 mothers in pre test regarding knowledge on IYCF, 18(36.0%) had inadequate knowledge, 28(56.0%) had moderate knowledge, 4(8.0%) had adequate knowledge. And in post test 4(8.0%) had inadequate knowledge, 22(44.0%) had moderate knowledge, 24(48.0%) had adequate knowledge. Of the total 50 mothers in pre test regarding knowledge on practices related to IYCF, 10(20.0%) had inadequate knowledge, 30(60.0%) had moderate knowledge, 10(20.0%) had adequate knowledge. And in post test 6(12.0%) had inadequate knowledge, 23(46.0%) had moderate knowledge, 21(42.0%) had adequate knowledge.

Conclusion: This study proved that the knowledge of mothers had been markedly increased after providing health education. And health education needs to be strengthened for target population having sub-optimal breastfeeding indicators.

Keywords: Infant and young child feeding practices, complementary feeding, knowledge.

Introduction

Children constitute a major proportion of the global population today. They are truly the foundation of a nation. "A healthy child is a sure future" is one of the

themes of WHO.¹ India registers the highest number of child deaths across the globe. The high prevalence of malnutrition contributes to over 50 percent of child deaths. Infants and young children are at an increased risk of malnutrition from six months of age onwards, when breast milk alone is no longer sufficient to meet all their nutritional requirements and complementary feeding should be started.²

Breast feeding should continue together with complementary feeding up to and beyond second year

Corresponding Author:

A. Padmaja, Professor & Vice Principal

Dept. of Child Health Nursing,

College of Nursing, SVIMS, Tirupati.

e-mail: karanipadmaja@gmail.com

of life. However, infant feeding practices have cultural, social and economical roots making malnutrition more than a medical problem. It has been indicated in many studies all over the world that these practices are the subjects strongly influenced by customs, beliefs, superstitions, religion, culture pattern, mother's education and socio economic status of the family.³

A critical period of child growth is in the first 2-3 years of life when growth faltering is common and exclusive breast feeding in the first 6 months and appropriate complementary feeding after 6 months are essential to meet the nutritional needs of the growing child. In addition to lack of access due to limited availability and affordability of a diverse diet, traditional home-prepared complementary foods in many contexts are either too viscous or watered down, monotonous and have low energy and micro nutrient density and poor protein quality.⁴

The level of child under nutrition remains unacceptable throughout the world, with 90% of the developing world's chronically undernourished children living in Asia and Africa.⁵

We are still far from a world without malnutrition. While the 2019 edition of the joint malnutrition estimates shows that stunting prevalence has been declining since the year 2000, nearly one in four – 149 million children under 5 –were stunted in 2018, and over 49 million suffered from wasting. Meanwhile, the number of overweight children worldwide has remained stagnant for more than a decade.

In 2018, three regions had very high rates of Stunting with approximately one third of children affected. On the other hand, four regions had low or very low rates of stunting. However, vast disparities within the low prevalence regions can exist. In Latin America and the Caribbean, for example, despite the low rate overall, some individual countries faced medium, high, and in some cases very high stunting rates. Chronic under nutrition in Latin America and the Caribbean can vary widely between neighbouring countries: In one country less than 1 in 8 are affected, while nearly 1 in 2 of their peers in the country next door are at a disadvantage due to the irreversible physical and cognitive damage that can accompany stunted growth.

In 2018, 21.9 per cent, or just under one in four children under age 5 worldwide had stunted growth.

That said, overall trends are positive. Between 2000 and 2018, stunting prevalence globally declined from 32.5 per cent to 21.9 per cent, and the number of children affected fell from 198.2 million to 149.0 million. In 2018, nearly two out of five stunted children lived in South Asia while another two out of five lived in Sub-Saharan Africa.

In 2018 globally, 49 million children under five were wasted of which nearly 17 million were severely wasted. This translates into a prevalence of 7.3 per cent and 2.4 per cent, respectively. In 2018, more than half of all wasted children lived in South Asia and about one quarter in sub-Saharan Africa, with similar proportions for severely wasted children. At 15.2 per cent, South Asia's wasting prevalence represents a situation requiring a serious need for intervention with appropriate treatment programmes. Under-five wasting and severe wasting are highly sensitive to change. Thus, estimates for these indicators are only reported for current levels (2018). The prevalence of wasting in South Asia is very high, at 15.2 per cent.⁶

Need for Study

The incidence of malnutrition rises sharply during the period from 6 to 18 months of age in most countries and the deficits acquired at this age are difficult to compensate for in later childhood. There were 420 children admitted in Nutrition Rehabilitation Centre (NRC) in S.V.R.R.G.G.Hospital, Tirupati, between January 2018 to January 2019 due to Severe Acute Malnutrition (SAM).

Material and Method

The research design selected for the present study was pre-experimental one group pre-test and post-test research design. The study was conducted from 1st march to 31st march 2019 at paediatric wards of S.V.R.R.G.G. Hospital, Tirupati, Andhra Pradesh, India. Study population comprised of mothers having children of age group 0-23 months. A total of 50 eligible mothers were approached by non-probability convenient sampling technique. They were informed about the purpose of study and informed consent was obtained from the mothers. The data were collected by interview method using a pretested schedule. The study was carried out by using a structured interview schedule and structured teaching programme on Infant and young child feeding practices.

Results

The study revealed that out of 50 mothers, majority 62.0% (31) were in the Age group of 21-30 years and only 6.0% (3) were at the age group of more than 31 years; With regarding to Religion, majority 78.0% (39) were Hindu and only 2.0% (1) were Christian and others; In relation to Educational qualification, majority 28.0% (14) were having secondary education and only 22.0% (11) were having collegiate education; In relation to Occupation, 60.0% (30) were Home makers; whereas only 6.0% (3) were employee; With regard to Family income per month, majority 46.0% (23) were below

Rs.5000 and only 4.0% (2) were Rs.15001 and above income status; Pertaining to Type of family, majority 46.0% (23) were Nuclear family and only 4.0% (2) were from extended family; In relating to place of residence, majority 52.0% (26) were from Semi urban and only 16.0% (8) were from rural; With regarding to Source of water supply, majority 60.0% (30) were using Bore water and only 4.0% (2) were using well water; Related to Mode of defecation, majority were 84.0% (42) were using sanitary latrines/toilets and only 6.0% (3) were using sulab souchalya. With regarding Home Gardening majority 64.0% (32) were not having and only 36.0% (18) were having Home gardening.

Table 1: Percentage distribution of level of knowledge regarding infant and young child practices among mothers of infants and young children

(N= 50)

Variables	Pre Test						Post Test					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	N	%	N	%	N	%	N	%	N	%	N	%
Knowledge	18	36.0	28	56.0	4	8.0	4	8.0	22	44.0	24	48.0

Table 1 Represents mother's level of knowledge regarding infant and young child feeding practices.

In Pre test - Out of 50 mothers, 18 (36.0%) had Inadequate knowledge, 28 (56.0%) had Moderate

knowledge and 4 (8.0%) had Adequate knowledge.

In Post test - Out of 50 mothers, 4 (8.0%) had Inadequate knowledge, 22 (44.0%) had Moderate knowledge and 24 (48.0%) had Adequate knowledge.

Table 2: Percentage distribution of Level of Knowledge on Practices regarding Infant and young child feeding among mothers of infants and young children

(N = 50)

Variables	Pre Test						Post Test					
	Inadequate		Moderate		Adequate		Inadequate		Moderate		Adequate	
	N	%	N	%	N	%	N	%	N	%	N	%
Knowledge on Practice	10	20.0	30	60.0	10	20.0	6	12.0	23	46.0	21	42.0

Table 2 Reveals mothers level of Knowledge on Practices regarding Infant and young child feeding.

In Pre test - 10 (20.0%) had Inadequate knowledge,

30 (60.0%) had Moderate knowledge and 10 (20.0%) had Adequate knowledge. In Post test - 6 (12.0%) had Inadequate knowledge, 23 (46.0%) had Moderate knowledge and 21 (42.0%) had Adequate knowledge.

Table 3: Effectiveness of structured teaching programme on IYCF Practices among mothers of infants and young children.

(N = 50)

Score	Pre-test			Post-test			t-value	P-value	Significance
	Mean	N	SD	Mean	N	SD			
Knowledge	10.64	50	3.225	13.56	50	2.674	5.902	0.00	**
Practice	5.94	50	1.867	7.14	50	1.667	4.529	0.00	**

Significance: ** = Significance at P < 0.01 level, * = Significance at P < 0.05 level

NS = Not significant

Discussion

The discussion of the present study is based on findings obtained from descriptive and inferential statistical analysis of collected data. It is present in view of the objectives of the study.

The First Objective of the study to assess the knowledge and knowledge on practices on Infant and young child feeding among mothers of infants and young children.

In present study, table 1 represents mother's level of knowledge regarding infant and young child feeding practices. In Pre test: Out of 50 mothers, 18 (36.0%) had inadequate knowledge, 28 (56.0%) had moderate knowledge and 4 (8.0%) had adequate knowledge. In Post test: Out of 50 mothers, 4 (8.0%) had inadequate knowledge, 22 (44.0%) had moderate knowledge and 24 (48.0%) had adequate knowledge.

And table 2 reveals mothers level of knowledge on practices regarding infant and young child feeding. In Pre test: 10 (20.0%) had inadequate knowledge, 30 (60.0%) had moderate knowledge and 10 (20.0%) had adequate knowledge. In Post test: 6 (12.0%) had inadequate knowledge, 23 (46.0%) had moderate knowledge and 21 (42.0%) had adequate knowledge.

The results of the present study are supported by **Mency Simon C, Neena M Sebastian et al.**, in 2014 on Knowledge Regarding Breast Feeding among Primi Mothers in selected Hospital of Bangalore, Karnataka. The study was carried out with 30 primi mothers. The study results revealed that 77% have inadequate knowledge and only 23% of them have moderately adequate knowledge regarding breastfeeding. The mean knowledge score of the primi mothers was 8.39 with the standard deviation of ± 1.55 . There was significant association between the knowledge scores of the primi mothers and their education ($P < 0.05$). There was no significant association between the knowledge score and age and type of family ($P > 0.05$). There is inadequate knowledge regarding breastfeeding among primi mothers. Hence there is the immediate need to create awareness regarding breastfeeding to the mothers to improve their breastfeeding practice.⁷

The Second objective of the study to assess the effectiveness of structured teaching programme on IYCF practices among mothers of infants and young children.

In the present study, table 3 indicates that there is a

significant improvement in the level of knowledge and knowledge on practices related to infant and young child feeding at $P < 0.01$ level.

The results of the present study are supported by **Miss. More Ujwala Ramchandra1, Dr. Vaishali R Mohite et al.**, in 2017 conducted a study to assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Intervention of Weaning Diet among Mothers of Infant Admitted in Krishna Hospital Karad. An Institution based cross sectional study design was used to assess Knowledge weaning of infants among mothers admitted in Krishna Hospital Karad". From January 9th April to 15th April 2017 sample collection & up to May data analysis done. A total of 50 infant's mothers were taken, interviewed with structured questionnaire. Out of 50 Mothers of infant in pre test 15(30%) having poor knowledge, 35(70%) having average knowledge, 0(0%) having good knowledge. post test shows 0% poor knowledge, 39(78%) having average knowledge, 11(22%) having good knowledge. Where P value is 0.0002 which is < 0.5 knowledge and have significantly associated. The outcome of the study is that the increase in the knowledge score of infants mothers after the administration of planned teaching programme.⁸

The Third objective of the study to find out the association between demographic characteristics and the level of knowledge on IYCF practices among mothers of infants and young children.

In Pre test - level of knowledge regarding IYCF in association with demographic characteristics shows age of the mother, education qualification, type of family and source of water supply were significant at $P < 0.05$ level. In Post test - age, religion, educational qualification, occupation of the mother, family income, type of family and home gardening were significant at $P < 0.05$ level.

In Pre test - level of knowledge on practices regarding IYCF in association with demographic characteristics shows age of the mother, educational qualification, occupation, family income and source of water supply were significant at $P < 0.05$ level. In Post test - age, educational qualification, family income, place of residence, source of water supply and mode of defecation, type of family and home gardening were significant at $P < 0.05$ level.

The results of the present study are supported by **S. Kavitha, C. Nadhiya and Dr. Parimalavalli** in 2013 to

assess complementary feeding practices among mothers of infants aged six months to one year. A hospital-based cross sectional study was conducted at one private hospital in Salem, Tamil Nadu. The study was carried out with 50 mothers of infants. The study results revealed that there is a significant association between initiation and type of complementary foods respectively with residence area and maternal education and family income at $P < 0.005$ level.⁹

Conclusion

The data proved that the knowledge of mothers had been markedly increased after structured teaching programme. Irrespective of demographic variables the mothers improved their knowledge after receiving structured teaching programme. Hence direct education could bring about improvement in the knowledge and change in desired behaviour.

Conflict of Interest: None

Funding: Self

Ethical approval: The ethical approval was obtained from ethical committee, college of nursing, svims.

References

1. I Clement. Manual of Community Health Nursing. Chap-9; 205.
2. United Nations Children's Fund, World Health Organization, World Bank, UNICEF/WHO - World Bank Joint Child Malnutrition estimates, Newyork, Geneva; World Bank 2013.
3. Dewey KG, The challenge of meeting nutrient needs of infants and young children during the period of complementary feeding: an evolution perspective. *J. Nutri.* 2013; 143: 2050-54.
4. Allen LH. Adequacy of family foods for complementary feeding. *American J. of Clinical Nutrition* 2012; 95:785-86.
5. The Economic Times, Feb 25, 2016; 04.
6. UNICEF global databases, 2018.
7. Mency Simon C et al., Knowledge Regarding Breast Feeding among Primi Mothers in selected Hospital of Bangalore, Karnataka; *American International Journal of Research in Humanities, Arts and Social Sciences* 2014; 8(1):87-91.
8. Miss. More Ujwala Ramchandra1, Dr. Vaishali R Mohite et al., A study to assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Intervention of Weaning Diet among Mothers of Infant Admitted in Krishna Hospital Karad; *International Journal of Health Sciences & Research* (www.ijhsr.org) September 2017; 7(9): ISSN: 2249-9571.
9. S. Kavitha, C. Nadhiya and Dr. Parimalavalli; To assess complementary feeding practices among mothers of infants aged six months to one year; *Healthline*. pISSN2239-337X/337X/eISSN2320-1525; July-Dec.2014; 5(2).

A True Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Ill – Effects of Alcohol Consumption among Adolescents in Selected Senior Secondary School at Panipat Haryana

Anju¹, Sathish Rajamani²

¹Senior Nursing Tutor, ²Associate Professor, Ved Nursing College, Panipat

Abstract

One of the major public health issues worldwide among senior secondary school childrens is alcohol consumption. However, the extent of consumption among senior secondary school students and their understanding of its ill effects on health remain relatively unknown in many cities of Haryana. This study aim to evaluate the effectiveness of structured teaching programme on knowledge regarding ill effects of alcohol consumption, among adolescents in senior secondary schools at Panipat, Haryana. This study was based on quantative approach, the researcher used true – experimental design. The sampling method adopted was Simple random method and total sample size was 60 (30-experimental group, 30- control group) . Data collection method was self reporting questionnaire. The result of the study shows, in experimental group the pre-test mean score was 12.47 and the post-test mean score was 22.90, the standard deviation score in pre test and post test of experimental group was 2.34 and 2.28 respectively, the paired ‘t’ test value was 16.855 at which was higher than Table Value (2.05). Hence, null hypothesis was rejected and concluded in experimental group. There was significant increase in knowledge after STP on ill effects of alcohol consumption. The study result suggested that educating adolescents on ill effects of alcohol consumption will be effective in increasing their knowledge on the same.

Keywords: Effectiveness, Structured teaching programme, ill effects of alcohol consumption, senior secondary school students.

Introduction

Background of the study: Drinking alcohol has drained more blood, hung more crepe, sold more house, plunged more people bankruptcy, armed more civilians, slain more children, snapped more wedding rings, defiled more innocence, blind more eyes, twisted more limbs, dethroned more reason, wrecked more manhood,

dishonoured more womanhood, broken more hearts, blasted more lives driven more to suicide, and dug more graves than only other poisoned scourge that ever swept its death dealing waves across the world². Alcohol abuse is a major health problem in the country and at large in the world. For the past thirty to forty years, alcohol consumption has increased tremendously¹.

Alcoholism is a chronic dependence characterized by compulsive drinking of alcohol to such a degree that produces mental disturbances and interferes with social and economic functioning. According to “**Johnson**” alcoholism is a condition in which an individual loses control over his alcohol intake. He is constantly unable to refrain from drinking once he begins⁴.

According to current concepts, alcoholism is considered a disease and alcohol a “disease agent” which causes acute and chronic intoxication, cirrhosis of liver,

Corresponding Author:

Anju

Senior Nursing Tutor, Ved Nursing College – Panipat

Mobile: 8053476247

e-mail: anju.lamba90@gmail.com

Sathish Rajamani

Associate Professor, Ved Nursing College – Panipat

Mobile: 9050724820

e-mail: sat2careu@gmail.com

toxic psychosis, gastritis, pancreatitis, cardiomyopathy, peripheral neuropathy and gastro intestinal cancers. In addition to that it's a leading cause of suicide, automobile accidents, injuries and deaths due to violence.³ The health problems for which alcohol is responsible are only part of the total social damage which includes family disorganization, Crime and loss of productivity⁵.

Adolescents are the citizens of tomorrow on whom the future of the nation stands. It is a challenge to meet their health needs. 18 to 20 % of Indian population constitutes the age group of between 10 - 20 years.⁶

Adolescent is a challenging period of both children and their parents. 3 stages of adolescence – early (12-14 years), middle (15-17 years) and late (18-21 years) are experienced by most teens. But the age at which each stage is reached varies greatly from child to child. These different rates of maturation are connected to physical development and hormones balance, neither of which the child can control. For this reason, adolescence should be treated as individuals and any guidelines should be adapted to the particular child.⁷

Today almost every part of the city has increasing number of addicts who belong to different sections of the society in every walk of life. Alcohol and drug dependence are spreading like a contagious disease in the world and India cannot escape from its clutches.⁸ The drug situation in India has acquired a serious dimension. India is no longer merely a country for the transit of illicit drugs from the “Golden triangle” or “Golden Crescent”, but it is fast becoming a potential market for its consumption. There are no definite figures available to assess the actual extent in the country.⁷

Globally, the world Health organization (2012) has reported alcohol as one of the leading risk factors for morbidity and mortality world-wide, with approximately 3.3 million deaths in India were attributed to alcohol consumption, and representing a considerable economic problem for many communities around the world. In 2014, the world health organization released its global status report on alcohol and health. According to the report, about 38.3% of the world's population is reported to consume alcohol regularly. On an average an individual consumption amounts to 6.2 liters of alcohol each year.⁹ The report only considers individuals over 15 years of age. The reports say that about 30% of India's population, just less than a third of the country's populace – consumed alcohol regularly. In Haryana, 63.3% teenagers were found to be consuming alcohol.

More than 30% of all deaths from injuries can be directly linked to alcohol. Substance use also is associated with a wide range of non-lethal but serious health problems, including school failure, Studies show that 46% of adolescents have tried alcohol by eighth grade, and by senior year in high school 77% of adolescents have begun to drink. Moreover, 20% of eighth graders and 58% of seniors have been drunk. Early age of first use of alcohol and drugs can increase the risk of developing a substance use disorder during later life. Therefore, prevention programs that target youth either before youth or during junior high school may help prevent alcohol, tobacco and other drug use during high school¹⁰.

In India, prevalence rates of use of alcoholic beverages ranges from 23 % to 74 % among males and 80% among the adolescent group. Statistics from a recent survey by the social development foundation of the Associated Chambers of Commerce and Industry of India (Assocham) reveals that nearly 45 percent of 12th graders in metropolitan cities drink excessively at least five to six times a month. Globally,¹² the extent of world-wide psychoactive substance abuse is estimated as 2 billion alcohol users, 1.3 billion smokers, 129 million cannabis users and 185 million drug users. About 76.3 million are diagnosed with alcohol related disorders and 3.2 % of overall human deaths are caused by alcohol consumption.¹¹

From the above studies the researcher found that alcohol prevalence in the country is growing in alarming rate, which accounts one of the major cause of mortality and morbidity and also a noticed a significant lowering of age at initiation of drinking . So it is high time to carry out effective intervention to create awareness among the adolescents about alcoholism and its ill effects. Thus adolescents can be prevented from alcohol consumption with timely and proper motivation. Planned teaching programme is one of such effective intervention which can be carried out to bring the awareness among adolescents students in a school set up.

Stataement of Problem

A True experimental study to evaluate the effectiveness of Structured Teaching Programme on knowledge regarding, ill effects of Alcohol consumption, among Adolescents in Selected Senior Secondary School at Panipat.

Objectives

1. To assess the pre test and post test knowledge regarding ill effects of alcohol consumption in experimental group.
2. To assess the pre test and post test knowledge regarding ill effects of alcohol consumption in control group.
3. To evaluate the effectiveness of structured teaching programme regarding ill effects of alcohol consumption in experimental and control group.
4. To find out the association between pre test knowledge regarding ill effects of alcohol consumption with their selected socio demographic variables of adolescents in experimental and control group.

Hypothesis

All the hypotheses will be tested at 0.05 level of significance

H1: The mean post test knowledge scores regarding ill effects of alcohol consumption will be significantly higher than mean pre test knowledge score in experimental group.

H2: The mean post test knowledge scores regarding ill effects of alcohol consumption will be significantly higher than mean pre test knowledge score in control group.

H3: There is a significant difference in mean post test knowledge scores regarding ill effects of alcohol consumption in experimental and control group.

H4: There is a significant association between the mean pre test knowledge scores with their selected demographic variables in experimental and control group.

Conceptual Framework

The conceptual framework of the study is based on modified Imogene King goal attainment theory. Imogene King explains the concept of the nurse and the patient mutually communicating information, establishing goals and taking action to attain goals.

Research Methodology

Research Approach: Quantitative research approach

Research Design: True Experimental Research Design

Setting of the Study: Senior Secondary School, Panipat (Haryana)

Sample Technique and Sample Size

Sampling technique: Simple random sampling technique

Sample size: 60 Senior Secondary School Students (30- Experimental Group and 30- Control Group)

Tools for Data Collection

Researcher used self structured knowledge questionnaire to measure knowledge on ill effects of alcohol consumption.

Procedure for Data Collection

Self reporting questionnaire

STP given to sample in experimental group on day 1 following pre-test. On 7 day post-test was done among samples in both groups.

Data Analysis

Descriptive and inferential statistics (SPSS-version-20)

Data Analysis and Interpretation

Table – I: Frequency and Percentage Distribution of Samples According to Pre – Test Level of Knowledge in Experimental and Control Group

(N = 60)

S. No.	Pre – Test Level of Knowledge	Experimental Group		Control Group	
		f	%	f	%
1.	Adequate	0	0.00	0	0.00
2.	Moderately Adequate	24	80.00	25	83.30
3.	Inadequate	6	20.00	5	16.70

The above table shows the following: With regard to pre – test level of knowledge among samples in experimental group. An overwhelming majority of the samples 24 (80.00%) had moderately adequate knowledge, similarly in control group 25 (83.30%) of the samples were with moderately adequate knowledge. Very few samples in experimental group 6 (20.00%)

and 5 (16.70%) in control group were with inadequate knowledge. None of the samples were with adequate knowledge in both the groups,

Table – II: Frequency and Percentage Distribution of Samples According To Post – Test Level of Knowledge In Experimental And Control Group

(N = 60)

S. No.	Post – Test Level of Knowledge	Experimental Group		Control Group	
		f	%	f	%
1.	Adequate	25	83.30	3	10.00
2.	Moderately Adequate	5	16.70	26	86.70
3.	Inadequate	0	0.00	1	3.30

Table – II: Shows the post – test knowledge level among samples in experimental and control group. In experimental group an overwhelming majority 25 (83.30%) had adequate knowledge and less number of samples 5 (16.70) had moderate knowledge. None of the samples in experimental group were with inadequate knowledge.

In control group majority of the samples 26 (86.70%) were with moderately adequate knowledge and very less 3 (10.00%) were with adequate knowledge and only one sample were with inadequate knowledge.

Table - III: Effectiveness of structured teaching programme regarding ill effects of alcohol consumption in experimental and control group.

(N = 60)

S. No.	Groups	Mean Post - Test	Post – Test Mean Difference	Post – Test Standard Deviation	Independent ‘t’ test Value	‘P’ Value
1.	Experimental group	22.90	9.17	2.28	12.571*	0.0001
2.	Control group	13.73		3.28		

(*) Significant at ‘P’ value < than 0.05

From the above table we interpret the mean post-test score in experimental group was 22.90 where as in control group it was 13.73. The standard deviation value was 2.28 in experimental group and 3.28 in control group. Independent ‘t’ test value was 12.571 for df 58, which was statistically significant at ‘P’ value < than 0.05. This shows the effectiveness of structured teaching programme.

Chi square test was used to find the level of association between pre test knowledge selected socio demographic variables. It was found none of the socio demographic variables have been associated with the pre-test knowledge among samples in both the groups.

Discussion

Current study findings were discussed according to the objectives. The findings of the present study were supported by the following studies.

In pre – test, an overwhelming majority of the samples in experimental group 24 (80.00%) had moderately adequate knowledge, similarly in control group 25 (83.30%) of the samples were with moderately adequate knowledge. Very few samples in experimental

group 6 (20.00%) and 5 (16.70%) in control group were with inadequate knowledge. These findings were similar to the result of the study done by Kiran. N H and Veereskumar N (2016). The study findings showed that there is increase in post-test knowledge scores regarding ill effects of alcoholism compared to pre-test knowledge scores.¹³

In the present study the mean post-test score in experimental group was 22.90 where as in control group it was 13.73. The standard deviation value was 2.28 in experimental group and 3.28 in control group. Independent ‘t’ test value was 12.571 for df 58, which was statistically significant at ‘P’ value < than 0.05. This shows the effectiveness of structured teaching programme. The results obtained are supported by the study conducted by Kumar et al. (2013) where statistically significant improvement was observed in knowledge regarding the harmful effects of alcohol and tobacco use ($t = 27.61, p = 0.001$).¹¹

Conclusion

There is a need for educating the adolescents regarding ill – effects of alcoholism. Without education the adolescents may be unaware of the ill – effects

of alcoholism and they may not develop knowledge and health awareness regarding the same. Hence it is recommended to every nursing professional to develop a education plan to sensitize adolescents towards the ill effects of alcoholism.

Conflict of Interest: No

Source of Funding: Self

Ethical Clearance: Obtained from the ethical committee of Ved Nursing College. Panipat

Reference

1. 3005278301331853MaheswariK.pdf [Internet]. [cited 2019 May 27]. Available from: <http://repository-tnmgrmu.ac.in/3237/1/3005278301331853MaheswariK.pdf>
2. Snehalatha R, Bhagyalakshmi M, Hemalatha S. A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Alcohol Use and Its Harmful Effects Among High School Children at Municipal Corporation School in Tirupati. *Journal of Drug Abuse* [Internet]. 2017 Sep 26 [cited 2019 May 27];3(3). Available from: <http://drugabuse.imedpub.com/abstract/a-study-to-assess-the-effectiveness-of-structured-teaching-program-on-knowledge-regarding-alcohol-use-and-its-harmful-effectsamong-high-school-children-at-municipal-corporation-school-in-tirupati-20616.html>
3. Goswami YP. A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Substance Abuse among Adolescents at Selected Nursing Colleges of Udaipur District, Rajasthan, India. 2015;5(2):5.
4. Goswami - 2015 - A Study to Assess the Effectiveness of Structured .pdf [Internet]. [cited 2019 May 27]. Available from: <http://www.ijsrp.org/research-paper-0215/ijsrp-p38103.pdf>
5. ablitin james_1085.pdf [Internet]. [cited 2019 May 27]. Available from: http://rfppl.co.in/subscription/upload_pdf/ablitin%20james_1085.pdf.
6. Marshall EJ. Adolescent Alcohol Use: Risks and Consequences. *Alcohol Alcohol*. 2014 Mar 1;49(2):160–4.
7. Alcohol consumption in India doubled in 11 years: WHO report [Internet]. [cited 2019 May 27]. Available from: <https://www.livemint.com/Industry/0PBqBWHOYZ8msKWSD6a84H/Alcohol-consumption-in-India-doubled-in-11-years-WHO-report.html>
8. Binge Drinking and Associated Health Risk Behaviors Among High School Students | Articles | Pediatrics [Internet]. [cited 2019 May 27]. Available from: <https://pediatrics.aappublications.org/content/119/1/76.short>
9. Adler R, Raphae B. Children of Alcoholics. *Aust N Z J Psychiatry*. 1983 Mar 1;17(1):3–8.
10. June_2015_1433225822__36.pdf [Internet]. [cited 2019 May 27]. Available from: https://www.worldwidejournals.com/paripex/recent_issues_pdf/2015/June/June_2015_1433225822__36.pdf
11. Kumar D, Huidrom H. Knowledge Regarding Substance Abuse among Higher Secondary School Students. 2016;(7):4.
12. D G, Deepa S. Effectiveness of Structured Teaching Programme on Knowledge and Attitude towards Alcohol Abuse among Adolescent Boys. *Asian Journal of Nursing Education and Research*. 2017 May 30;7(2):173–6.
13. Effectiveness of Structured Teaching Programme on Knowledge and Attitude Towards Alcoholism among Adolescents [Internet]. [cited 2019 May 31]. Available from: https://www.researchgate.net/publication/269887141_Effectiveness_of_Structured_Teaching_Programme_on_Knowledge_and_Attitude_Towards_Alcoholism_among_Adolescents

A Study to Assess the Knowledge on Protein Energy Malnutrition among Mothers of Under Five Children in Selected Areas at Kanchipuram District, Tamil Nadu

Asha M.¹, Jessily Elsa George¹, Nithya S.¹, Priya T.¹, Sandhiya Priya P.¹, Suvitha M.¹, N. Thivya²

¹B.Sc. (Nursing) IV year Students, ²Assistant Professor, Chettinad College of Nursing, Chettinad Academy of Research and Education Kelambakkam, Kanchipuram Dist. Tamilnadu.

Abstract

A study to assess the knowledge on protein energy malnutrition among mothers of under five children in selected areas at kanchipuram district, tamil nadu.

A descriptive study was conducted to assess the level of knowledge on protein energy malnutrition among mothers of under five children in selected areas at Kanchipuram district, Tamilnadu. The objectives of the study was to assess the level of knowledge on protein energy malnutrition among mothers of under five children and to associate the knowledge on protein energy malnutrition with demographic variables.

Research approach for the present study was a quantitative descriptive approach. Quasi Experimental design seems to be the most appropriate design for this study. The study was conducted at Paiyanoor village, Kanchipuram District, Tamil Nadu. Mother of under-five children in the age group of five years residing in Paiyanoor Village, Kanchipuram, and The participants of the study were selected by purposive sampling technique. The data analysis was done using descriptive and inferential statistics. Descriptive statistics like frequency, percentage and mean.

Chi-square test was used to find out the association between the risk factors and selected personal information sheet of the mothers of under-five. The findings shows that the majority (20%) of the mothers of under-five children having adequate knowledge. The majority (63%) of mothers of under-five having moderate knowledge. The majority (17%) of mothers of under-five having inadequate knowledge.

Keywords: Assess, Knowledge, protein energy malnutrition, mothers of under five children.

Introduction

The prevalence of protein Energy Malnutrition among children in south Asia is the highest in the world. It is the almost double the prevalence in sub Saharan Africa. This high prevalence together with the large population of the region explain why more than half of all malnourished children live in south Asia, 101 million out of 184 million. On average there has been a small

decrease in the prevalence of underweight children in south Asia⁽³⁾

Using the WHO Global Database on Child Growth and Malnutrition, which covers 87% of the total population of under 5 year old in developing countries, we describe the worldwide distribution of Protein energy malnutrition based on nationally representative cross sectional data gathered between 1980 and 1992 in 79 developing countries in Africa, Asia were underweight, 269(44.3%) were stunting and 72(11.9%) were wasting. Protein energy malnutrition is an important problem in this contemporary epoch and more under- Five children's are affected with Protein energy malnutrition. This is mainly due to unhealthy Environment and poor knowledge among the parents regarding the disease condition.⁽⁵⁾

Corresponding Author:

Nithya S

B.Sc. (Nursing), IV Year,
Chettinad College of Nursing, Chettinad Academy of
Research and Education, Kelambakkam, Kanchipuram
District, Tamilnadu

E-mail ID :nithunithi1402@gmail.com

Consequently, a number of health-related non-governmental organizations, including Catholic Relief Services (CRS), Adventist Development and Relief Agency (ADRA), World Vision International (WVI) and the Ghana Health Service (GHS) have been promoting proper childcare practices, including appropriate infant-feeding practices and management of childhood illnesses, such as diarrhea⁽²⁾. Health and nutrition messages are usually targeted to mothers, most of whom have not received formal education. These women usually patronize health services at antenatal clinics and child welfare centers (CWC). Additionally, patronage of preventive health services provides an opportunity to improve care practices through both preventive health care⁽⁶⁾

Materials and Method

The methodology of research indicates the general patterns of organizing the procedure for getting valid and reliable data for investigation. Research approach for the present study was a quantitative descriptive approach. Quasi Experimental design seems to be the most appropriate design for this study. The study was conducted at Paiyanoor village, Kanchipuram District, TamilNadu. A purposive sampling technique was used to select 30 samples that fully fill the inclusion criteria viz. The tool was organized in two sections.

Section A: Demographic Variable

It consists of the demographic data age, occupation, income, types of family and source of information

Section B: Knowledge Questionnaire's

A structured questionnaire consists of 14 items. The total attainable score was 14 the cut off score was 8. The knowledge scoring is given below:

1. 0-5 (<50%) Inadequate knowledge
2. 6-10 (51-73%) Moderately adequate knowledge
3. 10-14 (>74%) -Adequate knowledge

Results and Discussion

The collected data was tabulated and analyzed. Descriptive research study was used. The Mean value is 51.5% and standard deviation is 2.093, Table shows that Mean, Mean% and SD of knowledge of under-five mothers on protein energy malnutrition the study shows that (20%) of them having adequate knowledge. (63%)

of them having moderate knowledge and (17%) of them having inadequate knowledge. The findings show that the majority (74%) of the mothers belongs to the age of 21-30 years.

Regarding the demographic variables, The majority (74%) mothers are Hindu. The majority (74%) mothers are occupation. The majority (75%) mothers having per income is a 6000-8000. The majority (78%) mother having nuclear family. The study showed that there is no significant association between protein energy malnutrition with the selected demographic variables

Conflict of Interest: Nil

Sources of Funding: Self-funding

Ethical Clearance: Chettinad Academy of Research and Education, Institutional Human Ethics Committee

Reference

1. K Park. Textbook of preventive and social medicine, 20th ed. Jabalpur: BanarasidasBhanot Publishers; 2005. p 255
2. Sudheer K. A textbook of nutrition, 11th ed. India: Florence Publishers; 2010. p 32
3. Sreevani R. Malnutrition and mental development. Nightingale Nursing Times. 2000;4(12):21
4. BT Basavanthappa. Community health nursing, 2nd ed. New Delhi: Jaypee Brothers Medical Publishers; 2011. p 135.
5. Hurlock E. Developmental psychology. 3rd ed. London: McGraw hills publishing company; 1994. p.211-243.
6. Aparna B, Marrie. Health research: A community based approach. World Health Organisation. New Delhi 1981: 123.
7. Tiwari Mk, Sharma KK et al. Growth and nutritional status of the Bharia- A primitive tribe of Madhya Pradesh. Coll Antropol. 2007 Mar; 31(1):95-101.
8. Vichai Tanphai Chitri Winai Dahlam, Aree Valyasevi Human Nutrition Better Nutrition, better life, Aksornsmat press publication. Bangkok: Thailand.
9. Khokar A. A study to assess the knowledge of mothers with regard to nutritional status of under-five children in selected rural community area. India J Paediatr. 1998; 63:122-23.

A Study to Assess the Knowledge of Primigravida Mothers Regarding Exclusive Breastfeeding in Selected Hospital at Guntur District, Andhra Pradesh

Batthina Amarendra¹, Indira vemuri², Joseph Mary Meena³

¹B.Sc. (N) Final Year, ²M.Sc. (N) Ist Year, ³Assistant Professor NRI College of Nursing, Chinakakani, Guntur, Andhra Pradesh

Abstract

Background: Human milk is the ideal nourishment for infants' survival, growth, and development. Breast milk contains all the nutrients an infant needs in the first six months of life. Exclusive breast feeding means that the infant receives only breast milk. Exclusive breast feeding in the first six months of life stimulates babies' immune systems and protects them from diarrhea and acute respiratory infections. Exclusive breast feeding for the first six months of life is now considered as a global public health goal that is linked to reduction of infant morbidity and mortality, especially in the developing world.

Aim: The aim of the study was to assess the knowledge of Primigravida mothers regarding exclusive breastfeeding and to associate the knowledge with their demographic variables.

Methodology: Quantitative approach with descriptive design was used to assess the knowledge of the Primigravida mothers at selected hospital at Guntur district, Andhra Pradesh in May 2018. A total of one hundred Primigravida mothers were selected by using convenient sampling technique. A structured knowledge questionnaire was used to collect the data.

Results: Out of 100 participants, majority (71%) had moderate knowledge, many (27%) had inadequate knowledge and very few (2%) had adequate knowledge. Significant association was found between the knowledge of exclusive breastfeeding among the Primigravida mothers with their occupation ($\chi^2=40.22$) at 0.05% level of significance.

Conclusion: Breastfeeding is very important for an infant. Prevalence of exclusive breastfeeding up to six months is still low in India. Majority of the Primigravida mothers had inadequate knowledge regarding exclusive breastfeeding. Exclusive breastfeeding counseling in all reproductive and child health clinics especially during the antenatal and postnatal periods may help to improve the mothers' knowledge on exclusive breastfeeding.

Keywords: Knowledge, Primigravida Mothers, Exclusive Breastfeeding.

Introduction

“There is no substitute for mother's love; there is no substitute for mother's milk.”

William Gouge

The birth of the baby is an important event in the family. It is therefore important for the mothers to have a healthy baby. Breast milk is the best food for the babies as breast fed babies are healthier than formula fed babies.¹

Child birth and breast feeding are unique experiences for women. They can only be cherished and nurtured by the health care workers, and the baby friendly way.²

Exclusive breastfeeding as defined by the WHO and UNICEF is the practice whereby the infant receives only breast milk from the mother.³

Breast feeding is the most natural way of infant feeding to satisfy nutritional, metabolic and psychological needs of the baby. A child who is breast fed has greater

chances of survival than a child artificially fed. Breast feeding significantly reduces the risk of death especially from diarrhoea and pneumonia in infants compared to formula fed babies⁴. It also protects the infant from early malnutrition and some infections.⁵

Breast feeding has shown to ensure quality survival, the risk of adult onset of disease like diabetes, allergic disorders like asthma, CAD, hypertension, celiac diseases, lymphoma and cataract is substantially reduced in later life. Breast feeding has advantage to both the baby and the mother. Owing to the advantages of the breast milk to the infants, WHO in 1993 took efforts to improve infant and young child nutrition by promoting breastfeeding WHO and UNICEF created and promoted Baby Friendly Hospital Initiative (BFHI) in 1991, to ensure that all maternity services whether free standing or in a hospital, becomes centers of breastfeeding support.⁶

The World Health organization (WHO) recommends that infants be exclusively breastfed for the first six months of life followed by breastfeeding along with complementary food for up to two years of age or beyond.⁷

According to breast feeding promotion network of India only 10% of hospitals and maternity facilities in India had BFHI status in 2005.⁸

Objectives

1. To assess the knowledge of Primigravida mothers regarding exclusive breastfeeding.
2. To find out the association between the Primigravida mothers with their selected demographic variables.

Hypothesis

H₁: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their age.

H₂: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their religion.

H₃: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their occupation.

H₄: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their education.

H₅: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their income.

H₆: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their dietary pattern.

H₇: There will be significant association between the knowledge of Primigravida mothers on exclusive breastfeeding and their source of information.

Methodology

Research approach: A quantitative research approach was adopted for the present study.

Research design: A descriptive design was adopted with a primary objective to assess the knowledge of the Primigravida mothers regarding exclusive breastfeeding.

Setting of the study: The study was conducted at antenatal OPD in NRI general hospital, Chinakakani, Guntur district, Andhra Pradesh.

Sample and sampling technique: A total of 100 Primigravida mothers who were less than 36 weeks, who were not in active phase of labor and were attending the antenatal OPD at NRI general hospital were selected by using the convenient sampling technique. The study excluded the Primigravida mothers who were more than 36weeks and were in active phase of labor.

Ethical considerations: The ethical committee of the hospital approved the study.

Method of data collection: A structured knowledge questionnaire was used to collect the data from the subjects.

Data collection procedure: A written permission is obtained. The investigator informed the participants about the purpose of the study and has taken an informed consent from the same. The data were collected during the 2nd week of May. All the Primigravida mothers (100) answered the questionnaire.

Tool: The data collection tool used in the present study was a 30 structured questionnaire. The tool was developed by reviewing various books, Studies and taking suggestions and opinions from the experts.

The tool was organized under the following sections: section A and section B.

Section A consists of questions on the demographic variables of the subjects such as: age, religion, occupation, education, income, dietary pattern and source of information of exclusive breastfeeding.

Section B consists of 30 knowledge items on all the aspects of exclusive breastfeeding. The items are closed ended questions. Each correct response is allotted a score ‘one’ and score ‘zero’ for each incorrect response. Maximum score for section B is 30.

Plan for data analysis: The data were analyzed by using descriptive and inferential statistics. The data collected was organized, tabulated and analyzed by using frequencies, percentage mean and standard deviation. Association between the knowledge with the selected demographic variables was analyzed by using chi-square test.

Validity: The structured questionnaire for the present study was validated by subject experts consisting of Obstetrics and Gynecological nursing personnel.

Reliability: The reliability of the test obtained was ‘0.89’. Hence the tool was considered reliable for proceeding with the study.

Pilot study: The pilot study was conducted by using 10 samples on 18.4.2018.

Results

Table-1: Frequency and percentage distribution of socio-demographic characteristics of Primigravida mothers

N=100

S. No.	Sample Characteristics	Frequency	Percentage
1	Age		
	(a) 18-21 years	40	40%
	(b) 22-30 years	54	54%
	(c) 31-35 years	4	4%
2	(d) Above 38 years	2	2%
	Religion		
	(a) Hindu	55	55%
	(b) Muslim	22	22%
3	(c) Christian	23	23%
	(d) Any other	0	0
	Occupation of Mother		
	(a) Daily wages	5	5%
	(b) House wife	83	83%
	(c) Business	6	6%
	(d) Employee	7	7%

4	Education		
	(a) Illiteracy	2	2%
	(b) Primary	49	49%
	(c) Secondary	21	21%
5	(d) Graduation and Above	28	28%
	Income Per Month		
	(a) 2,500-5000/-	17	17%
	(b) 5,001-10,000/-	25	25%
6	(c) 10,001-15,000/-	42	42%
	(d) Above 15,001/-	16	16%
	Dietary Pattern		
	(a) Non- vegetarian	4	4%
7	(b) Vegetarian	7	7%
	(c) Vegetarian and Non-Vegetarian	85	85%
	(d) Any other	4	4%
	Source of Information		
	(a) Families	55	55%
	(b) Colleagues	2	2%
	(c) Health Care Personals	24	24%
	(d) Media	19	19%

Table-2: The mean knowledge score of the sample with standard deviation

S. No.	Variables	Mean	Standard Deviation
1.	Knowledge	16.82	3.53

The mean knowledge score of sample is 16.82 with a standard deviation of 3.53.

Table-3: Distribution of sample by their level of knowledge with regard to exclusive breastfeeding

N=100

S. No.	Level of Knowledge	Frequency	Percentage
1.	Adequate knowledge	2	2%
2.	Moderate knowledge	71	71%
3.	Inadequate knowledge	27	27%

The values in the above table shows that very negligible (2%) number of the Primigravida mothers had adequate knowledge, majority (71%) had moderate knowledge and a few (27%) of the Primigravida mothers had inadequate knowledge regarding the exclusive breastfeeding.

Table-4: Chi-square value showing association between the knowledge of Primigravida mothers on exclusive breastfeeding with their socio-demographic variables.

S. No.	Demographic Variables	Chi-Square Value	Table Value	Degree of Freedom
1.	Age	5.25 ^{NS}	12.59	6
2.	Religion	1.93 ^{NS}	12.59	6
3.	Occupation of mother	40.22*	12.59	6
4.	Education	2.44 ^{NS}	12.59	6
5.	Income	5.98 ^{NS}	12.59	6
6.	Dietary pattern	10.21 ^{NS}	12.59	6
7.	Source of information	2.57 ^{NS}	12.59	6

‘*’–indicates significant at 0.05 level of significance
 ‘NS’–indicates non-significant at 0.05 level of significance.

Discussion

The present study was conducted with an aim to assess the knowledge of Primigravida mothers regarding exclusive breastfeeding. The results revealed that out of 100 participants 71% had moderate knowledge regarding exclusive breast feeding. This is supported by the results of the study conducted by Esha Sharma and Shantha Seelan who reported that out of 100 Primigravida mothers 77% had average knowledge.⁹

The present study showed significant association between the knowledge of Primigravida mothers on exclusive breastfeeding with their occupation ($\chi^2=40.22$).

Conclusion

1. Majority of the Primigravida mothers were lacking knowledge regarding exclusive breastfeeding.
2. Significant association is there between the knowledge of Primigravida with their occupation.

Hence, there is need for the nursing personnel to impart knowledge on exclusive breastfeeding and its various aspects. Preparation of cost effective material and usage of the same for teaching by the nurse educator to be encouraged to conduct such education programs. Nursing students should be taught the importance of exclusive breastfeeding which will help them to educate the Primigravida mothers about the same.

Recommendations

1. A similar study can be undertaken on one sample with different demographic variables.
2. A similar study can be conducted using a large sample.
3. A comparative study can be taken up between primipara and multipara mothers/ Primigravida and multigravida mothers.
4. Studies on all aspects of exclusive breastfeeding can be conducted.
5. A study can be taken up with pre- experimental design.

Conflict of Interest: Nil

Source of Funding: Self

References

1. BT Basavanhappa. Midwifery and Reproductive health nursing. New Delhi: JayPee Brothers Medical Publishers; 2006. P. 410-411.
2. Ministry of health and family welfare government of India. Basic newborn care and Resuscitation program training manual. Pp-65-70.
3. Labbok M, La Leche League Int. (2000); 19,3,19.
4. Victora CG et al. Infant feeding and deaths due to diarrhea. Case Control Study. Am JEpidemiol.1989; 129(5):1032-41.
5. Park K. Preventive and Social Medicine.Text Book. 20th edition. Jabalpur: M/S Banarsidas Bhanot Publisher; 2009.
6. www.unicef.org/programme/breastfeeding/baby .htm. Accessed on 21.11.2010.
7. Hanif H.M., Int. Breastfeed J : 2011. 6,15,1.
8. Dr. Dadhich JP. Report of assessment of status of IYCF: practice, policy and program: achievements and gaps. 2009.
9. Esha Sharma and Shantha Seelan G. knowledge regarding breastfeeding among primigravida mothers. IntJ. Recent Sci Res. 2017; 8(11): pp.21517-21521.

A Study to Assess the Knowledge on Menstrual Hygiene among Adolescent Girls in Selected Schools, Mangalagiri, Guntur District, Andhra Pradesh

D. Bhanu Priya¹, Aleti Kumari², Joseph Mary Meena³

¹PB. B.Sc. (N), ²M.Sc. (N) Ist Year, ³Assistant Professor, NRI College of Nursing, Chinakakani, Guntur (Dt.) Andhra Pradesh

Abstract

Introduction: Adolescence is defined as life between 10 and 19 years of age. In females menstruation marks the beginning of adolescence. Menstruation is a physiological phenomenon which is unique to females in teenage. It is healthy, normal and mature process. Menstruation is still regarded as something unclean or dirty in Indian society. Most of the girls in India are at risk of getting genitourinary tract infections due to unhygienic practices during their menstruation and lack of adequate knowledge about menstrual hygiene. So, with view of this response, there is a need to assess the knowledge of adolescent girls with regard to menstrual hygiene which prevents the genitourinary tract infections.

Materials and Method: A descriptive study was conducted to assess the knowledge on menstrual hygiene among the adolescent girls at Nirmala High School, Atmakur, Guntur district, Andhra Pradesh. A total of 100 adolescent girls between the age of 10-19 years were selected by using the convenient sampling technique. Structured knowledge questionnaire consisting of a 30 multiple choice questions was developed and utilized for the data collection. Data were organized and analyzed by using descriptive and inferential statistics.

Results: The findings of the study revealed that only 7% of the adolescent girls had adequate knowledge, 61% had moderate knowledge and 32% had inadequate knowledge. And also significant association was found between the knowledge of the adolescent girls with their demographic variables such as age, education, religion, age at menarche, previous knowledge about menstrual hygiene.

Conclusion: Majority of the adolescent girls had inadequate knowledge on menstrual hygiene. Hence, there is a need for improving knowledge on menstrual hygiene among the adolescent girls.

Keywords: Knowledge, Adolescent Girls, Menstrual Hygiene.

Introduction

Adolescence is defined as life between 10 and 19 years of age. In girls, it is a phase of transition from girlhood to womanhood. In females, menstruation marks the beginning of the adolescence, but they are not prepared and there is lack of knowledge about menstruation among adolescent girls.¹

Adolescence is considered as a critical period in human evolution, although it is often not recognized as such by healthcare workers and parents as well as professionals in adult medicine and pediatric disciplines. The onset of phenomenon that signals reproductive maturity and should not be seen as an abnormal condition or disease.²

Menstruation is a physiological phenomenon which is unique to females in teenage. The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. The first menstruation occurs between 11 and 15 years with a mean of 13 years³.

Menstruation is also properly called menses or more commonly a period of monthly flow. It is healthy, natural and mature process. Although menstruation is natural process, it is linked with several adverse health outcomes.⁴

Menstruation is the first indication of puberty. During puberty, the physical changes occur which

transform the body of child into that of an adult, changes in body size and changes in body proportion.⁵

Menstrual hygiene depends upon the educational, socio economic and cultural statuses of the family. But many lack economic and social conditions to manage menstrual sanitation satisfactorily. Menstruation is still regarded as something unclean or dirty in Indian society. The reaction to the menstruation depends upon awareness and knowledge about the subject.⁶

Menstrual hygiene management is limited by various cultural, social and economic factors. Infections because of poor menstrual hygiene during menstruation have been reported in many studies. Problems such as lack of water and bathroom facilities, lack of private rooms for changing sanitary pads and ignorance because of lack of education are some of the factors responsible for poor menstrual hygiene, which in turn poses many reproductive health problems in future.⁷

Good menstrual hygiene practices are essential during menstruation which includes: 1) Regular change of clothing and underwear, 2) Change of hygienic pads every three to four hours, 3) Daily showering, especially in instances of dysmenorrhea, 4) Adequate washing of the genitalia after each voiding of urine and feces, 5) Continuing normal routine and daily activities (e.g. Going to school, doing physical exercise) and 6) Maintaining a balanced diet with plenty of fruits and vegetables rich in iron and calcium.⁸

Every year approximately 10% of women worldwide are exposed to genital infections including urinary tract infections and bacterial vaginosis and 75% of women have a history of genital infections. Specifically, the common risk factors for the vaginal infections include pregnancy and poor hygiene (both perineal and menstrual hygiene), due to lack of adequate knowledge regarding menstrual hygiene. It was therefore felt as a need to assess the knowledge of adolescent girls regarding menstrual hygiene.⁹

Statement of the Problem

A Study To Assess The Knowledge On Menstrual Hygiene among The Adolescent Girls In Selected Schools, Mangalagiri, Guntur District, Andhra Pradesh.

Objectives

1. To assess the knowledge of adolescent girls regarding menstrual hygiene.

2. To determine the relationship between the selected demographic variables and knowledge of the adolescent girls regarding menstrual hygiene.

Review of Literature

The review of literature for the present study was gathered and organized with regard to assessment of knowledge on menstrual hygiene among adolescent girls.

Material and Method

A descriptive study was used to conduct the study. The study was carried out among the adolescent girls who were studying in Nirmala High School, Atmakur, Guntur (Dt), Andhra Pradesh. One hundred adolescent girls aged between 10-19 years were selected for the study using convenient sampling technique. A structured questionnaire with section – A and section- B was developed and used for collecting the data from the subjects. Section – A consists of 5 items on demographic variables like age, religion, educational status, age at menarche, previous knowledge of menstrual hygiene. And section- B consisted of 30 knowledge items on menstrual hygiene. The data collection was done by administering the questionnaire to the study subjects. The responses of the adolescent girls were organized and analyzed by using descriptive and inferential statistics which includes mean, standard deviation and chi-square test.

Major Findings

Table-1: Frequency & Percentage distribution of adolescents girls by the selected variables

N=100

S. No.	Sample Characteristics	Frequency (F)	Percentage (%)
1.	Age (a) 12 years (b) 13 years (c) 14 years (d) 15 years	5 42 43 10	5% 42% 43% 10%
2.	Religion (a) Hindu (b) Christian (c) Muslim (d) Others	64 31 5 0	64% 31% 5% 0
3.	Educational (a) VII Standard (b) VIII Standard (c) IX Standard (d) X Standard	5 95 0 0	5% 95% 0 0

4.	Age at Menarche		
	(a) 12 years	58	58%
	(b) 13 years	25	25%
	(c) 14 years	9	9%
	(d) 15 years	8	8%
5.	Previous Knowledge		
	(a) Yes	73	73%
	(b) No	27	27%

The study findings revealed that, out of 100 adolescent girls enrolled in the study,(5%) where at the age group of 12 years(42%) were at the age of 13 years (43%) were at the age of 14 years and 10% were at the age group of 15 years. When it comes to religion, majority of adolescent girls (64%) were Hindus, 31% were Christians, 5% were Muslims. With regard to education 5% were studying VII standard, 95% were VIII standard. In the regard to age at menarche 58% of adolescent girls attained menarche at the age of 12 years, 25% attained menarche at the age of 13 years, 9% attained menarche at the age of 14 years and 8% attained at the age of 15 years. Majority of the adolescent girls (73%) had previous knowledge on menstrual hygiene and 27% had no previous knowledge on menstrual hygiene.

Table 2: Distribution of frequency and percentage of knowledge scores of adolescent girls on menstrual hygiene

N=100

S. No.	Knowledge Score	Frequency (F)	Percentage (%)	Mean	Sd
1.	Inadequate knowledge	32	32%	12.55	3.54
2.	Moderate knowledge	61	61%	12.55	3.54
3.	Adequate knowledge	7	7%	12.55	3.54

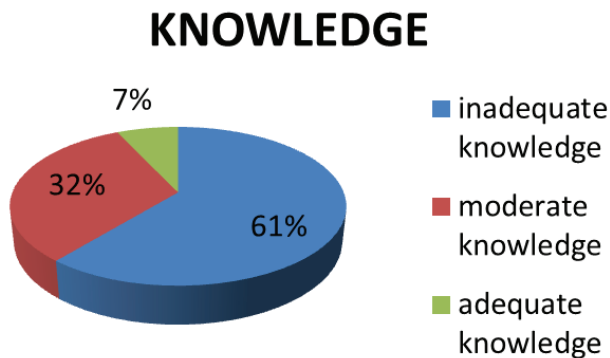


Fig. 1: Knowledge level of adolescent girls on menstrual hygiene

The above data in the table 2 and fig. revealed that 32% of adolescent girls had inadequate knowledge, 61% of adolescent girls had moderate knowledge, and only 7% of adolescent girls had adequate knowledge on menstrual hygiene.

Table-3: Chi-Square Values Showing The Association Between Knowledge And Selected Variables

N=100

S. No.	Demographic Variables	Chi-Square Value (χ^2)	Degree of Freedom (Df)	Table Value
1.	Age in years	7.5	6 NS	12.59
2.	Religion	1.33	6N S	12.59
3.	Education	1.11	6N S	12.59
4.	Age at menarche	20.36	6 S	12.59
5.	Previous knowledge of menstrual hygiene	1.44	2 NS	5.99

N.S =Non significant at 0.05% level

S= significant at 0.05% level

The chi-square values obtained for knowledge scores and age at menarche ($\chi^2=20.36$) was higher than the table value. This indicates that there was a significant relationship between knowledge of adolescent girls on menstrual hygiene and their age at menarche. Hence, the researcher accepted the hypothesis and rejected the null hypotheses.

The chi-square values for knowledge scores and age ($\chi^2=7.52$), religion ($\chi^2= 1.33$), education ($\chi^2=1.11$), and previous knowledge on menstrual hygiene ($\chi^2=1.44$) were less than the table value with significant level at 0.05%. Hence, there was no significant relationship existing between the knowledge scores of adolescent girls on menstrual hygiene with above stated variables.

Discussion

This study was carried out to assess the knowledge of adolescent girls on menstrual hygiene. Findings of the study revealed that only 32% of adolescent girls had inadequate knowledge, 61% of adolescent girls had moderate knowledge and 7% of adolescent girls had adequate knowledge. This is supported by a study conducted by Ruchi, Farha Azmi in which it was revealed that 25% of adolescent girls had adequate knowledge, 37.5% had moderate knowledge and 37.5% had inadequate knowledge on menstrual hygiene.

In the present study it was found that significant association exists between knowledge of adolescent girls and their socio-demographic variables such as age ($\chi^2=7.52$), religion ($\chi^2= 1.33$), education ($\chi^2=1.11$), age at menarche ($\chi^2=20.36$).¹⁰

Conclusion

The study results revealed that majority of the adolescent girls had inadequate knowledge on menstrual hygiene and the knowledge of adolescent girls was significantly associated with their socio-demographic variables which include age, religion, educational status, age at menarche and previous knowledge on menstrual hygiene. Hence, there is a need to educate the adolescent girls about the menstrual hygiene and its importance to enhance their knowledge.

Recommendations

1. A similar study can be undertaken on one sample with different demographic variables.
2. A similar can be conducted using a large sample.
3. A comparative study can be conducted among adolescent girls in rural and urban areas.
4. A small study can be conducted by structured teaching programme.

Conflict of Interest: Nil

Source of Fund: Self

Ethical Clearance: Taken from the institutional ethical committee.

References

1. Mudey Ab Keshwani N. Mudey Ga, Gopal Rc. A cross sectional study on the awareness regarding

safe and hygienic practices amongst school going adolescent girls in the rural areas of Wardha district. *Global J Health Sci.*2010, 2(2) : 225-31.

2. Mehara S. (Ed), adolescent girl; An Indian perspective, Saket, New Delhi;MAMTA Health institute for mother and child, 1995. Pp 75-8.
3. *Chrimed Journal of Health And Research Anjali* vol 4 p.no.99-13.
4. Reid G, Bruce AW. Urogenital infections in women; can probiotics help? *Postgrad Med J.* 2003; 79: 428-32.
5. Salailak S, Mohadesi H, Nabizadeh M, Motaraggeb F. A study on the rate of knowledge, attitude and practice of high schools to menstruation health in Urmia (1999-2000) *J Urmia University Medl Sci.* 2001; 12(2): 163-169.
6. Thakre SB Thakre SS. Reddy M. Rathi N. Pathak K. Ughade S. menstrual hygiene knowledge and practice among adolescent school girls of Soner, Nagpur district. *J Clindiagn Res.* 2011; 5:1027-33.
7. Dasgupta A Sarkar M. menstrual hygiene: how hygiene is the adolescent girl? *Indian J Community Med.* 2008; 33: 77-80.
8. *JHSR International journal of health sciences and research* vol.3; p. no. 75-88.
9. Singh aj. place of menstruation in the reproductive lives of women of rural north india. *indian j community med* 2006 32(3):10-410.
10. Ruchi Farha Azmi *International Journal of Science and Research (IJSR) ISSN (Online):vol 2013:6.14* pg no-1100-1102.

Effectiveness of Health Awareness Programme on Knowledge Regarding Cervical Cancer and Human Papilloma Vaccine among Adolescent's Girls at Waghodia Taluka

Bhavna Baria¹, Vruti C. Patel², Robby Solamki³

¹M.Sc. Nursing, ²Assistant Professor, ³Associate Professor, Sumandeep Nursing College, Sumndeep Vidhyapeeth, Vadodara, Gujarat, India

Abstract

Background: Cancer is group of disease involves abnormal cell growth with capacity to invade or spread to other parts of body. Cancer is class of disease in which unite of cells exhibit uncontrolled growth, human papilloma vaccine and cervical cancer prevention practice and policy among the adolescent girls. In this study an evaluative research approach with pre-experimental research design was used, data was collected from 80 adolescent's girls belongs to Waghodiya, taluka village, A structured questionnaire was prepared to assess the knowledge regarding cervical cancer and human papilloma vaccine.

Result: The health awareness programme is effective to improve the knowledge and brings regarding cervical cancer and human papilloma vaccine among the adolescent's girls.

Objectives:

- Assess the existing knowledge regarding cervical cancer and human papilloma vaccine (HPV)
- Assess the effectiveness of health awareness program on knowledge regarding cervical cancer and human papilloma vaccine.
- Find out association between pre-test knowledge score and demographic variables.

Material and Method: In this research study an evaluative research approach with pre- experimental one group pre-test-post-test design is used. The sampling techniques was probability convenience sampling is used to collect the 80 samples of adolescent's girl's data collection done by administering the structured questionnaire and Likert scale. Data was analyzed by using descriptive and inferential statistics such as standard deviation, chi- test, and paired 't' test.

Result: With regards to the pre test assessment, the score of 18 (3%) adolescent's girls was having moderate level of knowledge and 30 (37.5%) were having inadequate

The association of pretest knowledge score was only associate with the age, education level, Gender and source of information others are not associate. Hence, H_2 is rejected.

Keywords: Effectiveness, Health awareness Programme, on Knowledge, regarding cervical cancer and human papilloma vaccine & its prevention.

Introduction

"The best protection for public health is prevention not clean up"

— John, McNabb

Women are becoming more and more aware of their health status as a result of modern education, electronic print media and health agencies. While women have

made progress in most the field but still, she tends to inexplicably neglect her own health though in the present age women are aware in the problem, the readiness to seek help from health personal is hindered by economic construction, social stigma and rigid superstitious beliefs regarding their health problems. Hence, it is necessary to provide information to women regarding their health problem though the available community resources. ¹

Cancer is group of disease involves abnormal cell growth with capacity to invade or spread to other parts of body. Cancer is class of disease in which unite of cells exhibit uncontrolled growth, invasion (intrusion on and destruction of adjacent tissues) and metastasis (sometimes spreads to other organs in the body via lymphatic circulation and blood circulation). These three characteristics of cancer differentiate them from non-cancerous tumors, which are self-limited and do not invade or metastasize.²

Worldwide, Cervical cancer is the commonest diagnosed and major gynecological cancer in Asia and Africa. Globally the annual incidence of cervical cancer is 4,71,000 among them 1,30,000 occurring in India.³

Need for the Study

“One of the important keys to good health is good information”

— Dr. Danny Welch

Women’s health issues have become a focus for science and politics. Women’s work roles, possible exposures to workplace hazards, social class, social roles, social stress to health care and health behaviors are the factors that act together to help determine women’s health and wellbeing. Cervical cancer is third most common form of gynecologic cancer advanced disease often has post coital bleeding, sciatica pain and thin watery discharge. Guidelines recommend that screening begins when a woman becomes sexually active or by age 18 years.⁴

Cancer is one of the most common causes of morbidity and mortality worldwide, with an estimated 14 million new cases and 8 million deaths in 2012 projected to rise by at least 70 % by 2030. Timely and accurate cancer statistics are crucial to identify priorities for cancer control strategies at the international level. Yet, only 34 of 194 World Health Organization Member States presently report high quality national mortality data, while 63 countries provided high-quality incidence data for the last volume of Cancer incidence in five continents. As a result, many policy-makers rely on national cancer incidence and mortality estimates of variable precision to inform cancer control priorities.⁵

Each year, the American cancer society estimates the numbers of new cancer cases and deaths that will occur in the United States in the current year and compile the most recent data on cancer incidence, mortality, and

survival. Mortality data collected by the national center for health statistic. In 2016, 1,68,520 new cancer cases and 9,690 cancer deaths are projected to occur in the united states.⁶

Statement of Problem

A study to assess the effectiveness of health awareness programme on knowledge regarding cervical cancer and human papilloma vaccine among Adolescent girls in Waghodiya Taluka, Vadodara.

Objectives

- Assess the existing knowledge regarding cervical cancer and human papilloma vaccine (HPV)
- Assess the effectiveness of health awareness program on knowledge regarding cervical cancer and human papilloma vaccine.
- Find out association between pre-test knowledge score and demographic variables.

Hypothesis

H₁: There will be significant difference between pre test and post - test score knowledge regarding cervical cancer and human papilloma vaccine.

H₂: There will be significant association between pre test knowledge score with socio - demographic variable.

Material and Method

Research design: In This Study, The Research Design Was Pre Experimental One Group Pre-Test And Post Test Design

Setting: Waghodiya taluka Vadodara.

Sample: 80 Adolescents girls Waghodiya taluka Vadodara.

Inclusion criteria: Adolescent girls who are able to speak & write in Gujarati & English.

Adolescent girls who are willing to participate in the study.

Exclusion criteria: The girls age above 19 years.

Tool for Data Collection: This consists of three parts.

Section 1: Demographic variables such as age, educational status, family-income, knowledge regarding HPV vaccine. previous knowledge regarding cervical cancer and detected cervical cancer.

Section 2: Structured knowledge questionnaire was used to assess knowledge regarding cervical cancer and human papilloma vaccine.

Procedure Scoring:

For knowledge assessment-if answer right -1

If answer wrong-0

Scoring interpretation:

Inadequate knowledge: <33%

Moderate knowledge: 34 to 66%

Adequate knowledge: > 67 %

Reliability

“Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to measure.” In this study the reliability was determine by administreting the tool among 8 adolescent’s girls who are atteaining ropa village the realibility of tool established by using kerl pearson formula (r- 0.89)

Data Collection Procedure

The formal permission was obtained for the approval of the study from T.D.O (taluka district officer) of waghodiya taluka from 27 Navember to 13 December. The data collection done within a given period of 2 weeks from Madheli, Limda, Goraj, Sangadol, Tavra, Waghodiya Taluka. The investigator

selected 80 adolecent girl meeting the inclusion criteria for data collection by using non- probability convenient sampling. The investigator selected the subject and established the rapport by explaining purpose of the study, the co-operation required and the anonymity assured before obtaining verbal consent. Initially the demographic tool, self-structured questionnaire, to the sample to know existing level of knowledge regarding cervical cancer and human papilloma vaccine then health awareness programme was given to the samples of the study. After 7 days post test was administered to assess the effectiveness of the health awareness programme among adolencent girl.

Analysis

Table 1: Distributions of pre-test knowledge score of adolescent’s girls regarding cervical cancer and human papilloma vaccine & its prevention. N=80

Sr. No.	Knowledge level	Frequency	Percentage
1	Inadequate	30	37.5%
2	Moderate	50	62.5%
3	Adequate	00	00%
Total		80	100%

Table 2: Distributions of pre test knowledge score of adolescent’s girls regarding cervical cancer and human papilloma vaccine & its prevention. N=80

Sr. No.	Knowledge level	Frequency	Percentage
1	Inadequate	30	37.5%
2	Moderate	50	62.5%
3	Adequate	00	00%
Total		80	100%

Table No. 3: Association between Pre-test and Demographic Variable.

Variable & Sr. No.	0-10	11-20	Total	X ²	Df	Level of significance
Age						
(a) 9-15	11	22	26	6.70	1	6.70>3.841 S
(b) 15-20	19	28	54			
Total	30	50	80			
Education						
(a) Primary	12	7	19	6.99	1	6.99>3.841 S
(b) Secondary	18	43	61			
Total	30	50	80			

Cont... Table No. 3: Association between Pre-test and Demographic Variable

Income				4.68	1	4.68>3.841 S
(a) Below 10.00	12	8	20			
(b) 10.000-15.000	18	41	60			
Total	30	50	80			
Knowledge about immunization				0.086	1	0.086<3.841 NS
(a) Yes	13	20	33			
(b) No	17	30	47			
Total	30	50	80			
Living are				5.524	1	5.524>3.841S
(a)Urban	11	7	33			
(b) Rural	17	43	47			
Total	30	50	80			
Family history of cancer				6.036	1	6.036>3.841S
(a) Yes	13	9	22			
(b) No	17	41	58			
Total	30	50	80			
HPV vaccine				9.497	1	9.497>3.841S
(a) Yes	16	10	26			
(b) No	14	40	54			
Total	30	50	80			
Detected cervical cancer				0.416	1	0.416<3.841N
(a) Yes	11	22	33			
(b) No	19	28	47			
Total	30	50	80			

Discussion

The aim of the study was conducted to evaluate the effectiveness of health awareness programme on knowledge regarding cervical cancer and HPV vaccine. It was found adolescent girl had inadequate knowledge regarding cervical cancer and HPV vaccine and health awareness programme is effective to improve the knowledge regarding human papilloma virus and HPV vaccine.

Conclusion

This study was undertaken to assess the effectiveness of health awareness programme, regarding cervical cancer and human papilloma vaccine and its prevention, the study involves one group pre- test post-test pre experimental design with non probability convenient sampling technique, 80 samples of adolescent's girls was selected on the basis of inclusion and exclusion

criteria. A conceptual framework used for this study is modified "king's goal attainment model." Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data is interpreted in the forms of tables and graphs.

Conflict of Interest

There is a no conflict during the research study.

Source of Funding

Use a self-funding during the research study.

Reference

1. Kathreena MU. The Effect OF Breast Self-Examination Practices and Examination on Extent of Disease at Diagnosis. Preventive Medicine: 1980: 409-17.

2. Joyce M Black, Jane Hokanson Hawks., medical surgical nursing, 8th edition, 2012, Elsevier. Page No: 250.
3. Available at, FT Cutts^a, S Franceschi, available online at: <http://www.who.int/vaccines-documents/DocsPDF07/866.pdf>. www.dailyexcelsior.com/cancer-scenario-india.
4. Jean Jenkins RN. MSN. Et al. The effects of cancer on women seminar only oncology Nursing. May 1995: 11 (2) 77.
5. Cromwell I. Ferreira Z. Smith I, van der Hoek K, Ogilvie G, Codman A. k SJ. Cost and resource utilization in cervical cancer management: a real-world retrospective cost analysis. *Current Oncology*, 2016 Feb: 23 (Suppl 1): 514.
6. Park K. Text Book of preventive and Social Medicine, Jabalapur, M/S. Banarsidas Bhanot publishers. 17th ed. 2005, Pp:307-30.

Effectiveness of Hoffman Exercise on Breastfeeding among Primipara Mothers with Flat and Retracted Nipple: A Narrative Review

Debalina Ghosh¹, Anupam Singh²

¹P.G. Tutor, Teerthanker Mahaveer College of Nursing, ²M.Sc. Nursing Final Year, Teerthanker Mahaveer College of Nursing

Abstract

Introduction: Breastfeeding is one of the most natural and beneficial acts a mother can do for her child. There is no other single action by which a mother can impact the present and future health of her baby. Nipple abnormalities are commonly encountered in clinical practice especially in relation to lactation problem in postnatal. A truly inverted nipple is caused by adhesion at the base of the nipple that binds the skin to the underlying tissue. AIM: The aim of this narrative review is to find information on the effectiveness of Hoffman exercise on breastfeeding among primipara mothers with flat and retracted nipple. Methodology: Hoffman exercise Types of studies- Quasi-experimental, Pre experimental, True Experimental study. Setting- Postnatal ward of maternity hospital. Outcome- This narrative review result has appeared that Hoffman exercise will be effective on breastfeeding in flat and retracted nipple.

Keywords: Hoffman exercise, breastfeeding, Primi-para mothers, flat nipple and retracted nipple.

Introduction or Background

In women who are pregnant for the first time, it is very common that the nipple may not protrude fully. About one-third of mothers will experience some degree of inversion, but as the skin changes and become more elastic during pregnancy.

Retracted and flat nipple is commonly available in primi para mothers. During postnatal periods nipple abnormalities are often encountered in clinical practice in relation to lactation problem. One of the most advantageous and natural acts as a mother can do for her baby is breastfeeding. Breastfeeding is beneficial for both mother and child and its help for the present and future health of the child. It also helps in brain development and makes baby mentally and physically strong (Gandhimathi M, Kalavathi S, 2006)⁶

The abnormalities of the nipple include long nipple, short nipple, abnormally large nipple, inverted nipple, flat nipple, retracted nipple and cracked or damaged nipple. Nipple problem should not interfere in the breastfeeding process if proper guidance and counseling are provided to the mother during postnatal periods. Sometimes mothers stop breastfeeding due to these nipple problems

and baby didn't get benefits of colostrums. An evaluation was made that 10% of pregnant women have inverted or non-projectile nipples which delay breastfeeding.

Findings

A study was conducted to assess the prevalence and non-protractile nipples in antenatal women's. A total number of 3006 antenatal women was examined in antenatal clinics of District general hospital and or outlying antenatal clinics from 1987-1989 by midwives. The study results found that 295 (9.8%) at 95% CI, 88-10.9% has found at least one inverted or flat nipple. The study also found that increasing maternal age, previous breastfeeding and increasing gestation having a significant impact on reduction in prevalence of flat and retracted nipples (Alexander & Campbell, 1997).¹

Another study was conducted to find out best outcome between breast shell or Hoffman exercise for antenatal mother who has at least one inverted or non-projectile nipple. The study was conducted on 1987-1989 in antenatal clinics of district general hospital or community area. A total number of 96 women participated in this study was divided into four groups. One group receive breast shell, another received Hoffman

exercise, another received both breast shell with Hoffman exercise and last one was control group without any treatment. The study result found improvement noticed in breast shell used group 25 (52%) and 29 (60%) no shell with a difference of 8% in CI 95%. Same like in exercise group 26 (54%) got improvement and 28 (58%) no exercise with a difference of 4% at CI 95%. So the study concluded none of the method have clear evidence of successful breastfeeding in postnatal period to be advised (Alexander, Grant & Campbell, 1992).²

Padmavathi P, 2015 conducted a study to assess the level of successful breastfeeding after intervening Hoffman exercise. The study was conducted on 30 primipara mothers and study result found that after giving Hoffman exercise in control group majority 12 (80%) mother are fallen in medium risk and 3 (20%) are in low risk whereas in experimental group 11 (75%) mothers are in low risk and 4 (25%) are in medium risk. Comparison of post-test value of experimental and control group (t-test) shows 6.82 ($P < 0.05$) also shows highly significant. So the study is supporting that Hoffman exercise is effective for treating flat and retracted nipple.³

Another comparative study was conducted on three types of experiment among antenatal mother to find out the effectiveness of the intervention. Each group comprises 30 participants each and the first group receives manual technique, second group rubber band and the last group received syringe method. The study result found that the mean score of breastfeeding in group 1 6.57+/1.50, group 2 6.03+/-0.76 and group 3, 6.00+/-1.00. So the study finally concluded that none of the method are strongly significant to advise, all three types are having an impact on success in breastfeeding (D Manjubala, 2016).⁴

The study was conducted on two postnatal mothers in a case series method. Before Hoffman exercise nipple pinch test was positive for both the mothers which turn into negative after exercise. Along with that breastfeeding quality also increased. So the study said that Hoffman exercise is good to practice to correct flat and retracted nipple and quality of breastfeeding among immediate postnatal mother (Ponmathi, Mounika, Vijayalakshmi, & Sivakumar, 2017).⁵

Conclusion

There was a significant depletion in flat and retracted nipple of primipara mothers after practicing the Hoffman exercise, thus it has demonstrated to be an effective technique for reducing flat and retracted nipple. Therefore, this intervention should be encouraged as hospital policy and implemented as routine care for all the primipara mothers in the first stage of labour for reducing the problem of flat and retracted nipple.

Source of Funding: Self-funding

Ethical Clearance:

- Prior permission was obtained from the Medical Superintendent of District Women Hospital.
- Informed written consent was taken from each participant under the study. The objective of the study was maintained with honesty, privacy confidentiality and anonymity.

Conflict of Interest: Nil

References

1. Alexander JM, Campbell MJ. Prevalence of inverted and non-protractile nipples in antenatal women who intend to breast-feed. 1997;72-8.
2. Alexander JM, Grant AM, Campbell MJ. GENERAL PRACTICE Randomised controlled trial of breast shells and Hoffman 's exercises for inverted and non-protractile nipples. 1992;1030(April):1030-2.
3. Padmavathi PP. Effectiveness of Hoffman 's Exercise on Successful Breast Feeding among Primipara Mothers with Flat and Retracted Nipples.
4. Dash M. Intervention Strategies for Successful Breast Feeding: Randomized Clinical Trial. 2017;3(1):3-6.
5. Ponmathi P, Mounika N, Vijayalakshmi B, Sivakumar VPR. Effect of hoffman's technique on flat nipple over nipple type and quality of breastfeeding among post-natal mothers. 2017;8(4):522-5.
6. Gandhimathi M, Kalavathi S, 2006

A Descriptive Study to Assess the Knowledge Regarding Tuberculosis among Males Aged between 20-50 Years in Selected Rural Areas of Moradabad, Uttar Pradesh: A Original Study

Debalina Ghosh

PG Tutor, Teerthanker Mahaveer College of Nursing, TMU

Abstract

Introduction: Tuberculosis is a contagious disease, caused by acid fast bacilli. Tuberculosis being a communicable disease has spread and made many people its victim. Now it's high time to do something to control the spread of the disease by spreading awareness about its prevention and about its accessible treatment available.

Aim: The aim of this study is to find the level knowledge regarding Tuberculosis among males aged between 20-50 years in rural areas of Moradabad and also to find out the associations between level of knowledge with selected demographic variables.

Methodology: Types of studies- Descriptive survey design. Types of participants- Males of 20-50 years residing in rural area. Setting- Selected rural area of Bagadpur, Moradabad Outcome- Based on the findings and interpretation of the present study, the following conclusion was drawn that 32 (53.3%) had average level of knowledge and there is no significant association of level of knowledge with selected demographic variable.

Keywords: *Assessment, knowledge and Tuberculosis.*

Introduction or Background

Tuberculosis being a communicable disease has spread and made many people its victim. Now it's high time to do something to control the spread of the disease by spreading awareness about its prevention and about its accessible treatment available.

Tuberculosis is a contagious disease, caused by acid fast bacilli. It belongs to mycobacterium tuberculosis complex. Tuberculosis has been identified as a big issues related to health (WHO, 2012). As per knowledge we know tuberculosis is controllable, preventable and curable, although it is estimated that one-third of world's population is infected with latent tuberculosis.

According to WHO, 2012 eight million new cases arise every year and about two million people die from tuberculosis.

Human tuberculosis is caused Mycobacterium microli is rare, but its prevalence and clinical significance

may have been underestimated. A cross sectional study was conducted to find out the knowledge regarding Tuberculosis among rural areas in Kanchipuram district of Tamil Nadu. Study result showed that only 215 (10.6%) knew that tuberculosis is caused by microorganisms, 530 (26.1%) knows that it is transmitted by cough and 694 (34.4%) of the participants knew about some symptoms of tuberculosis, but 65.6% participants did not know about even though a single symptoms of tuberculosis. The study has concluded that knowledge regarding cause and mode of transmission of Tuberculosis was inadequate in rural areas (Easwaran, et al., 2015)⁵

A population based cross sectional survey was conducted in area of FilaBavi in Bavi District, Vietnam to find out the knowledge on Tuberculosis among Men and Women with a cough for more than three weeks and to observe their health seeking behavior on Tuberculosis. The study was conducted on April-June 2000 in 67 cluster area of FilaBavi by specially trained interviewer with structured knowledge questionnaire on

population of more than 15 years or older adult. A total number of 35832 adults have participated in the study among them 559 (1.6%) had cough of three weeks or more duration. The study had found out men have more knowledge score than women (3.04 and 2.55 respectively with $P < 0.001$). Higher level of knowledge has significant association with higher education, age less than 65 years, being married, being government staff and being student. Better knowledge was also significantly influenced to better health seeking behaviour. But in this study also found majority of men than women did not take any health care action at all (Hoa, Thorson, Long, & Diwan, 2003).¹

Another descriptive cross sectional study has conducted among general population in North East Libya to find out level of knowledge on Tuberculosis in February- July, 2009 on 1000 people from five cities. The study result reveals that majority of population are having poor level of knowledge with mean score of 11.4 \pm 3.9 which is higher in Libyans (11.7 \pm 3.8) than non-Libyans (9.7 \pm 4.7, $t=26.13$, $p < 0.001$). Finally, the study suggested that specialized educational program should arrange for community people to promote awareness in general people (Solliman, et al., 2012).²

Haasnoot, Boreting, Kuney, & Roosmalen, 2010 conducted a descriptive exploratory study to assess knowledge attitude and practice about maasai, Simanjiro District, Tanzania concerning Tuberculosis and to gain insight into the role of traditional healer in diagnosis and treatment. The study results found that majority of population are known about danger of Tuberculosis. Majority 46 (67%) are knows about Tuberculosis, 55 (80%) knows symptoms about Tuberculosis and 46 (67%) are consider it is treatable. Study result also believe Tuberculosis is a punish from God and can be treat by herbs roots and bark. They also concerns traditional healers have influence on initiation and adherence in treatment of Tuberculosis.³

A cross sectional epidemiological study was done in the department of Tuberculosis and chest, S P Medical College, Bikaner, Rajasthan from April, 2010 to January, 2011 over 510 Tuberculosis patient to find out awarness and knowledge on Tuberculosis. The study result found that 510 (100%) participant heard about Tuberculosis but among them only 100 (19.6%) participant knows its spread by germ. 260 (59.9%) people knows mode of transmission is through air when coughing, 85 (16.6%) listen about medication but none of them knows the name of medicine. Finally the study concluded that

overall knowledge and awarness are less in people and information education is needed in community (Jangid, Agrawal, Yadav, Pandey, & Mathur, 2016).⁷

Mushtaq, et al., 2011 conducted a cross sectional study on Pakistan Punjab provines to find out inequities in knowledge, attitude and practice on Tuberculosis among urban and rural population in 2008-2009. A total number of 1080 participant of aged 20 Years or above are participated in study among which 432 are from urban and 648 from rural residence. A semi structure questionare was used consisting of sociodemographic questionare, knowledge, attitude, practice and information sources about Tuberculosis. The study resut found that majority of population are having poor knowledge. Study also found that urban area are having more knowledge than rural are in terms of knowledge regarding symptoms (2.03, 1.59-2.61), transmission (1.93, 1.44-2.59), prevention (2.24, 1.70- 2.96), duration of standerd treatment (1.88, 1.41-2.59) at $p < 0.001$. Therefore the study has concluded that areas of residence should considered during making prevention and management strategy.⁴

Findings

Section 1: Description of sample characteristics

Majority of men participated in the study, 32 (53.3%) were belongs to the category of 31-40 years, 52 (86.7%) were belongs to Hindu religion, 25 (41.7%) were studied till secondary, 28 (46.7%) family income per month is are 5000-10000, 28 (46.7%) belongs from joint family, 52 (86.7%) had adequate ventilation in house, 32 (53.3%) are married, 25 (41.7%) are farmer by profession and 37 (61.7%) are belongs from family of 4-5 members in house.

Section 2: Distribution of level of knowledge regarding Tuberculosis among males aged between 20-50 years

Figure 1: Graphical representation of level of knowledge

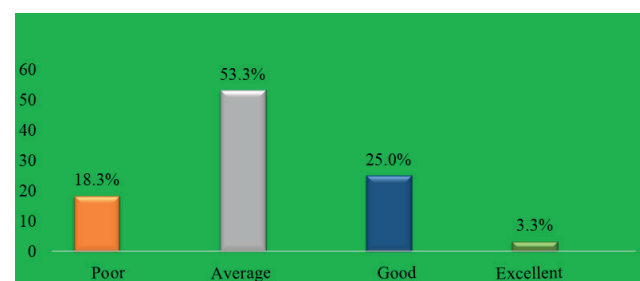


Figure 1: Bar diagram showing percentage distribution of male according to their level of knowledge

Figure 1 shows that majority 32 (53.3%) had average knowledge, 15 (25%) had good knowledge, 11 (18.3%) had poor knowledge and 2 (3.3%) had excellent knowledge on Tuberculosis.

Section 3: Association between level of knowledge regarding Tuberculosis among males with selected demographic variables

Section 3 depicts the association of demographic characteristic of male with knowledge score of Tuberculosis. It shows that there is no significant association for age in year, religion, education, family income per month, type of family, ventilation, marital status, occupation and number of family member in house with level of knowledge hence, null hypothesis is accepted.

Discussion

Findings of the study was supported by a descriptive exploratory study was conducted in rural Tandavapura, Mysore District, Karnataka to find out the knowledge on rural adults and associative factors. Demographic proforma and structure interview questionnaire on Tuberculosis was applied on 30 adults. The study results find out that 15 (50%) are having average level of knowledge with mean score of 12.1. The study also revealed that there is no significant association in demographic variable and level of knowledge (Nair, G, S, & Williams, 2015).⁶

This findings of the study was contradicted by a study done by Kumar, Das, Christina, & Sezal, 2018. They conduct a descriptive study to assess the knowledge regarding Tuberculosis and its prevention among Nursing student posted in selected hospital of Vadodara, Gujrat. Non-probability convenient sampling technique was used to select the student and total number of 120 student was selected. Structured knowledge questionnaire was used and study result reveals that majority 75 (62.5%) had moderate level of knowledge. The study also found that level of knowledge is having significant association with course/education.⁸

Another described study has conducted among Tuberculosis patients and their caregiver in selected DOT's center in Punjab to find out knowledge and practice regarding management of Tuberculosis and to find out association in between knowledge and practice. A total number of 200 participant are participated in the study and the study result found that both patient

and care giver had very good knowledge (38% and 41% respectively) on Tuberculosis but in practice both are having average (92%, 87% respectively) level of practice. The study also found that there is a significant relationship between knowledge and practice score of patient with $P=0.001$ and level of knowledge having significant association with patients with age, education and marital status, $P\leq 0.005$. Finally the study concluded that participant has good knowledge on Tuberculosis but they are not applying it on practice (Thakur & Sethi, 2016).⁹

Conclusion

Based on the findings and interpretation of the present study, the following conclusion was drawn that 32 (53.3%) had average level of knowledge and there is no significant association of level of knowledge with selected demographic variable.

Source of Funding: Self-funding

Ethical Clearance:

- Prior permission was obtained from the Medical superintendent of District Women Hospital.
- Informed written consent was taken from each participant under the study. Objective of the study was maintained with honesty, privacy confidentiality and anonymity.

Conflict of Interest: Nil

Reference

1. Hoa NP, Thorson AEK, Long NH, Diwan VK. Knowledge of tuberculosis and associated health-seeking behaviour among rural Vietnamese adults with a cough for at least three weeks. 2003;31.
2. Solliman MA, Hassali MA, Al-haddad M, Hadida MM, Saleem F, Atif M. Assessment of Knowledge towards Tuberculosis among general population in North East Libya. 2012;02(04):24–30.
3. Haasnoot PJ, Boeting TE, Kuney MO, Roosmalen J Van. Knowledge, Attitudes, and Practice of Tuberculosis among Maasai in Simanjiro District, Tanzania. 2010;83(4):902–5.
4. Mushtaq MU, Shahid U, Abdullah HM, Saeed A, Omer F, Shad MA, et al. Urban-rural inequities in knowledge, attitudes and practices regarding tuberculosis in two districts of Pakistan 's Punjab province. 2011;1–9.

5. Easwaran M, Ramachandran D, Ramasamy R, George N, Mathew M, Bazroy J, et al. Knowledge, attitude, and practice regarding tuberculosis among rural population in Tamil Nadu. 2015;4(12):1681-4.
6. Nair NP, G VK, Mahadevprasad VS, Williams PS. A study to assess the Knowledge regarding Tuberculosis among the adults in selected rural areas of, Mysore with a view to develop an information pamphlet objectives : 2015;5(March):15-7.
7. Jangid VK, Agrawal NK, Yadav GS, Pandey S. Knowledge and awareness of the tuberculosis in tuberculosis patients at a tertiary care centre in North West Rajasthan, India. 2016;7(4):262-8.
8. B VKM, Das D, Christian R, Sezal P. "A Study to Assess the Knowledge Regarding Tuberculosis and its Prevention among Nursing Students Posted in Selected Hospital of Vadodara." 2018;V(I):184-8.
9. Thakur N, Sethi D. A Descriptive Study on Knowledge and Practices Regarding Management of Tuberculosis among Patients and Their Caregivers at Selected Dots Centers in Punjab. 2016;(7):702-10.

National Skills Training Centre– “Daksh”- An Evaluative Study to Assess the Effectiveness of Training in terms of Knowledge Retention and Expressed Practice, among Participants from Delhi State, India

Gulista Saifi¹, Manju Chhugani², Merlin Mary James³

¹M.Sc. Nursing (Obstetrics and Gynecology Nursing), ²Dean, School of Nursing Sciences and Allied Health, Jamia Hamdard, ³Tutor, Ruffaida College of Nursing, Jamia Hamdard

Abstract

Background: India is combating with a major issue of a high maternal and infant mortality rate and Government of India ensured the availability of quality services through public health institutions, National Health Mission has introduced competency based training and certification programme to be implemented through skills laboratories.

Objective: To assess the effectiveness of training in maternal and child health (MCH) care held at National Skills Training Centre (NSTC) – “Daksh”, Jamia Hamdard among participants from the Delhi State, in terms of knowledge retention and expressed practice and to find out the association between the knowledge and expressed practice scores.

Method and Materials: A descriptive evaluative study was conducted among 30 participants who had their training on MCH care held at NSTC– “Daksh”, among the Delhi state selected by purposive sampling technique from various institutions where the participants were presently working. Data was collected using structured knowledge questionnaire and practice checklist through paper and pencil method and interview. Data analysis was done through SPSS version 20.

Results: The results revealed that out of 30 participants, 24 (80%) participants were having adequate knowledge, while 6 (20%) participants were having inadequate knowledge. There was significant difference between post test knowledge scores on the last day of training (K1) and knowledge scores assessed during the study (K2). Regarding expressed practice, 24 (80%) participants were having good practice while, 6 (20%) participants were having poor practice. In skill -management of postpartum haemorrhage, the participants scored highest rank, whereas in skill - management of pre-eclampsia/ eclampsia skill, participants scored the least rank. There was positive correlation (0.46) between knowledge and expressed practice scores of training in MCH held at NSTC-“Daksh”.

Conclusion: The study concluded that the training was effective in improving the knowledge and practice of participants.

Keywords: MCH, Knowledge retention, Expressed practice, NSTC-“Daksh”.

Corresponding Author:

Gulista Saifi

M.Sc. Nursing (Obstetrics and Gynecology Nursing),
Ruffaida College of Nursing, Jamia Hamdard, New
Delhi, India

H-876 Shakurpur New Delhi- 110034

E-mail: gulistasaiifi28@gmail.com

Contact Number: +919540804613

Introduction

Ensuring the health of women and children is a universally acknowledged priority and is a basic human right. Improving the survival and health of mothers and children is central to the achievement of India’s national health goals under the National Health Mission (NHM) as well as achievement of the Millennium Development Goals (MDG) 4 and 5.¹

In recent years, India has made significant progress in its quest to improve maternal and child health. As per Registrar General of India – Sample Registration System (RGI-SRS) Report, Maternal Mortality Ratio (MMR) in India has decreased from 212 (2007-09) to 130 (2014-16) per 100,000 live births. Similarly, as per the RGI – SRS Report 2014, the overall infant mortality rate declined from 64 to 40 per 1000 live births. In India, the percentage of women who deliver at a health facility has increased from 47.1 to 74.4 percent between 2008 and 2013 and the Total Fertility Rate has decreased from 2.9 to 2.4 per woman between 2005 and 2012 reflecting a significant improvement in maternal and reproductive health services coverage.¹

The quality of services during and after child birth is a key determinant of the rate of reduction in maternal and infant mortality rates. Improvement in quality of health care services can only take place if the healthcare delivery system has technically competent health professionals able to provide Reproductive Maternal and Newborn Child Health and Adolescent (RMNCH+A) services. Capacity building of these healthcare providers to ensure they are proficient with regard to both technical skills and knowledge is therefore a key intervention.¹

In light of the above observations, comprehensive skills labs with skills stations have been designed to facilitate the training of healthcare providers in the necessary skills with a view to improve the quality of RMNCH+A services.¹

Skills labs serve as prototype demonstration and learning facilities for healthcare providers and focus on competency based training. Skills labs provide the opportunity for repetitive skills practice, simulation of clinical scenarios and training under the supervision of a qualified trainer.²

The National Skills Training Centre (NSTC) “Daksh”, Jamia Hamdard was established first among the 5 skills labs in New Delhi and NCR regions. It was established on October 27, 2014 by Rufaida College of Nursing, Jamia Hamdard in collaboration with Ministry of Health and Family Welfare (MOHFW) and Liverpool School of Tropical Medicine (LSTM).¹

The objectives of establishing these skills lab were, to facilitate acquisition / reinforcement of key standardized technical skills and knowledge by service providers for RMNCH services, to ensure the availability of skilled personnel at health facilities and to improve the quality

of pre service training provides Continuing Nursing Education /Continuing Medical Education.²

A study was conducted by Anita Bag, Smritikana Mani, Ananya Bhakta³ on Effectiveness of Skill Training Programme on Knowledge and Practice of ANM(R) s regarding IUCD services in selected sub-centres of Birbhum District, West Bengal. 40 ANM(R)s from two BPHCs, Nanoor and Labhpur BPHC were selected by purposive sampling. Pre-test post-test control group design was used. Structured questionnaire used to collect demographic variables, a knowledge questionnaire to assess knowledge, an observation checklist to observe practice and an opinionnaire to determine the opinion of ANM(R)s regarding skill training programme. Results of the study revealed that there was significant difference between pre-test and post-test knowledge scores {‘t’ (19) = 15.42, p<0.05} and practice scores {‘t’ (19) = 41.31, p<0.05} of experimental group. The study revealed that there was significance difference between post-test knowledge scores {‘t’ (39) = 9.73, p<0.05} and practice scores {‘t’ (39) = 39.2, p<0.05} of experimental and control group. Researcher concluded that the knowledge and practice of ANM(R)s regarding IUCD services has been increased with skill training programme.

Another study conducted by R. Danasu, R. PriyaDharshini⁵ on effectiveness of skill training programme on selected obstetrical emergencies with objectives to assess the skill and effectiveness of skill training among staff nurses on selected obstetrical emergencies using observation checklist and to associate the skill with selected demographic variables. Quantitative pre experimental one group pre test post test method research design was adopted. 30 staff nurses of Sri Manakula Vinayagar Medical College and Hospital were selected by convenient sampling technique. Investigator revealed that the mean pre test score 42.60 and the post test mean score was 88.23 and this concluded that the skill training programme on management of selected obstetrical emergencies was effective in improving skills among staff nurses.

By doing this study, the researcher will be able to measure the translation of training into knowledge and practice and further recommendations based on the study can be given to Nodal officers and Ministry of Health and Family Welfare (MOHFW), so that they refine or do the needful changes based on these recommendations in their skill training. Thus, the researcher felt the need to conduct the study on effectiveness of training in MCH

held at NSTC- “Daksh”, in terms of knowledge retention and expressed practice among participants from the Delhi State.

Objectives of the Study

1. To assess the effectiveness of training in maternal and child health care held at National Skills Training Centre- “Daksh”, Jamia Hamdard among the participants from the Delhi State, in terms of knowledge retention.
2. To assess the effectiveness of training in maternal and child health regarding selected skills held at National Skills Training Centre- “Daksh”, Jamia Hamdard among the participants from the Delhi State, in terms of expressed practice.
3. To find out the association between the knowledge and expressed practice of training in maternal and child health care held at National Skills Training Centre- “Daksh”, Jamia Hamdard

Materials and Method

A descriptive evaluative research design was chosen for the present study. 30 participants were selected using purposive (non- random) sampling technique who had their training in MCH care held in NSTC– “Daksh”, among the state of Delhi. The pilot study was conducted at LNJP Hospital New Delhi (ND) and UPHC Jungpura and final study was conducted at M&CW Centre Dakshin Puri ND; Maternity Home, Srinivasपुरi; Dr. N.C. Joshi Hospital Karol Bagh; UPHC, Munirka; UPHC, Tughlakabad; RAK College of Nursing, ND. After getting ethical permission from Jamia Hamdard Institutional Review Board, formal administrative approval was obtained from the concerned authorities Dr. S.P.M., DHA, Civic Centre, ND-110002; Dr. Amar Singh CMO, Dr. NC Joshi Hospital; Medical Superintendent of LNJP Hospital, ND; Principal Rajkumari Amrit Kaur College of Nursing.

The purpose and confidentiality of responses and the anonymity were explained to them after obtaining their willingness to participate in the study. Demographic data of participants were collected and structured knowledge questionnaire and practice checklist were administered to assess their knowledge retention and expressed practice respectively. Reliability for Structured Knowledge Questionnaire was established by Kuder Richardson 20 formula and found to be 0.98. Reliability for Practice Checklist was established by Cronbach’s Alpha method and was found to be 0.90. The practice checklist was found to be reliable. Descriptive and inferential statistics were used for data analysis.

Results

The results of the study are presented under the following sections:

Section I – Findings related to Demographic Characteristics of Participants

Most of the participants were working in Out Patient Department (36.67%) whereas only 3.33% in Operation Theatre. Most of the participants (33.33%) were having ANM qualification, followed by 16.67% having B.Sc. Nursing qualification, 10% were having DGNM, M.Sc. Nursing and MBBS qualification, and 3.33% were having MD qualification. Most of participants (53.33%) were having experience between 0 to 5 years, whereas only 3.33% were having 15-20 years and 25-30 years of experience. 13.33% participants have attended other trainings after Daksh training and 86.67% participants have not attended any other training after Daksh training.

Section II – Findings related to the Knowledge Scores of Participants

Section II.1 – Findings related to Categories of Knowledge Scores, Obtained Range and Possible Range of Scores, Frequency, and Percentage Distribution of Knowledge Scores of Participants

Table 1: Categories of Knowledge Scores, Obtained range of Scores, Possible Range of Scores, Frequency, and Percentage of Knowledge Scores of Participants

n=30

Categories of Knowledge Scores	Possible Range Knowledge of Scores	Obtained Range Knowledge of scores	Frequency (f)	Percentage (%)
Inadequate Knowledge <68%	0 – 75	45 – 74	6	20
Adequate Knowledge ≥68%			24	80

The data presented in table 1, shows that 20% of participants were having inadequate knowledge, while 80% of participants were having adequate knowledge.

Section II.2–Finding related to assess the Effectiveness of Daksh Training in terms of Knowledge Retention.

Table 2: ‘t’ test between the Post Test Knowledge Scores on the last day of training and Knowledge Scores assessed during the study

n=30

Knowledge Score	Mean	‘t’ value	‘p’ value
K1	21.53	5.15	0.0001*
K2	18.82		

* Significant at 0.05 level of significance, $t_{(29)} = 2.05$

Table 3: Categories of Expressed Practice Scores, Obtained Range of Scores, Possible Range of Scores, Frequency and Percentage of Expressed Practice Scores of Participants

n=30

Categories of Expressed Practice Scores	Possible Range Expressed Practice of Scores	Obtained Range Expressed Practice of scores	Frequency (f)	Percentage (%)
Poor Practice <67%	0 – 100	62 – 96	6	20
Good Practice ≥67%			24	80

The data presented in table 3, shows that 80% of participants were having good practice, while 20% of participants were having poor practice.

Data presented in table 2, shows that calculated value i.e. 5.15 is greater than the table value of t i.e. 2.05 at 0.05 level of significance, thus we the reject null hypothesis and accept the research hypothesis, which is there is a significant difference between the post test knowledge scores on the last day of training (K1) and knowledge scores assessed during the study (K2).

Section III – Findings related to Expressed Practice Scores of Participants

Section III.1 – Findings related to Expressed Practice Scores of Participants

Section III.2– Findings related to Modified mean and Rank order of Expressed Practice Scores of participants

Table 4: Mean, Modified Mean and Rank Order of Expressed Practice Scores of Participants

n=30

S. No.	Skill	Mean	Modified Mean	Rank Order
1.	Management of Hypovolemic Shock (Skill 1)	24.9	0.803	II
2.	Management of Postpartum Hemorrhage (Skill 2)	30.76	0.83	I
3.	Newborn Resuscitation (Skill 3)	12.73	0.78	III
4.	Management of Pre-eclampsia/ Eclampsia (Skill 4)	11.03	0.68	IV

The data presented in table 4, it can be concluded that participants ranked highest (0.83) in expressed practice scores of skill – ‘management of postpartum hemorrhage skill’, followed by skill – ‘management of hypovolemic shock’ with modified mean value of 0.803, then in skill – ‘newborn resuscitation skill’, participants were ranked III with modified mean value of 0.78 and skill – ‘management of pre-eclampsia/ eclampsia’, participants ranked the least for their expressed practice scores with a modified mean value of 0.68

Section IV – Findings related to Mean, Median and Standard Deviation of Knowledge & Expressed Practice Scores of Participants

Table 5: Mean, Median, and Standard Deviation of Knowledge & Expressed Practice Scores of Participants

n=30

Score	Mean	Median	Standard Deviation
Knowledge Score	56.46	56.5	7.07
Expressed Practice Score	79.43	82.5	9.98

The data in table 5, presents the mean knowledge score computed was 56.46, with a median value of 56.5 and a standard deviation of 7.07. Whereas the mean

expressed practice score was 79.43 with a median of 82.5 and standard deviation was 9.98. The closeness between mean and median scores indicates that there is normal distribution of data.

Section V- Finding Correlation between Knowledge Scores and Expressed Practice Scores of Training in MCH Care held at NSTC– “Daksh”, Jamia Hamdard

Table 6: Correlation between Knowledge Scores and Expressed Practice Scores of Participants who attended training at National Skills Training Centre–“Daksh”, Jamia Hamdard

n=30

Scores	Mean Score	Standard Deviation	'r' value	'p' value
Knowledge Score	56.46	7.07	0.46	0.01*
Expressed Practice Score	79.43	9.98		

* Significant at 0.05 level of significance, $r_{(28)} = 0.36$

The data presented in table 6 shows that the coefficient of correlation between knowledge and expressed practice scores of training on MCH held at NSTC– “Daksh” is 0.46, highlighting a positive correlation between knowledge scores and expressed practice scores.

Discussion

The present study findings revealed that 53.33% participants were having good practice, while 46.67% participants were having poor practice and 63.33% participants were having inadequate knowledge where as 36.67% participants were having adequate knowledge. The findings are similar to the study conducted by Anita Bag, Smritikana Mani, Ananya Bhakta³ et al, a quasi-experimental study on Effectiveness of Skill Training Programme on Knowledge and Practice of ANM(R) s regarding IUCD services in selected sub-centres of Birbhum District, West Bengal. Researcher concluded that the knowledge and practice of ANM(R)s regarding IUCD services has been increased with skill training programme.

Another study conducted by R. Danasu, R. Priya Dharshini⁵ on effectiveness of skill training programme on selected obstetrical emergencies with objectives to assess the skill and effectiveness of skill training among staff nurses on selected obstetrical emergencies.

Investigator revealed that the mean pre test score 42.60 and the post test mean score was 88.23 and this concluded that the skill training programme on management of selected obstetrical emergencies was effective in improving skills among staff nurses.

Similar study has been conducted by Shereen Zulfiqar Bhutta and Haleema Yasmin⁴ on Comparative Effectiveness of Teaching Obstetrics and Gynaecological Procedural Skills on Patients versus Models with an objective to compare the effectiveness of learning procedural skills on patients versus mannequins and models. Researcher concluded that for developing procedural skills, simulations using models and mannequins can be readily incorporated in training programs with potential benefits for teaching infrequently performed or more difficult procedures. The study findings are similar to the present study findings in which 53.33% participants were having good practice, while 46.67% participants were having poor practice.

Conclusion

The major conclusions were drawn on the basis of the findings of the study are:

Most of the participants were working in OPD i.e. 36.67% where as only 3.33% in OT, which indicates that the participants did not get enough opportunities to translate the knowledge gained and skills learnt during the trainings, into practice, which indirectly might have affected their knowledge retention and expressed practice scores.

The participants scored the least rank (modified mean of 0.68) in the skill –‘management of pre-eclampsia/ eclampsia’, which suggests more training required in this area.

Coefficient of correlation between knowledge and expressed practice scores of training on MCH held at NSTC– “Daksh” is 0.46, showing a positive correlation between knowledge and expressed practice.

There was significant difference between the post test knowledge scores on the last day of training (K1) and knowledge scores assessed during the study (K2), which infers that the participants need more refresher trainings, in order to retain their knowledge and skills.

Conflict of Interest: None

Funding: Self

Ethical Clearance: Institutional Review Board
Jamia Hamdard

References

1. DAKSH Participant Manual. Available at http://www.nhmmp.gov.in/WebContent/MH/Guidelines/02.01.16/Participant_3rd_Nov.pdf
2. Skill Lab. Directorate of Nursing. Department of Health and Family Welfare. Available at <http://nursingodisha.nic.in/?q=node/121>
3. Anita Bag, Smritikana Mani, Ananya Bhakta. Effectiveness of Skill Training Programme on Knowledge and Practice of ANM(R)s regarding IUCD services in selected sub-centers' of Birbhum District, West Bengal. International Journal of Scientific Research and Education. 2017; 5(6): 6593-6605. Available at <http://ijsae.in/index.php/ijsae/article/viewFile/184/121>
4. Shereen Zulfiqar Bhutta, Haleema Yasmeen. Comparative effectiveness of teaching obstetrics and gynecological procedural skills on patients versus models: A randomized trial. Pakistan Journal of Medical sciences. 2018; 34(4): 794 – 798. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6115552/>
5. R. Danasu, R. Priya Dharshini. A pilot study report on effectiveness of skill training programme on selected obstetrical emergencies. International Journal of Research and Review. 2017; 4(11). Available at http://www.ijrrjournal.com/IJRR_Vol.4_Issue.11_Nov2017/IJRR004.pdf

Prevalence of Superstitions in Indian Society in 21st Century

Gurleen Kaur Sethi¹, Navreet Kaur Saini²

¹School Health Nurse, PIET Sanskriti School, ²Assistant Professor, Ved Nursing College,
Prem Institute of Medical Sciences, Panipat, Haryana, India

Abstract

Most superstition from the past have been proven by science as unnecessary, ineffective or just plain silly but are still practiced by normal intelligent people today. Every country has its own localized take on superstitions. In this research, researcher reviews on prevalence of superstitions in Indian society in 21st century. There is much different kind of researches in the field of superstition and had different concepts related to the superstition. In this research, researchers separate the beliefs regarding superstitious activities into three categories i.e. common superstitious activities; death related superstitious activities and pregnancy and new-born related superstitious activities.

Keywords: Superstition, belief, prevalence, superstitious activities.

Introduction

India is a large south Asian country with billions of people belonging to different caste and creed with different social and cultural background and socioeconomic class. Here, people have different views, beliefs, perception, and knowledge about different situations.^[1]

Superstition in India is considered a widespread social problem. Superstition refers to any belief or practice which is explained by supernatural causality, and is in contradiction to modern science.^[2] Some beliefs and practices, which are considered superstitious by some, may not be considered so by others. The gap, between what is superstitious and what is not, widens even more when considering the opinions of the general public and scientists.^[3]

Superstitions are usually attributed to a lack of education.^[4] But, in India educated people have also been observed following beliefs that may be considered superstitious.^[5] The literacy rate of India, according to the 2011 census is at 74%.^[6] The beliefs and practices vary from region to region, with many regions having their own specific beliefs.^[7] The practices may range from harmless lemon-and-chilli totems for warding off evil eye ^[8] to serious concerns like witch-burning.^[9] Some of these beliefs and practices are centuries old and are considered part of the tradition and religion, as a result introduction of new prohibitory laws often face opposition.^{[10][11]}

Psychologists and anthropologists suggest that individuals who follow superstitious practices do so to cope with misfortune and uncertainty and to make sense of a complex world. Other research has suggested that superstitious beliefs can endure if the probability of them being exposed as untrue is low. If there is always some chance of a bad outcome when following superstition and some chance of a good outcome when not, an individual might never realize that it is untrue and continue to follow it.^[12]

Even though the world has faced many changes and development in the field of science and technology, the belief of the people over superstitions still exists in the society.^[11]

This study is an attempt to find out whether superstitious beliefs still play a crucial role in the belief pattern of educated and uneducated females and to find out up to which extent prevalence of these superstitions affects their lives.

Materials and Method

The present descriptive cross-sectional survey was conducted at village Dadlana, Panipat, Haryana in the month of February, 2018. Sample consisted of 285 adult females residing in village Dadlana, Panipat selected by convenient sampling technique. The tools used for data collection consisted of socio-demographic profile and self-structured questionnaire to assess superstitions

and myths among subjects. Socio-demographic profile consisted of age, marital status, education and occupation of subjects. Self-structured questionnaire consisted of 30 questions pertaining to common myths prevalent in Indian rural community. Tools were validated by five experts from the field of nursing. Reliability was tested by split half method and Cronbach's alpha was found to be 0.838. Permission to conduct the study was taken from sarpanch of the Dadlana village and informed consent was taken from all subjects. Data was collected by interview method. Instructions were given to subjects to listen to statements and options read by researcher carefully and answer the most appropriate option according to them. Frequency and percentage were used for data analysis.

Results

Socio-Demographic Profile: Socio-demographic profile of subjects showed that regarding age maximum subjects (36.8%) were in the age group of 26-35 years followed by >35-45 years (23.5%), 18-25 years (21.1%), >45-55 years (10.1%) and >55 years (8.1%). Regarding marital status, majority, i.e. 245 (86%) were married, 20 were unmarried, 2 were divorcee and 18 were widows. Education status showed that subjects were almost equally distributed in various categories i.e. maximum (25.6%) were educated up to primary level followed by equal number i.e. 20% educated up to secondary level and 20% had attained diploma or were graduates and above. Almost one-fourth of the subjects (25.3%) were illiterates. Majority of subjects were housewives (74.4%), a few (6%) were self-employed, 7.4% were doing private job and only two were having government job.

Beliefs regarding common superstitious activities:

(a) **Common superstitious activities:** Reason stated by maximum subjects for using lemon and chillies outside house door was to reduce evil effects (84.6%), followed by good smell in the house (8%) and to encourage consumption (7.4%). Most common reason stated for not cutting nails after sunset was it brings bad luck (63.5%), followed by chance of getting hurt due to less light in evening (36.5%). People don't go near to peepal tree at night because 57.5% think there are ghosts around peepal tree, 20.7% don't go due to religious perspective, 15.4% think peepal tree releases carbon dioxide at

night and 6.4% simply don't go near peepal tree at night without any particular belief. Sweeping the floor in evening is not considered good by 80.7% as they think goddess Lakshmi will walk out of the house, 7.6% think something important may get swept away in the dark, 11.7% think it brings bad luck. People don't wash hair on certain days like tuesday and thursday as they consider it harmful for family members (63.5%), 29.1% think it annoys god and 7.4% do so to save water. There is a common practice of giving curd and sugar to a person before heading out for an important work. Majority of subjects (70.5%) believe it brings good luck, 20.3% believe it helps in accomplishing the desired task and 9.2% believe it keeps the person cool. Plastering floor with cow dung is believed to act as disinfectant (41.9%), 32.7% believe it keeps house cool in summer, 7.5% consider it cheap and 17.9% use it because they like its smell. Fallen hair around house are not considered good because they may enter inside the food with wind (55.8%), causes fight in the family (28.4%), brings bad luck in family (8.8%), can be misused by some people for evil works (7%). Most of the subjects consider falling of lizard on oneself not good as it brings bad luck (44.9%), 34% think it contaminates the person, 15.1% believe it brings good luck and 6% believe it brings diseases. Opening an umbrella inside the house is not considered good by 36.8% subjects as it poses danger to people and fragile objects nearby, 32.2% believe it promotes fights and 31% believe it brings bad luck. It is a usual practice to add one rupee coin to a gift of sum to someone. Maximum (77.7%) consider it a blessing for the person being gifted, 18.5% consider it a token of love, 10.2% consider it assures continuity of good luck and 3.7% consider it good on beginning of new cycle in someone's life. As an ancient tradition, Indians throw copper coins in holy rivers as it brings good fortune (71.2%), copper is essential element for body's well-being (16.8%), 9.4% believe it makes wishes come true and 2.6% do it to increase the water level. Applying sandal or kumkumtilak on forehead is considered auspicious before leaving for an important work as it is an important ritual in hindu tradition (52.9%), 32.6% each believe it helps in dealing stress, anxiety and it brings good fortune, 14.5% believe it has cooling effect on the skin. Sneezing by a person is not considered good while one is stepping out of a house or starting new work

as the person will face some problem according to 78.9% subjects and 21.1% believe it brings bad luck. It is not recommended to sleep with head facing north as it's not considered good for health (61.8%) and person may get bad dreams (38.2%). 64.9% subjects believe cat crossing the way brings bad luck, 15.8% wait for someone other to cross, 14.4% believe it's better to change route and 4.9% think cats have shiny eyes and heart starts beating fast. Greeting people with namaskar is considered a sign of paying respect (64.6%), 25.6% consider it their culture, 7.7% believe it activates pressure points and 2.1% believe it connects them with other persons. Women wear silver toenails after marriage as it is considered a tradition by 77.8%, 11.2% believe it strengthens the uterus and 11% consider it a fashion symbol. It is believed that pulling grey hair is not considered good as majority believe one will get three more for each single hair plucked (75.4%), it's painful (13.3%), the person will not age well (6.3%) and the person will eventually bald (5%). Women are not allowed in kitchen, temples and religious spots during menstruation as 62.1% subjects believe women are impure and unclean during that period, 24.2% believe it disappoints the god, 7.7% believe women become comparatively weak during that period and 6% believe women smell bad during menstrual cycle. (Table 1)

(b) Death related superstitious activities: Most of subjects believe one should bath after attending a funeral ceremony to protect from bad spirits (43.9%), to clean oneself (27.4%), to prevent infection (16.1%) and to feel fresh (12.6%). It is believed that the mourning family of a dead person should not cook food until kriya as it is considered harmful for family (39.3%), gives time to cope and

rest (29.8%), 16.8% believe there is spirit in the house and 14.1% consider it a sin. (Table 1)

(c) Pregnancy and new-born related superstitious activities: Pregnant women are not allowed to go out during eclipse to protect unborn baby from deformities (68%), to keep away from harmful UV rays (21.1%) and 10.9% believe it brings bad luck. Most people believe papaya should not be eaten during pregnancy as it is hot in nature (51.9%), it leads to miscarriage (38.2%), it is harmful for baby (6%) and it contains more vitamin C (3.9%). Ghee is considered healthy during pregnancy as it eases delivery (51.5%), promotes weight of baby (27%), promotes weight of mother (15.8%) and reduces risk of abortion (5.7%). Giving colostrum to new born baby is not a practice in many families as majority (68.1%) believe it reduces immunity of baby, 14% believe it's not healthy for baby, 11.9% consider it bad milk and 6% consider it impure. It is a practice to give sugar/honey to new born baby before first breastfeeding as 42.5% believe it make baby's life sweet, 36.8% believe it reduces chances of developing infections among new born and 20.7% believe it develops the same characteristics in the new born as that of person who gives sugar/honey to new born baby. New born baby is not bathed by 48.8% of subjects as it reduces temperature of new born, 24.6% believe it causes infection and 26.6% believe it brings bad luck. New born baby is not bathed immediately after delivery as it is not considered good for health (48.1%), it may cause fever (37.9%) and it brings bad luck (14%). New born baby's and mother's clothes should not be kept outside after sunset as majority (77.5%) think people may do black magic on the clothes, 13.3% think insects might stick to them and 9.2% believe it brings bad luck. (Table 1)

Table 1: Maximum belief response for different superstitious activities (out of n=285)

Superstitious activity	Maximum Response	Frequency (f)	Percentage (%)
(a) Common superstitious activities			
1. Use of lemon and chillies outside house door	To reduce the evil effects	241	84.6
2. Not cutting nails after sunset	Brings bad luck	181	63.5
3. Not going near peepal tree at night	People tree have ghosts around it	164	57.5
4. Not sweeping floor in evening	Goddess Lakshmi will walk out of house	230	80.7
5. Not washing hair on tuesday or thursday	Harmful for family members	181	63.5
6. Eating curd and sugar before heading out	Brings good luck	201	70.5%

Cont... Table 1: Maximum belief response for different superstitious activities (out of n=285)

7. Plastering floor with cow dung	Acts as disinfectant	91	41.9%
8. Fallen hair around house not considered good	May enter inside house and food with wind	159	55.8%
9. If lizard falls on a person	Brings bad luck	128	44.9%
10. Not opening umbrella inside house	Brings bad luck	104	36.8%
11. Adding one rupee coin to a gift of sum	It is a blessing	221	77.7%
12. Throwing copper coins in holy rivers	For good fortune	203	71.2%
13. Applying tilak on forehead before leaving for an important work	Brings good luck	151	52.9%
14. Sneezing while starting a new work or stepping out of house	Face some problems	225	78.9%
15. Not to sleep with head facing north	Not considered good for health	176	61.8%
16. Stopping for few minutes while cat crosses the path	Brings bad luck	185	64.9%
17. Greeting people with namaskar	Pays respect	184	64.6%
18. Women wearing silver toe rings after marriage	A tradition	175	77.8%
19. Pulling white hair of head	One will get three more	215	75.4%
20. Women not allowed to enter kitchen, temples during menstruation	Women are impure and unclean	177	62.1%
(b) Death related superstitious activities			
21. Taking bath after attending funeral	Protect from bad spirits	125	43.9%
22. Dead person's family doesn't cook food until kriya/path/ceremony	Harmful for family	112	39.3%
(c) Pregnancy and new-born related superstitious activities			
23. Pregnant women not allowed to go out during eclipse	Protect unborn baby from any deformities	194	68%
24. Not eating papaya during pregnancy	Hot in nature	148	51.9%
25. Consuming ghee during pregnancy	Eases delivery	147	51.5%
26. Not giving colostrum to new born	Reduces baby's immunity	194	68.1%
27. Giving sugar/honey to new born before breast-feeding	Makes baby's life sweet	121	42.5%
28. Not giving bath to new born baby	May lower baby's temperature	139	48.8%
29. Not bathing new born after delivery	Not good for health	137	48.1%
30. Not keeping new born and mother's clothes outside after sunset	Someone may do black magic	221	77.5%

Discussion

Present study highlighted different superstitions and false beliefs followed by Indian society in this 21st century. In the research paper by Mehak Gupta Grover, it is concluded that God has made us with brains. Why don't we use our brains and the intellectual power which god has bestowed upon us? He created individuals with rational powers, which imposes upon them the duty to understand things, if not then they are on the verge of

superstitions.^[13] In the other study by Hughes & French, 2002, belief in bad luck such as unlucky numbers or occurrences (such as breaking a mirror) can lead to anxiety which can in return lead to a reduction in performance and even stress and health problems. Wong and Yung, 2005 show that many Chinese carefully time their babies' birth year; they believe that the year of the dragon would bring their babies good fate.^[14] Barbara Stoberock, Lysann Damisch and Thomas Mussweiler, University of Cologne (2010) decided to research the

effect of superstitions after watching athletes, perform meaningless behavior or rituals as part of their athletic routine. They found that it brings positive effect on them by improving their self-confidence.

In the present study researchers came across various meaningless superstitious activities practiced by a large percentage of people such as not giving colostrum to new born, not keeping newborn and mother's clothes outside after sunset, not sweeping floor in the evening. Some practices may have underlying scientific rational, but, blind strict belief of people have severe repercussions in the form of physical ailments, psychiatric disorders, family disputes. Beliefs have their own significance in Indian culture and traditions, but if practicing them is jeopardizing physical, mental, social health of a being, then there definitely needs to be a check.

Underlying these irrational beliefs are long-forgotten ways of thought that affect us still. However, we should not rely on luck, but instead practice an optimistic attitude and promote beliefs in internal locus of control. Education and public policies advocating directives on non-superstitions may be vital to promote healthy cognition on pregnancy, newborn and death beliefs. Doctors, nurses and hospice caregivers face deaths and dying patients from time to time. Their beliefs may be indirectly disseminated to patients. They may need to be sensitive on passing superstitious beliefs to patients. Death education should be reviewed and promote correct moral values among public.

The present study had few limitations as it was limited to a single village. Studies can be conducted at various villages in rural as well as urban areas. There are several researches in the field of psychology, which study positive and negative causes and effects of superstition on people. There are several theories proposed by different researchers about the development of superstition. This paper estimated the value of a particular type of superstition: belief of object etc. which can bring good or bad luck. Superstition should not be confused with tradition and culture. The only cure for unnecessary superstitions is education and knowledge.

Conflict of Interest: None

Source of Funding: None

Ethical Clearance: Obtained

References

1. World Health Organization. Disease and Injury Regional Estimates Geneva: 2004 [Last accessed on 2009 May 22]; Available from: http://www.who.int/healthinfo/global_burden_disease/estimates_regional/en/index.
2. Dale B. Martin. *Inventing Superstition: From the Hippocratic's to the Christians*. Harvard University Press: 2001, p. 11.
3. Stuart A. Vyse. *Believing in Magic: The Psychology of Superstition*. Oxford University Press: 2000, p. 20.
4. N. Jayapalan. *Problems of Indian Education*. Atlantic Publishers & Dist.: 2001, p. 155.
5. The Telegraph. *The God busters*: 27 May 2012.
6. Live Mint. *India's literacy rate rises to 74%: Census*: 31 March, 2011.
7. Jarvis Peter; Watts Mary. *The Routledge International Handbook of Learning*. Routledge: 2012, p. 527.
8. Joanne O'Sullivan. *Book of Superstitious Stuff*.; Charlesbridge Publishing: 2010, p. 119.
9. BBC News. *Indian mob burns 'witches'*: 2003.
10. Fadnavis. *Warkaris betrayed over superstition bill*; The Times of India: 2013.
11. Welle Deutsche. *Black Magic practices in India*: 2012.
12. Agarwal Sumit, Jia He, & Haoming Liu, et.al. *Superstition and Asset Markets*: 2014.
13. Grover Gupta Mehak. *Blind belief is dangerous*: 2015.
14. Yaya Dissa, Togo Adjouro & Aminata Traore, et. al.. *International Journal of African and Asian Studies, An International Peer-reviewed Journal Vol.30*: 2017.

A Study to Assess the Effectiveness of Child to Child Approach on Knowledge and Practices Regarding Hand Washing among the Primary School Children of a Selected School Faridkot, Punjab

Kaur Parminder¹, Mal Hardeep Kaur², Kaur Bhupinder²

¹M.Sc. Lecturer, Saraswati Nursing Institute, Kurali, ²Professor, University College of Nursing, BFUHS, Faridkot

Abstract

Introduction: Hand washing is part of our life. Hands are the main cause for disease transmission. They spread vector infection from one person to another. Hand washing with soap (HWWS) is a simple and effective measure to prevent transmission of fecaloral disease and other infectious diseases in school-age children. There are over 10 million episodes of food related infection in a year but most of these are probably related to improper hand washing. Many of these deaths are easily preventable through simple practices such as hand washing with soap. Evidence suggests that improved hand washing can have a major impact on public health in any country and significantly reduce the two leading causes of childhood mortality. There is need to enhance the knowledge and practice skill of hand washing among school children.

Aim of the Study: Aim is to assess the effectiveness of child to child approach on knowledge and practices regarding hand washing among the primary school children of a selected school of Faridkot, Punjab.

Material and Method: A quantitative approach with one group pre test-post test research design was selected for the present study. With simple random sampling (100) school children from the 3rd, 4th and 5th classes, selected the 10 students from the all study subjects. Then pre test of whole children were taken. After pre test, intervention was given to the selected 10 students about hand washing after that, post test was taken, and allowed the selected students to teach the other students about hand washing. Socio demographic data sheet and tool, structured knowledge interview performa and observational checklist were prepared to assess the effectiveness of child to child approach on knowledge and practices regarding hand washing.

Results: The present study revealed that interventions i.e. child to child approach were helpful in improving hand washing knowledge and practices among primary school children, post test mean score of knowledge was 15.2 respectively which was significant at p value <0.05, similarly post test mean of hand washing practices was 10.41, which was significant at p <0.05 level.

Conclusion: Child to child approach is an effective intervention to raise the level of knowledge and improve the practices of hand washing. After being instructed, primary school children taught each other and to their siblings, playmate, and friends at home. There is no or little need of any supervision.

Keywords: Child to child approach, Hand washing, practices, knowledge.

Introduction & Background of the Study

Keeping hands clean through improved hand hygiene is one of the most important steps one can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean running water. The use of soap and available water is the best way to keep hands clean and free of micro-organisms¹.

Corresponding Author:

Parminder Kaur

M.Sc . Lecturer, Saraswati Nursing Institute, Kurali (Punjab), VPO Khamba, Fathegarh Panjtoor Teh. Dharamkot Distt. Moga, Punjab, India
e-mail: pindupauaar1990@gmail.com
Mobile No.: 8728946265

Diarrhoea and pneumonia are among the leading causes of child mortality worldwide. In fact, 18% children under five years die due to diarrhoea and 19% die due to pneumonia every year. In India, this translates to the loss of over six lakh children under the age of five, every year. Many of these deaths are easily preventable through simple practices such as hand washing with soap. Evidence suggests that improved hand washing can have a major impact on public health in any country and significantly reduce the two leading causes of childhood mortality. Hand washing habits must be improved along with access to safe water and sanitation².

The Child to child approach is an emerging concept for spreading awareness on various health related concepts among family members and communities by educating children. The aim of this approach is children will be more responsible for the health of themselves and their communities. The ideas of the child to child approach are: Children learn better by doing, they are active learners, they learn better from each other, children act as partners in promoting health and issues concerning their communities, children influence adults as well as other children e.g. sisters, brothers, siblings playmates and classmates³.

Objectives of the Study

1. To assess the knowledge of primary school children regarding hand washing in terms of pre-test scores.
2. To assess the practices of primary school children regarding hand washing in term of pre-test scores.
3. To evaluate the effectiveness of child to child approach comparing pre and post knowledge and practice scores of primary school children.
4. To find out the co-relation between knowledge and practices of school children regarding hand washing.

Material and Method

Research approach & Design: Quantitative research approach and One group, pretest - post-test-only design was chosen for the study where effectiveness of child to child approach was seen on knowledge, practices of hand washing.

Research Setting: The present study was conducted in M.G.M Senior Secondary School Faridkot, which is an autonomous institution of education. In 5th has 50 students, 4th has 40 students and in 3rd class 39 has been studying. The study setting was chosen purposively.

Because strength of children in that school was fulfill researcher's sample criteria.

Sample & sampling technique: The study population was the all primary school children, studying in 3rd, 4th, 5th standard in selected school, Faridkot. 100 children were selected using random sampling technique.

Research tool: Research tool used for the study consists of 3 parts. Part I The socio-demographic Profile of the school children. Part II Consists of Structured interview Performa for assessment of knowledge of school children. Part III Checklist for the assessment of hand washing practices of school children.

Description of intervention: Planned intervention was given to the school children who were randomly selected from the classes. Researcher taught them about hand washing for 30 minutes by using audio-visual aids and by giving demonstration on hand washing on two different days. After the teaching, students were allowed to give the information to the other students in their respective classes. After ten days a post test of knowledge and practices was conducted.

Analysis of data: The analysis of data was done in accordance with objectives of the study. The data was analyzed by using descriptive statistics (frequency and percentage distribution, mean, and standard deviation) and inferential statistics (paired' test, coefficient correlation) with statistical package SPSS 20. The level of $p < 0.05$ for significance and $p < 0.001$ for highly significance was selected for the study.

Ethical Considerations

This study has been approved by the Ethical committee of University College of Nursing, BFUHS (Baba Farid University of Health Sciences). Permission was sought from Principal of M.G.M. Senior secondary school, Faridkot. The investigator introduced her to the subjects and developed good rapport with them. Privacy and comfort was provided to each subject while collecting the data. The investigator gained confidence and maintained good rapport.

Results

Table 1 describes the socio-demographic characteristics of the respondents. Majority 60% of the primary school children were in the age group of 5-10 years, followed by 40% in the age group of 11-15 years. 47% primary school children were from 5th class, 33%

from 3rd class and 20% respondents from 3rd class. 61% primary school children were males and 92% belong to urban community. Majority of primary school children; 60 (60%) belong to Hindu religion, 38% primary school children were from Sikh religion and 58% of primary school children were from nuclear family. Classification of primary school children on parental education and occupation indicates 18 % primary school children fathers were illiterate, 39% students' father educated up to middle and 20% children fathers were educated up to secondary and 69% primary school children fathers were labourer. 30% of the primary school children mother were illiterate, 20% of the primary school children mothers were educated up to mothers were educated up to secondary and 78% student's mothers were unemployed,. Maximum 79% primary school children said that they took information from their parents about hand washing.

Table 1: Frequency and percentage distribution of pre test knowledge score of primary school children

N=100

Level of knowledge	Range of Knowledge Score	n/%
Good	13-18	1
Average	7-12	41
Poor	0-6	58
Mean	SD	
6.94	2.255	

Maximum knowledge score = 18 Minimum knowledge score = 0

Table 1 depicts frequency and percentage distribution the pre test knowledge score of primary school children. Only 1 (1%) student had good knowledge, 41 (41%) had average knowledge whereas, more than half of the students i.e., 58 (58%) had poor knowledge regarding hand washing. The knowledge score of students regarding hand washing. The maximum possible score was 18, maximum obtained score was 13 and minimum obtained score was 0. The mean score was found to be 6.94±2.255.

Table 2: Frequency and percentage distribution of pre test practice score of primary school children

N=100

Level of practice	Range of Practice Score	n/%
Good	9-12	1
Average	5-8	37
Poor	0-4	62
Mean	SD	
4.86	1.206	

Maximum practice score = 12 Minimum practice score = 0

Table-2 depicts the pre test frequency and percentage distribution of the primary school children regarding hand washing. Only 1 (1%) students had good practice, 37 (37%) had average practice whereas, more than half of the primary school children i.e., 62 (62%) had poor knowledge regarding hand washing. The maximum possible score was 12, maximum obtained score was 10 and minimum obtained score was 0. The mean score was found to be 4.86±1.206.

Table 3: Effectiveness of child to child approach on knowledge of children regarding hand washing

N=100

Variables	Mean ± SD	Mean Difference	t value	df	p-value
Pre test knowledge score	6.94± 2.255	8.26	30.393	99	0.00**
Post test knowledge score	15.2000±1.93845				

** significant p value <0.05

Table 3 shows that the pre-test mean knowledge of the students was 6.94±2.255 and post test mean of knowledge of hand washing 15.2000±1.93845 with mean difference i.e. 8.26. t- Value 30.393. df 99 p value is 0.00 which was significant at p<0.05 level.

Table 4: Effectiveness of child to child approach on practice of primary school children regarding hand washing

N=100

Variables	Mean ± SD	Mean Difference	t value	df	p-value
Pre test	4.80± 1.206	5.61000	24.160	99	0.00
Post test	10.41000±1.98018				

** significant p value <0.05

Table 4 shows that the pre-test mean practice of the students was 4.80±1.2065 and post test mean of practice of hand washing 10.41000±1.98018 with mean difference i.e. 5.61000. t- Value 24.160. df 99 p value is 0.00 which was significant at p<0.05 level.

Table 5: Co-relation of knowledge and practices regarding hand washing

N=100

Attribute	Mean	r
Knowledge	6.94	.137
Practice	4.86	

Table 5 depicts co-relation of knowledge and practices regarding hand washing. The mean score of knowledge i.e. 6.94 and mean score of practice i.e. 4.86. The correlation coefficient between pre knowledge and pre-practices $r = .137$. There is 13.7% weak positive correlation between pre knowledge and practices.

Discussion

The findings of present study revealed that the child to child approach for assessing the effectiveness hand washing have good results. There was significant difference in the pre test result and post test results regarding hand washing knowledge and practices. Thus, child to child approach was found to be effective as compared to the simple teaching. There was significant co-relation between knowledge and practices.

The present study depicts that children have less knowledge and poor practices regarding hand washing before intervention. Through child to child approach intervention was administered and assessed the effectiveness of child to child approach it give better result and improve the knowledge and practices of hand washing. This might be due to children learn better by doing, they are active learners, they learn better from each other. Children influence more other children than adult. This finding supported by study conducted by **Hawash M (1998)**⁵ that the Child to child approach was used for spreading awareness on various health related concepts among family members and communities by educating children. The aim of this approach is children will be more responsible for the health of themselves and their communities. The ideas of the child to child approach are: Children learn better by doing, they are active learners, they learn better from each other. Study conducted by **Vivas A, Gelaye B, Aboset N, Kumie A, Berhane Y and Willams M.A(2011)**⁶ assessed the need of hand washing intervention by evaluation of the knowledge, attitudes, and practices (KAP) of hygiene among rural primary school children in Ethiopia. Data consisted of hygiene and hand washing practices, knowledge about sanitation; personal hygiene Study findings stressed the need for more hand washing and hygiene education in schools⁷.

Conflict of Interest: None

Source of Funding: Self

References

- Centers for disease control and prevention. Keeping hands clean. CDC 24/7 saving lives protecting people. [Internet]. [Updated 2011 Feb 1]. Available from: <http://www.cdc.gov/>.
- Paranjpe N. Hand washing: most effective way to prevent deadly diseases. *The Economic Times*. 2012 Oct 15. Available from <http://articles.economictimes.indiatimes.com/2012-1015/news/344732>.
- Global Hand washing and Children's Participation. The-child-to-child-approach-in-community-led-total-sanitation. [Internet]. 2010 Oct. Available from: <http://www.clarehanbury.com/html>.
- Le Thi Thanh and Luu Ngoc Hoat. Hand washing among school children in an ethnically diverse population in northern rural Vietnam. *Global health action*; Published 31 Jan 2013 <http://dx.org/103402/gha.v610-18869>.
- Hawash M. Child to child approach to promote Inclusive Education. [Internet]. 1998 March; p1-7. Available from <http://www.eenet.org.uk/resources/docs/present.php>
- Vivas A, Gelaye B, Aboset N, Kumie A, Berhane Y, and Williams M.A. Knowledge, Attitudes, and Practices (KAP) of Hygiene among School Children in Angolela, Ethiopia. *J Prev Med Hyg. PMC* 2011 April 13; 51(2): 73–79. Pubmed PMID: 21155409 PubMed PMCID: PMC3075961. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21155409>
- Kaviraj matakpolli. Amrutha swati Indupolli, Suddesh Basavaraj sirwar, Joyaatakshmi kn, Bandigeri ND and Deepak c, Jamadar. A study on health hygiene among school children in rural field practice area Ajims manglore in Karnataka, India. *International journal of Bioassays: ISSN2278-778x*. www.ijbio.com.

Effectiveness of Structured Teaching Program Regarding Knowledge on Adolescent Psychological Problems among Teachers

Kharol Mahendra Kumar¹, Digpal Singh Chundawat²

¹Lecturer, Maa Gayatri College of Nursing, ²Professor, Tirupati College of Nursing, Pacific Medical University, Udaipur, Rajasthan

Background: Adolescents do not master full control over emotions. They get influenced by people very easily. Teachers at school play an important and appropriate role in the life of their students by providing them with accurate information about their puberty and development, and help them to identify their conflict and way to deal with it.

Aim: The present study aims to assess the Effectiveness of structured teaching program regarding knowledge on adolescent psychological problems among higher secondary school teachers.

Method: Quantitative Pre-experimental research design was selected to conduct study. 60 teachers were selected as sample based on exclusion and inclusion criteria through non-probability convenient sampling technique. Study Tools included were- 1) Socio-demographic scale 2) Structured questionnaire 3) Structured teaching program.

Results: The mean pre-test knowledge of teachers was 22.32 with standard deviation of 2.93, whereas mean post-test knowledge of teachers was 32 with standard deviation of 3.2. This findings were statistically significant at 0.05 level of significance ($t = 29.51^*$ at $p < 0.05$ level, Paired t- test) and Chi-square findings revealed that the association between post-test knowledge and selected demographic variables of teachers such as age ($\chi^2 = 7.89$, $df=3$) and area of expertise ($\chi^2 = 6.79$, $df=2$) were statistically significant at 0.05% level of significance.

Conclusion: The structured teaching program was effective in enhancing the knowledge of teachers about adolescent psychological problems.

Recommendation: In-service education for teachers regarding the developmental, physical, physiological and behavioral changes of adolescent must be organized and School health program specially focusing on adolescent mental health should be implemented with the active participation of the teachers.

Keywords: Adolescent psychological problem, School teachers, Structured Teaching Program.

Introduction

During adolescence, one starts demanding independence because of their physical maturity. Adolescents develop analytical ways of perceiving the world around them; this affects their personal, social and emotional status. Because of the resultant critical ability, they start noticing the drawbacks of parents and all authority figures. This often leads to parent child conflicts. Indian parents do not tolerate criticism by growing adolescents and this further causes more friction in their relationship. They feel that parents and other adults do not understand their feelings.¹

Adolescents do not master full control over emotions. They get influenced by people very easily. It is because they accept people on the basis of what they say instead of their motives. This phase of life is a highly vulnerable from a risk group in the community. The common psychological problems during adolescence includes substance abuse, alcoholism, smoking, violence, suicide, bullying, phobias, depression, conduct problems (like lying, stealing, and running away from the home etc.), criminal activity, sexual promiscuity, immoral sexual activities and absenteeism.²

Teachers at school play an important and appropriate role in the life of their students. When there is absence of a friend, guide and philosopher, the adolescents are unable to seek authentic information to all the questions, queries and curiosities. The teachers and parents should be an excellent and inspiring role model for the adolescents. She/he should feel free to approach the teachers and relate their anxieties and find satisfactory, appropriate and convincing answers and explanations. It is the responsibility of the schools and the teachers to impart correct knowledge that will enable the adolescent to go through the period of adolescence with least turbulence and disturbance.²

A study conducted in five districts of Bihar, India, revealed that nearly 50% of the secondary school teachers have a very poor level of awareness regarding the process of growing up during the adolescent period.³

A study conducted among teachers reports that teachers regardless of length of service, were not confident in their ability to deal with bullying and 87% want more training.⁴

As per the National Crime Records Bureau (NCRB) of India more than one lakh (1, 13,914) in the country lost their lives by committing suicide. Approximately 312 people committed suicide every day. A study conducted in Delhi in 2006 says at least 10% of the adolescent report attempting suicide one time. Recent studies heralds 41.2% and 33.7% of alcohol consumed by students and general population respectively in Karnataka.⁵

The other few studies also demonstrated that sensitization of teachers about development of psychological wellbeing in students is important and imparting special attention like individual counseling, suggestions, guidance, and referral to psychiatric services and qualitative changes in student- teacher's relationships is essential. Hence there is ample justification to sensitize the teachers towards the needs of adolescents.

The challenge to educators is to minimize the negative expressions of adolescent dynamics and encourage the positive expressions. Once teachers become sensitized and responsive to the unspoken emotional signals of the classroom group, they are in a better position to communicate and make emotional contact with the class in a manner that helps the class alleviate tension.

Materials And Method

A quantitative, Pre-experimental, One group pre-test and post-test research approach was used to assess the effectiveness of structured teaching program on adolescent psychological problems among teachers. The present study was conducted at 2 higher secondary school in Bhopal after obtaining permission from school authorities. The sample consisted of higher secondary school teachers meeting inclusion criteria and those willing to participate in study. Through convenient sampling technique 60 teachers were selected. The tools selected for the present study include socio-demographic scale and Structured questionnaire.

1. **Socio-demographic scale:** A demographic profile was used to collect information on age, gender, religion, educational qualification, teaching experience, area of expertise and source of health information.
2. **Structured questionnaire:** It consists of questionnaire for assessing the knowledge of Higher secondary school teachers regarding adolescent psychological problem. 40 multiple choice questions were used to assess the knowledge. Each question has three options with one answer correct and two wrong answers. Wrong answers carries zero score and the correct answer scores one mark. Based on total scores obtained, the level of knowledge is divided into three levels. Those who scored Below 50% (correct less than 20 questions) were in Inadequate level of knowledge category, between 51 - 60% (correct between 20-24 questions) were in Moderate level of knowledge category and Above 60% were in Adequate level of knowledge category.
3. **Structured teaching programme:** It consisted of various topic related to adolescent psychological health such as physical and psychological characteristics of adolescents, various psychological problems faced by the adolescents and role of a teacher to help adolescent to overcome from them. Some of them were suicide tendency, aggression, substance abuse, stress, bullying, depression etc. As teachers are very close to their student, they must possess knowledge about student's behaviour and problems they may face, so that they can help the students in overcoming problems and promote healthy behaviour of students.

The tools were translated into Hindi language with the help of language expert and necessary corrections

were made accordingly. Content validity of tools was established by submitting tools to experts related to field and their expert opinion was included after through discussion with them. A Split half method was used to establish the reliability of structured questionnaire. The reliability co-efficient was found to be $r = 0.85$. This was highly desirable so no modification was made.

A pilot study was conducted after obtaining the written consent; a demographic data sheet was given followed by structured questionnaire. There after Structured Teaching Programme was conducted. Post-test was done on 7th day following the intervention. Data were analyzed to find out suitability of statistics. Pilot study showed that there was significant gain in the knowledge level among the Higher Secondary school teachers. Findings revealed that study was feasible.

Prior to tool administration all subjects were given information sheet, explaining the purpose and outcome of study. Informed consent was taken from participants and self explanatory tools were administered to participants. Permission for study was taken from school authorities before commencement of study.

The data collected from participants was analysed using SPSS software 2.1 version. The significance level was set to 0.05 level ($p < 0.05$) as criteria for statistical significance of test result. Both descriptive (frequency and percentage distribution, mean, range and standard deviation) and analytical techniques (Paired t-test and chi-square test) were used to assess and analyse data.

Results

The data collected from participants were analyzed under following headings-

1. Frequency and percentage distribution: Majority of teachers (41.67 %, $N=25$) were found in age group 46-55 years and 36.67% ($N=22$) were within the age group of 36-45 years. Majority of teachers (68.33%, $N=41$) were males and 31.67% ($N=19$) teachers belong to female gender. All teachers (100%, $N=60$) were having post-graduation qualification. Majority of teachers 53.33% ($N=32$) held teaching experience of 10 year and above and then 33.33% ($N=21$) of teachers held 5 -10 years of experience. Majority of teachers 63.33% ($N=38$) teachers taught science and then 23.33% ($N=14$) teachers taught arts. Regarding source of information about health issues 43.33% ($N=26$) got information through visual Medias,

36.67% ($N=22$) from printed materials and 20% ($N=12$) of teachers got information from health professionals.

2. Frequency and percentage distribution of pre-test and post-test knowledge regarding adolescent psychological problems among Higher secondary school teachers:

Table 1- Pre-test and post-test level of knowledge N=60

S. No.	Level of Knowledge	Pre-test		Post-test	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Inadequate	9	15	0	0
2	Moderate	51	85	10	16.67
3	Adequate	0	0	50	87.33

The data in above table revealed that teachers were having inadequate (15%) and moderate (85%) level of knowledge during pre-test, which after Structured teaching program during post-test changed as no teacher had inadequate level of knowledge and 87.33% teachers had adequate level of knowledge on adolescent psychological problems.

3. Mean, Standard Deviation and mean percentage of pre-test and post-test knowledge regarding adolescent psychological problems among Higher Secondary school teachers:

Table 2: Pre-test and post-test man, SD, man percentage N=60

Test	Aspect of Knowledge	Statements	Range	Mean	SD	Mean %
Pre-test	Psychological problem	40	15-29	22.32	2.93	55.8
Post-test			23-37	32	3.2	80

The statistical outcome such as mean, standard deviation, mean score percentage of teachers knowledge before and after STP were shown in the table-2. The maximum score is 40; range scores in pre-test were 15-29 whereas in post-test were 23-37. The teachers had mean knowledge of 22.32 before and 32 after STP with standard deviation of 2.93 and 3.2 respectively. The mean score percent attained in post-test was 80% as compare to 55.8% in pre-test.

4. **Paired t-test and chi-square findings:** The mean post-test knowledge score of 32 was more than the

mean pre-test score of 22.32, which was statistically significant at 0.05 level of significance in paired t-test ($t = 29.51^*$ at $p < 0.05$ level). Thus it concluded that structured teaching program was effective in enhancing the knowledge of teachers regarding adolescent psychological problems.

The association between post-test knowledge score and selected demographic variables of Higher Secondary school teachers revealed that, variables such as age ($\chi^2 = 7.89$, $df = 3$) and area of expertise ($\chi^2 = 6.79$, $df = 2$) were statistically significant at 0.05% level of significance ($p < 0.05$ level). Thus it concluded that gain in knowledge by teachers had direct association with their age and area of expertise.

Discussion

The present study was aimed with assessing the baseline knowledge of higher secondary school teachers regarding adolescent psychological problems and administering them structured teaching program to enhance their knowledge. The key focus of present study was on adolescent psychological problems as many cases such as suicide, depression, hostile behavior, and substance abuse were reported among adolescents. As per **UNAIDS, (2006)** Studies revealed that 20% of children and adolescents throughout the world suffer from mental illness. About one in three females and one in five males report experiencing emotional distress but 65-95% of them do not receive help from health professionals. It is estimated that by 2020 depression will be the second cause of disability worldwide.⁶

So from above studies it is very clear that adolescent are vulnerable to psychological issues and teachers at this level can help them to resolve them.

Conclusion

The study revealed that there was a significant change in the level of knowledge among pre-university college teachers regarding adolescent psychological problems in selected Higher Secondary School Teacher at Bhopal. This study also showed that there was significant association between the post-test knowledge score and the demographic variables such as age and area of expertise.

Implications and Recommendations

Through the statistical analysis the researcher

identified that the Higher Secondary school teachers had less knowledge before administering structured teaching program on adolescent psychological problems. The findings of this study have implications in various aspects of Nursing such as Nursing Education, Nursing Practice, Nursing Administration and Nursing Research. In **NURSING EDUCATION**- Nursing curriculum should include activities which help the nurses to focus on the training of the school personals to promote mental health, prevent mental illness and identify early symptoms of psychological problems among students. In **NURSING PRACTICE**- The study showed that structured teaching program regarding adolescent psychological problems is effective in imparting knowledge among Higher Secondary school teachers. This study stresses that there is a need of involvement of nursing staff in planning and conducting education programs and also there is need of student nurses to involve in the education programs. In **NURSING ADMINISTRATION**- Adequate administrative support should be provided to conduct studies which are highly informative regarding adolescent psychological problems. Using the finding of the conducted studies, the nursing administrators can develop new programs at community levels aimed at increasing the knowledge and to impart the gained knowledge regarding adolescent psychological problems. In **NURSING RESEARCH**- The present study revealed that there is a lack of knowledge among Higher secondary school teachers regarding adolescent psychological problems and enlightens that there is a need to continue the research on knowledge regarding adolescent psychological problems among Higher Secondary school teachers and an extensive need to develop information materials based on need. Various research studies should be conducted to assess the effectiveness of other method of educational program to promote application of teacher's knowledge in promoting of psychological wellbeing and preventing of emotional and behavioral problems among the adolescents.

In the light of findings listed above and from the personal experience of the investigator few recommendations such as Educational materials regarding the adolescent psychological problems should be distributed to teachers periodically, in-service education regarding the development of adolescence and their physical, physiological and behavioural changes must be organized, Training programmes should be conducted about the practical aspects of identifying various behavioural and emotional problems

of adolescence, School health programme should be implemented with the active participation of the teachers, are advocated.

Limitations

Though, the study was conducted with putting best efforts, still perfection is rare and following limitations can be outlined- The small size of the sample made it difficult to draw generalization, Convenient sampling technique was used for conducting this study which restricts the generalization of result. A structured questionnaire was used for data collection which restricts the amount of information that can be obtained from the respondents, Only knowledge was assessed no attempt was made to assess their attitudes and practice due to time shortage and less resources.

Ethical Consideration

Researcher had submitted blue print of research along with tools to institution ethical committee (L.N. College of Nursing, Bhopal, Madhya Pradesh) and satisfactorily obtained permission from committee to conduct the present study.

Source of Funding

Researcher had self-financed the present study.

Conflict of Interest

There were no conflict of interest involved while conducting the present study.

References

1. Rawat Priyanka. Towards a better understanding of adolescence. Shanti Patient Related Education And Directions (SPREAD). Integrated Masters Scholar (Clinical Psychology), Amity University, New Delhi. Uploaded in SPREAD (www.spread.net.in) on 1st March 2009.
2. Lisa Agius, Kerri Boutelle. Et.al, Understanding Basic Psychology. 1st Edition. Hajpatnagar, New Delhi. Elsevier publications. 2004; 141, 146.
3. Janasamkhya Siksha Mukhapatra. Needs assessment study on adolescent reproductive health and behavior. Bihar. 1999 January 8(1): 19.
4. Boulton. M. J. Teachers view on bullying. British journal of Educational Psychology. United Kingdom. 1997 June: 223 – 33.
5. Dr Chandhra Shekar, Dr B.M. Suresh, et.al, Manual on students counseling for college teachers. 3rd edition. NIMHANS, Bangalore 2007; 11-37.
6. Facts for adolescents. A contribution to achieving the global goals and universal access for young people. UNAIDS Publications. 2006, January; 31, 33.

A Comparative Study to Assess the Effectiveness of Laughter Therapy Versus Meditation on Stress and Anxiety among Nursing Students at Selected College, Bangalore

Laishram Montina Devi¹, Mangaiyarkkarasi. K²

¹M.Sc. Nursing; Nursing Tutor at College of Nursing Asia Heart Foundation, Rabindranath Tagore International Institute of Cardiac Sciences, Kolkata, West Bengal, ²Associate Professor, Department of Medical Surgical Nursing, Narayana Hrudayalaya College of Nursing, Bangalore, Karnataka

Abstract

A Comparative Study To Assess The Effectiveness of Laughter Therapy Versus Meditation On Stress And Anxiety Among Nursing Students At Selected College, Bangalore.

Objectives:

1. To assess the effectiveness of laughter therapy on stress and anxiety among nursing students.
2. To assess the effectiveness of meditation on stress and anxiety among nursing students.
3. To compare the effectiveness of laughter therapy versus meditation on stress and anxiety among nursing students. The conceptual framework adopted for the study was based on Imogene King's goal attainment.

Sampling Technique: computer randomization method.

Sample size: 90 nursing students.

Method: A true experimental, pretest, posttest with control group design on anxiety and stress.

Result: Comparison of laughter therapy versus meditation theory (1981). The calculated F value within the group was 153.1 and between the groups was 100.56 which was found to be significant at 0.05 level of significance on anxiety among the nursing students. The calculated F value on stress among the nursing students was 17.50 within the group and 60.80 between the groups which was found to be significant at 0.05 level of significance. Therefore it is concluded that there was significant gain in reduction of anxiety and stress after meditation.

Keywords: Effectiveness, Meditation, Laughter Therapy, Anxiety, Stress, Nursing students.

Background

Nursing students are exposed to clinical area which is more stressful. Clinical sources of stress and anxiety includes fear of the unknown diseases, a new clinical environments, conflict between the ideal and real clinical practice, unfamiliarity with medical history, absence of professional nursing skills, unfamiliar patients diagnosis and treatments, providing physical, psychological and social care to patients, fear of making mistakes, giving medication to children and the death of a patient. It manifests by physical symptoms such as a racing heartbeat, sweating, trembling, and psychological symptoms such as restlessness, insomnia and difficulty in concentrating.¹ Laughter therapy and Meditation are

the effective tools for reducing stress and anxiety. It is a felt need of the investigator to reduce the anxiety and stress by comparing laughter therapy and meditation among the nursing students.²

Objectives

1. To assess the effectiveness of laughter therapy on stress and anxiety among nursing students.
2. To assess the effectiveness of meditation on stress and anxiety among nursing students.
3. To compare the effectiveness of laughter therapy versus meditation on stress and anxiety among nursing students.

Assumption

1. The increased level of stress and anxiety may hinder with student learning and development.
2. Students use certain coping mechanism to overcome stress and anxiety.

Hypothesis

H1: There will be a significant difference between pre and post laughter therapy of stress and anxiety score at 0.05 level of significance.

H2: There will be significant difference between pre and post meditation on stress and anxiety score at 0.05 level of significance.

H3: There will be significant difference in students' level of stress and anxiety between laughter therapy and meditation at 0.05 level of significance.

H4: There will be significant association between pretest score with selected baseline variables.

Delimitation

The study is delimited to

- Study is limited to only sample size of 90.
- The study is limited for a period of 6 weeks.

Material and Method

Research Design: True experimental design with pre-test post-test only design with control group.

Group	Pretest	Treatment	Post test
Experimental Group I	O1	X1	O2
Experimental Group II	O1	X2	O2
Control Group	O1		O2

The samples consisted of 90 nursing students was randomly selected by using computer randomization method out of which 30 students were attending laughter therapy, 30 students were attending meditation and 30 were in control group. Pre interventional anxiety and stress scores were assessed in all the three groups to determine the level of anxiety and stress by using Becks Anxiety Inventory Scale and Perceived stress scale respectively. The interventions were given separately to experimental I, experimental II and no intervention for control group and post intervention anxiety and stress scores were assessed on 5th, 10th & 15th days of each intervention and control group. The data obtained

were analyzed and interpreted using descriptive and inferential statistics.

Sampling Criteria

(A) Inclusion Criteria

- Nursing students who had high and very high level of stress & moderate and persistent high anxiety.
- Nursing students age below 30 years.
- Nursing students those who were pursuing G.N.M, B.Sc. and P.C. B.Sc.
- Nursing students who were unmarried.

(B) Exclusion criteria

- Nursing students who were on long leave.
- Nursing students who had practiced laughter therapy and meditation.
- Nursing student who had mental illness and on psychiatric drugs.

Description of Tool

Section A: Consisted of data on Baseline variables.

Section B: Consisted of the Becks Anxiety Inventory which was used to assess the anxiety levels.

Section C: Perceived Stress Scale which was used to assess the stress levels among the nursing students.

Finding

Section A: Assess the level of anxiety among the nursing students by using Becks Anxiety Inventory.

The nursing students who fit into inclusion criteria were selected for the study. Among them, 30 each were allotted to laughter therapy, meditation and control group. It was noted that prior to the intervention, majority 86.66% (26) in experimental I, 83.33% (25) in experimental II and 93.33% (28) in control group had moderate pre interventional anxiety score while 13.33% (4) in experimental I, 16.66% (5) and 6.66% (2) had severe anxiety by the using Becks Anxiety Inventory Scale.

Section B: Assess the level of stress among the nursing students by using Perceived Stress Scale.

Majority 73.3% (22) in experimental I, 43.33% (13) in experimental II and 33.33% (10) in control group

students had very high pre interventional stress score and 23.33% (8) in experimental I, 56.66% (17) and 66.66% (20) nursing students had high pre interventional score.

Section C: Assess the effectiveness on laughter therapy on anxiety and stress among the nursing students within the group using Becks anxiety Inventory scale and perceived stress scale.

The Becks Anxiety Inventory Scale the mean post interventional score of anxiety 16.86 was lower than the mean pre interventional score of 32.70 in which the calculated “t” value within the group was 17.54 which is significant.

By the Perceived Stress Scale the mean post interventional score of stress is 15.43 which was lower than the mean pre interventional score of 23.90 in which the calculated “t” value within the group was 9.05 which is significant.

Section D: Assess the effectiveness of laughter therapy on anxiety and stress among the nursing students between the groups by using Becks anxiety Inventory scale and perceived stress scale.

Table

	Groups	Laughter therapy		Mean difference	df	‘t’ value
		Mean	SD			
Anxiety	Experimental I	17.60	±4.27	14.60	1	-12.225*
	Control	32.20	±4.89			
Stress	Experimental I	15.43	±4.43	4.57	1	-3.902*
	Control	20.00	±4.63			

*= Significant

Section E: Effectiveness of meditation on stress and anxiety among the nursing students using becks anxiety inventory scale and perceived stress scale.

Table 1: Effectiveness of meditation on stress and anxiety within the groups using Becks anxiety Inventory scale and perceived stress scale. N=30

	Test	Meditation		t-test
		Mean	SD	
Anxiety	Pretest	31.80	±3.47	13.58*
	Post test	16.86	±5.09	
Stress	Pretest	22.43	±3.22	13.55*
	Posttest	11.90	±2.96	

*= Significance

Table 2: Effectiveness of meditation on stress and anxiety between the groups using Becks anxiety Inventory scale and perceived stress scale. N=60

	Test	Meditation		t-value
		Mean	SD	
Anxiety	Experimental II	17.07	±5.19	11.45*
	Control	32.26	±4.82	
Stress	Experimental II	11.48	±2.59	8.43*
	Control	20.00	±4.63	

*= significance

Section D: Comparison of effectiveness of laughter therapy vs meditation on anxiety by using becks anxiety inventory scale among the nursing students.

Table 3: Comparison of scores across time and between the laughter therapy versus meditation on anxiety by using Becks Anxiety Inventory Scale

Variables		Assessment				F-value		α
		Pre test	Post (5)	Post (10)	Post (15)			
		Mean ± SD				Between groups	Within group	
Anxiety	Exp I	32.70 ±3.075	29.30 ±3.395	22.07, ± 3.64	17.60 ±4.272	100.567 *	153.115 *	P<0.05
	Exp II	31.80 ±3.80	23.87 ± 3.478	20.63 ±3.873	16.87 ±5.090			
	Control	31.20 ±2.124	31.20 ±1.901	33.23 ±3.936	32.27 ±4.820			

* = Significance

Table 4: Comparison of effectiveness of laughter therapy vs meditation on stress by using perceived stress scale among the nursing students.

Variables		Assessment				F- value		α
		Pre test	Post (5)	Post (10)	Post (15)	Between groups	Within group	
		Mean \pm SD						
Stress	Exp I	23.90 \pm 3.977	19.13 \pm 3.569	18.47 \pm 4.659	15.43 \pm 4.43	17.503 *	60.806 *	P<0.05
	Exp II	22.43 \pm 3.224	17.97 \pm 3.952	15.37 \pm 3.662	11.90 \pm 2.96			
	Control	20.43 \pm 3.936	21.77 \pm 3.002	20.60 \pm 2.978	20.00 \pm 4.63			

* = significance

Discussion

Analysis of level of anxiety and stress among the nursing students.

The nursing students who fit into inclusion criteria were selected for the study. Among them, 30 each were allotted to laughter therapy, meditation and control group. It was noted that prior to the intervention, majority 86.66% (26) in experimental I, 83.33% (25) in experimental II and 93.33% (28) in control group had moderate pre interventional anxiety score while 13.33% (4) in experimental I, 16.66% (5) and 6.66% (2) had severe anxiety by the using Becks Anxiety Inventory Scale.

Majority 73.3% (22) in experimental I, 43.33% (13) in experimental II and 33.33% (10) in control group students had very high pre interventional stress score and 23.33% (8) in experimental I, 56.66% (17) and 66.66% (20) nursing students had high pre interventional score.

While comparing the demographic characteristics of the two experimental groups and control group was found that they matched in all aspects.

Analysis of effectiveness of laughter therapy on anxiety and stress

The mean post interventional score of anxiety was 17.60 which was lower than the mean post interventional of 32.20 among the control group in which the calculated "t" value between the groups was -12.22 which was found to be significant at 0.05 level of significance.

The mean post interventional score of stress was 15.43 which was lower than the mean post interventional score of 20.00 among the control group in which the calculated "t" value between the groups was -3.902

(p value 0.000) which was found to be significant at 0.05 level of significance.

Analysis of effectiveness of meditation on anxiety and stress

The mean post interventional score of anxiety 16.86 was lower than the mean pre interventional score of 31.80 in which the calculated "t" value within the group was 13.58.

The mean post interventional score of stress was 11.90 which was lower than the mean pre interventional score of 22.43 in which the calculated "t" value within the group was 13.55.

Comparison of laughter therapy versus meditation on anxiety and stress

The comparison was concluded that the post mean score of experimental II (16.87) was lower than the post mean score of experimental I(17.60) which means that meditation was more effective in stress.

The comparison of experimental II (11.90) and experimental I (15.43) shows that there was a significant difference in anxiety score at 0.05 level of significance which means that meditation was more effective.

Hence, it was included that meditation is more effective in anxiety and stress compared to laughter therapy.

Conclusion

Stress is the body's reaction to various stimuli, including physical, chemical, emotional or environmental factors.³ Laughter lightens the burdens, inspires hopes,

connects to others and keeps alert. Laughter is linked with the activation of the ventromedial prefrontal cortex which produces endorphins suppresses stress hormones.² Nursing education is one of the main disciplines in India. The nursing education has long been perceived that nursing students experience higher levels of stress than other students. The effects could be reflected in student's social, mental health and academic performance.⁶ Meditation is also another relaxation technique that can reduce stress and anxiety. Meditation is mind and body practice that has used for increasing calmness and physical relaxation, improving psychological balance, coping with illness, and enhancing overall health and well-being.⁵

The present study compares the effectiveness of laughter therapy versus meditation in reduction of anxiety and stress among the nursing students by using Becks Anxiety Inventory Scale and Perceived Stress Scale. About 90 nursing students were randomly selected using computer randomization method out of which 30 students were attending laughter therapy, 30 students were attending meditation and 30 were in control group. Pre interventional anxiety and stress scores were assessed in all the three groups to determine the level of anxiety and stress by using Becks Anxiety Inventory Scale and Perceived stress scale. The interventions were given separately to experimental I, experimental II and no intervention for control group and post intervention anxiety and stress scores were assessed after each intervention. The present study concludes that meditation is more effective than laughter therapy in stress and anxiety among the nursing students.

Conflict of Interest: None

Source of Funding: Self

Ethical Clearance: Obtained from the concerned institution.

References

1. Labrague J.L. Stress and stressors and stress response of student nurses in government nursing school. Health science journal [online].[Cited on April 2016]; Available from: <http://www.hsj.gr/medicine/stress-stressors-and-stress-responses-of-student-nurses-in-a-government-nursing-school.pdf>.
2. Melike. Effects of Laughter Therapy on Anxiety, Stress, Depression and Quality of Life in Cancer Patients. [Internet].[August 22, 2015]; **Available from:** <https://www.omicsonline.org/open-access/effects-of-laughter-therapy-on-anxiety-stress-depression-and-quality-of-life-in-cancer-patients-1948-5956-1000362.php?Aid=60533>
3. Timmins.F, Kaliszer.M. Aspects of nurse education programmes that frequently cause stress to nursing students – Fact-finding sample survey; Nurse Education Today 22(3):203-11 · [online] [Cited on May 2016.]; Available from: https://www.researchgate.net/publication/11343982_Aspects_of_nurse_education_programmes_that_frequently_cause_stress_to_nursing_students_-_Fact-finding_sample_survey
4. Ziegelhofer H. And Bhardwaj A. Alternative therapies for mood enhancement: is laughter truly the best medicine. Undergraduate journal of psychology at Berkeley.[Internet]. [Cited on Dec. 2015]; Available from: <http://ujpb.org/alternative-therapies-for-mood-enhancement-is-laughter-truly-the-best-medicine/>
5. Meditation. The art of living.[online]. Available from: <http://www.artofliving.org/in-en/meditation>.
6. Roa S. Stressed-out students attempting suicide. The Times of India city. [online].[Cited on 10 September 2016]; Available from :<http://timesofindia.indiatimes.com/city/engaluru/Stressed-out-students-attempting-suicide/articleshow/42119357.cms>.

Video Teaching Programme: It's Effectiveness on Knowledge of Students

Parvinder Kaur¹, Amrita A.S.², Smitha Nair³

¹Assistant Professor, M.M. College of Nursing, M.M University, Ambala, Haryana, ²Assistant Professor,
³Nursing Tutor, Lakshmi Bai Batra College of Nursing, I.P. University, New Delhi

Abstract

Background & objective: Newborns are dependent on others for their survival in the external environment. Newborns are delicate and have distinct health problems with high morbidity and mortality demanding specialized health care facility. They need optimal care for improved survival. Therefore, the study was undertaken with the aim to assess and evaluate the effectiveness of Video Teaching Programme on knowledge and to determine the association of level of knowledge of nursing students regarding danger signs in neonates.

Method: The present study was conducted in the month of February 2016, in selected nursing college of Mullana, Ambala. Convenience sampling technique was used. The sample comprised of 80 nursing students. Data was collected using structured knowledge questionnaire and teaching was given through video which comprised of three areas i.e neonatal jaundice, respiratory problems and hypothermia. The collected data was analysed and interpreted in accordance with objectives inferential and descriptive statistics.

Results: Majority of nursing students (64.9%) had below average pre-test knowledge score regarding danger signs in neonates which increased significantly in post-test (58.5%). The mean post-test knowledge score (25.3+2.58) was higher than the mean pre-test knowledge score (3.23+3.09).

Interpretation and conclusion: The knowledge of the students increased significantly after post- test as evident from post-test knowledge scores. The video teaching programme was proved to be effective in enhancing the knowledge on regarding danger signs in neonates among nursing students.

Keywords: Neonatal danger signs, nursing students, knowledge, video teaching.

Introduction

Baby is God's way of saying the world should go on. The birth of a baby is one of the most inspiring and emotional event that occur in one's life.¹ Becoming a parent creates a period of change and instability in all men and women. Newborn is the most critical period of life many complication and deaths may occur.² New born are delicate and have distinct health problems with high morbidity and mortality demanding specialized

health care facility. They need optimal care for improved survival. Newborn care is highly cost effective because saving the life of a newborn baby is associated with survival and productivity of future adults.³ They are truly the foundation of a Nation; they contribute towards the nation's productivity.⁴

The neonatal period (i.e. the first 28 days of life) is the most critical time for survival of an infant. According to sample registration system statistical report 2012, with the current neonatal mortality rate of 29 per 1000 live births, about 70% of infant deaths are more when half of fewer than five child deaths in the country fall in the neonatal period. The early neonatal mortality rate (ENMR) in the first week of life- is 23 per 1000 live births. This implies that the first week alone accounts for about 45% of total under-5 deaths⁵

Corresponding Author:

Amrita A.S.

Assistant Professor, Lakshmi Bai Batra College of Nursing, I.P. University, New Delhi
e-mail: amritasaini1111@gmail.com

Previous studies have shown that neonatal deaths are affected by various factors. Maternal factors associated with neonatal death include young maternal age, short births interval, maternal health complications and not breast feeding. Neonatal factors associated with their death were preterm birth, low-birth weight, multiple births, lack of appropriate care during pregnancy, delivery and postpartum period and the residence in rural or poor socio-economic community.⁶

Many of neonatal deaths are related to late recognition of neonatal illness, delay in decision to seek care at household level and subsequent late intervention at health care facilities. Early detection of neonatal illness is an important step towards improving new born survival.⁷The leading causes of death are severe infection, birth asphyxia, low birth rate and congenital malformation. The causes of infant mortality rate in India are low-birth weight (57%), respiratory infection (17%), diarrheal disease (4%), congenital malformation (5%) and cord infection (2%), birth injury (3%) and unclassified are about 8%.⁸

In the special care nursery, neonate get expert attention for their survival and nurse play a very vital role in these special units. Even after the critical period in the special care unit, there is always a need for continued care for the child grows to a healthy adult. It is therefore necessary to improve knowledge of nurses regarding newborn care and these can be achieved through adequately trained nurse students, so it is necessary to give proper training to identify the danger signs and necessary steps to follow the care of neonates.⁹

Effective and early management at hospital and prompt health care seeking behaviour for the new born danger signs serves as a back bone in reduction of new born mortality. Integrated management of neonatal and childhood illness emphasizes that nurse and health workers should be able to identify the danger signs among new born for appropriate care seeking. Monitoring the health of infant is a broad and complex process involving preventive and therapeutic measures. A strategy that involves all these aspects should include the training of health teams, the structuring of the health system and community experience.¹⁰

Material and Method

A quantitative research was conducted to assess the effectiveness of Video Teaching Programme on Knowledge regarding Danger Signs in Neonates among

Nursing Students in Selected Colleges of Ambala, Haryana. The Setting of this particular study was proposed to be in selected M.M. College of Nursing and M.M. Institute of Nursing, M.M. University, Mullana, Ambala as the College of Nursing is a Postgraduate and Graduate Degree College, providing a 4 years Basic B.Sc. Nursing Degree course (100 students in each batch), 2 years Post Basic B.Sc. Nursing course(60 students) and 2 years M.Sc. Nursing course (60 students).

Ethical permission was obtained from the principals of the selected nursing college and informed written consent was obtained from the study participants. The present study was conducted using (Experimental research)quasi experimental one group pre-test and post-test research design in the month of February, 2016.

Nursing students n=80, who were enrolled in B.Sc nursing 3rd year course (academic year 2015-16), available or willing to participate were included in the study with the use of convenient sampling.

A structured knowledge questionnaire was prepared to assess the knowledge of nursing students regarding danger signs in neonate mainly neonatal jaundice, respiratory problem, hypothermia before and after administration of video teaching programme. The content validity of the tool and the validation of video teaching programme (IMNCI guidelines video) was done by 7 experts from nursing and medical background. The calculated reliability of the structured knowledge questionnaire was found to be 0.69 using Kudar Richardson _ 20 (normal range 0.6-1). The first section of the tool had personal data of nursing students related to age, religion, ever posted in postnatal ward, knowledge regarding danger sings in neonate, seminar attended or not. The clinical variables, second section had 30 multiple choice questions to assess the knowledge of nursing students regarding danger signs in neonates related to Neonatal jaundice, Respiratory problem, Hypothermia. The level of knowledge of nursing students were classified according to the range of scores i,e below average (<50%), average (51-65%), good (66-75%), very good (>75%).

After formal introduction of the nursing students, on day1, the pre-test was administered to assess the baseline knowledge of the students. Video teaching on the danger signs of the neonates was done and post- test was conducted on day 15th.

Statistical analysis in this study was done using

descriptive statistics such as frequency, percentage, Range, mean, median, standard deviation of pre- test and post-test knowledge score, area wise mean, mean percentage, actual gain, modified gain of pre- test and post- test knowledge score. Inferential statistics computed in the study was ‘t’ to determine significance of difference between mean pre- test and mean post- test knowledge score, co efficient of correlation ‘r’ between pre- test knowledge score and chi-square was calculated to determine the association of knowledge score with selected variables.

Findings

A total of 98 students were enrolled initially in the study, but due to sample attrition during the post-test only 80 students were included. Most of the nursing students (97.5%) were in the age group of 18-22 years and belonged to Hindu religion. All the nursing students (100%) had been posted in postnatal ward/neonatal ward during their clinical experience. All the nursing students (100%) had previous knowledge regarding danger signs in new borns and gained information through books. In Pre-test, majority of nursing students (64.9%) had below average knowledge whereas in post-test, majority of nursing students (58.5%) possess very good regarding danger signs in neonates. In Pre-test, majority of nursing students (64.9%) had below average knowledge score regarding danger signs in neonates whereas in post-test, majority of nursing students possess very good score regarding danger signs in neonates i.e. (58.5%) followed by 23.4% had good knowledge score. The mean post-test knowledge score (25.3+2.58) was higher than the mean pre-test knowledge score (3.23+3.09) [Table No. 1]. The calculated “t” value [Table No.2] revealed that the mean post-test knowledge score was 25.3 was higher than the mean pre-test knowledge score (13.23) with mean difference of 12.07 which was found to be statistically significant at 0.05 level of significance. The

maximum modified knowledge gain was found in area of neonatal jaundice (0.78) followed by hypothermia (0.72) and the minimum modified knowledge gain were in the area of respiratory problem (0.67) [Table No.3]. The computed chi-square value of post-test knowledge of nursing students with selected sample characteristics was found to be 0.93, 4.43, 0.93, 4.05, 0.19, 3.67 and 0.15 respectively, which were not found statistically significant at 0.05 level of significance. Thus, it can be inferred that the video teaching programme was effective in enhancing the knowledge on regarding danger signs in neonates among nursing students.(p<0.05) significant.

Table 1: Showing that mean post-test knowledge score of nursing students was higher than the mean pre-test knowledge score of nursing students regarding identifications of danger signs in new born

N=80

Knowledge Score	Range	Median	Mean +SD
Pre-test	9-20	13	13.23+3.09
Post-test	18-30	25.5	25.3+2.58

Maximum score: 30 Minimum score: 0

Table 2: Showing that the calculated “t” value of the mean post-test knowledge score was higher than the mean pre-test knowledge score

N=80

Area	Pre-test mean	Post-test mean	MD	SDD	SEMD	“t” value
Neonatal Jaundice	3.76	7.87	4.11	1.9	0.22	18.57*
Respiratory Problem	5.30	9.81	4.51	1.96	0.21	20.57*
Hypothermia	4.17	7.65	3.47	2.06	0.23	15.02*

t’(79)=1.98 (p<0.05)

*significant NS-non-significant

Table 3: Showing the maximum modified knowledge gain was found in area of neonatal jaundice followed by hypothermia and the minimum modified knowledge gain were in the area of respiratory problem

N=80

Areas	Max. Score	Pre-test		Post-test		Actual gain	Possible gain	Modified gain
		Mean	Mean%	Mean	Mean%			
Neonatal Jaundice	9	3.76	41.77	7.87	87.44	4.11	5.24	0.78
Respiratory Problem	12	5.30	44.16	9.81	81.75	4.51	6.7	0.67
Hypothermia	9	4.17	46.33	7.65	85	3.48	4.83	0.72

Maximum Score=30, Minimum score=0

Discussion

In the present study, the video teaching programme was found to be effective in increasing the knowledge of nursing students regarding danger signs in neonates.

These study findings are consistent with the study conducted by Dongre, Pradeep R Deshmukh and Bishan SGarg¹¹ on Community Based Approach to improve Health care seeking for Newborn Danger Signs in Rural Wardha, India which showed that there was significant improvement in mother's knowledge regarding danger signs after giving health education.

The video teaching programme was effective in enhancing the knowledge of nursing students to danger signs in neonate. These findings were consistent with the study conducted by G.R. Neelimarani (2009)¹² regarding effectiveness of video assisted teaching on kangaroo mother care among B.Sc Nursing III year students and study conducted on effectiveness of video teaching programme on feeding techniques among mothers of low birth weight neonates by Chaudhary J. (2011)¹³ resulted that video teaching was effective in improving the knowledge.

Implications

- Nursing education must be emphasize widely on neonatal care in the curriculum to bring out more competencies in nursing students regarding danger signs in neonates
- The nurses posted in the neonatal units or in the community should be able to identify the danger signs in neonate s it is a vital concern that he/she should know about danger signs in neonate to reduce the neonatal mortality rate and improve the health status of the neonate.
- The nurse researcher should be able to conduct the research on various aspects of danger signs in neonate to generate more scientific data

Recommendations

- A similar study can be done by using others teaching strategies like information booklet, PTP, SIM, manual, computer assisted instruction.
- A comparative study can be done to assess the knowledge among the staff nurses working in neonatal units and in community setting regarding identification of danger signs in neonate.

- A comparative study can carried out for assessing the knowledge and ability of medical students and nursing students regarding identification of danger signs in neonate.
- A study can be conducted to assess the knowledge and practices of mothers regarding identification of danger signs in neonate.

Conclusion

There was a deficit of knowledge of nursing students in the areas like neonatal jaundice, and respiratory distress. Nursing students had significant gain in knowledge regarding danger signs in neonates after administration of video teaching programme. Video teaching programme was effective in enhancing the knowledge of nursing students regarding danger signs in neonate as evidence by calculated 't' value of 27.91 which was found to be statistically significant at 0.05 level of significance.

Conflict of Interest: None to declare

Source of Funding: Self-funded

Ethical Clearance: Informed consent was obtained from study participants. Confidentiality of the subjects was maintained.

References

1. Jacob Alphonsa Singh Sangram Paediatric Nursing. 2nd ed. Indore: NR brother's publications; 2003. p: 67.
2. Marlow R Dorothy and Redding, A.Barbara. Textbook of pediatric nursing. Tokyo, W B Saunders company ;2005.
3. HumbulwadkarRS.Pediatric nursing. 2nd ed. Mumbai: Voramedical publication; 2004. p: 49.
4. Singh Meharban. Essentials pediatrics for nurses. 1sted. New Delhi: Sagar publication; 2004. p: 3.
5. DuttaParul. Pediatric nursing. 1sted. New Delhi: Jaypee brother's medical publishers (p) ltd; 2008. p: 5, 66, 76,85.
6. Chellappa Jessie M. Pediatric nursing.1st ed. Bangalore: Gajanana book
7. World Health Report 2011 to 2015 and world health statistics 2011 too 2013 available at http://www.who.int/healthinfo/global_burden_disease/erpot_update/en/index.html.

8. Black RE, Morris SS, Bryce J. Where and why 10 million children die every year? *Lancet* 2008; 2226-34.
9. Registrar General of India. Sample Registration system (SRS) Statistical record 2012. New Delhi: 2013.
10. Liu L, Johnson HL, Cousins S, et al; Child health epidemiology reference group of WHO and UNICEF. Global, regional, and national causes of child mortality: An updated systematic analysis for 2010 with time trends since 2000. *Lancet* 2012; 379: 2151- 2161.
11. Dongre AR, Deshmukh PR, Garg BS. A community based approach to improve health care seeking for newborn danger signs in rural Wardha, India. *Indian J Pediatr.* 2009 Jan;76(1):45-50. doi: 10.1007/s12098-009-0028-y.
12. G.R. Neelimarani. Effectiveness of video teaching programme on kangaroo mothers care among 30 B.Sc. Nursing III Year Students at NIMS College of Nursing, Panjagutta, Hyderabad;2009.
13. Chaudhary. a study to evaluate the effectiveness of video teaching programme on feeding technique in terms of knowledge and practices of neonates admitted in neonatal care units in selected hospital of Punjab. *jun*;2011:95-98

Common Perceptions about Cancer: North Indian Female Cancer Patients and Normal Public's Perspectives about Cancer

Pragya Singh

Sr. Manager Projects at Dharamshila Cancer Foundation, Delhi

Abstract

This paper aims to debunk the common myths about cancer that exist among the women of Delhi and NCR Region, in an era where most people feel that cancer related myths are a thing of the past this study highlights the shocking and upcoming myths which are fast catching on in the society, especially with the advent of social media and chat groups. Data from unreliable sources cause more confusion and is fast causing newer myths to develop. Data was collected from 75 cancer breast and 75 cancer cervix patients living in Delhi and NCR region and 150 normal women who had no diagnosis of cancer. Their beliefs about the cause, treatment and survivorship of cancer were collected in a face to face discussion and common myths identified. Several lacunae in the knowledge and false perceptions were identified in the process and resolved and myths identified.

Keywords: *Cancer, myths, perceptions, cause, treatment, survivorship.*

Introduction

Many a times people agree to what may be seemingly correct even if it is not correct, the problem is that these wrong ideas if not corrected soon become assumptions and are passed on from one person to another. Most myths about cancer originate in the same fashion. For example PET CT is a diagnostic modality to detect the spread of cancer which commonly uses radiotracer F-18 fluorodeoxyglucose, or FDG1, a molecule similar to glucose, and it works on the broad mechanism that cancer cells being more metabolically active will uptake the dye fast and appear as hotspots. With the advent of this modality there was a wide surge in the myth that sugar alone feeds cancer cells and one may cure himself of cancer by cutting down sugars. The misinterpretation of facts and fast spread by social media is a threat to the gullible and innocent and an unnecessary stress to others. This paper aims to assess the current popular myths among cancer survivors and normal women population of Delhi and NCR region.

Methodology: This study used an exploratory survey method; data was collected from 75 cancer breast and 75 cancer cervix patients living in Delhi and NCR region and 150 normal women who had no diagnosis of cancer. Patients were reached using the snowball sampling method, different cancer survivor support

groups were reached and their members contacted individually. 150 normal women were reached in two colonies of Delhi for data collection using convenient sampling method. Care was taken as to not introduce any myths so this data was collected using only FOUR open ended questions

- What do you think causes cancer?
- Why do you think cancer cases are on a rise these days?
- How do you think cancer can be treated?
- Do you think cancer survivors can do all normal activities?

Results

All the data obtained was tabulated (**Table 1**) and percentages were assessed for the same. Many women choose not to answer the entire question or had a recurring response in all questions, such responses were not tabulated. Each opinion was considered as unique and any response that came more than 1 time was included in the table. Most women who lived in the same area had similar beliefs and it was very interesting to observe that even cancer survivors who stayed in hospitals for months for their treatment had several unresolved myths which they assumed to be true.

Table 1: Myths and percentage of women affirming it

S. No .	Ques.	Myth prevalent	No. and percentage of women who perceive it as truth			
			Cancer survivors	Percentage	Normal population	Percentage
1	What do you think causes cancer?	a. Not squeezing the breast among newborn girls to bring out witches milk is causing lumps later	88	58.6%	100	66.6%
		b. Not taking proper sexual abstinence precaution during menstruation causes cervical cancer	50	33.3%	110	73.3%
		c. Not drinking haldi milk regularly during menses can cause uterine malignancies	40	26.6%	94	62.6%
		d. Deficiency of vitamins can cause cancer	30	20%	44	29.3%
		e. Touch of a cancer patient/ Contact transmission	11	7.3%	89	59.3%
		f. Mobile phone usage	70	46.6%	99	66%
		g. If no one in the family have cancer, one will not get cancer	100	66.6%	133	88.6%
		h. Too much sugar in diet	40	33.3%	96	64%
2.	Why do you think cancer cases are on a rise these days?	a. Wearing black undergarments	80	53.3%	90	60%
		b. Too much deodorant	75	50%	67	44.6%
		c. Consuming things earned with black money can cause cancer	38	25.3%	11	7.3%
		d. Too much pollution	130	86.6%	140	93.3%
		e. Eating cheese and fast foods	60	40%	79	52.6%
		f. Living near power lines	30	20%	24	16%
3.	How do you think cancer can be treated?	a. Cancer spreads faster if exposed to air	35	29.1%	89	59.3%
		b. Biopsy causes cancer to spread	68	45.3%	127	84.6%
		c. Herbal treatment can cure cancer	30	20%	100	66.6%
		d. Vitamin supplements can cure cancer	20	13.3%	90	60%
		e. Beetroot juice everyday can cure cancer	49	32.6%	22	14.6%
		f. Bitter almonds everyday can cure cancer	77	51.3%	50	33.3%
		g. Ginger garlic consumption everyday can cure cancer	12	8%	30	20%
		h. Positive attitude alone can cure cancer	10	6.6%	50	33.3%
		i. Yoga and exercises everyday can cure cancer	16	10.6%	44	29.3%
4.	Do you think a cancer survivor can do all normal activities?	a. Cancer is equal to death sentence	20	13.3%	104	69.3%
		b. Cancer can never be completely cured	9	6%	102	68%
		c. Cancer survivor must be kept away from work	64	42.6%	108	72%
		d. Maximum survival after cancer care is <5 year	50	33.3%	130	86.6%
		e. Cancer survivors will never get their hair back	12	8%	133	88.6%
		f. Cancer survivors cannot be sexually active	50	33.3%	140	93.3%
		g. Cancer survivors must not be given normal diet	35	23.3%	130	86.6%
		h. Cancer survivors must not be exposed to children and pregnant women	12	8%	118	78.6%

Important Findings and Discussion

When coming to the causes of cancer 88.6% of the normal population felt that if no one in their family had cancer they will not get it, even among the survivors 66.6% of women felt so. Recent Globocan 2018 statistics say that one in 5 men and one in 6 women are prone to get cancer in their lifetime, such a perception is a major obstacle to health seeking behaviours and uptake of cancer screening.

73.3% of people felt that Not taking proper sexual abstinence precaution during menstruation causes cervical cancer which can lead to stigmatization of this cancer without any scientific evidence.

62.6% of normal people and 26.6% of survivors felt that not drinking haldi milk regularly during menses can cause uterine malignancies, in general the survivor group had lesser myths/ false perceptions, but there is no research evidence which would say that haldi milk has a protective factor for uterine malignancies. More studies need to be done on this fact.

59.3% of normal population felt that touch of a cancer patient/ Contact transmission can be a cause of cancer, what is disturbing here is the fact that even among survivors who took treatment 7.3% of the group felt that cancer can spread via contact.

66% of normal people and 46.6% survivors felt that Mobile phone usage can cause cancer.

When asked why you think cancer cases are on a rise these days, 93.3% of normal people and 86.6% of survivors felt too much pollution is the root cause for cancer and it's not entirely a myth. Studies have shown that pollution can cause certain types of cancer². Other point's raised were Wearing black undergarments, too much deodorant which continues to be a recurring theme in research literature⁴, consuming things earned with black money, Eating cheese and fast foods and living near power lines.

Varieties of responses were got when people were asked about cancer treatment. 84.6% of people felt that Biopsy causes cancer to spread, what's alarming is the fact that 45.3% of survivors who have successfully been treated at a hospital also felt the same. Around 60% people felt that cancer spreads faster if exposed to air. 66.6% of people felt that herbs and alternative treatment can cure cancer. Other important themes which emerged were use of vitamin supplements, beet root juice, bitter

almonds, and ginger garlic consumption; many felt that positive attitude alone can cure cancer.

When asked about survivorship most people (93.3%) felt that Cancer survivors cannot be sexually active, one third of the cancer survivors in the study felt the same. Possibly because the medical fraternity frequently discusses cancer in terms of 5 and 10 year survival rates a majority of normal population and one third of the survivors in the study felt that maximum survival after cancer is 5 years. Other themes that need to be clarified are Cancer can never be completely cured, Cancer survivor must be kept away from work, and Cancer survivors must not be exposed to children and pregnant women.

Conclusion

In short it can be summarized that cancer related myths continue to be and grow in the society. And what we need to remember is that there is a great need to continuously educate people on the same.

Future scope: myths about cancer tend to be regional in nature, the myth that is so prevalent in one geographic area may not exist in another at all. More regional studies need to be done to know about these aspects of cancer.

Conflict of Interest: None known

Source of Funding: Self

Ethical Clearance: Taken

References

1. Radiology (ACR), Radiological Society of North America (RSNA) and American College of. PET/CT - Positron Emission Tomography/Computed Tomography. <https://www.radiologyinfo.org/en/info.cfm?pg=pet>. Accessed 12 July 2019.
2. "How Air Pollution Can Cause Cancer." Cancer Research UK, 24 Mar. 2015, <https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/air-pollution-radon-gas-and-cancer/how-air-pollution-can-cause-cancer>.
3. "Electromagnetic Fields and Cancer." National Cancer Institute, 7 Jan. 2019, <https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/electromagnetic-fields-fact-sheet>.
4. "Antiperspirants/Deodorants and Breast Cancer." National Cancer Institute, 18 Aug. 2005, <https://www.cancer.gov/about-cancer/causes-prevention/risk/myths/antiperspirants-fact-sheet>.

A Study to Assess the Knowledge of Postnatal Mothers Regarding Prevention of Puerperal Complications in Selected Hospital at Chinakakani, Guntur (Dt), Andhra Pradesh

Pratap Kumar H¹, Subha Sri Ch², Mary Meena. J³

¹Final Year B.Sc. Nursing, ²First Year M.Sc. Nursing, ³Assistant Professor, NRI College of Nursing, Chinakakani, Guntur (Dt)

Abstract

Background: Puerperal sepsis is a common pregnancy related conditions that could eventually lead to obstetric shock (or) sometimes death. In developing world the puerperal sepsis is the second most cause of maternal mortality.

Aim: To Assess the knowledge of Postnatal Mothers regarding prevention of puerperal complications and to find the association between the knowledge with their demographic variables.

Materials and Method: A descriptive study was done at NRI general hospital, Chinakakani, Guntur, AP. A total of 100 postnatal mothers were select by non-probability convenient sampling. Data was collected by using a structured questionnaire.

Results: Out of 100 participants 36(36%) has inadequate knowledge 13(13%) has moderate 51 (51%) has adequate knowledge. Significant association ($\chi^2=14.77$) was found between the knowledge of the postnatal mothers on prevention of puerperal sepsis with their religion

Conclusion: Majority of women had poor level of knowledge regarding puerperal complication, maximum number of women's are uncertain regarding puerperal infection. Health education programs on prevention of puerperal complication can improve the knowledge of postnatal and aid the same by decrease the incidence of puerperal complications.

Keywords: Knowledge, Prevention, Puerperal complications, Postnatal Mothers.

Introduction

Puerperal complications include many of those encountered during pregnancy but those are some that are more common at this time. Typical of these is puerperal pelvis infection a well-known killer of postpartum women¹.

According to World Health Organization (WHO), puerperal sepsis is defined as infection of the genital tract occurring at labour or within 42 days of the postpartum period. The puerperal sepsis/pyrexia presents commonly with fever and other symptoms like pelvic pain, foul smelling vaginal discharge and delayed reduction of the uterine size. World literature search revealed a Nigeria study report that puerperal sepsis is second leading causes of death accounting for 26.3% of maternal deaths, while another WHO report estimated 358000 maternal deaths yearly occurring due to child birth problems and out of

these up to 15% are associated with puerperal sepsis².

Puerperium is the period of adjustment after child birth during which the mother's reproductive system returns to its normal pre-pregnant state triggered by a sharp drop in the levels of oestrogen and progesterone produced by the placenta during pregnancy. The uterus shrinks back to its normal size and resumes its pre-birth position by the sixth week.

Even though there is a decline in maternal mortality or morbidity case compared in olden times, still there is incidence. According to WHO maternal mortality is currently estimated to be 529000 deaths per years, a global ration of 400 maternal deaths per 100000 live births. Between 11-17 percent of maternal deaths happen during child birth itself. (WHO)³.

Comparison of MMR (Maternal Deaths 1,00,000 Live Births) Among Countries In

Countries	MMR in 2005	MMR in 2019
World	720	660
Asia	310	290
India	420	360
United States	13	8
Uae	37	33

Review of Literature

V. Indra conducted a study to assess the knowledge and practice of postnatal mothers on prevention of puerperal sepsis and the results revealed that 9% had inadequate knowledge, 90% has moderate knowledge and 1% had adequate knowledge.⁴

Lalitha.K conducted a descriptive study to assess the knowledge and practice of postnatal mothers on prevention of puerperal infections and the results revealed that the overall mean percentage of the knowledge score was 52%.⁵

Objectives

- To assess the knowledge of postnatal mothers on prevention of puerperal complications.
- To find the association of knowledge of postnatal mothers on prevention of puerperal complications with the selected demographic variables.

Hypothesis

H1: There will be significant relationship between knowledge of postnatal mothers. regarding puerperal complications with their demographic variables.

Assumptions

This study assumes that, Postnatal mothers have knowledge regarding prevention of puerperal complication.

Variables of the Study

The variables in the present study are age education, Religion, parity, source of information .

Delimitations

The study was delimited to postnatal mothers admitted in NRI General Hospital, Guntur and those willing to participate in the study.

Conceptual Frame Work

The conceptual frame work for the study is adopted from General system theory which was formed in 1920's by Ludwig Von Bertalanffy a biologist from Vienna.

This model contains the following components:

- Integrated self of defined concepts.
- Existence and relational statements that present a view of phenomenon.

S. No.	Variable	χ^2	Table value	Df
1.	Age	4.71 NS	12.59	6
2.	Education	13.38*	12.59	6
3.	Religion	14.77*	12.59	6
4.	Parity	6.1 NS	12.59	6
5.	Source of information	1.83NS	12.59	6

Methodology

Research Design: The research approach for this study is a quantitative approach. The research design selected for this study was descriptive survey design.

Setting of the study: The study was conducted in NRI general hospital, Guntur. The setting was chosen a basis of investigation feasibility in terms of adequate sample.

Population: The population for the present study are the postnatal mothers admitted in NRI general hospital, Guntur, A.P.

Sample size: Sample size for the present study is 100 postnatal mothers who are admitted in NRI General Hospital, Guntur, AP.

Tool: The structured questionnaire was developed with the help of literature and consultation with experts. It consisted of two sections.

Section-1: Consist of socio demographic data.

Section-2: Consists of 30 knowledge questionnaire on selected puerperal complications.

Sampling technique: In this present study non probability convenient sampling technique was used.

Procedure for data collection: The subjects were informed about the purpose of the study. Informed consent was taken. All the subjects answered the knowledge questionnaire.

Findings of the Study

Table 1: Frequency And Percentage Distribution of the Knowledge Scores

N=100

Knowledge	Frequency (f)	Percentage (%)	Mean	SD
Inadequate Knowledge 0-15%	36	36	20.5	8.13
Moderate Knowledge 16-22%	13	13		
Adequate Knowledge 23-30%	51	51		

Table 2: Chi square value of Knowledge Scores

S. No.	Variable	χ^2	Table Value	Df
1	Age	4.71 NS	12.59	6
2	Education	13.38*	12.59	6
3	Religion	14.77*	12.59	6
4	Parity	6.1 NS	12.59	6
5	Source of information	1.83NS	12.59	6

NS= Not Significant at 0.0 5% level of significance

*= Significant at 0.0 5% level of significance

Table 3: Frequency and percentage distribution of demographic variables

S. No.	Demographic Variables	Frequency (F)	Percentage (%)
1.	Age		
	a. <below 20 years	13	13
	b. 21-25 years	36	36
	c. 26-30 years	40	40
	d. 31years & above	11	11
2.	Religion		
	a. Hindu	52	52
	b. Christian	25	25
	c. Muslim	12	12
	d. Others	11	11
3.	Education		
	a. Know to read and write	23	23
	b. 1 st to 10 th standard	24	24
	c. Intermediate	30	30
	d. Graduation and above	13	13
4.	Parity		
	a. 1 st delivery	22	22
	b. 2 nd delivery	36	36
	c. 3 rd delivery	32	32
	d. 4 th delivery	10	10

Cont... Table 3: Frequency and percentage...

Source of Information			
5.	a. TV	22	22
	b. News paper	26	26
	c. Health care personnel	36	36
	d. Others specify	16	16

The data presented in the table 3 narrates that with regard to Age 13% of the postnatal mothers are in the age group of <20 years age, 36% belongs to 21-25 years 40% belongs to 26-30 years and 11 % of them were belong to the age group of 31 years & above age.

With respect to religion 52 (52%) postnatal mothers Hindus, 25(25%) postnatal mothers are christians, 12(12%) postnatal mothers are Muslims and only few 11 (11%) postnatal mothers were belongs to other religion.

With respect to education qualification 23 (23%) postnatal mothers know how to read and not write, 24 (24%) are between 1 to 10th standard, 30 (30%) studied upto intermediate and 13(13%) of them had graduation and above.

With respect to parity 22 (22%) Postnatal mothers 1 delivery, 36(36%) of the Postnatal mothers had 2 deliveries, 32(32%) had 3 deliveries and 10(10%) had 4 deliveries.

With respect to source of information most of the Postnatal mothers 22 (22%) had knowledge through Television, 36 (36%) of postnatal mothers had knowledge through health personnel, 26 (26%) of postnatal mothers had knowledge through news paper and only few adults 16 (16%) of them had knowledge through other.

Discussion

Out of 100 postnatal mothers 36 (36%) postnatal mothers have inadequate knowledge 13 (13%) postnatal mothers have moderate knowledge 51 (51%) postnatal mothers have adequate knowledge.

This is supported by the study conducted by Shirin Sultana, et al who reported that only 39.3% of the respondents had sufficient knowledge regarding prevention of puerperal sepsis.⁶

There was significant association ($\chi^2=14.77$) between the knowledge of the postnatal mothers on prevention of puerperal complications with their religion.

Conclusion

Majority (36%) of women had poor level of knowledge regarding puerperal complication, very few (13%) of women had moderate knowledge. Minimum (51%) of women are uncertain regarding puerperal infections.

Health education programs on prevention of puerperal complication can improve the knowledge of postnatal and aid the same by decrease the incidence of puerperal complications.

Recommendations

Based on the finding the following recommendations are proposed for future research:

- * A comparative study may be under taken in all types of health care setting.
- * A similar study may be under taken in all types of health care setting
- * A similar study can be carried out as an experimental study.
- * A study can be conducted on a large sample.

Sources of Funding: Self

Conflicts of Interest: Nil

Ethical Clearance: Taken from the institutional ethical committee.

References

1. Dr. Indra. V A study to assess the knowledge and practise on prevention of puerperal sepsis. *IJNER*. 2015; vol 3 (4).
2. Lalitha. H. A study to assess the knowledge and practice of postnatal mothers on prevention of puerperal infection. *IJHMR*. 2016; vol2(2).
3. Shirin sultana. Knowledge and practice regarding prevention of puerperal sepsis among postpartum women. *IJRMS*. 2018; vol6(10).
4. Fahesi A.O, Makinde O.N, Adevani A.R, evaluation of health workers training in use of partogram, *International Journal of Gynaecology & Obstetrics*, Jan, 2008. P.41-44.
5. Lavender T, Altirevic Z, Walkinshow & An act on line study, *British journal of obstetrics & gynaecology*, September 2005, P 976-980.
6. Friedman E, Graphic analysis of labour, *American Journal of obstetrics & gynaecology*, 2006, P 1568-1575.
7. Mathai, Mathew The Partograph for the prevention of obstructed labour, *clinical obstetrics & gynecology*, June 2009. P 256-269.
8. D.C Dutta, Text book of obstetrics, sixth edition, 2008, P 328-329.
9. Brbar Kozier, Eslenor, ERB, Audtey Berbman, Shirtee Jsnyder, *Fundamentals of Nursing*, seventh ed. Kidestey, 2008. P 144-148.
10. Jacab, A *Comprehensive textbook of midwifery*, second ed, jaypee publications, 2008, P 175-185.

A Study to Assess the Knowledge of Staff Nurses Regarding Neurorehabilitation in Dhiraj Hospital

Sonal Patel¹, Pritika Rathod², Savita Rathva², Darshita Raval², Nihareka Shrivastav²,
Archana Somanathan², Hiten Trivedi²

¹Assistant Professor of Medical Surgical Nursing, ²B.Sc. Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, Gujarat, India

Abstract

Background: Rehabilitation is an integral part of medical care. Rehabilitation includes all measures aimed at reducing the impact of disabling and conditions causing handicap. It is also aimed at enabling the disabled and the handicapped to be an accepted member of the society. Neurorehabilitation assumes that motor learning contributes to motor recovery after injury. However, little is known about how learning itself is affected by brain injury, how learning mechanisms interact with spontaneous biological recovery, and how best to incorporate learning principles into rehabilitation training protocols. This study was designed to assess the knowledge of staff nurses regarding neurorehabilitation in Dhiraj Hospital. In this study Quantitative evaluative research approach with descriptive research design was used. Emphasis was put on trying to establish the relationship between ages, gender, professional experience, previous area of experience, have you undergone any training on neurorehabilitation. The validity and reliability of research instruments was established, and data was collected from 60 staff nurses selected from Dhiraj Hospital using convenient sampling method. To analyze the data and correlation statistical tool was used with the aim of establishing to find out association between knowledge score with selected demographic variables. This formed the basis of the detailed analysis and conclusions and recommendations.

Aims and Objectives: The aim of this study is to assess the knowledge of staff nurses regarding neurorehabilitation and to find out the association between knowledge and the selected demographic variables.

Material and Method: In this research study Quantitative evaluative research approach with descriptive research design was used. The sampling technique was convenient sampling used to collect the 60 samples of staff nurses. Data collection was done by administering the self-structured questionnaire. Data was analysed by using descriptive and inferential statistics such as standard deviation and chi- test.

Results: In this study 15% staff nurses were having poor knowledge and 85% staff nurses were having average knowledge.

Conclusion: This study has dealt with the analysis and interpretation of the data collected from 60 staff nurses. Both descriptive and inferential statistics were used to analyse the data. The analysis has been recognized and presented under various demographic variables. In this research study findings show that staff nurses have poor and average knowledge regarding neurorehabilitation.

Keywords: Assess, knowledge, staff nurses, neuro rehabilitation.

Introduction

Rehabilitation is an integral part of medical care. Rehabilitation includes all measures aimed at reducing the impact of disabling and conditions causing handicap. It is also aimed at enabling the disabled

and the handicapped to be an accepted member of the society. Rehabilitation medicine has merged in recent years as a medical specialty. It involves disciplines such as physical medicine or physiotherapy, occupational therapy, speech therapy, audiology, psychology,

education and training, social work, vocational guidance and vocational services.¹ Rehabilitation, defined as “a set of measures that assist individuals, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments” (WHO, 2011).² Preventive medicine is the first phase, where a disease is prevented from occurring by avoiding the interaction between agent, host and environment. Curative medicine is the second phase, focuses on attempting to cure the disease. Most doctors practice curative medicine. However, there are several conditions like rheumatoid arthritis, which has no cure and others like poliomyelitis in which the agent causing the disease has been eliminated from the host, but residual effects like paralysis persist.³ Therefore there is a need for third phase, namely rehabilitation, which is not only just medical but also a social responsibility. Rehabilitation may be medical or socio-vocational. Medical rehabilitation is the utilization of medical and paramedical skills to help treat the patient. The role of medical rehabilitation is to limit disability. Socio-vocational rehabilitation follows or sometimes is delivered simultaneously along with medical rehabilitation. The role of socio vocational rehabilitation is to limit handicap.⁴

Need for Study

Neurorehabilitation helps people with neurological disorders maximize their quality of life. **Progressive neurological disorders such as dementias, Parkinson’s and tumours and isolated neurological events such as traumatic brain injuries and strokes can benefit enormously from Neurorehabilitation.** Once the acute stage of treatment for a brain injury is completed, Neurorehabilitation steps in to help the patient recover, maximise their functional and cognitive abilities and to help them realise their personal goals. The journey to recovery can be a long one and require a lot of decisions to be made, particularly if there is a legal case involved.⁵

Literature Review

Ortelli P et.al (2018) conducted a study on effectiveness of a goal-based intensive rehabilitation in parkinsonian patients in advanced Stages of Disease to understand whether an inpatient, motor-cognitive, multidisciplinary, aerobic, intensive and goal-based rehabilitation treatment(MIRT), 638 Parkinsonian patients, hospitalized to undergo a 4-week MIRT, were retrospectively identified. According to the

Hoehn&Yahr (H&Y) scale, 496 were in H&Y stage 3 and 142 in H&Y stage 4-5. Outcome measures included: Unified Parkinson’s Disease Rating Scale (UPDRS), Berg Balance Scale (BBS), Timed Up and Go Test (TUG), Six Minute Walk Test, and Parkinson’s disease Disability Scale (PDDS). After rehabilitation all outcome measures significantly improved in both groups of patients.⁶

Abbes Met.al (2017) conducted a study on Sub thalamic stimulation and neuropsychiatric symptoms in Parkinson’s disease to determine whether a long-term treatment with sub thalamic stimulation induces or reduces impulse control behaviours, neuropsychiatric fluctuations and apathy, 69 patients treated with sub thalamic stimulation are prospectively and retrospectively assessed using Ardouin Scale of Behaviour in Parkinson’s Disease before and after 3-10 years of stimulation at a mean follow-up of 6 years, all impulse control disorders and dopaminergic addiction were significantly decreased, apart from eating behaviour and hyper sexuality. Neuropsychiatric fluctuations also significantly improved. Bilateral sub thalamic nucleus stimulation was overall very effective in improving impulse control disorders and neuropsychiatric fluctuations in parkinsonian patients in the long term despite a counteracting frequent apathy.⁷

Material and Method

Research Design: The research design used in this study is Non- Experimental descriptive design.

Research Setting: The study will be conducted in Dhiraj General Hospital, Piparia, Vadodara

Samples: 60 Staff Nurses

Criteria for Selection of Sample

Inclusion Criteria:

- Staff nurses who are working at Dhiraj general hospital, Waghodia, Vadodara.
- The staffs who will willingly participate.
- The staff those who can easily read and understand English are included in this study.

Exclusion Criteria:

- Staff nurses who are post graduated.
- Staff nurses who are not available during the period of data collection

Description of Tools

This consists of two parts:

Section 1: Consists of demographic variables like age, gender, professional qualification, professional experience, previous area of experience, have you undergone any training on neuro rehabilitation?

Section 2: Knowledge Questionnaire will be used to assess the knowledge of staff nurses regarding neurorehabilitation.

Scoring Interpretation:

- Adequate awareness: > 67-90 %
- Moderately adequate awareness: 34-66 %
- Inadequate awareness: <33 %

Reliability of the Tool: The reliability was established by using Spearman Brown Split-Half method and it was found to be $r = 0.833$, which indicates that the tool was reliable.

Procedure of the Data Collection: Prior permission will be obtained from medical superintendent and concerned will be taken from each respondent who will participate in study. On the day One, the purpose of study was explained to the sample and an informed consent was taken before starting the study. A test was conducted by administering a Structured Knowledge Questionnaire to the selected 60 staff nurses.

Analysis and Interpretation: The process of organizing and synthesizing data to answer research questions and test hypothesis is known as analysis.

Data collected will be analysed by using descriptive and inferential statistics.

Descriptive Statistics: Frequency and percentage distribution will be used to describe the demographic variables. Mean and standard deviation will be used to assess the knowledge.

Inferential Statistics: Chi-square test will be used to associate demographic variables and knowledge regarding neurorehabilitation.

Ethical clearance will be obtained from the Sumandeep Vidyapeeth institution ethical committee and willingness will be obtained from the subjects before data collection.

Findings

Section I: Frequency and percentage distribution of socio demographic variables.

- According to age 97% of respondents belongs to the age group of 23-28 years, 3% staff nurses belongs to the age group of 29-34 years and 0% belongs to 35-40 years.
- According to gender 16 (27%) of the staff nurses were male and 44 (73%) of them were female.
- According to professional qualification 100% staff nurses completed B.Sc. Nursing 0% of them completed P.B. BSc nursing.
- According to professional experience 18(30%) staff nurses have <1 year of experience, 34(57%) staff nurses have 1-3 years of experience, 5(8%) staff nurses have 3-5 years of experience, 3(5%) staff nurse has >5 years of experience.
- According to previous area of experience 43(72%) of staff nurses have previously worked in critical ward, 0(0%) staff nurses worked in intermediate wards, 17(28%) staff nurses have previously worked in general ward, 0(0%) staff nurses have previously worked in other wards.
- According to previous neurorehabilitation training 12(20%) of staff nurses have undergone neurorehabilitation training and 48(80%) staff nurses have not undergone neurorehabilitation training.

Section II: Analysis of knowledge score regarding neurorehabilitation.

Table 1: Distribution of frequency and percentage of staff nurses on the basis of their knowledge level

N=60

Level of Knowledge	Frequency	Percentage
Poor	09	15%
Average	51	85%
Good	00	0%
Total	60	100%

According to knowledge score 09(15%) have poor knowledge, 51(85%) have Average knowledge and 0(0%) have good knowledge regarding neuro rehabilitation.

Section III: To find association between knowledge score with selected demographic variables.

This section deals with the findings of association between various demographic variables with their knowledge regarding neurorehabilitation among staff nurses. To test the association between knowledge and

selected demographic variable, following hypothesis was formulated.

H₁: There will be a significant association between the selected demographic variables and knowledge of staff nurses regarding neurorehabilitation.

Table 2: Association between the knowledge score with selected demographic variables

N=60

Sr. No.	Variables	Median and Above	<Median	X ²	Df	T value	Significance
1.	Age			0.004	1	3.842	S
	23-28	37	20				
	29-34	2	1				
2.	Gender			0.135	1	3.841	S
	Male	11	5				
	Female	28	16				
3.	Professional Experience			0.082	3	7.815	S
	<1 year	12	6				
	1-3 years	22	12				
	3-5 years	3	2				
	>5 years	2	1				
4.	Previous area of experience			3.140	1	3.841	S
	Critical ward	25	18				
	General ward	14	3				
5.	Have you under gone any training on Neurorehabilitation?			0.659	1	3.841	S
	Yes	9	3				
	No	30	18				

Among all the selected demographic variables: age ($X^2=0.004$), gender ($X^2=0.135$), professional experience ($X^2=0.082$), previous area of experience ($X^2=3.14$), Have you under gone any training on Neurorehabilitation? ($X^2=0.659$)

Hence, Research H₁ is accepted that is significant association between knowledge score and selected demographic variables.

Conclusion

The present study assessed the knowledge regarding neurorehabilitation among the staff nurses working at Dhiraj Hospital, Piparia, Waghodia, Vadodara and found that the majority have average knowledge regarding neurorehabilitation. After the knowledge assessment of staff nurses regarding neurorehabilitation the study concluded that staff nurses have average knowledge.

According to knowledge assessment 15% staff nurses have poor knowledge, 51% have average

knowledge regarding neurorehabilitation. Knowledge questionnaires were used to assess the knowledge of staff nurses and it concluded that staff nurses have average knowledge regarding neurorehabilitation.

Recommendations

Based on the findings of the present study recommendation offered for the future study:

- The study can be replied in large sample for better generalization.
- A similar study can be conducted with different teaching strategies like planned teaching program.
- A comparative study can be done between BSc nursing staff nurses and post basic BSc nursing staffs.
- This study will be reference for research scholars.

Conflict of Interest: There is no conflict of interest.

Sources of Funding: Researchers used their own fund for their research

Ethical Clearance: Ethical clearance for this UG research project was obtained from the ethical committee SVIEC of Sumandeep Vidyapeeth deemed to be university.

References

1. Pope AM, Tarlov AR, editors. Disability in America: Toward a national agenda for prevention. National Academies Press; 1991 Jan 15.
2. Darzi AJ, Officer A, Abualghaib O, Akl EA. Stakeholders' perceptions of rehabilitation services for individuals living with disability: a survey study. Health and quality of life outcomes. 2016 Dec;14(1):2.
3. McKeown T. The role of medicine: dream, mirage, or nemesis? Princeton University Press; 2014 Jul 14.
4. De Groof J, Lauwers G, editors. A new framework of special education in the Russian Federation. Garant; 2000.
5. Judd T. Neuropsychotherapy and community integration: Brain illness, emotions, and behavior. Springer Science & Business Media; 2012 Dec 6.
6. Ortelli P, Ferrazzoli D, Bera R, Caremani L, Giladi N, Maestri R, Frazzitta G. Effectiveness of a Goal-Based Intensive Rehabilitation in Parkinsonian Patients in Advanced Stages of Disease. J Parkinson's Dis. 2018; 8(1):113-119. Doi:10.3233/JPD-171247. Pub Med PMID: 29480227
7. Abbes M, Lhommée E, 1: New PW, Eriks-Hoogland I, Scivoletto G, Reeves RK, Townson A, Marshall R, Rathore FA. Important Clinical Rehabilitation Principles Unique to People with Non-traumatic Spinal Cord Dysfunction. Top Spinal Cord Inj Rehabil. 2017 Fall; 23(4):299-312. Doi: 10.1310/sci2304-299. Pub Med PMID: 29339906; Pub Med Central PMCID: PMC5667427

A Study to assess the Effectiveness of SOP on Knowledge and Practice Regarding Urinary Catheterization Procedure among Staff Nurses of Dhiraj Hospital, Vadodara

Ravindra H.N.¹, Sanket M. Patel², Sonal Patel³

¹Principal, ²M.Sc., ³Assistant Professor, Sumandeep Nursing College, Sumndeep Vidhyapeeth University, Vadodara, Gujarat, India

Abstract

Background: Urinary tract infection is the most severe type of hospital associated infection. So it is important to enhance knowledge regarding catheterization procedure among the staff nurses. In this study an evaluative research approach with pre-experimental research design was used for collect the data.

Method: A quantitative research approach with pre-experimental one group pre-test post-test design with non probability convenience sampling to collect the 90 samples. A structured questionnaire and Practice checklist was prepared to assess the knowledge and practice of staff nurses.

Result: With regards to the pre test assessment, the score of 19 staff nurses was having adequate level of knowledge and 71 were having inadequate knowledge, in post test 90 having excellent knowledge. The obtained pre test mean score was 8.61 after providing SOP it increased up to 13.83, the mean difference of the pre test and post test is 5.22. The obtained “t” test value 43.57 significant at 0.05 level. Whereas the pre test score of practice shows 51 were has inadequate practice and 39 was having adequate practice, the post test data reveals that 90 were having excellent score. The obtained pre test practice of mean score was 8.68 and post test of practice mean score was 13.88; the mean difference of the pre test and post test of practice score is 5.2. The obtained ‘t’ test value 45.11 shows significant at 0.05 level. It indicates that there is increased in the level of knowledge and improves practice after providing SOP. Hence, H1 is accepted. However, the pre test practice score only associate with the age, gender, education qualification & experience Hence, H2 is rejected.

Conclusion: The study concluded that majority of staff nurses were having inadequate level of knowledge and average practice. The SOP was effective among staff nurses in improving knowledge and practice score.

Keywords: Effectiveness, SOP, Knowledge, Practice, Staff nurses, Catheterization Procedure.

Introduction

Nosocomial or hospital acquired infections are called Health care associated infections (Burke 2003)¹. Healthcare-acquired infections (HAIs), also known as nosocomial infections, are infections that patients get while receiving treatment for medical or surgical conditions.

32%	Urinary tract infections
22%	Surgical site infections
15%	Pneumonia (lung infections)
14%	Bloodstream infections

Healthcare associated infections (HCAI) or

nosocomial infections constituting a major health problem worldwide; among them the major one is Catheter Associated Urinary Tract Infection.³

Nurses are at the frontline of catheter care. As the providers most involved with IUCs in hospitalized patients, nurses are responsible for IUC placement, day-to-day catheter management, and the removal of IUCs. Among catheterized patients, they are often the first to notice a clinical change or technical problem.^{4,5}

According to audits, inappropriate use of urinary catheters is widespread. Because of the poor quality of documentation, healthcare staff is often unaware of the

insertion and ongoing care of urinary catheters, so that catheters remain in place of excessive lengths of time, until catheter-related complications occur.⁶

Urinary tract infection attribute to the use of an indwelling catheter is one of the most common infections acquired by patients in health care facilities. As biofilm ultimately develops on all of these devices, the major determinant for development of bacteriuria is duration of catheterization. 70-80% of all urinary tract infections is caused by only indwelling catheterization.⁷

In acute care settings that most of the nurses have poor knowledge regarding CAUTI. Most of the doctors and nurses are unknown with the indication of catheterization and no proper management to monitor the presence of unnecessary catheter.⁸

Need for the study: Nursing is an art science and an essential health care profession in which the skilled knowledgeable persons are Committed to provide care to sick peoples and strive for the, protection and promotion of health and prevention against diseases.⁹

Nurses are responsible and accountable for their actions, decisions and practices to maintain the safety, wellbeing, interests and rights of patients. The nurse must follow the right actions during catheter care of patient and must be implement the proper knowledge and understanding of implications and to care by following the updated policies, protocols, standards and approved practice of evidence base guidelines.¹⁰

According to the society of Urological Nurses and associate Urological Nursing (2008), mostly indwelling catheters are passed to the patients in the hospital in a very inappropriate way and left unattended.¹¹

The incorrect usage and care of indwelling urinary catheter may lead to urinary tract infection in the patients. Moreover, the placement and nursing care after insertion of the indwelling urinary catheter (IUC's) is the practice of the nurses. Nurses should follow the evidence base practices and the approaches to provide indwelling catheter care to the patients. The possibility of catheter in related urinary tract infection increases more if the indwelling urinary catheter is in placed to a patient bladder.¹²

The affirming needs to prevent CAUTI by taking good care of the patients with the urinary drainage system. It is very important for the health care providers

to develop guidelines on best practice of CAUTI preventive interventions in hospitals. This can avoid hospital-acquired infections and to identify gaps and controversy issues through the good use of best available evidence.¹³

Nurses are direct contact with patients and provide all type of care. The nurses who can create awareness regarding urinary catheterization and prevention catheter related UTI. But at present health care workers and nurses having poor knowledge regarding catheter associated urinary tract infection, so this study is helpful for future perspectives of all health care associated workers and staff nurses.

Material and Method

Research design: In this study, the research design was pre experimental one group pre-test Post-test design

Setting: Staff nurses from Dhiraj General Hospital, vadodara

Sample: 90 staff nurses from Dhiraj General Hospital

Inclusion criteria

- Staff nurses working in Dhiraj hospital.
- Staff nurses with G.N.M., B.Sc. or PB B.Sc qualification.
- Staff nurses who are present at the time of study.

Exclusion criteria

- A.N.M, & M.Sc nursing staff are excluded.

Tool for data collection

This consists of three parts:

Section 1: demographic variables such as gender, age, education, qualification and area of working.

Section 2: self designed questionnaire will be used to assess the knowledge regarding procedures.

Scoring procedure: For knowledge assessment If answer is right then give 1

If the answer is wrong then give 0.

Scoring interpretation:

Inadequate: <8

Adequate: 9 – 12

Excellent: 13 – 16

Section 3: Practice check list will be used.

Inadequate: <8

Adequate: 9 - 12

Excellent: 13 – 16

Reliability

The reliability of tool established by using split half method Spearman Brown Prophecy formula ($r=0.75$) reliability test.

Data collection procedure: The formal permission was obtained for the approval of the study from Dhiraj General Hospital, Piparia, Waghodia, Vadoara. The data collection done within a given period of 1 week. The investigator selected the subject and established the rapport by explaining purpose of the study, the co-operation required and the anonymity assured before obtaining verbal consent. Initially the demographic tool, self structured questionnaire and checklist administered to the sample to know existing level of knowledge regarding urinary catheterization procedure, then the SOP was given to the samples of the study. After 7 days post test was administered to assess the effectiveness of the standard operating procedure among staff nurses.

Statistical design: Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi square and paired t test) was applied to test the study hypothesis.

Findings

Section A: Description of samples according to their demographic characteristics.

50% staff nurses were in the age group of 21-25 years and remaining 50% are from the age group of 26-30 years.

The highest percentages (95.6%) of staff nurses were female while (4.4%) are male staff.

Maximum (53.3%) of staff nurses belongs from the B.Sc. Nursing and (46.7%) of staff nurses belongs from the G.N.M.

Majority were having (65.6%) 0-2 year of working experience, while (34.4%) staff nurses were having 3-4 year of working experience.

Majority (44.4%) was working in a critical area, (23.3%) were working in a Gynec and obstetric ward, (18.9%) were working in a surgical ward, and (13.3%) were working in a Medical ward.

Section B: Analysis of pre test and post test score of knowledge and practice Regarding Urinary catheterization.

Table 1: Distribution of pre test and post test knowledge score according to the percentage

N=90

Sr. No.	Categories of knowledge score	Percentage	Pre test	Post test
1.	Inadequate	<33%	78.9%	0%
2.	Adequate	34-66%	21.1%	0%
3.	Excellent	>67%	0%	100%

Table 2: Distribution of pre test and post test checklist according to the percentage

N=90

Sr. No.	Categories of attitude	Percentage	Pre test	Post test
1.	Inadequate	<33%	56.7%	0%
2.	Adequate	34-66%	43.3%	0%
3.	Excellent	>67 %	0%	100%

Section C: Effectiveness of Standard operating procedure

Table 3: Comparison between pre test and post test score of knowledge among staff nurses regarding urinary catheterization

N=90

Variable	Pre test	Mean	Mean Difference	Std. Deviation	t- Value
Knowledge regarding urinary catheterization	Pre-test	8.61	5.22	35.99	43.57
	Post-Test	13.83		18.8	

* Significant at 0.05 level, *t (0.05, 89df)

Table 4: Comparison between pre test and post test score of practice among staff nurses regarding urinary catheterization

N=90

Variable		Mean	Mean Difference	Std. Deviation	t-Value
Practice score regarding urinary catheterization	Pre-test	8.68	5.2	0.89	45.11
	Post-Test	13.88		0.75	

* Significant at 0.05 level, *t(0.05,89df)

Section D: Association between pre test knowledge and practice score with socio demographic variables.

Association between pre test knowledge score and socio-demographic variables: These data reveals that association between knowledge of staff nurses and demographic variable. There are no any significant demographic variable. All of the above variables are non-significant.

Hence, research hypothesis H_2 was not accepted.

Association between pre test score of practice and socio- demographic variables

These data reveals that association between practice score of staff nurses and demographic variable. Significant demographic variable are gender of staff nurses with χ^2 value 5.73 (1df =3.84) and professional qualification with χ^2 value 8.80 (2df=5.99) for this variable hypothesis is accepted. The non significant demographic variable was age, qualification experience and working area of nurses. Hence, research hypothesis H_2 was not accepted.

Discussion

The aim of the study was conducted to evaluate the effectiveness of SOP on knowledge and practice regarding urinary catheterization among staff nurses. It was found staff nurses had inadequate knowledge and practice regarding urinary catheterization and sop is effective to improve the knowledge and bring a good practice towards urinary catheterization

Various evidence show the effectiveness of SOP in improving knowledge and practice regarding urinary catheterization. One of the major factors that contributing to the HAI's and CAUTI is improper urinary

catheterization practices; the staff nurses are having lack of knowledge regarding urinary catheterization, so it is important that health care provider should provide the knowledge regarding urinary catheterization.

Conclusion

The analysis reveals that the total mean of post-test knowledge and practice score was observed to be significantly higher than the total mean of pretest knowledge and practice score after providing SOP to the staff nurses regarding urinary catheterization. Hence, it is concluded that the SOP was effective to increase the knowledge regarding the ideal catheterization among staff nurses. Education regarding urinary catheterization should be given to all staff nurses to improve their knowledge and practice of procedure which may aid in reducing rate of urinary tract infection.

Conflicts of Interest: The authors declare that there is no conflict of interest statement

Source of Funding: Fund for this research is researcher own.

Ethical Clearance: Ethical clearance for this dissertation was obtained from the ethical committee SVIEC of Sumandeep Vidyapeeth University.

Reference

- Burke JP. Infection control--a problem for patient safety. The New England journal of medicine. 2003 Feb 13;348(7):651.
- Anupriya A, Priyanka N, Snehalaxmi R, Uma A. Health-care associated infections and infection control practices in intensive care hospital. Asian Journal of Pharmaceutical and Clinical Research. 2016;9(4).
- Fuchs MA, Sexton DJ, Thornlow DK, Champagne MT. Evaluation of an evidence-based, nurse-driven checklist to prevent hospital-acquired catheter-associated urinary tract infections in intensive care units. Journal of nursing care quality. 2011 Apr 1;26(2):101-9.
- Fakih MG, Rey JE, Pena ME, Szpunar S, Saravolatz LD. Sustained reductions in urinary catheter use over 5 years: bedside nurses view themselves responsible for evaluation of catheter necessity. American journal of infection control. 2013 Mar 1;41(3):236-9.

5. Gokula RM, Smith MA, Hickner J. Emergency room staff education and use of a urinary catheter indication sheet improves appropriate use of foley catheters. *American journal of infection control*. 2007 Nov 1;35(9):589-93.
6. Conybeare A, Pathak S, Imam I. The quality of hospital records of urethral catheterisation. *Annals of the Royal College of Surgeons of England*. 2002 Mar;84(2):109.
7. Tambyah PA, Maki DG. Catheter-associated urinary tract infection is rarely symptomatic: a prospective study of 1497 catheterized patients. *Archives of internal medicine*. 2000 Mar 13;160(5):678-82.
8. Fakih MG, Dueweke C, Meisner S, Berriel-Cass D, Savoy-Moore R, Brach N, Rey J, DeSantis L, Saravolatz LD. Effect of nurse-led multidisciplinary rounds on reducing the unnecessary use of urinary catheterization in hospitalized patients. *Infection Control & Hospital Epidemiology*. 2008 Sep;29(9):815-9..
9. Anwar G, Nawaz G, Afzal M, Majeed I, Waqas A. Assessment of Perceptions and Practices of the Nurses to Prevent Indwelling Catheter Associated Infection; Jinnah Hospital Lahore, Pakistan. *International Journal of Applied Sciences and Biotechnology*. 2017 Jun 29;5(2):150-8.
10. Martin J. Registered Nurses' Practices and Perceptions of Indwelling Urinary Catheters and Number of Indwelling Urinary Catheter Days in a Hospitalized Population..
11. Gotelli JM, Merryman P, Carr C, McElveen L, Epperson C, Bynum D. A quality improvement project to reduce the complications associated with indwelling urinary catheters. *Urologic Nursing*. 2008 Dec 1;28(6):465-73.
12. Blodgett TJ. Reminder systems to reduce the duration of indwelling urinary catheters: a narrative review. *Urologic nursing*. 2009 Sep;29(5):369.
13. Esposito S, Emmi V, Mennini FS, Montorsi F, Sganga G, Leone SA. Management and prevention of catheter-associated urinary tract infections: current opinions and clinical practice. *Le infezioni in medicina: rivista periodica di eziologia, epidemiologia, diagnostica, clinica e terapia delle patologie infettive*. 2011 Jun;19(2):74-90.

Substance Use and Rave Parties – Global Scenario

Rinki Ghosh

Assistant Professor at Charnock College of Nursing, Kolkata

Abstract

Across the country, teens and young adults enjoy all-night dance parties known as “raves”. Following the craze in the Western countries, rave parties have in recent years become trendy amongst youngsters. Dangerous substances known collectively as club drugs-including Ecstasy, GHB, and Rohypnol are gaining popularity. Although users may think these substances are harmless, research has shown that club drugs can produce a range of unwanted effects, including hallucinations, paranoia, amnesia, and, in some cases death. Apart from causing health hazards to the users concerned, the associated physiological and psychological effects manifested upon taking the drug(s) often induce abnormal behaviour, which in turn poses a threat to other people at the party. It is known that triads have been making their presence at a number of raves and criminal activities such as selling drugs at the venue, bringing weapons into the venue and sex crimes have become major concerns. These substances whether taken voluntarily or by deceit leave women vulnerable to sexual assault and rape. As protectors of public health and safety, Governmental bodies, notably the Narcotics Division are taking effective measures to help solve the problem.

Keywords: *Substance use, rave party, club drugs, drug trafficking, drug policy.*

Introduction

A rave is an organized dance party at a nightclub, outdoor festival, warehouse, or other private property typically featuring performances by DJs, playing a seamless flow of electronic dance music. The music is amplified with a large, powerful sound reinforcement system, typically with large subwoofers to produce a deep bass sound.¹ The most common drugs taken and distributed at rave parties are called club drugs or party drugs. Club drugs can be tasteless and odorless, which makes them easy to slip into a person’s drink.²

Party Drugs: The term party (or club) drug refers to a variety of drugs found at dance clubs and house parties. The substances are typically produced in illegal laboratories, using a variety of chemicals. These drugs can pose serious risks to young people’s health and safety.³

Different types of party drugs

- 1. Ecstasy:** Ecstasy is a recreational drug, most popular among teenagers and young adults. It is produced in illegal laboratories and can often be contaminated by substances such as caffeine or ephedrine or other toxic drugs. It is usually taken by mouth in capsules or tablets, it may also be a powder that is sniffed.
- 2. Rohypnol:** Rohypnol is the manufacturer’s trade name for a drug that belongs to the same family of sedative drugs that includes drugs such as Valium (trade name). The person may experience lack of memory, impaired judgment, dizziness, and periods of blackout. Sedation begins in about 30 minutes, peaks within 2 hours and lasts for about 8 hours.
- 3. Ketamine:** Ketamine is also a drug that is available at clubs and raves. It has been used as an anesthetic in medical and veterinary practice. The drug is found in the form of capsules, powder, crystals and solutions. Effects include temporary amnesia and hallucinations.
- 4. GHB (Gamma- Hydroxy Butyrate):** GHB, (gamma hydroxy butyrate) has surfaced as a drug at clubs and rave parties. It is quickly absorbed in the body and peaks in 20-60 minutes. At low doses, the person may feel sociable and less inhibited. At

Corresponding Author:

Rinki Ghosh

C/o Jiban Krishna Ghosh, Suktara Chowmuhani, Near Suktara Sangha, Bhattapukur,

P/O- A.D.Nagar, Agartala, Tripura (West),799003

e-mal: rinkighosh25@gmail.com

Mobile No.: 9856970920, 8777728311

higher doses, the person may experience loss of consciousness, seizures, depressed breathing and coma.

5. **Hallucinogens:** The term “hallucinogens” refers to a class of drugs that have the effect of changing the user’s perception of reality. These drugs can make people hear or see things that aren’t really there (“hallucinate”), change the way they feel time is passing, distort colours and sounds, and make people feel their minds are separated from their bodies.
6. **Psylocybin/Mushrooms:** This drug usually comes in a form of dried mushrooms which are swallowed. However, it also can come as a powder in capsules. The powder can be sniffed, smoked, injected or mixed with liquid, such as juice, and swallowed.
7. **LSD (Lysergic acid Diethylamide):** LSD is a white, odourless, crystalline powder made in illegal laboratories. It is usually taken by mouth. To be sold on the streets it is packaged in tablets, capsules, gelatin sheets or pieces of blotting paper, often with cartoon drawings on them.
8. **Mescaline:** Mescaline is derived from “buttons” of the peyote cactus, which are chopped or ground and sold in capsules or prepared chemically.³
9. **Alcohol:** Alcohol is one of the most frequently used and abused drugs. In 2015, almost 27% of people over the age of 18 reported that they engaged in binge drinking at least once in the previous month. More than 15 million people in the United States struggle with alcohol use, yet less than 7% receive treatment.
10. **Marijuana:** Marijuana is a drug from the Cannabis sativa plant that can be smoked to give users a feeling of relaxation and mellowness. Although some states in the United States have legalized its use, it is still illegal federally. Marijuana can be addictive and lead to memory problems.
11. **Inhalants:** Inhalants are chemicals that are breathed in to create a short-lived high. People sometimes spray the chemical on fabric and then “huff” it, or spray the fumes into a bag and then breathe it in to “bag” it. Inhalants are often otherwise legal and inexpensive household items, including air dusters, permanent markers, glue, household cleaners and paint etc.
12. **Stimulants:** Because of their capacity to increase energy and focus, stimulants are popular among partygoers. These drugs work by quickly speeding up the parts of the brain that are involved with alertness, causing a rush. Because stimulants speed up the brain and central nervous system, overdosing can be deadly.
13. **Ritalin:** Ritalin is the brand name for methylphenidate. Like Adderall, Ritalin is a controlled substance used to treat ADHD. Also, like Adderall, it is consumed orally and is often used illegally to increase energy.
14. **Caffeine:** Caffeine is a legal and widely available drug that is usually considered safe. However, caffeine can be dangerous when it’s mixed with alcohol or other drugs. Some people mix alcohol with high-caffeine beverages like energy drinks. The problem is that caffeine blocks the receptors in the brain that tell people that they are drunk.
15. **Cocaine:** Cocaine is a drug from plants grown in South America. Cocaine has some medical use in the United States but its street use is illegal. Cocaine is usually snorted or injected. Signs of cocaine use include bursts of energy and talkativeness.⁴

Date Rape Drugs

Some party drugs are used to incapacitate a victim and facilitate sexual assault. These drugs can be easily mixed into an unsuspecting person’s drink at a party.⁴ Common date rape drugs include Rohypnol, Ketamine, Gamma-Hydroxybutyric acid, or GHB etc. This drugs takes effect on the central nervous system. Date rape drugs make a sexual assault, including rape easier in one or more ways, such as:

- making a victim more compliant and less able to say no
- weakening a victim so they are unable to resist or fight back
- weakening a victim’s inhibitions, so they consent to sexual activity they may otherwise decline

Any drug that changes a potential victim’s state of mind, including some prescription drugs, street drugs such as heroin, and popular drugs such as marijuana, can be a date rape drug.⁵

Club Drugs and HIV/STD Infection

An exploratory study was conducted by Chen et al⁶ in China where it was found that the prevalence of HIV, syphilis, and herpes simplex virus 2 infections were higher among drug users compared with non-users. The positive rate of HIV among drug users and non-users was 18.6% and 10.6%. The prevalence of syphilis was 12.4% and 6.0% respectively. The prevalence of HSV-2 among drug users and non-users was 16.9% and 12.8% respectively. 19.8% of drug users and 10.3% of non-users had self-reported STD-related symptoms during their lifetime.

Indian Scenario

Drug addiction causes immense human distress and the illegal production and distribution of drugs have spawned crime and violence worldwide. According to a UN report, One million heroin addicts are registered in India, and unofficially there are as many as five million.⁷

The first nationwide survey to obtain information on extent, pattern and magnitude of substance abuse in the country indicated new emerging trend of substance use in India with amphetamine like substances (ATS) are being more used in regions like Goa and Ahmedabad. With technological advancement and particularly the information technology sector coming up in a big way in India (often as outsourcing for overseas-based multinational companies), suddenly there is a neo-rich young generation. This is often coupled with the need to escape temporarily from the severe work pressure and social isolation created by this lifestyle. With drug licensing and controlling authorities focusing more on licit and traditional illicit drugs (e.g., opioid, cannabis), club drugs have caught the fancy of this neo-rich young generation.⁸

The rave parties of Goa are said to be started by the Hippies. The bars organizing such parties sell Ecstasy or LSD. In last few years upper-class Indians have massively taken to Ecstasy and clubbing and there are more women amongst them. Later on, with government interventions and regulatory norms, drug abuse came down as these were declared illegal by law.⁸

In Pune, 280 people were arrested during a pre-dawn raid on a rave party in March 2007. The ravers were allegedly using California drops. A California drop is acid that is put on a stamp, which is then chewed; the cost of each drop is put between INR 350 and 500.⁸

With an average of 7 suicides every day, drug addiction and drug abuse accounts for 3.3% of all the suicides in the country. This number is much higher than the suicides caused due to poverty (1.9%), bankruptcy (2%) and dowry (1.6%). According to the data furnished by the Ministry of Social Justice and empowerment, India is home to over 3 million drug abuse victims. Over the past 4 years, more than 100 million kilogram of drugs has been seized from various parts of the country, with Punjab accounting for almost 60% of them.⁹

Drug trafficking in India: Over the past decade or so, the drug trafficking patterns in India have seen a major change. Drugs entering India from Nepal and Bhutan now constitute the major proportion of drugs coming to India illegally. The open borders in UP and Bihar witness a major import of brown sugar, marijuana (ganja) and hashish from Nepal and Bhutan. Afghanistan, a part of the Golden Crescent, accounts for more than 90% of world's illicit opium. The country is also the biggest producer of hashish in the world. Local production of low grade heroin in India due to an increasing demand has further added to the existing drug problem in the country. The Samjhauta express, between Amritsar and Lahore, has also been known to be used for drug trafficking from Pakistan to India on a frequent basis. This has made Amritsar a major heroine centre in Punjab.⁹

Drug policy in India

The major drug laws of India are the Narcotic Drugs and Psychotropic Substances Act (1985) and the Prevention of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances Act (1985).

Under one of the provisions of the act, the Narcotics Control Bureau was set up with effect from March 1986.

Narcotics Control Bureau: The Narcotics Control Bureau (NCB) is the chief law enforcement and intelligence agency of India responsible for fighting drug trafficking and the abuse of illegal substances. It was created on 17 March 1986 to enable the full implementation of the Narcotic Drugs and Psychotropic Substances Act (1985) and fight its violation through the Prevention of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances Act (1988).

Punishment under this act: Anyone who contravenes the NDPS Act will face punishment based on the quantity of the banned substance.

- where the contravention involves small quantity (<1 kg), with rigorous imprisonment for a term which may extend to 6 months, or with fine which may extend to Rs.10,000 or with both.
 - where the contravention involves quantity lesser than commercial quantity but greater than small quantity, with rigorous imprisonment for a term which may extend to 10 years and with fine which may extend to Rs.1 lakh.
 - where the contravention involves commercial quantity, with rigorous imprisonment for a term which shall not be less than 10 years but which may extend to 20 years and shall also be liable to fine which shall not be less than Rs.1 lakh but which may extend to Rs.2 lakh.¹⁰
- a. For all discos and rave sites, safety measures including fire alarm & exits, freely available water fountains, first aid stations etc. should be provided under licensing conditions.
 - b. Bold warning signs against chasing drugs with alcoholic beverages, sharing of unknown substances (in liquid or solid forms) and against “unwanted” or “unprotected” sex should be prominently posted and displayed on the spot. Condoms for either sex should be made easily available.
 - c. Wherever women’s free entry is advertised, young women need to be warned against its possible sex trap and advised not to enter the premises alone nor in the company of strangers or non-trust-worthy companions.¹¹

Strategies to Control Drug Abuse

1. Supply Reductions

- a. Enhancing border check points to minimize the smuggling of trendy party drugs including Ecstasy, Ketamine, GHB, etc. Smugglers should be prosecuted promptly without excuses on their “soft drug” image.
- b. Intensify the surveillance of Discos, Rave sites and know copping areas to reduce drug transactions there. Owners and organizers of such establishments should be warned or fined for allowing drug sales on their premises. In case of repeated offenses, their licenses should be suspended or invalidated.
- c. Young people caught in possession or sharing of small quantities of such drugs for the first time, should be placed under police supervision or referred for professional counseling to discourage further involvement with illicit drugs supplies.

2. Demand Reductions

- a. Promoting a healthy youth culture with pro-social values and a sense of community identification.
- b. Developing out-reaching teams with youth workers and peer counselors to provide timely intervention with marginal youth and nocturnal street roamers.
- c. Family life education and conjoint counselling involving both parents and their off springs at risks should be promoted to bridge the widening generation gaps and demystify “party drugs”.

3. Harm Reductions

Conclusion

In conclusion, although India has made attempts to control this problem by adopting strategies of reduction of drug supply and demand, it needs to act on a much higher scale involving a 3 tier approach: firstly, strengthening of existing laws and possibly creation of new ones, secondly increasing security at the borders; and lastly actively co-operating with neighbouring countries and other members of the international community. Nevertheless it is high time to act now before the problem snowballs out of control. If we can combat the risk factors associated with drug abuse, the incidence of crime and rape cases also will go down. The mentality of rave will be abolished from youngster’s mind.

Source of Funding: Self

Conflict of Interest: None

Ethical Clearance: This paper does not involve any experiment on humans or animals. It is a review article. Therefore, it does not require ethical clearance

Reference

1. Rave from Wikipedia, the free encyclopaedia [Serial online] [Cited 2019 May 22]; Available from:<https://en.wikipedia.org/wiki/Rave>
2. Rave Parties and the Abuse of Club Drugs [Serial online] [Cited 2019 May 22]; Available from:<https://www.promises.com/blog/rave-parties-abuse-club-drugs/>

3. Party Drugs, Ecstasy and Hallucinogens, Parent & Community Handbook [Serial online] [Cited 2019 May 20]; Available from: <https://parentactionondrugs.org/alcohol-drugs/party-drugs-ecstasy-and-hallucinogens>
4. Christiansen T. Popular club drugs. The Recovery Village [Serial online] [Cited 2019 May 20]; Available from: <https://www.therecoveryvillage.com/drug-addiction/party-club-drugs/>)
5. Villines Z. What you should know about date rape drugs. Medical News Today [Serial online] 2017 [Cited 2019 May 21]. Available from: <https://www.medicalnewstoday.com/articles/320409.php>
6. Chen X, Li X, Zheng J, Zhao J, He J, Zhang G, Tang X. Club Drugs and HIV/STD Infection: An Exploratory Analysis among Men Who Have Sex with Men in Changsha, China. Public Library of Science [Serial online] 2015 [Cited 2019 May 21];10(5). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423981/>
7. Ahmed N, Bano R, Agarwal VK, Kalakoti P. Substance Abuse in India. Pravara Medical Rev [Serial online] 2009 [Cited 2019 May 21];1(4). Available from: <https://www.pravara.com/pmr/pmr-1-4-2.pdf>)
8. Chakraborty K, Neogi R, Basu D. Club drugs: review of the 'rave' with a note of concern for the Indian scenario. Indian Journal of Medical Research Med [Serial online] 2011 [Cited 2019 May 20];133(6): 594-604. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3135986/>
9. How drugs like heroin, opium, cocaine, marijuana make way into India. News Gram [Serial online] 2015 [Cited 2019 May 19]. Available from: <https://www.newsgram.com/how-drugs-like-heroin-opium-cocaine-marijuana-make-way-into-india>
10. Drug policy of India from Wikipedia, the free encyclopedia [Serial online] [Cited 2019 May 22]; Available from: https://en.wikipedia.org/wiki/Drug_policy_of_India
11. Drug Abuse in Rave Parties. Resource Book for the Seminar for Doctors to Help Beat Drugs. Hong Kong Medical Association [Serial online] 2001 [Cited 2019 May 20]; Available from: www.hkma.org/download/others/reference2001.pdf

A Descriptive Study to Assess the Knowledge and Practices Regarding Prevention of Puerperal Infection among Postnatal Mothers in Civil Hospital, Panipat, Haryana

Rita Sarkar¹, Sunita Ahalawat², Meena Kumari³

¹Ex-Principal in Ved Nursing College, Baroli, Panipat, ²Nursing Tutor (CDC) in Pt. DDU, UHS, Kutail, Karnal, ³Assitant Professor, Ved Nursing College, Baroli, Panipat

Abstract

Background: Pregnancy is unique, exciting, often joyous time in women life as she gives birth to baby. It is the time, when she receives extra care and support from husband and family. It is a vital aspect of women's life and even Government is also undertaking various programmes and schemes which safeguard the life of both mother and baby during Pregnancy. Although pregnancy is a special period but Puerperium is a period which cannot be neglected as two lives comes which is vulnerable section of society¹. This period is not only the termination of pregnan Puerperium is a time of great importance for both the mother and the baby; but has received relatively less attention compared with antenatal (pregnancy) and intranatal (delivery) period.

Aims: The study aims to assess the knowledge and practice regarding prevention of puerperal infection among postnatal mothers by prepared an information booklet regarding prevention of puerperal infection.

Methodology: The research approach for this study was quantitative approach, the research design For the present study, non experimental descriptive research design. The sample size of the present study was 120 postnatal mothers selected by purposive sampling technique.

Conclusion: Near about more than half of the postnatal mothers had average knowledge 63.33% regarding prevention of puerperal infection and 52.5% had unsatisfactory practices regarding prevention of puerperal infection.

Keywords: Knowledge, Practices, Puerperal Infection, Postnatal Mother.

Introduction

Every birth should be safe and every pregnancy wanted.

– Thoraya Ahmed Obaid

Pregnancy is unique, exciting, often joyous time in women life as she gives birth to baby. It is the time, when she receives extra care and support from husband and family. It is a vital aspect of women's life and even Government is also undertaking various programmes and schemes which safeguard the life of both mother and baby during Pregnancy. Although pregnancy is a special

period but Puerperium is a period which cannot be neglected as two lives comes which is vulnerable section of society¹. This period is not only the termination of pregnan Puerperium is a time of great importance for both the mother and the baby; but has received relatively less attention compared with antenatal (pregnancy) and intranatal (delivery) period. Even though over half of the maternal deaths (estimated at 61-72% Abouzahr et al. 1998) occur in the postpartum period in developing countries but much attention has been focussed on the prenatal care for preventing maternal mortality.

Puerperium is the period following childbirth during which the body tissues specially the pelvic organs revert back approximately to the prepregnant state both anatomically and physiologically. Puerperium begins as soon as the placenta is expelled, to return of reproductive tract to non pregnant condition and lasts

Corresponding Author:

Meena Kumari (Assitant Profesor)

Ved Nursing College, Baroli, Panipat

e-mail: meenakumari681@gmail.com

for approximately 6 weeks depending upon the duration Puerperium period is– categorised into 3 categories: immediate (first 24 hours), early (up to 7 days) remote (up to 6 weeks).²

Puerperium is a time of great importance for both the mother and the baby; but has received relatively less attention compared with antenatal (pregnancy) and intranatal (delivery) period.³ Even though over half of the maternal deaths (estimated at 61-72% Abouzahr et al. 1998) occur in the postpartum period in developing countries but much attention has been focussed on the prenatal care for preventing maternal mortality.³

According to survey conducted by World Health Organisation (WHO) in 1998 only a small proportion of women in developing countries i.e less than 30% receive adequate postpartum care and in very poor countries and regions only 5% of women receive such care where as in developed countries 90% of mothers receive postpartum care. The lack of care may be most life threatening, since this is the time when sudden emergency complications are most likely to occur and the early postpartum period is the time when most maternal deaths occur. If mothers receive postpartum care as effectively as they receive prenatal care, maternal mortality could reduce.⁴

According to World Health Organisation Puerperal infection is the infection of genital tract occurring at any time between the rupture of membranes or labor and the 42nd day of post partum. Infection may result from bacteria (Chlamydia, eschechria coli and other gram negative bacteria) commonly found within the vagina or from the introduction of pathogens from outside the vagina in certain conditions i.e. - damage to the cervico-vaginal mucous membrane, open wound created by the cleavage of the decidua, which takes place when the placenta is separated and blood clots at the placental site.⁵

Puerperal infection is a dreadful disease and puts economic burden on family as well as on society. Considering it as vital aspect Government of India in sept 2011 under NRHM has added 1.4 lakh human health resources to health system of country. Accredited social health activists (ASHA) also help in delivery of health care. Janani suraksha Yojna was also launched to promote institutional deliveries. As institutional deliveries has increased in India but it had also increase the incidence of Puerperal Sepsis by overcrowding the hospitals, moreover health care workers are still

overworked and there is shortage of drug supplies and standard of clinical practices is inadequate. Along with rising trends of caesarean section in India, it may rise trends of Puerperal infection in near future. Nosocomial infection and antibiotics resistance may be causative for it.⁶

Puerperal infection is a frightful disease women suffering from this presents with symptoms like chills, soreness in womb, fever, cold sweats and excessive thirst. Symptoms that appear to lesser extent include headache, back pain, nausea and vomiting. Puerperal infection is diagnosed based on the sign and symptoms listed above and an examination of the body systems involved – uterus, however other system such as the lungs, brain, urinary tract and bowels. Investigations further include white blood count, body fluid cultures, chest x-ray, and ultrasound.⁷

Puerperal infection is an important public health problem as it is complication of pregnancy, childbirth and Puerperium.⁷ Physicians and nurses are involved in the prevention, diagnosis, and treatment of puerperal infection. Safe delivery practices like following aseptic procedures during delivery, removing retained bits of placenta, prophylactic use of antibiotics prior to cesarean section and their therapeutic use in case of prolonged rupture of membranes are essential for avoiding the risk of infection after childbirth. Post-partum nurses should assess patients for signs and symptoms of infection and educate postnatal mothers about these signs and symptoms prior to discharge.

The puerperal infection presence may increase incidence of mortality and morbidity rate during postnatal period. So, there is need for nurses to educate postnatal mothers for the early identification and prevention of the complication

Statement of the Problem: “A Descriptive Study to Assess the Knowledge and Practices regarding Prevention of Puerperal Infection among Postnatal Mothers in Civil Hospital, Panipat, Haryana”.

Objectives

1. To assess knowledge regarding prevention of puerperal infection among postnatal mothers.
2. To assess practices regarding prevention of puerperal infection among postnatal mothers.
3. To find out the association between level of

knowledge of postnatal mothers regarding prevention of puerperal infection with selected demographic variables.

4. To find out the association between level of practice of postnatal mothers regarding prevention of puerperal infection with selected demographic variables
5. To prepare and provide an information booklet regarding prevention of puerperal infection.

Operational Definitions

- **Assess:** The ability or quality of or to evaluate or estimate the nature.
- **Knowledge:** Knowledge refers to information among postnatal mothers regarding prevention of puerperal infection includes perineal care, mastitis, breast engorgement and urinary tract infection.
- **Practices:** It refers to the verbal response of postnatal mothers that what they are doing for the prevention of puerperal infection.
- **Puerperal infection:** It is an infection of the genital tract during the postnatal period upto 42 days following childbirth.
- **Prevention:** Refers to the measures which are given to control or reduce from a puerperal sepsis during postnatal period.
- **Postnatal mother:** Women given birth to baby with normal vaginal delivery and admitted in civil hospital of Panipat.

Material & Method

In this study the quantitative approach was used to carry out the study. The sample size considered for the present study was 120 postnatal mothers of Civil Hospital, Panipat by using non experimental descriptive research design and purposive sampling technique used.

N=120 (Postnatal Mothers of Civil Hospital, Panipat)

Tool and Technique of Data Collection: Two sections were used for data collection.

Section A: Socio demographic variables

Section B: Structured Questionnaire to assess knowledge regarding prevention of puerperal infection among postnatal mothers.

Result

Section I: Description of Socio-Demographic Profile of Respondents:

This section deals with distribution of demographic characteristics of respondents. The obtained data on sample characteristics were described under the sub-headings of age, education, parity, place of residence, type of family, family income per month, source of information, occupation.

According to **age** of the postnatal mothers shows that most 58.3% of postnatal mothers were in the age group of ≤ 20 years, followed by 30% were in age group 21 – 25, and 11.7% were in age group of 26 - 30 and there were no postnatal mother in the age group of 31 – 35 and ≥ 36 .

Regarding to Mother's **education**, most 69.2% of postnatal mothers were with primary education that was followed by metric 21.6%, high secondary 9.2% and there was no any postnatal mothers with education of graduate and more.

With regard to **parity**, majority of 71.7% of postnatal mothers were primipara and 28.3% multipara.

In case of **place of residence**, majority 61.7% of postnatal mothers were from the urban area and only 38.3% belongs to rural area.

According to **type of family**, majority 68.3% of postnatal mothers belong to the joint family and only 31.7% belong to nuclear family.

With regard to **family income per month**, 66.7% postnatal mothers have $\leq 5000/-$ family income per month followed by 30% postnatal mothers had 5,001-10,000/-, 3.3% postnatal mothers with family income 10,001-15,000 and there was no postnatal mother with family income per month $\geq 15,001/-$.

Regarding to **source of information**, 53.3% postnatal mothers have received information from radio/media/TV, 45.8% from personnel/family/friends and 0.8% newspapers/books/magazines.

According to **occupation**, maximum 75.5% of postnatal mothers were housewives following by 23.7% laborer, 0.8% self employee and none was of government employee and others.

Section-II: The section describes the major findings according to the objective of the present study.

Objective 1: To assess the knowledge regarding prevention of puerperal infection among postnatal mothers.

Table 1. Percentage and frequency distribution according to level of knowledge

(N=120)

S. No.	Level of Knowledge	Frequency	Percentage
1.	Low (0-12)	0	0
2.	Average(13-24)	76	63.33%
3.	High (25-38)	44	36.66%

- Maximum Knowledge Score – 38
- Minimum Knowledge Score - 00

The above table shows the knowledge regarding prevention of puerperal infection among postnatal mothers. 63.33% postnatal mothers had average knowledge followed by, 36.66% high knowledge and none of sample had low knowledge regarding prevention of puerperal infection. Hence, it is concluded that that majority of postnatal mothers had average level of knowledge regarding prevention of puerperal infection.

Objective 2: To assess practices regarding prevention of puerperal infection among postnatal mothers.

Table 2 Percentage and frequency distribution according to level of practice

(N=120)

S. No.	Level of Practice	Frequency	Percentage
1.	Unsatisfactory (0-10)	63	52.5
2.	Satisfactory (11-20)	57	47.5

- Maximum practice Score - 20
- Minimum practice Score - 00

Table 2 Shows the assessment of practices regarding prevention of puerperal infection among postnatal mothers. It shows that 52.5% of postnatal mothers had unsatisfactory practices and 47.5% had satisfactory practices.

Hence, it concluded that most of the postnatal mothers had unsatisfactory level of practices.

Objective 3: To determine the association between knowledge of postnatal mothers regarding prevention of puerperal infection with selected demographic variables.

➤ It was noted for the Parity, majority of samples 57 were primipara had average knowledge, 29 samples had high knowledge. Samples 19 in multipara had average knowledge, were only 15 had high knowledge..For the degree of freedom 1 at 0.05 level of significant the chi square value was .1.134. This is not statistically significant.

➤ It was noted for source of information only 1 sample had average knowledge and belongs to newspapers/ book/magazines and for source of information radio/ media/TV only 36 sample had average knowledge and 28 samples had high knowledge and for source of information health personnel/family/friends only 39 sample had average knowledge and 16 samples had high knowledge For the degree of freedom 2 at 0.05 level of significant the chi square value was 3.321 This is not statically significant.

Objective 4: To determine the association between practices of postnatal mothers regarding prevention of puerperal infection with selected demographic variables.

- There is no statistically significant association between practices and age of the samples.
- There is no statistically significant association between Parity and practices of the samples
- There is no statistically significant association between practices and type of family of the samples.

Discussion

Objective 1: To assess knowledge regarding prevention of puerperal infection among postnatal mothers.

The present study assessed the level of knowledge revealed that Out of total 120 mothers, 63.33% of mothers had average knowledge followed by 36.33% above average knowledge, regarding prevention of puerperal infection. These finding are supported by the similar study to assess knowledge and practices regarding prevention of puerperal infection at Karnataka by **Anisha M. Samudare (2000)**⁵², according to this study results, 58.2% of postnatal mothers had average knowledge, 32.8% had poor knowledge and 9% had good knowledge regarding prevention of puerperal infection.

Another study to assess knowledge regarding prevention of puerperal infection at Mangalore by **Asha Varghese (2006)**⁵³ revealed that highest percentage of

respondents 70% had average knowledge with score 35-70%, while 26.6% had poor knowledge whose score between 0-35% and only 3.33% had good knowledge whose score ranged between 70-100%.

In the present study to assess practices regarding prevention of puerperal infection among postnatal mothers revealed that out of total 120 mothers, 52.5% of postnatal mothers had unsatisfactory practices and 47.5% had satisfactory practices.

In the present study association of the knowledge and practices of postnatal mothers regarding prevention of puerperal infection with the selected demographic variable such as age (in years), education, parity, place of residence, type of family, family income per month, source of information and occupation has no relationship with practices whereas age, education and source of information has relationship with knowledge regarding prevention of puerperal infection. It was statistically non significant at 0.05 level of significance.

Nursing implications: The findings of the study have certain very important implications for the nursing profession in the field of nursing education, research, practice and administration.

Nursing education: The study has an important implication in the nursing education and other field. In the revised curriculum of basic nursing education & in post graduation, much emphasis is laid on puerperal infection. Teaching learning activities should include health education on assessment and prevention of gynecological problems and promotion of knowledge and practices regarding prevention of puerperal infection. Nurses should provide guidance and counseling services to postnatal mothers which will lead to promotion of healthy life. In service, continuing education needs to be planned and implemented for clinical nurses to enrich their information on recent researcher regarding knowledge and practices for prevention of puerperal infection.

Nursing research: The findings of the study will act as a catalyst to carry out more extensive research in a large sample and in other settings. Through the publications of the research findings, the knowledge and practices of postnatal mothers could be improved regarding prevention of puerperal infection.

Nursing practice: Puerperal infection is the commonest problem of Puerperium. So, there is

need to enhance the knowledge of postnatal mothers and improve their practices regarding prevention of puerperal infection. It has been observed that mostly the postnatal mothers were not aware regarding prevention of puerperal infection. So, there is need to enhance the knowledge of nursing personnel so that they can impart their knowledge to the postnatal mothers regarding prevention of puerperal infection. Evidence based practice is the need of today's practice. Based on evidence, nursing practice can be modified and improved.

Nursing administration: Nurse administrator can conduct in services education and training programme for nurses working at different health care centre dealing with postnatal mothers and puerperal infection. Nurse administrator should organize continuing education programme on prevention of puerperal infection for nursing personnel in the hospital and community setting with modern technological video aids to enhance their knowledge regarding puerperal care and also related to prevention of infection.

Recommendations

On the basis of findings of the study it is recommended for the future studies that:

- A similar study can under-taken on a large sample for making a more valid generalization.
- A comparative study can be conducted regarding knowledge and practices for prevention of puerperal infection between primipara and multipara women.
- Similar study can be conducted on different population in different setting.
- A study can be conducted to assess the effectiveness of structured teaching program on knowledge and practices regarding prevention of puerperal infection among postnatal mothers.

Conclusion

Near about more than half of the postnatal mothers had average knowledge 63.33% regarding prevention of puerperal infection and 52.5% had unsatisfactory practices regarding prevention of puerperal infection. In socio- demographic variables, age, education and source of information had relationship with knowledge whereas other variables like parity, place of residence, type of family, family income per month and occupation had no relationship with knowledge and practices.

Conflict of Interest: Nil

Source of Funding: Self-Funding

Ethical Clearance: Ethical consideration certificate was obtained from ved nursing ethical commette in ved nursing college baroli, panipat

References

1. Jessica Ever. Introduction to Pregnancy, 2005 August 12. Available online at <http://www.mentalhelp.net>. Accessed on 18 april 2013.
2. Dutta D.C. Text Book of obstetrics. 6th edition. Calcutta: New central book agency 2004.145.
3. Global burden of Maternal Sepsis Geneva: WHO; 2000. Available from: <http://www.ncbi.nlm.nih.gov>.
4. Jacob A.A comprehensive textbook for midwifery. 2nd ed. New Delhi: jaypee brothers medical publishers (p) ltd 2008.
5. Nirmala Manoharan, Anne Jarone, Dorothy Singh, Alice Sony. Puerperal infection is still a threat. Nursing times Journal July 2006:8(4): 17-19

Peer Education Method Better in Improving First Aid Skills of Traffic Accidents than Demonstration: A Comparative Study

Riyan Dwi Prasetyawan¹, Loeki Enggar Fitri², Setyoadi³

¹Master Program of Nursing, ²Department of Parasitology, ³Department of Nursing,
Faculty of Medicine, University of Brawijaya

Abstract

Traffic accident becomes main problem with highest death rate in the world. Traffic accident requires quick and accurate management before having main emergency aid by medical workers. First aid becomes the most important aspect and immediate intervention to do by common people around the spot of accident. The fact, common people cannot promote first aid when the accident occurs due to lack of skill. Skill of common people can be improved through peer education and demonstration. This research has purpose to find out the differences about peer education method and demonstration toward skill of students in giving first aid of traffic accident. This research uses quasi experiment with pretest-posttest control groups. The respondents are 48 people grouped into two groups. The data is analyzed by using paired t-test and independent sample t-test. The findings show there is skill change of providing first aid of traffic accident by using peer education method or demonstration in which each of them gets p score 0.000. There is improvement of the skill seen on peer education group and demonstration with p score 0.000. Peer education and demonstration can be used to improve students' skill related to providing first aid of traffic accident.

Keywords: Peer Education, Student, Skill, First Aid, Traffic accident.

Introduction

Traffic accident becomes main problem of highest death rate in the world. World Health Organization (WHO) in 2018 stated that 1.35 million people were dead because of traffic accident. Traffic accident also reaches 93% in developing country in which almost 60% of traffic accident causes are vehicle crashes with interval age of victims between 5 – 29 year old with highest victims from children and young adults¹. Traffic accident is global epidemic emergence. Among the causes are death and disability with various traffic injuries and incidents among developing countries. According to current estimation about global loads in 2002, traffic injury was in eleventh rank of main death cause in the world. The aggregate of traffic accident deaths reaches

100.000/citizens of high income countries, such as Europe. Meanwhile, the highest rank is reported from low and medium income countries, such as Eastern Mediterranean and Africa².

In Indonesia, the prevalence of traffic accidents causing injuries increased from 7.5% in 2007 into 8.2% in 2013 include fallen accident (40.9%), motor crashes (40.6%), blunt object (7.3%), other land transportations (7.1%), and struck down (2.5%)³. In Bayuwangi, the numbers of traffic accident in 2006 until 2010 reached 250 causes – victimizing 153 death people, 40 heavily injured people and 270 minor injuries⁴.

Traffic accident needs quick and accurate management before receiving primary aid from medical workers. The given first aid is done by nearest people becomes the most important aspect to improve life rate possibility⁵. First aid also becomes main factor in preventing further injury to prevent any worsening condition⁶. WHO explains that common people is an important part of emergency state management especially developing countries which have roles as first persons to assist before arrival of ambulance⁷. However,

Corresponding Author:

Riyan Dwi Prasetyawan

Master Program of Nursing, University of Brawijaya
Jalan Veteran, Ketawanggede, Lowokwaru Malang
Indonesia

e-mail: riyandwiprasetyawan@gmail.com

in reality, many nearest people around the spot do not do any action because they do not have skills and experience of handling first aid of traffic accident⁸.

Previous study showed that first aid such as keeping victim's breathing system done by common people reaching 76% from 43 patients, blood control reaching 81% from 63 people, and hypothermia prevention reaching 62% from 204 patients⁹ Therefore, it needs a certain learning method for common people to improve their skills in providing first aid in the form of health based peer education or conventional education.

Peer education is an educational method giving information and experience among peer individuals to help teenagers, especially students in fostering knowledge, attitude, and needed skill to modify positive behaviors through supportive preventive development and psychosocial in which they are able to do^{10,11} Peer education program focuses on reducing negative influence information, prevention, and self-intervention. This method is strategy to ease delivery of information to teenagers¹²

Meanwhile, health education is conventionally a demonstration of learning presentation ways to demonstrate or show a certain process, situation, or object in which is currently learnt both original and imitation then it is entailed by oral explanation. Djamarah et al (2012) said that demonstration has strength points such as to make learning more concrete and to prevent verbalism. It is also to ease learning and provides more interesting learning through critical thinking process actively¹³.

A preliminary study done in Glagah 1 Senior High School Banyuwangi with 20 students -shows that almost all of students do nothing for traffic accident victims. They are afraid to help the victims. After having test of first aid skill, almost 90% of them cannot provide first aid properly because of their minimum practical experience. Therefore, it needs other method to use in learning process of providing first aid of traffic accident. This research has purposes to find out the differences between peer education method and demonstration toward students' skills in providing first aid assistance of traffic accidents.

Method and Material

This research is a quasi-experimental research by using pretest-posttest with control group approach.

The respondents are 48 students grouped into 2 groups namely peer education as intervention group and demonstration as control group.

The intervention group is divided into six smaller groups, consisting of 4 members. Meanwhile, the implementation of this method is done 20 minutes on each material and then the students are asked to practice it. Meanwhile, the control group has 20 minutes for each main material.

The inclusive criteria are eleventh graders, willing to learn about first aid of traffic accident assistance, willing to be respondent and never joining health education or first aid training on traffic accident. To measure the skill is done by using observation sheet taken from Thygerson et al¹⁴. To measure the skill is done before and after the intervention. Bivariate analysis is done by using paired t-test and independent sample t-test.

Findings

Table 1 Distribution of Respondents' Characteristics based on Ages of Intervention Group and Control Group

Variables	Groups	N	Mean ± SD	95% CI
Ages	Peer Education	24	16,66 ± 0,481	16,46-16,87
	Demonstration	24	16,83 ± 0,380	16,67-16,99

The table shows the average of the respondents' ages of both groups is 16 year old.

Table 2 Distribution of Respondents' Sexes

Variables	Group	Categories	N	Percentage (%)
Sex	Peer Education	Male	11	45,8%
		Female	13	54,2%
	Demonstration	Male	9	37,5%
		Female	15	62,5%

The table shows that majorly Peer Education group is dominated by female, 13 people. Meanwhile, control group is dominated by female, 15 people.

Table 3 Changes of First Aid Assistance Skill Level of Traffic Accident by Using Peer Education Method

Skills	N	Min-Max	Median	95% CI	P Value
Before	24	16-19	18	17,30-17,95	0,000
After	24	24-28	26	25,24-26,60	

Based on the table, p value is 0,000 ($p < 0,05$) showing that there is improvement of the skill by using peer education method.

Table 4 Changes of First Aid Assistance Skill Level of First Accident by Using Demonstration

Skills	N	Min-Max	Median	95% CI	P Value
Before	24	16-19	18	17,52-18,30	0,000
After	24	20-26	22	21,00-22,40	

Based on the table, p value is 0,000 ($p < 0,05$) showing that there is improvement of the skill by using demonstration method.

Table 5 Differences of First Aid Assistance Skill of Traffic Accident by Using Peer Education and Demonstration Method

Skills	N	Min-Max	Median	95% CI	P Value
After Intervention					
Peer Education	24	24-28	26	25,24-26,60	0,000
Demonstration	24	20-26	22	21,00-22,40	

Based on the table, p value is 0,000 ($p < 0,05$) showing that there is difference of improvement of the skill by using both method.

Discussion

Findings of the research explain there is significant improvement appearing on score of the skill after having intervention through peer education. This finding shows peer education is significant to improve respondents' skill about providing first aid of traffic accident cases. Peer education covers a set of learning approach in which information, skill, and score are delivered among people with similar characteristics such as age or experience together¹⁵. A peer educator is assumed a role model that positively can play his role to improve self-esteem and influences behaviors related to health among his peer friends¹⁰. A systematic review from 17 studies with sample 7442 people shows that the given health education through peer education leads to positive health behavior changes of the participants receiving health information^{16,17}. The Cochrane Library 2005, Issue 1. Similar finding is found in previous study that showed health education based on peer learning has positive effect on skills of basic life support. Training of basic life support with peer method as the approach facilitates

interaction and communication which improve students' skill in providing basic life support^{18,19}.

This finding also explains significant improvement existence seen on score of the skill after being given health education through demonstration. The finding is in line with previous study that showed demonstration significantly improved respondents' skill about providing first aid purposed to basic life support. Through demonstration, the participants can learn basic principles of life support which are learnt, guided, and evaluated directly by instructors in promoting that demonstration²⁰. Training process by using this method provides opportunity for respondents to further discuss with instructors related to qualified basic life support so the respondents' skills are improved²¹.

The existence of instructors in this process becomes important role model in providing direction and evaluation related to management of basic life support done by respondents. In another hand, evaluation can be carried out directly and conducted again by using guidance from the instructors. The process also improves self-esteem of the respondent in providing basic life support action²².

Demonstration method can be also added by using audiovisual media. These media are such as video, movie, or song to make it more interesting while using demonstration. Students would be more enthusiastic and more active after being given tutorial video or short illustration through short movies²³.

The finding shows there significant difference between group given health education by using peer education and group given demonstration method toward common people's skill about providing first aid of traffic accident in Glagah 1 Senior High School, Banyuwangi.

Peer education can provide behavioral changes and good skills. The improvement reaches 15 – 30%²⁴. Peer education facilitates in giving information to students or common people, especially with large number of them. It influences positively to overcome major faced hindrances dealing with educating students about health information, especially first aid of traffic accident. Besides that, educating to common people has benefits for medical workers in which common people also helps to reduce delay in providing medical assistance for the victims before medical worker's arrival. Early health assistance done by common people can prevent severe injury experienced by victim²⁵.

Changes of the respondents' skill through peer education are based on some theories. Social cognitive theory explains that some individuals function as talented role person with purpose to trigger behavioral changes of other individuals. In peer education concept, the role of peer educators who can be a model and motivate peer group in conducting first aid²⁶; introductory scenarios requiring response to patients' needs during basic hygienic care and during situations demanding complex decision making. Simulation integrates principles of social cognitive theory (SCT. Theory of Reasoned Action states that individual's perception about norms or social belief about something which can influence mindset can also influence behavioral changes of the individuals²⁷ although ubiquitous in health behavior theory (e.g., Theory of Reasoned Action/Planned Behavior. With another word, an individual's behavior toward behavioral changes is influenced by his own perspectives about positive and negative consequences and what will be thought by his peers about the matter²⁸. According to Theory of Social Inoculation, it states that people can imitate negative behaviors if in the group has negative or bad norms. The same thing also happens oppositely where individual imitates positive behavior when in the group also has good norms²⁹.

Skill is result of improvement or individual's experience in which is applied into his action³⁰. In this research context, peer education can improve knowledge and better skills compared to demonstration. Through peer education, individuals can easily interact, discuss, and be more opened one to another so the information is gained more flexibly³¹. This information becomes the basic of improvement of individual's skills in conducting first aid^{32,33}

Conclusion

It can be concluded that there is improvement of providing first aid skill of traffic accident by using peer education or demonstration. There is difference in improvement of the skill – seen on peer education and demonstration groups. Both of the method can be used to improve skills of the students dealing with providing first aid of traffic accident.

Conflict of Interest: None

Source of Funding: None

Ethical Clearence: This study has gained letter of ethical reliability from ethical commission of medicine

faculty of Unviersitas Brawijaya, Malang, with number: 86/EC/KEPK-S2/03/2019.

References

1. WHO. Road traffic injuries [Internet]. 2018. Available from: <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>
2. Khatib M, Gaidhane A, Quazi Z, Khatib N. Prevalence pattern of road traffic accidents in developing countries: a systematic review. *Int J Med Sci Public Heal*. 2015;4(10):1324.
3. Riskesdas. Hasil Riskesdas 2013. Kemenkes RI. 2013.
4. Bapeda Banyuwangi. Kegiatan Penyusunan Masterplan Kesehatan Kabupaten Banyuwangi [Internet]. Banyuwangi; 2010. Available from: [https://bappeda.banyuwangikab.go.id/assets/file_doc/doc/LA Bab V Profil Kesehatan - Masterplan Kesehatan \(Revisi\).pdf](https://bappeda.banyuwangikab.go.id/assets/file_doc/doc/LA Bab V Profil Kesehatan - Masterplan Kesehatan (Revisi).pdf)
5. Gopalakrishnan S. A Public Health Perspective of Road Traffic Accidents. *J Fam Med Prim Care* [Internet]. 2012;1(2):144. Available from: <http://www.jfmpc.com/text.asp?2012/1/2/144/104987>
6. Palmera-Suárez R, López-Cuadrado T, Almazán-Isla J, Fernández-Cuenca R, Alcalde-Cabero E, Galán I. Disability related to road traffic crashes among adults in Spain. *Gac Sanit*. 2015;29(1):43–8.
7. Nelson, Marlborough, Christchurch, Wellington. Triple One Care First Aid Book. New Zealand: Triple One Care; 2017.
8. Kureckova V, Gabrhel V, Zamecnik P, Rezac P, Zaoral A, Hobl J. First aid as an important traffic safety factor – evaluation of the experience-based training. *Eur Transp Res Rev* [Internet]. 2017;9(1). Available from: <http://dx.doi.org/10.1007/s12544-016-0218-4>
9. Bakke HK, Steinvik T, Eidissen SI, Gilbert M, Wisborg T. Bystander first aid in trauma - Prevalence and quality: A prospective observational study. *Acta Anaesthesiol Scand*. 2015;59(9):1187–93.
10. Peel NM, Warburton J. Using senior volunteers as peer educators: What is the evidence of effectiveness in falls prevention? *Australas J Ageing*. 2009;28(1):7–11.
11. Sandhu S, Veinot P, Embuldeniya G, Brooks S, Sale J, Huang S, et al. Peer-to-peer mentoring for individuals with early inflammatory arthritis: Feasibility pilot. *BMJ Open*. 2013;3(3).

12. Swartz S, Deutsch C, Makoae M, Michel B, Harding JH, Garzouzie G, et al. Measuring change in vulnerable adolescents: Findings from a peer education evaluation in South Africa. *Sahara J*. 2012;9(4):242–54.
13. Djamarah, Bahri S, Zain A. *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta; 2012. 72-98 p.
14. Thygeron A, Gulli B, Krohmer JR. *First aid Pertolongan pertama*. Hartanto H, Astikawati R, editors. Jakarta: Erlangga; 2011.
15. Simoni JM, Franks JC, Lehavot K, Yard SS. Peer interventions to promote health: Conceptual considerations. *Am J Orthopsychiatry*. 2011;81(3):351–9.
16. Foster G, Taylor SJC, Eldridge SE, Ramsay J, Griffiths CJ. Self-management education programmes by lay leaders for people with chronic conditions. *Cochrane Database of Systematic Reviews*. 2007.
17. Khong LAM, Berlach RG, Hill KD, Hill AM. Can peer education improve beliefs, knowledge, motivation and intention to engage in falls prevention amongst community-dwelling older adults? *Eur J Ageing*. 2017;14(3):243–55.
18. Beck S, Issleib M, Daubmann A, Zöllner C. Peer education for BLS-training in schools? Results of a randomized-controlled, noninferiority trial. *Resuscitation* [Internet]. 2015;94:85–90. Available from: <http://dx.doi.org/10.1016/j.resuscitation.2015.06.026>
19. Harvey PR, Higenbottam C V., Owen A, Hulme J, Bion JF. Peer-led training and assessment in basic life support for healthcare students: Synthesis of literature review and fifteen years practical experience. *Resuscitation* [Internet]. 2012;83(7):894–9. Available from: <http://dx.doi.org/10.1016/j.resuscitation.2012.01.013>
20. Sahu S, Lata I. Simulation in resuscitation teaching and training, an evidence based practice review. *J Emerg Trauma Shock*. 2010;3(4):378.
21. Pedersen TH, Kasper N, Roman H, Egloff M, Marx D, Abegglen S, et al. Self-learning basic life support: A randomised controlled trial on learning conditions. *Resuscitation*. 2018;126:147–53.
22. Everett-Thomas R, Yero-Aguayo M, Valdes B, Valdes G, Shekhter I, Rosen LF, et al. An assessment of CPR skills using simulation: Are first responders prepared to save lives? *Nurse Educ Pract* [Internet]. 2016;19:58–62. Available from: <http://dx.doi.org/10.1016/j.nepr.2016.05.003>
23. Anjarwati D, Winarno A, Churiyah M. Improving Learning Outcomes by Developing Instructional Media-Based Adobe Flash Professional CS 5 . 5 on Principles of Business Subject. *IOSR J Res Method Educ*. 2016;6(5):1–6.
24. Duggan JM, Hensley S, Khuder S, Papadimos TJ, Jacobs L. Inverse Correlation Between Level of Professional Education and Rate of Handwashing Compliance in a Teaching Hospital. *Infect Control Hosp Epidemiol*. 2008;29:534–8.
25. Walpolo RL, Fois RA, McLachlan AJ, Chen TF. Evaluating the effectiveness of a peerled education intervention to improve the patient safety attitudes of junior pharmacy students: A cross-sectional study using a latent growth curve modelling approach. *BMJ Open*. 2015;5(12).
26. Burke H, Mancuso L. Social Cognitive Theory, Metacognition, and Simulation Learning in Nursing Education. *J Nurs Educ*. 2012;
27. Orr MG, Thrush R, Plaut DC. The Theory of Reasoned Action as Parallel Constraint Satisfaction: Towards a Dynamic Computational Model of Health Behavior. *PLoS One*. 2013;
28. Wye SQ, Madden A, Poeder F, McGuckin S, Shying K. A framework for Peer Education by Drug-User Organisations. 2nd ed. Australian Injecting & Illicit Users League. Australia: AIVL; 2006. 1-40 p.
29. Banas JA, Rains SA. A meta-analysis of research on inoculation theory. *Commun Monogr*. 2010;
30. Notoadmodjo S. *Metodologi penelitian kesehatan*. Jakarta : PT. Rineka Cipta. 2012.
31. Arasteh AJ, Ghezljeh TN, Haghani S. Effects of Peer-assisted Education on the Knowledge and Performance of Nursing Students in Basic Cardiopulmonary Resuscitation. *Iran J Nurs* [Internet]. 2018;31(115):6–19. Available from: <http://ijn.iums.ac.ir/article-1-2787-en.html>
32. Larsson EM, Mártensson NL, Alexanderson KAE. First-aid training and bystander actions at traffic crashes-A population study. *Prehosp Disaster Med*. 2002;17.
33. Peykari N, Tehrani FR, Malekafzali H, Hashemi Z, Djalalinia S. An Experience of Peer Education Model among Medical Science University Students in Iran. *Iran J Public Health*. 2011;40(1):57–62.

A Descriptive Study to Assess the Cognitive Style among Teachers Working in Selected Schools of Vadodara (With a View to Improve Cognitive Process)

Rizavana M. Rathod¹, Suresh V.², Bhoomika Patel³

¹M.Sc. Nursing (Student), ²Associate Professor (M.Sc. Nursing), ³Assistant Professor, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, Gujarat, India

Abstract

Background: Cognitive style or “thinking style” is a concept used in cognitive psychology to describe the individuals think, perceive and remember information. In the areas of education and management it remains a major concept. So it is necessary for the teacher to have awareness of cognitive style so he can improve the teaching-learning process of the student.

Purpose: 1. To assess the present status of cognitive style among the teachers working in selected schools of Vadodara. 2. To find out the association between present status of the cognitive style among the teachers with their selected demographic variable.

Materials and Method: In this study a quantitative research approach with descriptive research design was used, data was collected from 40 teachers who are working in the selected schools of Vadodara. A Standardized alert cognitive style scale was used to assess cognitive styles of 1 teachers. The chi-square test is used to find out association between cognitive style and socio-demographic variable. The investigator obtained written consent from the concerned authority before the study.

Result: With regards to the assessment, out of 40 teachers most of the teachers 21 (52.5%) were using middle brain, 17 (42.5%) were using moderate left brain and very few 1 (2.5%) and 1 (2.5%) were using strong left brain and moderate right brain. There is no significant relationship between cognitive styles and selected socio-demographic variable.

Conclusion: As per the data drawn from results, most of the teachers are depends on middle brain and very few of them are depends on moderate left brain and further teachers are the backbone of the educational system so they should aware about their own cognitive style that helps to identify their own strength and weakness that promotes the quality of their teaching-learning activities.

Keywords: Cognitive style, teachers, standardized alert cognitive style scale.

Introduction

Cognitive style describe how individuals think, perceive and remember information. In the areas of education and management cognitive style it remains a

major concept. The chances of more positive learning experience are improved for the students if the students and teachers have similar cognitive style. Appropriate training and preparation are requires by the teacher because teaching is a highly professional job. Thomas (1992) said that great teachers give us a sense of who we are, and who we might become. They disclose our power, our mind and our imagination. Good teachers are made by hours of hard work and positive attitude towards teaching and their students. Teacher effectiveness depends on the variety of teacher behaviors, e.g. cognitive style, emotional competence, attitudes, teacher-student

Correspondence author

Rizavana M. Rathod

Nana Karala Ta. Sinor Dist. Vadodara,

Gujarat, India - 391105

e-mail: rizavanarathod103@gmail.com

Mobile No.: 8155918198, 9925517313

interaction, class-room environment they create, good mental health and adjustment etc.¹ Here the investigator intended to assess the cognitive style of the teachers through standardized alert cognitive style scale and in attempting to manipulate their cognitive process. As a result teachers' teaching-learning method can be improved.

Vidyanand sambhaji khanddagale (march-2016) conducted a study of cognitive style among teacher educators. The present study sample/cases contains of 25 teacher educators participate in refresher course in education during (02/02/2015) to (23/02/2015) at UGC ASC university of Kerala karivottom campus thiruvananthapuram, Kerala. The tool used for present study was alert cognitive style prepared by carol Philips. It was found that Most of the Teacher Educators are using Moderate Left Brain predominantly. The numbers of teachers using mid brain are moderate whereas very few are using Moderate Right Brain. This finding is useful for several reasons.² Masoomeh Moslemi Mehni, Bahman Saeidipour (2016) were conducted a study to investigate the relationships between cognitive styles with entrepreneurship characteristics of bachelor's students. The statistical sample included 2496 bachelor's students. A sample size of 352 individuals was determined by stratified random sampling method. Results of the hypothesis showed that there were significant, direct, and positive relationships between three cognitive styles and entrepreneurship characteristics. The cognitive styles in order of concrete-sequential 45% (cs), abstract-sequential 29% (as), and abstract-random showed the highest and lowest significant positive relationship to the entrepreneurship characteristics.³ Bhalendu S Vaishnav, Smruti B Vaishnav (2018) were conducted a cross-sectional study on cognitive style assessment of Indian medical faculty was carried out using "standardized Alert Scale of Cognitive Style. They were selected a total of 130 samples, out of 130 samples only 88 samples participated voluntarily. The results indicated that there is no association between cognitive style and demographic variable. Study also enhanced cognitive style awareness, which was low before the intervention.⁴

Method

To conduct research study permission was obtained from Sumandeep Vidyapeeth institutional ethics committee (SVIEC). Number:SVIEC/ON/Nurs/BNPG18/D19002.

The research approach adopted for this study was quantitative research approach and the design used was non-experimental descriptive design. The samples for the research are 40 teachers who are working at Shree M.H Dayaram sharda mandir, Dabhoi. & Shree B.N high school chanod. further, samples of the study is selected by using non- Probability purposive Sampling technique according to inclusive criteria. The data was collected on 26/11/2018 and 27/11/2018.

The investigator used standardized alert cognitive style scale for data collection which was developed by Dr. Loren D. Crane, Western Michigan University, (1989). The tool consist of 21 pairs of sentences which is intended to check the dominance of the brain. Very same tool investigator has used to assess the cognitive styles (dominance of brain) among teachers who are fulfilling the inclusive criteria. Eventually data analyzed by using descriptive and inferential statistics.

Results

Majority of the teachers 35% belong to the age group of 31-40 years. Majority of the teachers 75% were male. Majority of teachers 57.5% were having extrovert personality type. Majority of the teachers 85% were having right hand dominant. Half of the teachers 50% were belonging to rural area and half were 50% belong to urban area. Majority of teachers 50% were having arts stream. Majority of teachers 40% were having good knowledge on internet. (Table 1)

Table 1: Frequency and percentages distribution of samples, according to their demographic characteristic

N=40

Sr. No.	Demographic variable	No of respondents in frequency	No of respondent in percentage
1.	Age in years		
	21-30	2	5%
	31-40	14	35%
	41-50	12	30%
	>50	12	30 %
2.	Gender		
	Male	30	75%
	Female	10	25%
3.	Personality type		
	Introvert	17	42.5%
	Extrovert	23	57.5%

Cont... Table 1: Frequency and percentages....

4.	Dominant hand		
	Right	34	85%
	Left	6	15%
5.	Residential area		
	Rural	20	50%
	Urban	20	50%
6.	Academic stream		
	Commerce	15	37.5%
	Arts	20	50%
	Science	5	12.5%
7.	Knowledge on internet		
	Excellent	4	10%
	Good	16	40%
	Average	14	35%
	Poor	6	15%

It was observed that among 40 participants majority of teachers 21 (52.5%) were middle brain dominant, 17 (42.5%) were Moderate left brain dominant, 1 (2.5%) was Strong left brain dominant and 1(2.5%) was Moderate right brain dominant and there were no any sample in strong right brain dominant. (Table 2)

Table 2: Distribution of the Respondents According to Cognitive Style

Cognitive style of Teachers	Frequency (N)	Percentage
Strong left brain: 0-4	1	2.5%
Moderate left brain: 5-8	17	42.5%
Middle brain: 9-13	21	52.5 %
Moderate right brain: 14-17	1	2.5%
Strong right brain: 18-21	0	0
Total	40	100%

Interpretation of tool: Anatomically, the brain is divided into two hemisphere i.e., right and left hemisphere. Each hemisphere has unique and distinct characteristics. The characteristics features of those who were falls in the scores of 0-4 and 5-8 were in the category of Strong left brain and Moderate left brain so that their dominant hemisphere is left brain. Individuals with a dominant left brain are considered relatively more intelligent than individuals with a dominant right brain. Their approach is analytical, sequential, logical, objective, and rational, as a result of which they get into details of the subject, analyze it, and come to rational conclusion. Words and language are given utmost importance by the left side of

the brain. It excels in analytical subjects such as math and science. One of the most important functions of the left brain is to form strategies using analytical and logical skills. They usually do things in a planned orderly way. They are attentive during long verbal explanations. They are also like to read but need total quite to read or study. They prefer well-structured assignment over open ended ones. They are skilled at sequencing ideas. They usually remember things that can studied scientifically.

The characteristics features of those who were falls in the scores of 14-17 and 18-21 were in the category of Strong right brain and Moderate right brain so that their dominant hemisphere is right brain. The right brain dominators alerts to novelty; tells when someone is lying or making a joke. They form mental images when reading and/or conversing. Right brainers are feel instead of reason. Important discoveries and invention are made by right brainers who have enough talent and determination to evolve through science. They foresee and predict the future, sometimes with surprising accuracy. This may sound strange, but they have ability to create their reality in favor of their prediction. Right brainers tend to dislike supervision; they want to be their own boss. If you drown them with excessive micromanagement, overwhelm them with too many policies, point your finger at them, they will quickly slam the door, regardless of their paycheck. Right brainers tend to be go with flow. They dislike control freaks, because they embrace their existence with an open mind.

The characteristics features of those who were falls in the scores of 9-13 were in category of middle brain so that they are using their brains i.e, right and left. The middle brain dominators tend to be more flexible than either the left or the right brain folks; however they often vacillate between the two hemispheres when they make decisions. They sometimes get confused because, neurologically speaking; they could do most tasks through either a left brain or a right brain method! The chi-square test was used to determine the association between socio-demographic variable like age, gender, personality type, dominant hand, residential area, academic stream, knowledge on internet and the cognitive styles of teachers.

It was found that there were no significant association between cognitive style of teacher and socio-demographic variable. Thus the hypothesis H₁ is failed to accept.

Discussion

As per the analysis, out of 40 teachers, majority of teachers 21 (52.5%) were middle brain dominant, 17 (42.5%) were Moderate left brain dominant. There is no significant relationship exist between cognitive style of teachers and their selected demographic variable.

The purpose of this study was to find out the cognitive style (dominancy of brain) of teachers. The details of research results has conveyed to the samples to create awareness about their cognitive styles (dominancy of brain) ultimately, it helps to identify their strength and weaknesses which helps to quality services to the student (teaching-learning activity).

Conflict of Interest: There is no conflict of interest is faced by the researcher in terms of financial, institutional and other relationship etc.

Funding: The entire amount spent for the research was borne by the researcher.

Ethical Clearance: To conduct research study Ethical clearance was obtained from Sumandeeep Vidyapeeth institutional ethics committee (SVIEC). Number :SVIEC/ON/Nurs/BNPG18/D19002.

References

1. Cronin, T. E. Politics and Political Science. The Journal on Excellence in college teaching, 1992. Boyer, Avenue, Walla Walla, Washington.
2. Khanndagale V.S. A study of cognitive style among teacher educators. International journal of arts, humanities and management studies, 2016 Mar, 2(3), 14-20.
3. Mehni, M. M., & Bahman, S. The relationships between Gregoric cognitive styles with entrepreneurship characteristics of bachelor's students, International journal of humanities and cultural studies, 2016 Jan, 1472-1486
4. Vaishnav B.S., Vaishnav S.B., Varma, J., Prabhakaran, A., & Chotaliya, M. Cognitive style assessment Indian medical faculty - A step toward achieving cognitive integration in teaching practice. National Journal of Physiology, Pharmacy and Pharmacology, 2018 8 (7) DOI: 10.5455/njppp.2108.8.0102119022018

Modified Early Warning Score (MEWS) as Predictor of Deterioration Risk on Patient with Stroke in Emergency Unit in Malang

Rizka Hayyu Nafiah¹, Ahsan², Toni Suharsono²

¹Master Student of Nursing, ²Department of Nursing, Faculty of Medicine, University of Brawijaya

Abstract

Stroke is a acute nerve function disorder due to disruption of blood circulation in the brain that occurs suddenly or quickly causes symptoms and signs that correspond to the affected focal area. Stroke is one of the diseases that cause death, disability, reduce a person's productivity, and increase the economic burden. This is related to the deterioration condition of the patient while in the emergency unit.

This research is an observational analytic study with a cohort design through a prospective approach. The population in this study was stroke patients who entered the emergency unit in Malang. The number of samples of this study was 109 patients obtained by purposive sampling technique. Data were collected using observation sheets and analyzed by univariate and bivariate analysis.

The result of bivariate analysis used Mann-Whitney test shown that there was a significant correlation between MEWS and the risk of deterioration in emergency unit with a value of $p=0.000$. The ROC test results obtained AUC value 0.830, MEWS score was >4 and had sensitivity of 46.2% and specificity of 95.7%. Conclusion MEWS is a good predictor in detecting risk of deterioration, simple, easy and fast to do in the emergency unit.

Keywords: MEWS, deterioration, stroke, emergency unit.

Introduction

Stroke is one of the biggest health problems in the world which resulting in increasing of mortality, disability and reducing a person's productive time thus increase the socio-economic burden. The data survey of World Health Organization (WHO) during 2000-2016 stated that stroke was the second highest after ischemic heart disease with an increase of 4.56 million people from total of 569 million people during 2000 to 2016⁽¹⁾. In Asia, the highest mortality rate for stroke patients in Mongolia reaches 222.6/100,000 people per year and Indonesia reaches 193.3/100,000 people per year⁽²⁾.

The high mortality due to stroke is related to the deterioration condition of patient. The deterioration condition of patient is a condition that endangers the patient, increases the length of stay and the occurrence of disability in the body⁽³⁾. Deterioration can also increase the patient's risk of disability and even the death of the patient, so it is required to immediately refer to the unit of intensive care unit (ICU)⁽⁴⁾. Deterioration on patient can be determined based on deterioration clinical

conditions. in the form of abnormalities of vital signs⁽⁵⁾. Thus, patients need special attention and strategies to prevent this deterioration in the emergency unit by using modified early warning score (MEWS).

The visit of stroke patients in the emergency unit from 2017-2018 reached 1252 patients with the number of patient deaths reaching 240 patients (19%). The results of interviews with health workers at the emergency unit stated that they had not used a scoring system to detect deterioration in patients. Based on this, it is necessary to conduct research to determine the correlation of MEWS to predict deterioration of patients with stroke in emergency unit.

Methodology

This study was an analytical observational study with a cohort design through a prospective approach. The population in this study was stroke patients who entered the emergency unit, the purposive sampling technique was used to obtain a total sample of 109 people. The selection of samples is based on inclusion

criteria, which were patients with stroke who enter the emergency unit with the age of 18 years or more, and patients with stroke who have medical record data which includes blood pressure, respiratory frequency, pulse frequency, level of consciousness, body temperature, history of hypertension, diabetes mellitus, and heart disease. The tool used in this study was in the form of patient observation sheet consisting of demographic data and table of measuring parameters result of clinical signs of respondents. The MEWS parameter consisted of measurement of consciousness, respiratory frequency, pulse frequency, systolic blood pressure, and temperature.

Result

1. Univariate Analysis: General description of respondent characteristics based on patient demographic data, pulse frequency, systolic blood pressure, respiratory frequency, temperature, level of consciousness, oxygen saturation, patient deterioration.

Table 1: Distribution of Characteristics of Respondents Based on Gender, Age, History of Disease, and Deterioration

Characteristic of Respondents	N	(%)
Gender		
Male	53	48,6
Female	56	51,4
Medical History		
None Available:	33	30,3
• Cardiovascular (hypertension and heart disease)	76	69,7
• Diabetes Mellitus	58	76,3
• Hypertension and Diabetes Mellitus	3	3,9
• Diabetes Mellitus and Heart	13	17,1
• Hypertension, Diabetes Mellitus and Heart Disease	1	1,3
	1	1,3
Deterioration		
Not experiencing deterioration	70	64,2
Experiencing deterioration	39	35,8
Gender		
Male	20	69
Female	19	31
Total	109	

Table 1 shows the prevalence of stroke patients in woman is 54,1%, 76,3% patients with history of cardiovascular disease, 35.8% patients who has risk of deterioration and 69% risk of deterioration occurred in men.

Table 2 Characteristics of Respondents Distribution by age

Characteristic of Respondents	Mean	Min-Max
Age (years)	62,14	31-97
Male	63,37	38-97
Female	60,96	31-95

Table 2 shown the average age of respondents who had a stroke was 62 years old, with minimum and maximum is 31 and 97 years old.

2. Bivariate Analysis:

Table 3 Tests Results for Correlation between MEWS and Deterioration Risk

Scoring	Mann-Whitney U	
	Median (Min-Max)	Nilai p
MEWS		
No Deterioration	1 (1-4)	0,000
	3 (0-9)	
Total	109	

*MEWS = modified early warning score

Table 3 was shown the value of p=0.000 indicated there was a significant correlation between MEWS and the risk of deteriorating condition of the patient.

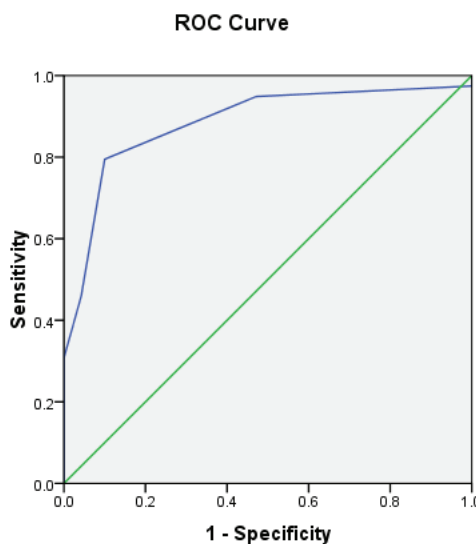


Table 4 Description of the AUC Value

	Area	Std. Error	p-value	IK 95%	
				Bottom	Up
MEWS	0,830	0,037	0,000	0,811	0,957

*MEWS = modified early warning score

Table 4 was shown that the AUC value of MEWS measurements was 0.830 (95% CI 0.811 - 0.957)

Table 5 Accuracy of MEWS Score in Detecting Deterioration

	Cut-off	Sensitivity	Specificity
Score of MEWS	4	0,462	0,957

*MEWS = modified early warning score

Figure 1 and table 5 were shown the value of cut-off point of MEWS, which was at a score of 3.4, which indicated that deterioration could be detected if the score of MEWS was 4, with sensitivity of 0.462 and the specificity of 0.957.

Discussion

MEWS was a simple, easy and fast scoring system used by nurses or other medical personnel, especially in the emergency unit. MEWS was used as early detection to determine the risk of deteriorating condition the patient, thus the medical staff could plan the right action for the patient. The deteriorating condition could be found based on the value of abnormalities of vital signs, as well as where the patient was treated.

In this study shown that 51.4% of the occurrence of stroke was more common in women than men. The prevalence was influenced by various factors, one of which was due to differences was sex hormones namely estrogen. Estrogen has an important role as neuroprotective and anti-inflammatory to reduce the occurrence of ischemic brain injury. When women entered menopause period, the production of the estrogen hormone decreased and the occurrence of atherosclerosis increased⁽⁶⁻⁸⁾. In line with this, the average age of women in this study was 61 years old and at that age a woman had entered menopause.

The medical history of the most diseases accompanying the respondent was a disorder in the cardiovascular system in the form of hypertension and heart disease which was 76.3%. This research was in line with the research of Khajedaluae et al., (2016) which stated that hypertension was more common in men⁽⁹⁾. Barker-Collo et al., (2015) also stated that ischemic strokes occurred higher in men than women and that these differences were caused by the presence of risk factors such as disorders of the cardiovascular system⁽¹⁰⁾.

The results of the bivariate analysis shown that

there was a significant correlation between MEWS and the risk of deterioration. MEWS had an AUC value of 0.884 (IK95% 0.739-0.920), with a cut-off score of 4, a sensitivity of 71.8% and a specificity of 92.9%. Patients who were in poor condition would be treated in a special unit such as the intensive care unit (ICU), but if the patient was stable and good enough they would be treated in the general care.

Subbe et al., (2001) stated that the score of MEWS that more than >4 was at high risk of experiencing catastrophic deterioration and ICU care should be conducted. Not only in ICU, MEWS could also be used in the operating unit⁽¹¹⁾. According to Suwanpasu and Sattayasomboon (2016) the score of MEWS which more than >4 was more accurate than score of MEWS which more than >5. It was known that based on the AUC value of MEWS >4 was 0.778 (95% CI: 0.715 to 0.841) and MEWS >5 was 0.646 (95% CI: 0.611 to 0.682) in predicting mortality at hospital⁽¹²⁾. Lee & Choi's research (2014) used MEWS to predict the need or not to move patients to the ICU from the general care. The cut-off value obtained in this study was 6 with a sensitivity value of 89.5% and specificity of 67.7%. The study concluded that MEWS was an effective predictor for use in determining the transfer of patients to the ICU treatment unit⁽¹³⁾.

Hurtado et al., (2016) stated that MEWS could be used by nurses in the emergency unit, general care and as a triage tool when medical personnel wanted to determine whether patients need to be hospitalized or not and determined the unit where patients would be treated⁽¹⁴⁾. Assessment of the condition of patients in the pre-hospital using clinical assessment had a low sensitivity in predicting critical illness, but if added to the MEWS score assessment it could improve predictions of future deteriorating conditions⁽¹⁵⁾. According to Galen et al., (2016) MEWS was a strong predictor of predicting hospitalization after 30 days, and concluded that MEWS could predict a deterioration of 83% with a negative predictive value of 98.1%, which indicated that MEWS was reliable as a screening tool⁽¹⁶⁾.

Suppiah et al., (2014) stated that MEWS could predict a poor prognosis with AUC value of 0.924. The author found that if the MEWS score was more than > 3, then the sensitivity was 95.5%, the specificity was 90.8%. mentioned that MEWS had advantages that could be used to obtain new prognostic scores, easy and fast use, checks and calculations could be repeated,

detected hospitalizations in hospitals, and were reliable and might be superior to other scoring systems⁽¹⁷⁾. Besides being able to predict the incidence of mortality, MEWS had also been shown to predict the occurrence of heart attacks, survival, and length of stay in the hospital^(14,16,18–20).

Conclusion

There was significant correlation between MEWS and deterioration of stroke patients during treatment at the emergency unit, thus MEWS could be used as an instrument to determine the risk of deterioration on patient with stroke.

Conflict of Interest: There is no conflict of interest in this study

Funding Source: This study uses researcher's personal funds and does not get funding from any party.

Ethical Clearance: This research has been declared eligible of ethics by the Health Research Ethics Commission of the Faculty of Medicine, Universitas Brawijaya.

References

1. WHO. The top 10 causes of death. World Health Organization. 2018.
2. Venketasubramanian N, Yoon W, Pandian J, Navarro C. Stroke Epidemiology in South, East, and South-East Asia : A Review. *J Stroke*. 2017;19(3):286–94.
3. Santos MD, Clifton DA, Tarassenko L. Performance of Early Warning Scoring Systems to Detect Patient Deterioration in the Emergency Department. 2014;159–60.
4. Singer AJ, Jr HCT, Viccellio P, Pines JM. The Association Between Length of Emergency Department Boarding and Mortality. *Acad Emerg Med*. 2011;18(12):1–6.
5. Henriksen DP, Brabrand M, Lassen AT. Prognosis and Risk Factors for Deterioration in Patients Admitted to a Medical Emergency Department. *PLoS ONE* 9(4) e94649. 2014;9(4):1–7.
6. Ljunggren M, Castrén M, Nordberg M, Kurland L. The association between vital signs and mortality in a retrospective cohort study of an unselected emergency department population. *Scand J Trauma Resusc Emerg Med* [Internet]. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine; 2016;(May). Available from: <http://dx.doi.org/10.1186/s13049-016-0213-8>
7. Hosking J, Care GC, Considine J, Acutecare G. Recognising clinical deterioration in emergency department patients. *Australas Emerg Nurs J* [Internet]. College of Emergency Nursing Australasia; 2014;17(2):59–67. Available from: <http://dx.doi.org/10.1016/j.aenj.2014.03.001>
8. Jones D, Mitchell I, Hillman K, Story D. Defining clinical deterioration. *Resuscitation* [Internet]. European Resuscitation Council, American Heart Association, Inc., and International Liaison Committee on Resuscitation.~Published by Elsevier Ireland Ltd; 2013;84(8):1029–34. Available from: <http://dx.doi.org/10.1016/j.resuscitation.2013.01.013>
9. Khajedaluee M, Hassannia T, Rezaee A. The prevalence of hypertension and its relationship with demographic factors, biochemical, and anthropometric indicators : A population-based study Abstract Original Article. *ARYA Atheroscler*. 2016;12(6):259–65.
10. Barker-collo S, Bennett DA, Krishnamurthi V, Murray CJL, Roth A, Group W. Sex Differences in Stroke Incidence, Prevalence, Mortality and Disability-Adjusted Life Years : Results from the Global Burden of Disease Study 2013. *Neuroepidemiology*. 2015;45:203–14.
11. Subbe CP, Kruger M, Rutherford P, Gemmel L. Original papers QJM Validation of a modified Early Warning Score in medical admissions. *Q J Med*. 2001;94:521–6.
12. Suwanpasu S, Sattayasomboon Y. Accuracy of Modified Early Warning Scores for Predicting Mortality in Hospital: A Systematic Review and Meta-analysis Abstract. *iMedPub Journals*. 2016;2(2):1–11.
13. Ry JL, Ran CH. Validation of a Modified Early Warning Score to Predict ICU Transfer for Patients with Severe Sepsis or Septic Shock on General Wards. *J Korean Acad Nurs*. 2014;44(2):219–27.
14. Hurtado JJD, Berger A, Bansal AB. Emergency department Modified Early Warning Score association with admission, admission disposition, mortality, and length of stay. *J Community Hosp Intern Med Perspect*. 2016;1:1–5.
15. Fullerton JN, Price CL, Silvey NE, Brace SJ, Perkins GD. Is the Modified Early Warning

- Score (MEWS) superior to clinician judgement in detecting critical illness in the pre-hospital environment? *Resuscitation* [Internet]. European Resuscitation Council, American Heart Association, Inc., and International Liaison Committee on Resuscitation.~Published by Elsevier Ireland Ltd; 2012;83(5):557–62. Available from: <http://dx.doi.org/10.1016/j.resuscitation.2012.01.004>
16. Galen LS Van, Dijkstra CC, Ludikhuizen J, Kramer MHH. A Protocolised Once a Day Modified Early Warning Score (MEWS) Measurement Is an Appropriate Screening Tool for Major Adverse Events in a General Hospital Population. 2016;65:1–12.
 17. Suppiah A, Malde D, Arab T, Hamed M, Allgar V. The Modified Early Warning Score (MEWS): An Instant Physiological Prognostic Indicator of Poor Outcome in Acute Pancreatitis. *JOP J Pancreas*. 2014;15(6):569–76.
 18. Kyriacos U, Jelsma J, James M, Jordan S. Monitoring Vital Signs : Development of a Modified Early Warning Scoring (Mews) System for General Wards in a Developing Country. *PLoS ONE* 9(1) e87073. 2014;9(1):1–10.
 19. Johnson S, Nileswar A. Effectiveness of Modified Early Warning Score (MEWS) in the Outcome of In-Hospital Adult Cardiac Arrests in a Tertiary Hospital. *J Pulm Respir Med*. 2015;(4):4–6.
 20. Tavares RCF, Vieira AS, Uchoa LV. Validation of an Early Warning Score in Pre-Intensive Care Unit. *Rev Bras Ter Intensiva*. 2008;20:124–7.

A Video Assisted Teaching on Preventing Method of School Bullying among Secondary School Teachers in Selected Urban Area of Vadodara

Robby Solanki¹, Pavan Patel², Pyal B Patel², Payal Patel², Priyal Patel², Rachana Patel²

¹HOD of Obstetrics and Gynecological, ²B.Sc. Nuring Sumandeep Nursing College, Sumandeep Vidhyapeeth, Vadodara, Gujarat, India

Abstract

Background: This study was designed to investigate the factors affecting prevention of school bullying among school teachers. The validity and reliability of research instruments was established and data was collected from 60 teachers selected from urban school of vadodara using the purposive sampling method. This formed the basis of the detailed analysis and conclusions and recommendations.

Aims and objectives: The aim of this study is to find out the factors contributing prevention of school bullying among school teachers.

Material and method: Pre-experimental research design was adopted to achieve the goal of the study. The tool consists of one parts First part consists socio demographic data consists of Self structured questionnaire. 60 samples were collected from selected school of Vadodara by purposive sampling technique.

Result: This study was undertaken to assess the effectiveness of teaching programme, regarding prevention on school bullying among school teachers. The study involves one group pre- test post-test pre experimental design with purposive sampling technique, 60 samples of school teachers was selected on the basis of inclusion and exclusion criteria. A conceptual framework used for this study was modified “king’s goal attainment model.” Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data was interpreted in the forms of tables and graphs. The calculated “t” value 23.31 was greater than the tabulated “t” value at 0.05 levels. Data shows there was significant difference between pre test and post test level of knowledge score. Hypothesis H₁ accepted

Conclusion: The following conclusion can be drawn from the study findings, which are supported by evidence from the other literature; the self-administered questionnaire has shown remarkable difference between pre-test and post-test. & video assisted programme was effective among teachers.

Keywords: Video Assisted Teaching, Preventing Method of School Bullying, Secondary School Teachers.

Introduction

“Be the Change You Want to See in the World”

Bullying without comprehensive definition can be physical, verbal or emotional in nature, or it can occur online (cyber bullying). For an act to be considered bullying it must meet certain criteria. This includes hostile intent, imbalance of power, repetition, distress, and provocation. Bullying can have a wide spectrum of effects on a student including anger, depression, stress and suicide. Additionally, the bully can develop different

social disorders or have a higher chance of engaging in criminal activity. If there is suspicion that a child is being bullied or is a bully, there are warning signs in their behavior. There are many programs and organizations worldwide which provide bullying prevention services¹

There is no universal definition of school bullying; however, it is widely agreed that bullying is a subcategory of aggressive behavior characterized by the following three minimum criteria hostile intent imbalance of power and repetition over a period of time. The following two

additional criteria have been proposed to complement the above-mentioned criteria. Victim distress and provocation²

Parents, school, staff and other have role to play in preventing bullying. They can help kids in understand bullying, keep the lines of communication open, encourage kids to do what they love and model how to treat others with kindness and respect. The best way to address bullying is to stop it before it starts. There are number of things school staff can do to make schools safer and prevent bullying.³

Nedd for the study: “Bullying means systematically and chronically inflicting physical hurt or psychological distress on one or more students or employees. It is further defined as unwanted and repeated written, verbal, or physical behavior, including any threatening, insulting, or dehumanizing gesture, by a student or adult, that is severe or pervasive enough to create an intimidating, hostile, or offensive educational environment; cause discomfort or humiliation; or unreasonably interfere with the individual’s school performance or participation; and may involve but is not limited to: teasing, social exclusion, threat, intimidation, stalking, physical violence, theft, sexual, religious, or racial harassment, public humiliation, or destruction of property.”⁴

Mizuta (2017) conducted a study on association between the time perspective and type of involvement in bullying among adolescents: A cross-sectional study in Japan. To examine the association between the types of involvement in bullying and the time perspective among Japanese adolescents. A questionnaire was conducted among Japanese junior high school students at eight public schools that were located in two cities in Shizuoka Prefecture, Japan. Shirai’s Experiential Time Perspective Scale was used, which comprises four subscales: goaldirectedness, hopefulness, self-fulfillment, and acceptance of the past. An analysis of covariance was applied, with the time-perspective subscales as the objective variable, type of involvement in bullying as a fixed factor, and grade, family structure, and economic status as the covariates. The analysis sample included 2630 adolescents (valid response rate: 88.6%). The bullying rate of the boys was 10.8% and 4.1% for the girls, for the male victims it was 10.1% and 14.5% for the female victims, and for both the bully and the victim, it was 8.5% and 5.4%, respectively. The students who were not involved in bullying had the highest scores of hopefulness, self-fulfillment, and acceptance of the past.

For both sexes, bullying was significantly associated with hopefulness, self-fulfillment, and acceptance of the past. Goaldirectnesswas not associated with the type of involvement in bullying. The victims of bullying had low time perspectives of hopefulness, self-fulfillment, and acceptance of the past. Providing support that increases hopefulness, self-fulfillment, and acceptance of the past might help to prevent pessimistic decision-making, such as that seen in cases of suicide.⁵

Statement of the problem: A video assisted teaching on preventing method of school bullying among secondary school teachers in selected urban area of vadodara. ”

Objectives of the problem:

1. To assess the level of knowledge regarding school bullying among secondary school teachers.
2. To assess the effectiveness of video assisting teaching on knowledge regarding school bullying among secondary school bullying.

Hypothesis: H1- There will be a significant difference between pre-test and post-test score.

Methodology

Research design

The research design used for the study was Pre-experimental research design

Setting: The study was conducted at Selected schools in both urban areas of Vadodara. Schools include Stella Mary School, Om School of vadodara.

Sample: The 60 participants included in this study. The sample for the study was selected by non-probability sampling technique according inclusion criteria as availability of sample.

Inclusion criteria: Teachers who are willing to participate.

Teachers present during the time of data collection.

Exclusion criteria: Teachers who are already exposed to any training programme on school bullying.

Tool for data collection: The tool used for the study was divided as follows: Section I: Self designed Knowledge Questionnaire It consists of 60 multiple choice questions and every right answer will be given

the score of 1 and for the wrong answer 0. Minimum score is 0 and maximum score is 60.

Scoring interpretation: Inadequate knowledge < 15

- Moderately adequate knowledge – 16 – 25
- Adequate knowledge – 26 – 35

Data collection procedure: A formal prior permission was obtained from the selected higher secondary schools in vadodara, Data was collected after getting informed consent from the adolescences by explaining the purpose to the study. The investigate was introduced to the participants. The tool was administered and after 20 minutes the questionnaire was collected.

Ethical Clearance: The ethical approval was taken from ethical committee of university of sumandeeep vidhypeeth. Ethical clearance was obtained from the SVIEC.

Statistical design: Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi square and paired t test) was applied to test the study hypothesis

Analysis

The data are presented under the following headings:

Section-1: Analysis of pre test and post test score of knowledge Regarding prevention of school bullying among schhol teachers.

Section-2: Effectiveness of video assisted Programme

Section-1: Distribution of Pre Test Knowledge Score in Percentage

Table 1: Distributions of pre test knowledge score of school teachers regarding prevention of school bullying

N=100

Sr. No.	Knowledge level	Frequency	Percentage
1	Inadequate	60	100%
2	Moderate	00	00%
3	Adequate	00	00%
Total		60	100%

Distribution of Post Test Knowledge Score in Percentage

Table 2: Distributions of post test knowledge score of school teachers regarding prevention of school bullying

N=100

Sr. No	Knowledge level	Frequency	Percentage
1	Inadequate	00	0%
2	Moderate	29	49.2%
3	Adequate	31	50.80%
Total		60	100%

Section-2: Effectiveness of Ved TIO Assisted Eaching Programme

Table 3: Comparison of pre test and post test knowledge score

N=100

Variable		Mean	Mean Difference	Std. Deviation	t- Value
Knowledge regarding stem cell collection, preservation & its benefits	Pre-test	1.0	1.56	0.1	23.31
	Post-Test	2.56		0.5	

*Significant at 0.05level *t (0.05, 59df) =2

Conclusion

This study was undertaken to assess the effectiveness of teaching programme, regarding prevention on school bullying among school teachers. The study involves one group pre- test post-test pre experimental design with purposive sampling technique, 60 samples of school teachers was selected on the basis of inclusion and exclusion criteria. A conceptual framework used for this study was modified “king’s goal attainment model.” Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data was interpreted in the forms of tables and graphs. The calculated “t” value 23.31was greater than the tabulated “t” value at 0.05 levels. Data shows there was significant difference between pre test and post test level of knowledge score. Hypothesis H₁ accepted

Implications: The investigator has drawn the following implications from the studies which are of

vital concern to the field of nursing practice, nursing education, nursing administration and nursing research.

Recommendations

- Based on the findings of the present study recommendation offered for the future study:
- The similar study can be conducted in different settings.
- The similar study can be conducted on staff teachers.
- The similar study can be conducted on students to assess the knowledge & attitude regarding school bullying. The similar study can be conducted in large sample.
- The similar study can be conducted in different schools.

Acknowledgement

The authors express their gratitude and thanks towards all who have directly or indirectly helped them to complete this study and their support in each major step of the study.

Conflicts of Interest Disclosure

The authors declare that there is no conflict of interest statement

Source of Funding: Research is self funding there is no association of institution or any other personal.

Ethical Clearance: The ethical approval was taken from ethical committee of university of sumandeep vidhyapeeth. Ethical clearance was obtained from the SVIEC.

Reference

1. Connell NM, Morris RG, Piquero AR. Predicting bullying: Exploring the contributions of childhood negative life experiences in predicting adolescent bullying behavior. *International journal of offender therapy and comparative criminology*. 2016 Jul;60(9):1082-96.
2. Devries KM, Child JC, Allen E, Walakira E, Parkes J, Naker D. School violence, mental health, and educational performance in Uganda. *Pediatrics*. 2014 Jan 1;133(1):e129-37.
3. Rich A. Compulsory heterosexuality and lesbian existence. *Signs: Journal of women in culture and society*. 1980 Jul 1;5(4):631-60.
4. Thornberg R, Rosenqvist R, Johansson P. Older teenagers' explanations of bullying. In *Child & Youth Care Forum* 2012 Aug 1 (Vol. 41, No. 4, pp. 327-342). Springer US.
5. Kaltiala-Heino R, Rimpelä M, Rantanen P, Rimpelä A. Bullying at school—an indicator of adolescents at risk for mental disorders. *Journal of adolescence*. 2000 Dec 1;23(6):661-74.

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Recent Trends in Infertility Management among Staff Nurses Working in SC Hospital, Hassan, Karnataka

Robby Solanki

*HOD of Obstetrics and Gynecological Nursing, Associate Professor,
Sumandeep Nursing College, Sumandeep Vidyapeeth, Gujarat, India*

Abstract

Background: This study was designed to investigate the knowledge regarding recent trends in infertility management. The validity and reliability of research instruments was established and data was collected from 60 staff nurses selected from sc hospital, hassan, Karnataka using the purposive sampling method. This formed the basis of the detailed analysis and conclusions and recommendations.

Aims and objectives: The aim of this study is to find out the the knowledge regarding recent trends in infertility management.

Material and method: Pre-experimental research design was adopted to achieve the goal of the study. The tool consists of one parts First part consists socio demographic data consists of Self structured questionare. 60 samples were collected from selected from sc hospital, hassan, Karnataka

Result: This study was undertaken to assess the effectiveness of teaching programme, regarding recent trends in infertility management.. The study involves one group pre- test post-test pre experimental design with purposive sampling technique, 60 samples of staff nurses was selected on the basis of inclusion and exclusion criteria. A conceptual framework used for this study was modified “king”s goal attainment model.” Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data was interpreted in the forms of tables and graphs. There was a significant increase of 39.3% of knowledge gain after the administration of STP. Staff nurses improved their mean knowledge from 13.76 to 25.57. The difference between pre and posttest knowledge score was highly significant. The paired‘t’ value was 30.51 and that was highly significant at $p = 0.001$ level.

Conclusion: The following conclusion can be drawn from the study findings, which are supported by evidence from the other literature;the self-administered questionare has shown remarkable difference between pre-test and post-test. & STP was effective among staff nurses.

Keywords: *Structured teaching programme, recent trends, infertility management, Knowledge of staff nurses.*

Introduction

The WHO (1988) has defined sub fertility as the inability to achieve a pregnancy after one year of unprotected intercourse; the term infertile should not be used until it is proved that pregnancy is impossible.¹

In approximately 1/3 of cases, male factors are responsible, in another third female factor; in the

remainder, a combination of factors is involved. The couples are evidently anxious about their apparent infertility but must be encouraged to talk about whether they really want children and if they are both equally committed to their goal.²

The birth of the first test tube baby; in July 1978 open up new possibilities not only in the all aviation of infertility but also for scientific development.²

Today, infertility is described as a couple's problem and infertility client receive the information and emotional support they need. The health care professional best qualified to provide the service is the female nurse. She is more capable of inventing therapeutically, insensitive and empathic manner.³

In recent year's nurse practitioner have expanded their repertoire of obstetric-gynecological skills to include the provision of infertility care. To minimize the stress educate them about the factors, testing and treatment involved in infertility. Nurses can support them emotionally through a sensitive aspect.⁴

Need for Study

'Each one teaches one.'

According to this policy every person is responsible to teach one, and taught one will teach another one. Likewise through this whole nation can be educated and each one will feel the importance of passing on that piece of information received to another person. It would be a matter of pride future and the success will be visible.⁵ Education can help to increase knowledge. Education means translation of knowledge in to practice in simple words, it means practical training. Education helps in moulding a person for a particular purpose about which knowledge has been imparted.⁵

In India 80% of the couples achieve conception if they so desire, within one year of having regular intercourse with adequate frequency (4-5 times a week). Another 10% will achieve the objective by the end of the second year. As such, 10% remain infertile by the end of the second year.⁶

Nurses are in key position to deliver health education. Health education plays a vital role in nursing, to provide quality care for the patients. Health education is a powerful and effective medicine in any kind of treatment, even though it is cheaper. It is an effective tool and it is administered with great awareness by every nurse in any setting like hospitals or in community. It will be a best tool in promoting health.⁶

Statement of the problem: A study to assess the effectiveness of structured teaching programme on knowledge regarding recent trends in infertility management among staff nurses working in Sc hospital, hassan, Karnataka

Objectives of the problem:

1. To assess the knowledge of staff nurses regarding recent trends in infertility management.
2. To prepare and conduct structured teaching programme regarding recent trends in infertility management among staff nurses.
3. To assess the knowledge regarding recent trends in infertility management among staff nurses after structured teaching programme.
4. To find out the association between the post test knowledge score and selected demographic variables.

Hypothesis: H₁: There will be a significant difference between pretest and posttest knowledge scores regarding recent trends in infertility management among staff nurses.

Methodology

Research design: The research design used for the study was Pre-experimental research design

Setting: The present study was conducted in Sri Chama - Rajendra Government Hospital, Hassan. The staff nurses working in this hospital were selected for the study.

Sample: Sample size consists of 60 staff nurses working in S.C. Hospital of Hassan

Inclusion criteria: Staff nurses who are:

1. Working in SC Hospital, Hassan
2. Willing to participate.
3. Who know to read, write and speak in English language.

Exclusion criteria: Staff nurses who are:

1. Not willing to participate in the study.
2. Who are on leave.

Tool for data collection: The tool was organized as follows.

Part-1: Socio demographic variables of the staff nurses.

Part-2: Consists of the Questionnaire with 30 items based on basic concept of infertility, causes of infertility, factors of infertility, diagnosis for infertility and selected technique in infertility management.

Scoring interpretation:

<50% - POOR

51- 75%-AVERAGE

>75%-G OOD

Data collection procedure: The researcher decided to carryout the study in S.C. Hospital of Hassan. The investigator obtained written permission from the authority of the respective hospital prior to data collection. The data was collected from 12.09.2009 to 15.10.2009. The study was carried out by the researcher in three different shifts of duty scheduled by the respective hospital (morning shift-8am to 2pm, evening shift-2pm to 8pm, and night shift 8pm to 8am). A written informed consent was taken separately from each sample. Appropriate orientation was given to all the samples about the aim of the study, the nature of the tool and adequate care was taken for protecting them from potential risk including maintaining confidentiality, security, identity etc.

Participants were asked to answer a structured knowledge questionnaire with demographic data. After the pre test, structured teaching programme was given for the staff nurses with the help of charts. With an interval of one week post test was conducted using the same tool to determine the effectiveness of structured teaching programme.

Statistical design: Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi square and paired t test) was applied to test the study hypothesis

Analysis

Table 1: Pre test knowledge score on recent trends in infertility management

N=60

Level of knowledge	No. of staff nurses	%
Inadequate knowledge	41	68.3%
Moderately adequate knowledge	19	31.7%
Adequate knowledge	0	0.0%
Total	60	100%

Table 2: Post test level of knowledge on recent trends in infertility management

N=60

Level of knowledge	No. of staff nurses	%
Inadequate knowledge	0	0.0%
Moderately adequate knowledge	10	16.7%
Adequate knowledge	50	83.3%
Total	60	100%

Table 3: Determination of overall knowledge score before and after structured teaching programme

N=60

	No. of staff nurses	Pretest Mean±SD	Posttest Mean±SD	Student paired t-test
Overall Knowledge Score	60	13.77± 3.22	25.57 ± 1.93	t=30.51 P=0.001 significant

Conclusion

The present study is an effort to evaluate the STP regarding recent trends in infertility management on knowledge of staff nurses. In order to achieve the objectives of the study a quasi experimental one group pretest posttest design was adopted and 60 subjects were selected using non probability convenient sampling technique. These findings showed that after the administration of STP, the knowledge of the staff nurses was increased significantly. The mean knowledge in all aspects of improvement was 25.57 and the SD was 1.93. The findings of the study revealed a significant increase in the posttest knowledge score after the administration of the STP. The pretest knowledge score of the staff nurses was 45.9% and posttest knowledge was 85.2%. There was a significant increase of 39.3% of knowledge gain after the administration of STP. Staff nurses improved their mean knowledge from 13.76 to 25.57. The difference between pre and posttest knowledge score was highly significant. The paired‘t’ value was 30.51 and that was highly significant at p = 0.001 level.

Recommendations for Further Study

1. Similar Study Can Be Conducted For A Larger Group of Sample And In Different Settings.
2. To Identify The Attitude of Infertile Couples.

Acknowledgement: The authors express their gratitude and thanks towards all who have directly or indirectly helped them to complete this study and their support in each major step of the study.

Conflicts of interest disclosure: The authors declare that there is no conflict of interest statement

Source of Funding: Research is self funding there is no association of institution or any other personal.

Ethical Clearance: The ethical approval was taken from ethical committee of Narayani D.R. Karigwoda College of nursing, Kanrnataka, India

Reffernces:

1. Mc. Gupta., B.K Mehajan. Textbook of Preventive And Social Medicine. 3rd Edition. J B Publication; 306.
2. Bennett VR, Myles MF, Brown LK. Myles Textbook for Midwives: With Modern Concepts of Obstetric and Neonatal Care. Churchill Livingstone; 1989,156-160.
3. Marshak LS. The role of the female doctorally prepared nurse in caring for infertile women. Clinical nurse specialist CNS. 1993 Jan;7(1):8-11.
4. Bishnoi RK. Effectiveness of Self-Instructional Module (SIM) on Knowledge Regarding recent Advancement in Infertility Treatment among Staff Nurses. Asian Journal of Nursing Education and Research. 2017 Jul;7(3):284-8.
5. D.C.Dutta, Text Book of Gynaecology, 4th Edition, New Central Book Agency LTD; 212-240.
6. Widge A, Cleland J. The public sector's role in infertility management in India. Health policy and planning. 2009 Jan 29;24(2):108-15.

Satisfaction and Confidence in Using Clinical Simulation Models among Undergraduate Nursing Students in a Public University in Malaysia: A Cross-sectional Study

Syahfina Sarman¹, Kasmah Wati Pardi²

¹Registered Nurse, ²Senior Lecturer, School of Health Sciences, Universiti Sains Malaysia, Health Campus, Kubang Kerian, Kota Bharu, Kelantan, Malaysia

Abstract

Clinical simulation models have long been employed to teach clinical skills. The usage promotes satisfaction and confidence in learning among nursing students to learn the clinical skills. The study aimed to investigate the undergraduate nursing students' satisfaction and self-confidence in learning using the clinical simulation models. It also determined the relationship between student satisfaction with self-confidence in learning. This quantitative cross-sectional survey employed Student Satisfaction and Self-Confidence in Learning Scale from the National League for Nursing. The 118 samples were recruited using the stratified sampling method among all years of undergraduate nursing students in a Public University in Malaysia. Descriptive statistics was used to describe the samples and scores of Student Satisfaction and Self-Confidence in Learning. Spearman correlation was employed to test the relationship between Student Satisfaction with Self-Confidence in Learning and significant level was determined at p less than .05. Hundred and eighteen respondents with the age ranged from 20 to 25 years ($M = 21.73$, $SD = 1.19$) were females (91%) and nine (8%) were males. The overall satisfaction was more than 3.5 ($M = 3.89$, $SD = 0.54$). The overall self-confidence was also high ($M = 4.01$, $SD = 0.68$). The Spearman correlation result showed that the two variables were weakly correlated, $r(116) = 0.485$, $p = .000$. The findings showed that undergraduate nursing student in this study conveyed a high satisfaction and self-confidence in learning using the clinical simulation models despite a weak correlation between the two variables ($p < .05$). It is crucial that the simulations be continuously used with the hope of improving their clinical practice. The result of this study is relevant in supporting the used of simulation models in nursing education. It is recommended that future studies to include qualitative method to provide rich data on nursing student's experiences.

Keywords: Clinical, simulation models, nursing students, satisfaction, confidence.

Introduction

Clinical simulation model (CSM) has long been employed in nursing education. Examples of CSM includes injection pads or case studies, to multi-professional role play, static mannequins and high-fidelity computerised mannequins.¹ A National Survey found that almost 100% of the nursing programmes

used simulations as the teaching methodology.² This is to allow nursing students practising the procedures many times, making mistakes and learning from their mistakes, receiving prompt feedbacks for every mistake they make until they are able to master the skill.^{2,3}

A review concluded that CSM enhances clinical abilities and thus enables the transfer of clinical skills to actual clinical practice.⁴ Hall⁵ emphasised that it also improves nursing students' communication skills, critical thinking skills and clinical reasoning. In fact, CSM has been cited to promote effective clinical judgment among nurses who had used it during their training.⁶ Besides, CSM have contributed in increasing nursing students' satisfaction and self-confidence in learning the nursing or clinical skills.^{5,3} Hence, using of CSM has many

Corresponding Author:

Dr. Kasmah Wati Pardi

Senior Lecturer, School of Health Sciences
Universiti Sains Malaysia, Health Campus, Kubang
Kerian, 16150 Kota Bharu, Kelantan, Malaysia
E-mail address: kasmah_wati@usm.my

advantages in preparing the nursing students before going for clinical placements.⁷

Omer³ studied undergraduate nursing students' satisfaction and confidence showed that the nursing students felt satisfied because to them the CSM has given them clear ideas of what is expected of them. In addition, Omer³ also found that students' self-confidence improved when the simulation learning enabled them to retain their knowledge in recognizing clinical manifestations of diseases and that they can perform the necessary tasks in clinical practice. The building of confidence and feeling of satisfaction in such learning is crucial so that students get the competencies to be used in the process of gaining effective real experience in a clinical environment.

Amod and Brysiewicz⁸ conducted a mixed-method study using a comprehensive learning package which includes participation of role play using high fidelity computer controlled mannequins. Their study showed that undergraduate midwifery students improved their self-confidence and self-satisfaction. While Lubbers and Rossman⁹ who used props, role plays and still manikins to mimic reality among 61 nursing students found that the students had high confidence and satisfaction with their learning ($M = 4.04$, $SD = 0.44$) and that they perceived the type of simulation as very close to a real situation ($M = 4.21$, $SD = 0.66$).

The relationship between satisfaction and self-confidence among the nursing students who used simulation learning were discovered. A comparative study between two groups that used high-fidelity and low-fidelity patient simulator, found that nursing students who used low-fidelity simulations scored highest on the satisfaction and confidence scale.¹⁰ This finding, which favours low-fidelity model needs to be significantly highlighted, particularly for those institutions facing limited budget to purchase high-fidelity simulators.

Overall, there is no conclusive evidence to show that there is a minimal level of fidelity that is required to produce significant learning outcome.¹¹ While Lubbers and Rossman⁹ mentioned that the higher the fidelity model is, the closer will the model resemble the real situation, available studies such as Tosterud et al.¹⁰ have not been able to confirm the association between self-confidence and satisfaction with the use of either low or high-fidelity simulations.

It is imperative for nursing students to become

competence in performing nursing procedures to avoid patients from injury.¹⁰ Consequently, using of CSM appears to build student competency by providing them a chance to practise performing nursing procedures in situations that mimic actual clinical conditions.⁸ As this is part of the legal requirement, nurse educators have substantial responsible to ensure all new nurses they produced have strong theoretical knowledge, skills, and are able to provide effective, efficient, and safe nursing care to their patients.¹²

Despite the importance of utilising types of CSM, there are still lack evidence to associate nursing students' satisfaction and confidence level with CSM.¹⁰ Since CSM is excessively being utilised by nursing students to practice their clinical skills and also costly, conducting related studies are still relevant to provide more baseline data for nursing programmes particularly in the local context.³ Conducting this study in local context can also explain if differences in findings might have been associated with different study locality.

The specific objectives of the study were to determine undergraduate nursing students' satisfaction and self-confidence in using CSM as well as to determine the relationship between satisfaction and self-confidence in learning using CSM among undergraduate nursing students.

In this study, CSM refers to static CSM that lacks details and animations, and demonstrates only few features of real patients.¹³ Examples are task trainers such as intravenous cannulation of plastic arms, static mannequin, electronic machines, props and medical equipment.

Materials And Method

Design and Setting: This study employed a quantitative cross-sectional design and was carried out from January till March 2017, after approval of the study protocol. The study was conducted in one of the public universities in Malaysia which currently conducting nursing programmes at all levels of education.

Population and Samples: Population of the study were undergraduate nursing students from Year 1 to Year 4 of academic session 2016/2017. Out of the total of 147 nursing students at the undergraduate level, the minimum sample size required for the study including a 10% dropout rate was 118.¹⁴ The samples were recruited using stratified sampling method across all years of

study. The eligible criteria were undergraduate nursing students that were still studying in the studied institution from Year 1 to Year 4 and had experiences in using CSM.

Instrument: The Student Satisfaction and Self-Confidence in Learning Scale from the National League of Nursing was employed to elicit the undergraduate nursing students' learning using CSM. The instrument has two parts with 13 items that measure students' satisfaction (items 1 to 5) and self-confidence in learning (items 6 to 13). All the items were rated using a Likert-type scale ranging from 1 to 5, with higher scores indicating higher satisfaction and self-confidence in the learning process. The samples were described according to their age, gender, year of study and the number of times they used CSMs in their learning in a month.

Data Collection: Data collection was conducted in the institution's lecture hall. Before the questionnaire was administered, the researcher briefed all participants regarding the expectation of the study and that their participation was voluntary and it will not in any way affect their learning performance. The participants then signed informed consent forms to participate in the study. The participants were also informed that their attendance was voluntary and their anonymity in answering the questionnaires will be maintained by the researchers.

Data Analysis: IBM SPSS for Window version 22.0 was employed to analyse the data. Mean (M) and standard deviation (SD) were utilised to describe the sample characteristics. Since the data was not normally distributed, a non-parametric test was conducted to test for the correlation between students' satisfaction and self-confidence in learning. The significance level was set at p value less than .05.

Findings

Socio-demographic Characteristics: All the 118 samples of undergraduate nursing students responded to the survey giving a 100% response rate. Their age ranged from 20 to 25 years ($M = 21.73$, $SD = 1.19$). The majority of respondents were females (91%) and only nine (8%) of them were male respondents. In terms of year of study, 26 (22%) respondents were first year students, 35 (29%) of them were second year students, 34 (28%) respondents were from third year of study, and 23 (19%) respondents were in their fourth year of study.

Among the 118 respondents, 28 (23%) of them stated that they used CSM 1 time per month, while 79 (66%) of them used more than 1 time per month and 11 (9%) respondents stated that during that semester, they did not learn using CSM.

Students' Satisfaction: The mean scores for the satisfaction scale which ranged from 3.76 to 3.98 with 95% level of confidence. The overall satisfaction was high with a score of more than 3.5 ($M = 3.89$, $SD = 0.54$). The highest mean score was given to item 1 (Teaching method used in simulation are helpful and effective, $M = 3.98$, $SD = 0.69$) and item 2 (Simulation provides them with a variety of learning materials and activities which could promote their learning in clinical or practical skills curriculum, $M = 3.98$, $SD = 0.65$). On the other hand, the lowest mean score in this scale was given to item 5 (The way their instructor(s) taught them using the simulation was suitable to the way they learn, $M = 3.76$, $SD = 0.68$).

Self-Confidence in Learning: The overall mean score for self-confidence was high ($M = 4.01$, $SD = 0.68$). The scores ranged from 3.59 to 4.01, with 95% level of confidence. This finding indicates that all items in the confidence scale scored a mean of more than 3.5. The highest score was given to item 10 (It is their responsibility as a student to know what they need to learn from the simulation activity, $M = 4.01$, $SD = 0.67$), whereas the lowest score was given to item 6 (They are confident that they are mastering the content of the simulation activity that their instructor presented to them, $M = 3.59$, $SD = 0.68$).

Relationship between Students' Satisfaction and Self-Confidence in Learning Using CSM: The Spearman correlation was employed to evaluate the relationship between students' satisfaction and self-confidence in learning using CSM. The result shows that the two variables were weakly correlated, $r(116) = 0.485$, $p = .000$.

Discussion and Conclusion: In this study, the findings showed that undergraduate nursing students conveyed a high students' satisfaction and self-confidence in learning using the CSMs. Almost 80% of the undergraduate nursing students used CSM more often than once a month. Such frequency of use may be reasonable considering their tight learning schedule in the undergraduate nursing programme.

The overall score of more than 3.5 points for satisfaction and self-confidence testified in this study are

constant with others mentioned in the nursing literature among nursing students.^{9,3,10} Indeed, the current study established that the undergraduate nursing students scored even higher satisfaction than those students using high-fidelity simulations in.¹⁰

The undergraduate nursing students in this study are learning basic nursing skills. They reported high satisfaction and confidence in learning. The high satisfaction and confidence reported by the students in this study is important to the institution because this shows that CSM that are available in the nursing skills laboratory are suitable and are sufficient for the students to learn the fundamentals of nursing skills and skills for medical/surgical nursing, critical care nursing, neonate and paediatric nursing, as well as obstetrics and gynaecology nursing. To provide a real clinical situation, the laboratory has been designed and structured similar to the institution's teaching hospital. This has also contributed to the students feeling satisfied and confident in using CSM.

Thus, the use of CSM in promoting undergraduate nursing students' satisfaction and confidence in learning in this study has achieved its purpose. According to Omer³ the items on which the students reported highest satisfaction indicate that the participants agreed that the instructional method employed in the simulation are effective. On the same note, the participants also agreed that they have successfully built their self-confidence after experiencing the clinical simulation.³ According to McCabe et al.¹² confidence is when one is able to perform a task effectively in a particular circumstances. McCabe et al.¹² suggested that self-confidence is an important predictor of future career success of a nursing student. Larue et al.⁷ concluded that simulation reinforces self-confidence, and facilitates learning, which enables students to utilise their skills in a clinical setting.

This study also found evidence on the relationship between satisfaction and confidence. Alfes (2011) reported a similar finding but with a strong positive correlation ($r = 0.70$). This has led Alfes to propose that when students have higher level of self-confidence, their level of satisfaction with learning will also be higher. On the other hand, for those with lower levels of self-confidence, their level of satisfaction in learning will also be lower. Furthermore, available studies have not confirmed the association of confidence and satisfaction with either low or high-fidelity simulations.¹⁰ Nevertheless, this study has at least added additional information to

the association between satisfaction and confidence in using low- to medium-fidelity simulation models, which are really needed for nursing students to learn all the fundamental nursing procedures, in actuality. Nonetheless, more robust studies are still needed.¹¹

Thus, nursing students in this study have shown great gains in satisfaction and confidence in leaning when CSM is used to learn clinical skills in the laboratory and this is hoped to improve their clinical practice during clinical placement. A meta-analysis concluded that since the educational effects of simulation is not proportional to the fidelity level, nurse educators are encouraged to use various ranges of simulation models for their teaching of clinical skills.¹⁵

This is the first study that has documented the undergraduate nursing students' experience in using CSM in the local setting. The result of the study has shown that the undergraduate nursing students in this study have gained satisfaction and confidence in their learning. However, since this study only used one institution to study the variables, the results may not be generalised to other settings. Thus, it is recommended that future studies to consider larger setting and include the use of qualitative method to provide rich data on nursing student's experiences. Meanwhile, the result of this study is relevant in supporting the used of CSM in nursing education.

Acknowledgements: The authors would like to acknowledge the respondents and the Dean of the School of Health Sciences of USM.

Conflicts of Interest: No conflicts of interest.

Source of Funding: No financial support obtained.

Ethical Clearance: The study protocol was approved by the institution's Research Ethical Committee (Human) (USM/JEPeM/16110475).

References

1. Lambert N, Watkins L. Meet Mohammed: Using simulation and technology to support learning. *The Journal of Mental Health Training, Education and Practice*. 2013;8(20):66-75.
2. Breymier TL, Rutherford-Hemming T, Horsley TL, Smith LG, Connor K. Substitution of clinical experience with simulation in prelicensure nursing programs: A national survey in the United States. *Clinical Simulation in Nursing*. 2015;11(11):472-478.

3. Omer T. Nursing students' perception of satisfaction and self-confidence with clinical simulation experience. *Journal of Education and Practice*. 2016;7(5):131-138.
4. Kunst EL, Mitchell M, Johnston ANB. Manikin simulation in mental health nursing education: An integrative review. *Clinical Simulation in Nursing*. 2016;12(11):484-495.
5. Hall K. Simulation-based learning in Australian undergraduate mental health nursing curricula: A literature review. *Clinical Simulation in Nursing*. 2017;13(8):380-389.
6. Letcher CD, Roth SJ, Varenhorst LJ. Simulation-based learning: Improving knowledge and clinical judgement within the NICU. *Clinical Simulation in Nursing*. 2017;13(6):284-290.
7. Larue C, Pepin J, Allard E. Simulation in preparation or substitution for clinical placement: A systematic review of the literature. *Journal of Nursing Education and Practice*. 2015;5(9):132-140.
8. AmodHB, Brysiewicz P. Developing, implementing and evaluating a simulation learning package on post-partum haemorrhage for undergraduate midwifery students in KwaZulu-Natal. *University of Johannesburg*. 2016;194-201: <http://dx.doi.org/10.1016/j.hsag.2016.11.004>
9. Lubbers J, Rossman C. Satisfaction and self-confidence with nursing clinical simulation: Novice learners, medium-fidelity, and community setting. *Nurse Education Today*. 2017;48:140-144.
10. Tosterud R, Hedelin B, Hall-Lord ML. Nursing students' perception of high- and low-fidelity simulation used as learning method. *Nurse Education in Practice*. 2013;13:262-270.
11. Foronda C, Liu S, Bauman EB. Evaluation of simulation in undergraduate nurse education: An integrative review. *Clinical Simulation in Nursing*. 2013;9(10):e409-e416.
12. McCabe DE, Gilmartin MJ, Goldsamt LA. Student self-confidence with clinical nursing competencies in a high-dose simulation clinical teaching model. *Journal of Nursing Education and Practice*. 2016;6(8):52-58.
13. Wordsworth W. Realising the potential of simulation: Integrating simulation into nursing programmes at Whitireia New Zealand. *Whitireia Nursing and Health Journal*. 2013; 20:11-18.
14. Raosoft Inc. *Sample size calculator*. Available from: <http://www.raosoft.com/samplesize.html>. 2004. [Accessed 12th December 2016].
15. Alfes CM. Evaluating the use of simulation with beginning nursing students. *Journal of Nursing Education*. 2011;50(2):89-93.
16. Kim J, Park JH, Shin S. Effectiveness of simulation-based nursing education depending on fidelity: A meta-analysis. *BMC Medical Education*. 2016;16(152):DOI 10.1186/s12909-016-0672-7

A Descriptive Study to Assess the Perception and Attitude of Primary School Teachers towards Delinquent Children among Selected Schools of Vadodara District

Sachin Sharma¹, Nirmal Raj E.V.², Rajesh P. Joseph³

¹M.Sc. Nursing Student, ²HOD of Child Health Nursing, ³Associate Professor, Sumandeep Nursing College, Sumandeep Vidyapeeth Campus Vadodara

Abstract

Background of the Study: In recent years, reports of children involved in heinous crime are gaining much public attention. Though it is an important subject in the study of criminology and law. criminal behavior is taking serious forms among the children. This malady is growing in alarming proportions and is awakening call that our Children needs much attention and care.

Aims and Objectives: The aim of the study was to assess the perception and attitude of primary school teachers towards delinquent children among selected schools, to correlate the perception and attitude of primary school teachers towards delinquent children and to find out the association between perception and attitude among primary schools teachers towards delinquent children with their selected demographic variables.

Material and Methodology: Quantitative research approach was used in the study. The investigator selected descriptive research design. The primary objective of assess the perception and attitude of primary school teachers towards delinquent children. Purposive sampling technique was used to select 60 primary school teachers. To collect the data LIKERT scale was used.

Results: The result shows that the demographic characteristics findings includes the majority of 53.33% belong to the age group of 20-30 years, 61.66% having teaching experience between the 0-5years, 63% had completed their post graduation, 48.33% of having one child in family, 100% subjects were not seen the previous exposure of delinquent child. Then Karl Pearson's formula was used to find out the correlation between perception and attitude of primary school teacher towards delinquent children

Conclusion: The study was conducted on 60 primary school teachers from selected schools of vadodara district. The finding of the study concluded that majority of primary school teachers were having good perceptions towards delinquent children and also had negative attitude towards delinquent children

Keywords: Perception, attitude, delinquent children, aggressive behaviors.

Introduction

The deviant behavior of the juveniles has created social disorder and destruction of moral values which is creating an alarming position in organized society. The word "delinquency" has its origin from the Latin word "delinquere" which meaning de i.e. "away and inquire" i.e. to leave. thus, mean by to leave or to abandon". Initially, the word was having primarily meaning and applied to those parents who have abandoned and neglected their children. Now days, it is applicable on all

those children who are involved in illegal and harmful activities. Juvenile is considered as a child who has not completed a specific age as mentioned in the law of any country and doesn't bear resemblance as an adult Person and who can be made legally answerable for his criminal activities. The juvenile is a child who has alleged violated certain laws which declares his act or omission as an offence. A juvenile and a minor are used in different perspective in legal terms. The term juvenile is generally used in reference to a young criminal offender and minor is related to legal capacity of a person.¹

Need for the study: The argument whether it is heredity or is it the environment that is responsible for the causation of delinquency is valid. To understand criminal behavior in children Sociologists, Psychologists, Physicians, Philosophers, Lawmen and common men have come out many theories and explanations. Each theorist explains delinquency from the view point of their discipline. They try to explain that, problems in conduct and criminal behaviour are related to each other, and one cannot understand it without knowing the other. Various sources have come out with many views, opinions, criticisms, and proposition about the causes of delinquency and crime, but these views still remains unconnected with each other. However, most explanations recognize that delinquency and crime cannot be explained in terms of a single causative factor. These are problems stemming out due to interaction between the multiple factors. Some of the most valid explanation on causation is as follows. Examination of the records and history of children in institutional care because of delinquency clearly shows the involvement of multiple causative factors. In most of the cases faulty child development, poor economic conditions and unhealthy family atmosphere were found to be underlying factors.⁵

Material and Method

Research design: In this study, the research design was non-experimental research design

Setting: Select primary school teachers in vadodara, district.

Sample: 60 primary school teachers

Inclusion criteria:

- Primary school teacher who are willing to participate.
- Primary school teacher present during the time of data collection.

Tool for data collection: This consists of three parts:

Section 1: Demographic variables such as age, gender, qualification, experience of teaching in years, no. of children in the family, previous exposure to delinquent child.

Section 2: Likert type scale was used to assess the perception of the primary school teacher towards delinquent children.

Section: 3: Likert type scale was used to assess the attitude of the primary school teacher towards delinquent children.

Reliability: The reliability of tool established by using cronbachs alpha formula. (r=0.89) reliability test.

Data collection procedure: The data collection was scheduled on 15 November 2018. Before the data collection the investigator obtained the formal permission from principal of various selected primary school teachers selected for vadodara district.

The investigator selected 60 sample for the inclusion criteria for the data collection the investigator explain the purpose of the study, then the given some information about perception and attitude and observed the teachers perception and attitude towards delinquent children through using LIKERT scale.

Findings

Section-A: Analysis of demographic characteristics of the teacher’s baseline data containing sample characteristics would be analyzed using frequency and percentage.

Section-B: To assess the perception and attitude of primary school teachers towards delinquent children.

Section-C: It consists of finding on co-relate the perception and attitude of primary school teachers towards delinquent children.

Section-D: It consists of association between perception and attitude among primary schoolteachers towards delinquent children with their selected demographic variables.

SECTION-A

It consists of demographic variables, which are documented on the master sheet for analysis, frequency and percentage distribution.

Analysis of Demographic Characteristics of the Teachers

Table: 1 Distribution of the teachers According to Age
N=60

	Characteristics	Frequency	Percentage (%)
Age	20-30	32	53.33
	31-40	21	35
	41-50	6	10
	50>	1	1.67

Table no.1 Shows that the distribution of primary school teachers according to their age. It was observed that among 60 participants 32 (53.33%) belonged to the age group of 20-30 years, 21 (35%) belonged to the age group of 31-40 years, 6 (10%) belonged to the age group of 41-50 years, 1 (1.67%) belonged to the age group of >50 years.

Table: 2 Distribution of the Teachers According to Gender

N=60

Gender	Characteristics	Frequency	Percentage (%)
Gender	Male	22	36.66
	Female	38	63.34

Table No. 2 Shows that the distribution of teachers according to their gender. It was observed that among 60 participants 22 (36.66%) belongs to male, and 38 (63.34%) belongs to female.

Table: 3 Distribution of the Teachers According to Qualifications

N=60

Qualification	Characteristics	Frequency	Percentage (%)
Qualification	UG	0	0
	PG	38	63.34
	Diploma	22	36.66
	Other	0	0

Table No. 3 Shows that distribution of teachers according to their qualifications. It was observed that among 60 participants none of belongs to UG, 38 (63.34%) belongs to PG, 22(36.66%) belongs to diploma, and none belongs to other.

Table No. 4 Distribution of the Teachers According To Experience

N=60

Experience	Characteristics	Frequency	Percentage (%)
Experience	0-5 YR	13	21.66
	5-10 YR	37	61.66
	10-15 YR	7	11.68
	>15	3	5

Table No. 4 Shows that distribution of teachers according to their experience. It was observed that among 60 participants 13 (21.66%) belongs to 0-5 years experience, 37 (61.66%) belongs to 5-10 years

experience, 7 (11.68%) belongs to 10-15 years experience, and 3 (5%) belongs to >15 years experience.

Table: 5 distribution of the teachers according to previous exposure to delinquent child

N=60

Previous Exposure to Delinquent Child	Characteristics	Frequency	Percentage (%)
Previous Exposure to Delinquent Child	Yes	0	0
	No	60	100

Table no 5.Shows that the distribution of teachers according to their previous exposure to delinquent child. It was observed that among 60 participants 0 (0%) belongs to yes, and 60 (100%) belongs to no.

Table 6 Distributions of the Teachers According To No. of children in the family

N=60

No. of Children in the Family	Characteristics	Frequency	Percentage (%)
No. of Children in the Family	1	13	21.66
	2	29	48.34
	3	15	25
	4>	3	5

Table No. 6 shows that distribution of teachers according to their children in the family It was observed that among 60 participants 13 (21.66%) belongs to 1, 29 (48.34%) belongs to 2, 15 (25%) belongs to 3, and 3 (5%) belongs to 4>.

Section-B

The Perception And Attitude of Primary School Teachers Towards Delinquent Children. teachers' Perceptions Towards Delinquent Behavior

Perception of primary school teachers towards delinquent behavior N=60: Perception of primary school teachers it was observed that among 60 participants is had 27.9 mean and 46.5 mean% and it was observed that 52 primary school teachers had good perception and 8 primary school teachers had bad perceptions towards delinquent children.

Teachers' Attitude towards Delinquent Behavior

Attitude of primary school teachers towards delinquent behavior N=60: Attitude of primary school

teachers it was observed that among 60 participants is had 52.2 mean and 87 mean% and it was observed that 22 primary school teachers had positive attitude and 38 primary school teachers had negative attitude towards delinquent children.

Section-C

To Correlate the Perception and Attitude of Primary School Teachers towards Delinquent Children

Perception: Mean = $\Sigma/N=1674/60$

$$\bar{X} = 27.9$$

Attitude:

Mean = $\Sigma/N=3133/60$

$$\bar{Y} = 52.2$$

Karl Pearson's correlation coefficient formula:

$$r = \frac{\Sigma(x-\bar{x})(y-\bar{y})}{\sqrt{\Sigma(x-\bar{x})^2 \Sigma(y-\bar{y})^2}}$$

$$r = \frac{981.84}{\sqrt{(595.3) (3635.68)}}$$

$$r = \frac{981.84}{1471.14}$$

$$r = 0.7$$

Karl Pearson's formula was used to find out the correlation between perception and attitude of primary school teacher towards delinquent children. The observed r value was $r = 0.7$ that means there is a positive correlation between attitude and perception. So H_1 is accepted.

Section-D

The Association between Perception and Attitude Among Primary Schoolteachers towards Delinquent Children with their Selected Demographic Variables

Attitude & Perception Score of 60 Primary School Teachers

The association between perception and attitude with selected demographic variables was done with **Chi square** formula. Only two demographic variables (Gender & Qualification of teacher) were significant and other were **not significant**. So, it shows no association

between demographic variable with perception and attitude.

Summary

The main study was conducted on 60 primary school teachers selected vadodara district. The obtain data was analyzed and interpreted based on objectives. The level of significant was >0.05 level obtain the gender and qualification of teachers are significant at 0.05 with $df = 1$ and 3 and over all chi-square test are not significant association between perception and attitude.

Conclusion

This study presents the conclusion drawn, implication, limitation and recommendation of the presents study, the focus of this study was to assess the perception and attitude primary school teachers towards delinquent children.

The study undertaken to assess the perception and attitude of primary school teachers with Purposive sampling technique was used to draw the sample. The size of sample 60 and selection of the sample was done according to inclusion criteria. The results were analyzed by using both descriptive and inferential statistics.

Conflicts of Interest:

The authors declare that there is no conflict of interest statement

Source of Funding

Fund for this research is researcher own.

Ethical Clearance:

Ethical clearance for this dissertation was obtained from the ethical committee SVIEC of Sumandeep Vidyapeeth University.

References

1. Mohan Shakti, Mahendra Tiwari, Juvenile Justice System in India A Statutory and Procedural Study ; [cited 2017 April]; Available from: <http://hdl.handle.net/10603/145628>
2. Kakar, Suman. "Juvenile Justice and Juvenile Delinquency in India." The Handbook of Juvenile Delinquency and Juvenile Justice. John Wiley & Sons, Inc., 2015. 49-64.
3. Vivyn Mathew. Juvenile delinquency: nature,

causes and interventions. Faculty india bible college and seminary kumbanad: bible college; Apr 10, 2017.

4. Hinnant, J. Benjamin et al. "Permissive Parenting, Deviant Peer Affiliations, and Delinquent Behavior in Adolescence: The Moderating Role of Sympathetic Nervous System Reactivity." *Journal of abnormal child psychology* 44.6 (2016): 1071–1081. PMC. Web. 6 Mar. 2018.
5. Shek, Daniel T. L., and Li Lin. "What Predicts Adolescent Delinquent Behavior in Hong Kong? A Longitudinal Study of Personal and Family Factors." *Social Indicators Research* 129.3 (2016): 1291–1318. PMC. Web. 6 Mar. 2018.
6. Brook, Judith S. et al. "Long Term Consequences of Membership in Trajectory Groups of Delinquent Behavior in an Urban Sample: Violence, Drug Use, Interpersonal and Neighborhood Attributes." *Aggressive behavior* 39.6 (2013): 440–452. PMC. Web. 6 Mar. 2018.
7. Marotta, Phillip L., and Dexter R. Voisin. "Testing Three Pathways to Substance Use and Delinquency among Low-Income African American Adolescents." *Children and youth services review* 75 (2017): 7–14. PMC. Web. 23 Apr. 2018.
8. Molero Jurado, María Del Mar et al. "Interpersonal Values and Academic Performance Related to delinquent Behaviors." *Frontiers in Psychology* 7 (2016): 1480. PMC. Web. 8 July 2018.
9. Hoeve, Machteld et al. "A Meta-Analysis of Attachment to Parents and Delinquency." *Journal of Abnormal Child Psychology* 40.5 (2012): 771–785. PMC. Web. 10 July 2018.

Assessment of the Effectiveness of Planned Teaching on Knowledge Regarding Cardiac Catheterization among Staff Nurses Working in Selected Hospitals

Sonam Kalra¹, Ancy Ramesh²

¹Lecturer, Shri Swami Bhumanad College of Nursing, Uttarakhand, ²Professor cum Principal, Kasturba Nursing College Sewagram, Maharashtra India

Abstract

This study is conducted to assess the effectiveness of planned teaching on knowledge regarding cardiac catheterization among staff nurses of selected hospitals of vidharbha region in, Maharashtra.

The study objective were. (1) To assess the existing knowledge regarding cardiac catheterization among staff nurses. (2) To assess the effectiveness of planned teaching on knowledge regarding cardiac catheterization among staff nurses.

With an evaluatory approach, the researcher conducted plot study with pre-experimental one group pretest post-test design in a selected hospital of Maharashtra among 5 subjects who gave consent for the study and were selected through Non probability convenient sampling technique. The base measure was structured knowledge questionnaire validated by experts was used to assess the knowledge of subjects regarding cardiac catheterization.

The researcher found the study feasible and the tool reliable.

Main study was conducted in a similar setting other than one used in pilot study. After acquiring the necessary consent the main study was conducted among 40 subjects of selected hospitals of Vidharbha region, Maharashtra. The findings were.

Sample characteristic revealed that majority of subjects were having the experience of 1-5 year (92.5%). With regards to professional qualification 55% the subjects posses Basic B.Sc. nursing, 37.5% posses General Nursing and Midwifery and only 7.5% were post basic B.Sc. nursing.

Keywords: Coronary artery disease (CAD), cardiac catheterization, knowledge of staff nurses (care after cardiac catheterization).

Introduction

1. Coronary artery disease is an emerging health problem in India. it has become a public health problem in the urban population of India. In India

in the past 5 decades, rates of CAD among urban populations have risen from 4% to 11% . The WHO estimation that 60%of the worlds cardiac patient will be Indian by 2010. Recent studies reveal that CAD is prevalent in 139/1000 and 30/1000 respectively in north India. Males are found to be more prone to CAD than females.

2. In the united states, more than 1.5 million people have a heart attack each year. About 400,000 to 500,000 of them die, half before they reach hospital.

Corresponding Author:

Ancy Ramesh

Professor cum Principal, Kasturba Nursing College,
Kasturba Health Society, Sewagram Maharashtra, India
e-mail: ancyknc@gmail.com

3. Across India, there is increase in the number of diagnostic and interventional coronary procedure, interventional coronary procedures, interventional centres offering percutaneous coronary interventional, and interventional cardiologist. in year 2011 we used a more comprehensive performa that only captured the number and types of interventions, but also tried to evaluate the prevailing practice pattern in PCI. such questions were related to primary PCI, admission and discharge practices following PCI, preferable hardware, ballons and stents, and outcomes data.
4. A representative of NIC was sent for data collection and the number of centres submitting the data was maximized. out of the 625 active catheterization laboratory centres, data submitted by 332 centres. A majority of high volume centres, were included in the analysis and thus, the captured data represent nearly 75-80% of total data. the results were compared with the data obtained by NIC in the previous year 2008-2011. a total of 152332 PCI procedures were performed in 332 centers. There is a 28.8% growth as compared to the data available for the previous year. The 332 centers had 471 cardiac catheterization laboratories with an average of 1.42 labs per centres. Twenty centers reported to have catheterization laboratories and 80 centres had dedicated catheterization laboratories for specific intervention. Facilities for intravascular ultrasound, rotablation and fractional flow reserve measurement were reported to be available in 75 and 117 centres respectively.

Background of the Study

Cardiac catheterization can accomplish two main purposes based on which the classification being made. The prime one is diagnostic cardiac catheterization which includes, coronary cardiac biopsy, right heart catheterization, ventriculography and intracoronary ultrasound. The latter the interventional cardiac catheterization which includes angioplasty, cardiac stenting, mitral valvuplasty, patent foramen ovale repair or atrioseptal defect repair. very often the teo goals are accomplished at the same time. As the cardiologists all over the world are engaged in discovering new diagnostic and therapeutic method for cardiovascular diseases, the cardiac catheterization position as the key procedure with diagnostic as well as therapeutic properties.

Statement of the Problem: Assessment of the effectiveness of planned teaching on knowledge regarding cardiac catheterization among staff nurses working in selected hospitals.

Objectives of the study:

To assess the existing knowledge regarding cardiac catheterization among staff nursers. To assess the effectiveness of planned teaching on knowledge regarding cardiac catheterization among staff nurses.

Research Design: One group pre-test post-test design has been used to find the effectiveness of planned teaching on care of patient with cardiac catheterization among staff nurses.

Research methodology: In this study descriptive evaluation approach with one group pre test and post test design adopted for the study. totally 40 staff nurses were selected through convenient sampling method in selected hospitals vidarbha region, Maharashtra . before conducting study the prior permission taken higher authorities and subjects.

Development of the tool: Based on the objective of the study, a structured knowledge questionnaire was prepared to evaluate the knowledge of staff nurses before and after treatment.

Closed end multiple choice based on the objective structured knowledge questionnaire was prepared to evaluate the effectiveness of knowledge regarding cardiac catheterization among staff nurses.

Before the main study, pilot study was conducted among 5 staff nurses 6/12/2015 to 20/12/2015 the result showed that the value was 0.05 thus the tool was found reliable.

The main study was conducted in 2 selected hospitals of vidarbha region from 4/ 01/ 2016 to 24/01/2016. the investigator personally explained the purpose as the study written consent was obtained from the staff nurses.

The subjects took 40-45 minutes to complete the structured questionnaire . after the pre test, planned teaching was conducted on the same day to enhance their knowledge. again on day 7 planned teaching was conducted to reinforce their knowledge. on day 15 post test was conducted using the same questionnaire.

Results

Table 1: Distribution of subjects according to their demographic variables.

N=40

Demographic Variables	Frequency	Percentage (%)
Years of experience		
1-5 yrs	37	92.5
5-10 yrs	1	2.5
10-15 yrs	2	5
>15 yrs	0	0
Professional Qualification		
GNM	15	37.5
PB B.Sc.	3	7.5
Basic B.Sc.	22	55
Other	0	0.0

Majority of staff nurses were having the experience of 1-5 year (92.5%). With regards to professional qualification 55% the subjects possess Basic B.Sc. nursing, 37.5% possess General Nursing and Midwifery and only 7.5% were post basic B.sc. nursing.

Table No. 3: Area wise pre test and post test knowledge score of study subjects regarding cardiac catheterization

N=40

Area	Maximum Score	Pre test		Post test		Mean Gain %
		Mean	Percentage	Mean	Percentage	
Knowledge on Anatomy and Physiology of heart	3	1.30	43.33	2.08	69.17	25.83
Indication and purpose of cardiac catheterization	4	2.45	61.25	3.18	79.38	18.13
procedure of cardiac catheterization	5	2.35	47.00	3.70	74.00	27.00
Nursing management of patient with cardiac catheterization	18	8.25	45.83	11.78	65.42	19.58
Complication of Cardiac catheterization	1	0.68	67.50	0.85	85.00	17.50
P value		P<0.00001, significant				

Data presented in table 3 evidenced that staff nurses are having highest mean percentage gain in knowledge, i.e. 27% in area of procedure of cardiac catheterization, lowest gain in Complication of Cardiac catheterization 17.50%, 25.83% mean gain in Knowledge on Anatomy and Physiology, 19.58% mean gain in area Nursing management of patient with cardiac catheterization, 18.13% mean gain in area of Indication and purpose of cardiac catheterization. In addition the calculated

Table 2: Overall comparison of effectiveness of planned teaching regarding cardiac catheterization among staff nurses.

N=40

Overall	Mean	SD	Mean Percentage	t-value	p-value
Pre Test	15.02	3.36	48.46	18.50	0.0001*HS p<0.05
Post Test	21.72	2.38	70.08		

*HS- Highly Significant

Table 2 depicts the overall mean knowledge scores of pre test and post test which reveals that post test mean knowledge score was higher 21.72 with SD of ±2.38 when compared with pre test mean knowledge score value which was 15.02 with SD of ±3.36.

The statistical Paired t test implies that the difference in the pre test and post test knowledge score found to be 18.50 statistically significant at 0.05 level. Hence it is statistically interpreted that planned teaching on knowledge regarding cardiac catheterization was effective. Thus H₀ is rejected and H₁ is accepted.

‘p’ values for all area of knowledge regarding cardiac catheterization was p<0.00001 which was much less than the acceptable level of significance i.e. ‘p’=0.05

Source of study personal

Official clearance

Consist of interest nil

Conclusion

This study leads to the following conclusion planned teaching on care of patient with cardiac catheterization was found to be effective in increasing the knowledge of staff nurses.

Recommendation

A similar study can be done to assess the practice of care of patient with cardiac catheterization among staff nurse.

An study to find out the factor that hinder the nurses in providing care of patient with cardiac catheterization.

Acknowledgement: Nil

Ethical Clearance: Taken from Mahatma Gandhi Institute Sewagram Wardha

Source of Funding: Nil

Conflict of Interest: Nil

References

1. Joshi Pradeep, Idris MZ. Etal... A study of coronary heart disease and the associated risk factor in lucknow district, India. *International journal of Biological& Medical Research* 2010; 4 (1) : 2966-2972.
2. Smeltzer SC, Bare BG, Hinkle JL, Cheever KH. Brunner and Suddhaths Textbook of Medical Surgical Nursing, Lippincott. 11th ed. Vol-2, p 879-912.
3. Dani S, Sinha N, Bhargava B. The report of Coronary Cardiac Interventions Registry of India. The Cardiological Society of India for the year. *Indian Heart Journal*. 2007;59:528-30.
4. Cardiology Channel. Cardiac Catheterization.2009 [cited 2009]. Available from <http://www.cardiologychannel.com/cardiaccath/>

Effectiveness of Video Teaching Programme on Knowledge about Anaemia among Countryside Children with Anaemia

Srinivasan Gandhi

Professor cum Principal, Tripurasundari College of Nursing, Tulakuna, Tripura West

Abstract

Introduction: Anaemia is a very common problem in paediatric age group in many developing countries with an estimated prevalence of 42.50% of the World's children. Schoolchildren constitute 22.20% of total population in India and they are more vulnerable to this disease due to their rapid growth need of high requirement of iron.

Method: Quantitative experimental approach with pre-test post-test design was adopted for the study. The main study was conducted among 150 Countryside children, 80 from Pallimaghal high school and 70 from Government H.S.School Ranir Bazar. The samples were selected by purposive sampling technique. The tools used were format for History collection and Physical examination, demographic Performa of the sample, knowledge questionnaire regarding anemia and Video teaching Programme on Anaemia.

Results: This study reveals that majority of Countryside children were anaemic.65.2 percentage of Countryside children had moderately adequate knowledge regarding anaemia before the Video teaching programme and 78.2% had adequate knowledge regarding anaemia after the Video teaching programme. The analysis of the data showed that the pre-test knowledge scores of the Countryside children are significantly higher than that of post test scores ($t=12.576$, $p<0.00$).This emphasizes that the structured Video Teaching programme was effective in improving the knowledge regarding anaemia. Further, there was no significant association between the pretest knowledge scores and selected demographic variables.

Conclusion: The study concluded that the structured Video teaching programme was effective in improving the knowledge of Countryside children regarding anaemia.

Keywords: *Anaemia, knowledge, effectiveness, Countryside children, structured video teaching programme.*

Introduction

Adolescence is a period of transition between childhood and adulthood and it is a significant period of human growth and maturation¹. The health of adolescents attracted global attention in the past decade. Adolescence being rapid growth period is at risk of developing nutritional deficiencies including anemia². In India adolescent, constitute approximately 21% of the population. Anaemia gains increased importance among tribal who are already disadvantaged socioeconomically and face a slow pace of growth. Generally speaking by the term "tribe" means, a group of people who that live at a particular place from time immemorial. Tribals were indigenous people. Original or native inhabitants of a country known as indigenous people. Tribal groups constitute about 8.2 % of the total population in India (Indian Government Census, 2001). According to government statistics, tribes can be

found in approximately 461 communities with almost 92 % of them residing in rural areas, mostly in remote underserved forest regions with little or no basic civic amenities like transport, roads, markets, health care, safe drinking water or sanitation. Tribal communities therefore lag behind other communities with respect to attainment of income, education health and other requisites for good community nutrition. of the 86 million tribals who are 8.2 percent of the population, 80 percent live in the Middle India belt of Andhra Pradesh, Orissa, Jharkhand, Chhattisgarh, Madhya Pradesh, Northern Maharashtra and Southern Gujarat. Around 12 percent or 10.2 millions live in the Northeast. The rest are spread over the remaining States. Scheduled tribes are distributed throughout the country except Pondicherry, Haryana, Punjab, Chandigarh, and Delhi^{7, 8}.

Tribals were found in almost all the states of country. Currently there are between 258 and 540 scheduled tribe

communities exists in India. India has the second largest concentration of tribal population in the world. Tribal population of 67.8 million distributed in different states and union territories. Tribals are characterized by a distinctive culture, primitive traits, and socio-economic backwardness³. Anemia is a very common problem in pediatric age group in many developing countries with an estimated prevalence of 43% of the World's children. School children constitute 20.25% of total population in India and they are more vulnerable to this disease due to their rapid growth need of high iron^{9,11}. Anemia is a condition in which the number of red blood cells or the amount of hemoglobin is low. Red blood cells contain hemoglobin protein that it enables them to carry oxygen from the lungs and deliver it to all parts of the body.⁴ Iron deficiency is the most common nutritional disorder in the developing world and the most common cause of nutritional anemia in young children and women of reproductive age^{8,12}.

Objectives of the Study

1. Identify Countryside children with anaemia based on their measured haemoglobin level
2. Assess the knowledge level of Countryside children regarding anaemia.
3. Determine the effectiveness of structured Video teaching program on knowledge of Countryside children regarding anaemia.
4. Find out the association between pre-test knowledge score and selected demographic variables like age, sex, education, father's job, mother's job and monthly income per month.

Material and Method

Research Approach: The present study adopted a quantitative experimental approach.

Research Design

The research design selected for this study was Pre experimental one group pre-test, post-test design.

Variables

Independent variable was structure video teaching programme programme.

Dependent variable was the knowledge of tribal adolescent children regarding iron deficiency anaemia.

The demographic variables considered in this study were age, sex, educational status, family structure, father's job, mother's job, and monthly income per month.

Setting of the Study: Selected Schools of Kayurpur and Ranir bazar in Tripura West .

Population: All countryside boys and girls studying in selected schools.

Sample

All the countryside boys and girls studying in selected schools who met the inclusion criteria.

Sample Size

150 tribal adolescent children.

Sampling Technique

Purposive sampling technique

Inclusion Criteria:

- Countryside children studying in selected schools in Tripura West
- Countryside children in the age group of 12-16years
- Countryside children present in the school during the days of data collection

Exclusion Criteria: Countryside children who are not willing to participate in the study

Description of the Tool:

Tool- 1: Demographic Proforma of the sample.

Tool-2: Structured knowledge questionnaire on anaemia.

Tool-3: Format for History and Physical Examination

Data collection process: Two schools were randomly selected. After obtaining the official permission from the concerned authorities and informed consent from the samples and their parents. The haemoglobin estimation was done by using Sali's haemoglobin method. A pre-test knowledge questionnaire was then distributed among the adolescent children and was collected back after 30 minutes. A 45minutes long structured teaching programme regarding anaemia prepared by the researcher with the help of the guide, was given to all adolescent children. Teaching was given using

lecture cum demonstration method. During the teaching programme, the researcher demonstrated the method of preparing raggi porridge. Posttest was conducted on the seventh day after pre-test by administering using the same questionnaire.

Plan for Data Analysis: Descriptive and inferential statistics used for data analysis, using SPSS version 19.

Descriptive statistic method: The sample characteristics would be analysed using method like frequency and percentage and will be depicted in frequency tables and graphs. The mean score of the pre-tests and posttests conducted was calculated.

Inferential statistic method: The pre test scores would be compared with the post test scores using paired t-test.

The association between the pre test scores and the selected demographic

Variables would be analysed using Chi-Square test.

Findings

Section 1: Description of demographic characteristics

Table 1: Frequency and percentage distribution of demographic variables of children

N=150

Variables	Numbers	Percentage
Age		
12 yrs	32	21.33
13 yrs	38	25.33
14 yrs	32	21.33
15 yrs	27	18.00
16 yrs	21	14.00
Total	150	100

Gender		
Males	90	60
Females	60	40
Residence		
Urban	00	00
Rural	150	100
Type of school		
Govt. school	90	60
Private school	60	40

Data presented in the table 1 shows that majority of the adolescent children belonged to the age group of 13-14 years. Most of the samples were females, 46.6% of samples were in of 8th standard and majority of the sample were males 90(60%). All children's were residing at rural areas. Majority of them studying in govt school 90(60%).

Section 2

Table 2: Analysis of Anaemic history and Physical examination

Variable	Number	Percentage
Anaemic history		
Severe	10	5.66
Moderate	60	40
Mild	80	54.33
Total	150	100
Physical examination		
Severe	10	5.66
Moderate	60	40
Mild	80	54.33
Total	150	100

Table 11 shows the severity of rural tribal student's anaemia status according to their Anemic history and physical examination. i.e 10(5.66%) of children severely affected anaemia, 60(40%) of children were affected moderately and 80(54.33%) were affected mild anaemia.

Table 3: Comparison of pre-test and post-test knowledge scores of tribal children

Anaemia	Pre-test score Mean±S.D	Post test score Mean ±S.D	T value	P value
Causes (4)	1.74 ±0.747	3.27± 0.737	14.863	<0.001
Risk factor(10)	2.90 ±1.202	8.54 ±1.086	35.996	<0.001
Diagnose and Treatment(4)	2.18 ±0.936	3.40 ± 0.711	11.951	<0.001
Prevention(7)	3.59± 1.322	5.95 ±0.892	15.995	<0.001
Health education(5)	1.85± 0.968	3.74 ±1.001	14.262	<0.001
Total sub score	12.19 ±2.773	24.90± 2.013	42.234	

As shown in table: the post-test knowledge score 24.90 ± 2.013 was higher than pre-test knowledge score 12.19 ± 2.773 with a mean difference of 12. 710 thus it can be inferred the difference obtained between pre-test and post-test was true different not by chance. There was marked gain in knowledge in post-test than pre test. The research was accepted indicating that the video teaching programme was an effective method for improving knowledge on anemia among countryside children.

Discussion

The present study revealed that 61.2% of adolescent children were anaemic. 22.4% of the adolescent girls were moderate anaemia. 20% adolescent boys and 18.8% girls were mild anaemia. 38.8 percentage of children are not anaemic. Similar studies have done among adolescent girls in Tribal area of Visakhapatnam district. The result showed that, About 88.9% of adolescent girls were anemic and among them 17.8% were severely anaemic. Highest prevalence was seen in the age group of 12-13 years and 14-15 years of age group that is 85% and 86.5% respectively⁵.

In the present study, 61.1% of adolescent children in pre-test had moderately adequate knowledge, where as in post-test majority 76.6% of the adolescent children exhibited adequate knowledge after the structured teaching programme. Similar studies done in Karnataka, Hassan and Bangalore reviewed by the researcher had shown the same results⁴⁶. Another study was conducted in Belgaum among adolescent girls, the result revealed that 100% of adolescent girls in pre-test had average knowledge, where as in post-test majority 73.33% of the adolescent girls had good knowledge⁶.

The present study revealed that there is no association between the knowledge level of adolescent children and the selected demographic variables such as age, sex, education status, father's job mother's job and monthly income. A similar study conducted to determine the prevalence of anemia in adolescent Nepalese girls in a semi urban setting, concluded that the prevalence of anemia was not related to girls age, body mass index, menarcheal status, and socio-demographic factors including parental education or occupation⁷.

Conclusion

The study concluded that 61.2% of sample were anaemic. More than 61.1% of the adolescent children had a moderately adequate knowledge regarding

anaemia before the teaching programme and majority (76.6%) of the adolescent children's knowledge become adequate after the structured video teaching programme. In addition, there was no association between the knowledge level and selected demographic variables such as age, sex, education, type of family, father's job, mother's job and monthly income.

Acknowledgement: Nil

Conflict of Interest: No conflict of interest

Source of Funding: Self

Ethical Clearance: Ethical clearance for conducting the study was obtained from the research committee of Tripurasundari College of Nursing, Tulakuna, Tripura west. The permission for the study was obtained from schools Head masters of tribal school. Informed consent was taken from the participants.

References

1. Djokic D, Drakulovic MB, Radojicic Z, Radovic CL, Rakic L, Kocic S et al. Risk factors associated with anaemia among Serbian school-age children 7-14 years old: Results of the first national health survey. *Hippokratia*. 2010; 14(4):252-60.
2. Hioui ME, Farsi M, Aboussaleh Y, Ahami AOT, Achicha A. Prevalence of malnutrition and anemia among preschool children in Kenitra, Morocco. *Nutr Ther Metab*. 2010; 28:73-6.
3. Iron deficiency anemia, Assessment prevention and control. A guide for programme managers. World Health Organisation. 2001.
4. Kotecha PV, Nirupam S, Karkar PD. Adolescent girls' anemia control programme, Gujarat, India. *Indian J Med Res*. 2009; 130:584-9.
5. UNICEF/United Nations University/World Health Organization. Iron deficiency anemia. Assessment, Prevention, and Control: A guide for programme managers. Document WHO/NHD/01.3. Geneva: World Health Organization. 2001.
6. Mohapatra S, Maity S, Behera B, Mohanty S. Prevalence of anemia among school going children (<12 years of age) in selected slum schools of Bhubaneswar, Odisha. *IOSR Journal of Nursing and Health Science*. 2014; 3(6):42-6.
7. Hockenberry JM, Wilson D. Wong's essentials of pediatric nursing. 8th ed. New Delhi: Elsevier publication; 2012.

8. Leni C. Adolescent health and human rights concerns. *Health action*. 2007 Oct;20 (10);3435.
9. Makal.N, Manisha. Health status of tribals in India. *Health action*. 2007 Mar; 1(1); 23-24
9. Marlow RD, Redding AB. *Text book of pediatric nursing*. 6th ed. Philadelphia: WB Saunders company; 2006
10. Amarnath M, Lakshmanrao N. Anaemia among Adolescent Girls in Tribal Area of Visakhapatnam District in Andhra Pradesh.[internet]. 2013 [cited 2014 March 1]; Available from: URL: <http://indianforester.co.in/index.php/ijphrd/article/view/42838>
11. Moreshwar SA, Navika VA, Chrostina BC. Effectiveness of planned teaching programme on prevention of anaemia among school going adolescent girls. *International Journal of nursing education*. vol.6.no.1, Jan-June 2014
12. Shah KB, Gupta P. Anaemia in Adolescent Girls A Preliminary Report from Semi urban Nepal. 2002; Available from: URL: <http://indianpediatrics.net/dec2002/dec-1126-1130.ht>
13. Gender-specific difference among socio-demographic determinants of malnutrition and anemia among hospitalized children, Mahdi Vajdi, Mahdieh Abbasalizad Farhangi, *Mediterranean Journal of Nutrition and Metabolism*. 2019; : 1
14. Prevalence of Anemia and Hemoglobin Disorders among School Children in Myanmar, 17 Saw Thu Wah, Yoon Shwe Yi, Aye Aye Khin, Chotiros Plabplueng, Pornlada Nuchnoi, *Hemoglobin*. 2017; : 1
15. Mitravinda Satyabodh Savanur, Anagha Sathye, Anil Udawant, Shobha Anand Udipi, Padmini Ghugre, Jere Haas, Erick Boy, Archana Bhatnagar, *Ecology of Food and Nutrition*. 2017; 56(6): 552

A Study to Evaluate Effectiveness of Triage in the Command Post to Reducing Waiting Time to Triage in the Emergency Department in Selected Hospitals

Srinivasan Gandhi¹, Jothimani K.²

¹Professor cum Principal, ²Senior Sister, Command Hospital, Tripurasundari College of Nursing, Tulakuna, Tripura West

Abstract

Background: Ample evidence supporting the effectiveness of emergency triage to improve patient flow (efficiency), crowding, and outcomes has been generated in developed countries. Low-resource settings, however, face distinctive challenges that may significantly influence the choice of an appropriate triage scale and the success of its implementation¹. Triage is putting the patient in the right place at the right time to receive the right level of care, the allocation of appropriate resources to meet the patient's medical needs. It also allows for the allocation of the patient to the most appropriate assessment and treatment area. The triage system varies from one health institution to the other based on available medical services, community need and load of emergency departments².

Method: A pre- experimental with one group pre-test and post-test design and quantitative approach was selected to carry out the study. The study population comprised of all staff nurses working selected hospitals at Tripura. The sample size for the study was 50 staff nurses. Non-probability, purposive sampling technique was used for selecting sample of the study. The tools used for the study were (1) structure questionnaire to assess the knowledge and practice regarding training of triage. section 1 was socio demographic variables; section 11 was structured knowledge questionnaire regarding knowledge questionnaire regarding training of triage. Section 111 was structured knowledge questionnaire regarding knowledge based practice questionnaire regarding training of triage. (11) Planned training programme regarding training of triage.

Results: The overall pre-test knowledge scores of the nurses revealed that a majority of nurses 35(70%) had average knowledge, 06(12%) had good knowledge and 9(18%) had poor knowledge. Whereas in the post test, all of them 50(100%) had good knowledge. The overall pre-test practice scores of the nurses revealed that a majority of nurses 35(70%) had average practice, 07(14%) had good practice and 8(16%) had poor practice. Whereas in the post test, all of them 50(100%) had good practice. There was positive correlation between knowledge and practice $r = 0.91$ respectively based on Pearson's correlation computed value between knowledge and practice. This indicates the existence of positive correlation.

Conclusion: The study findings concluded that the planned training programme on Triage was effective in improving and acquainting to the current knowledge of staff nurses as evidenced by gain in post-test knowledge and practice scores of staff nurses regarding triage in command post to emergency department.

Keywords: Triage, Training, Command post, emergency department, nursing Personnel.

Introduction

An effective emergency triage system should prioritize both trauma and non-trauma patients according to level of acuity, while also addressing local disease burden and resource availability. Patient crowding in emergency departments (ED) is a common challenge

and associated with worsened outcome for the patients. Previous studies on biomarkers in the ED setting has focused on identification of high-risk patients, and the ability to use biomarkers to identify low-risk patients has only been sparsely examined³. The broader aims of the TRIAGE study are to develop method to identify low-risk patients appropriate for early ED discharge

by combining information from a wide range of new inflammatory biomarkers and vital signs, the present baseline article aims to describe the formation of the TRIAGE database and characterize the included patients^{5,6}. Triage algorithms for stratifying patients in the ED according to acuity level have been developed and employed for the purpose of prioritizing resources and ensuring adequate attention to the sickest patients^{7,8}. The present triage algorithms have not been designed to identify patients in the ED with such a low need of acute treatment, that they can be immediately discharged to an outpatient clinic or follow-up by their own general practitioner^{9,10}.

Objectives of the Study

1. Assess the knowledge regarding triage in the Command post to emergency department among nurses.
2. Assess the practice regarding triage system in emergency department
3. Evaluate the effectiveness of training in triage mass casualty among staff in terms of knowledge and practice score.
4. Determine the correlation between the pre-test knowledge and practice score regarding training of triage among staff nurses
5. Find out an association between the pre-test knowledge score regarding training of triage among staff nurses with their socio-demographical variables.
6. Find out an association between the pre-test Practice score regarding training of triage among staff nurses with their socio-demographical variables.

Hypothesis

H₁: The mean post-test knowledge scores of staff nurses regarding triage training who has exposed to planned training on triage will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance.

H₂: The mean post-test practice scores of staff nurses regarding triage training who has exposed to planned training on triage will be significantly higher than the mean pre-test practice scores at 0.05 level of significance.

H₃: There will be a correlation between pre-test knowledge and practice scores of staff nurses regarding triage training at 0.05 level of significance.

H₄: There will be an association between pre-test knowledge scores of staff nurses regarding triage training who has exposed to planned training on triage with their selected socio demographic variables at 0.05 level of significance.

H₅: There will be an association between pre-test practice scores of staff nurses regarding triage training who has exposed to planned training on triage with their selected socio demographic variables at 0.05 level of significance.

Methodology

A pre- experimental with one group pre-test and post-test design and quantitative approach was selected to carry out the study. The study population comprised of all staff nurses working selected hospitals at Tripura. The sample size for the study was 50 staff nurses.

Non-probability, purposive sampling technique was used for selecting sample of the study. The tools used for the study were (1) structure questionnaire to assess the knowledge and practice regarding training of triage. section1 was socio demographic variables; section 11 was structured knowledge questionnaire regarding knowledge questionnaire regarding training of triage. Section 111 was structured knowledge questionnaire regarding knowledge based practice questionnaire regarding training of triage. (11) Planned training programme regarding training of triage.

Results

Table: Frequency and Percentage of Staff nurses according to socio-demographic variables n = 50

Sr. No.	Demographic Variables	Frequency (f)	Percentage (%)
1.	Age (in Yrs)		
	21-25	33	66
	26-30	17	34
2.	Gender		
	Male	10	20
	Female	40	80
3.	Professional Qualification		
	GNM	45	90
	B.Sc. (N)	5	10
4.	Professional Experience		
	0-3 yrs	30	60
	3-6 yrs	20	40

Cont... Table: Frequency and Percentage of Staff...

Area of Working			
5.	Urban	35	70
	Rural	15	30
In-Service Education Regarding Triage			
6.	Yes	00	00
	No	50	100

The overall pre-test knowledge scores of the nurses revealed that a majority of nurses 35(70%) had average knowledge, 06(12%) had good knowledge and 9(18%) had poor knowledge. Whereas in the posttest, all of them 50(100%) had good knowledge. The overall pre-test practice scores of the nurses revealed that a majority of nurses 35(70%) had average practice, 07(14%) had good practice and 8(16%) had poor practice. Whereas in the posttest, all of them 50(100%) had good practice.

There was positive correlation between knowledge and practice $r = 0.91$ respectively based on Pearson's correlation computed value between knowledge and practice. This indicates the existence of positive correlation.

The calculated chi-square value for knowledge and practice scores with selected socio-demographic variables revealed that there was age, professional qualification, Professional simultaneously.

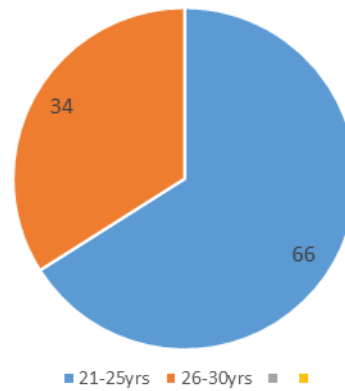


Fig: 1: Pie graph showing percentage distribution of staff nurses according to their age.

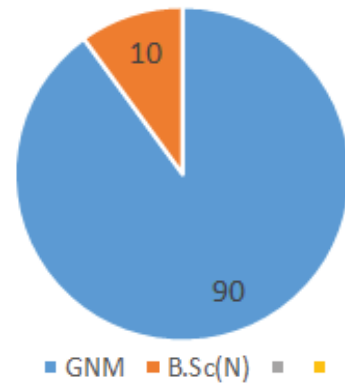


Fig: 2: Pie graph showing percentage distribution of staff nurses according to their professional education status.

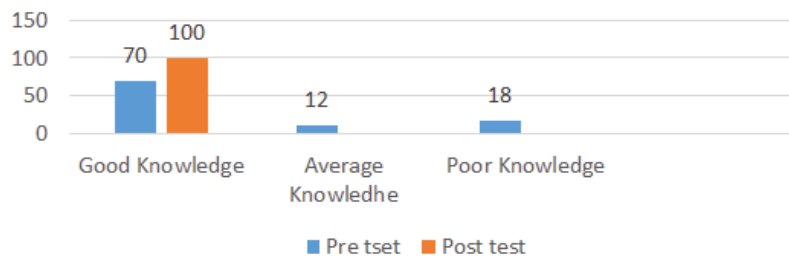


Fig: 3: Diagram showing the distribution of the staff nurses according to their level of knowledge scores

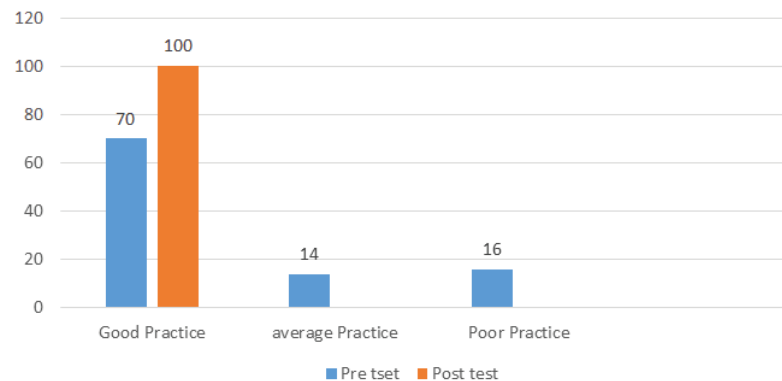


Fig: 4: Diagram showing the distribution of the staff nurses according to their level of Practice scores

Discussion

The discussion is based on the data procured from the study assess the effectiveness of planned training programme regarding command post to emergency department triage among staff nurses.

Maximum nurses i.e 33(66%) belong to age group of 21-25 years, maximum nurses i.e 40(80%) were females, maximum nurses 45(90%) have completed GNM programme, maximum nurses 30(60%) have professional experience between 0-3 years, majority of them 30(60%) working in Urban hospitals and none of them 50(100%) gone in-service education on triage training.

The calculated value of paired t value ($t=47.85$) was greater than the tabulated value ($t=2.0096$). this indicates that the gain in knowledge score was statistically significant at $p < 0.05$ levels. Therefore, the planned training programme on Triage among staff nurses in terms of gain in knowledge scores. The calculated value of paired t value ($t+ 41.90$) was greater than the tabulated value ($t=2.0096$). This indicates that the gain in practice score is statistically significant at $p < 0.05$ levels. Therefore, the planned training programme on Triage was effective among the staff nurses in terms of gain in practice scores. The Karl Pearson's correlation value computed between knowledge and practice scores of staff nurses r was 0.91. This indicates the existence of positive correlation between knowledge and practice scores. The computed chi square test for pre-test knowledge revealed that there was statistical association for only two variables i.e. age and professional experience. The computed chi square test for pre-test practice revealed that there was statistical association for only one variables i.e. professional experience.

Conclusion

The study findings concluded that the planned training programme on Triage was effective in improving and acquainting to the current knowledge of staff nurses as evidenced by gain in post-test knowledge and practice scores of staff nurses regarding triage in command post to emergency department.

Recommendations: Keeping in viewing regarding findings of the present study, the following recommendations were made:

1. A similar study can be conducted on a large and wider sample for a longer period would be more pertinent in making broad generalization.

2. A comparative study can be done between healthcare institute nurses regarding triage in Command post to Emergency department.
3. A descriptive study can be conducted to assess knowledge, attitude and practice regarding Triage among staff nurses.
4. An experimental study regarding bundle care strategies in the preventive future complications in triage system due to improper handle of triage can be undertaken among staff nurses.
5. A comparative study can be conducted regarding effectiveness of a planned teaching programme and self-instructional module on Triage.

Conflict of Interests: Nil

Source of Funding: No agencies given fund. It is self-funded

Ethical Clearance: Prior permission was obtain from research committee of institute and concern from hospitals and staff nurses.

References

1. Widgren B.R., Jourak M. Medical Emergency Triage and Treatment System (METTS): a new protocol in primary triage and secondary priority decision in emergency medicine. *J Emerg Med.* 2011; 40(6):623–628.
2. White B.A., Brown D.F.M., Sinclair J. Supplemented Triage and Rapid Treatment (START) improves performance measures in the Emergency Department. *J Emerg Med.* 2012;42(3):322–328.
3. Wallis L.A., Gottschalk S.B., Wood D., Bruijns S., de Vries S., Balfour C. The Cape Triage Score – a triage system for South Africa. *South African Med J.* 2006;96(1):53–56.
4. Bruijns S.R., Wallis L.A., Burch V.C. A prospective evaluation of the Cape triage score in the emergency department of an urban public hospital in South Africa. *Emerg Med J.* 2008;25(7):398–402.
5. Rominski S., Bell S.A., Oduro G., Ampong P., Oteng R., Donkor P. The implementation of the South African Triage Score (SATS) in an urban teaching hospital, Ghana. *Afr J Emerg Med.* 2014;4(2):71–75.
6. Nowacki A.K., Landes M., Azazh A., Puchalski Ritchie L.M. A review of published literature on emergency medicine training

- programs in low- and middle-income countries. *Int J Emerg Med.* 2013;6(1):26.
7. Obermeyer Z., Abujaber S., Makar M. Emergency care in 59 low- and middle-income countries: a systematic review. *Bull World Health Organ.* October 2014;2015(93):577–586G.
 8. Bradley E, Hartwig K a, Rowe L a, et al. Hospital quality improvement in Ethiopia : a partnership – mentoring model. *Int J Qual Heal Care.* 2008;20(6):392–399.
 9. McNatt Z., Linnander E., Endeshaw A., Tatek D., Conteh D., Bradley E.H. A national system for monitoring the performance of hospitals in Ethiopia. *Bull World Health Organ.* 2015;93(10):719–726.
 10. Lyngbæk S, Andersson C, Marott JL, Møller DV, Christiansen M, Iversen KK, et al. Soluble urokinase plasminogen activator receptor for risk prediction in patients admitted with acute chest pain. *Clin Chem.* 2013;59:1621–9. doi: 10.1373/clinchem.2013.203778.
 11. Iversen K, Køber L, Gøtze JP, Dalsgaard M, Nielsen H, Boesgaard S, et al. Troponin T is a strong marker of mortality in hospitalized patients. *Int J Cardiol.* 2013;168:818–24. doi: 10.1016/j.ijcard.2012.10.006.
 12. Mygind ND, Iversen K, Køber L, Goetze JP, Nielsen H, Boesgaard S, et al. The inflammatory biomarker YKL-40 at admission is a strong predictor of overall mortality. *J Intern Med.* 2013;273:205–16. doi: 10.1111/joim.12006.
 13. Iversen K, Gøtze JP, Dalsgaard M, Nielsen H, Boesgaard S, Bay M, et al. Risk stratification in emergency patients by copeptin. *BMC Med.* 2014;12:80. doi: 10.1186/1741-7015-12-80.

Assess the Living Experiences of Men Suffering from Prostate Cancer in Selected Hospital of North India: A Qualitative Study

Sudhir Gupta¹, Srinivasan. P², Sanasam Bankim³

¹Nursing Tutor, ²Former Professor, HOD of Department of Mental Health Nursing, ³Former Nursing Tutor, Department of Community Health Nursing, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Haryana. India

Abstract

Back ground: Prostate Cancer and its treatment generally have a major impact on men's life. Patients' suffering from prostate cancer may have emotional instability and who are on treatment for prostate cancer feel inability to fulfill their respective roles in the family, feel insufficient at work and in the activities they used to enjoy.

Aims and Objectives: Aim and objective of the study was to assess the living experiences of men suffering from Prostate cancer.

Methodology: A qualitative descriptive phenomenological research design was adopted. A total of ten men suffering from prostate cancer who met the inclusion criteria were interviewed with open ended interview guide. Interviews were audio-taped and transcribed verbatim. Rigor was maintained using Lincoln and Guba model. A theoretical framework was developed and thematic analysis was done to synthesis the data. Interview of each men were transcribed using Giorgi's method of analysis.

Results: Men explored their experiences with prostate cancer related to physical, mental and emotional aspects, care and support from health care professionals and family and problem faced during, and after the diagnosis. A total of four themes and ten subthemes were identified from the analysis of qualitative data. The major themes emerged were Corroboration of Illness, Illness and Impact, Treatment and expectations and Quality of Life. Prostate cancer had a noticeable impact on men's views about prostate cancer.

Keywords: Prostate cancer, men's experiences, descriptive phenomenology, qualitative research.

Introduction

Cancer is a general term used to refer a condition where the body's cells begin to grow and reproduce

in an uncontrollable way. These cells can then invade and destroy healthy tissue, including organs. Cancer sometimes begins in one part of the body before spreading to other parts. A majority of cancers are caused by changes in the cell's DNA because of damage due to the environment.¹ Understanding and responding to the full impact of cancer on emotional, mental and physical wellbeing will maximize the quality of life for patients, their families and carers.²

Cancer is still associated with suffering and death and is thus a frightening diagnosis (Kelly and White, 2011). Being struck by cancer is described as a shock that turns daily life upside down for both patient and family, giving rise to anxiety and uncertainty regarding treatment, prognosis and the future. Distressing symptoms from

Corresponding Author:

Srinivasan P.

Former Professor, HOD of Department of Mental Health Nursing,

Maharishi Markandeshwar College of Nursing,

Maharishi Markandeshwar (Deemed to be University),

Mullana 133 207, Ambala District, Haryana, India

Present- Nursing Tutor, College of Nursing, AIIMS,

Patna

e-mail: srinivasan.p@aiimspatna.org

the cancer and treatment side effects may cause severe physical problems. Thus patients often experience physical challenges and practical problems, combined with significant emotional and existential strain (Kelly, 2009; Sekse et al., 2010) and for some patients these problems can persist for years after treatment is ended.³

Prostate cancer, also known as carcinoma of the prostate is the development of cancer in the prostate, a gland in the male reproductive system. Most prostate cancers are slow growing; however, some grow relatively quickly.⁴

The prostate is an exocrine gland of the male reproductive system, and exists directly under the bladder, in front of the rectum. An exocrine gland is one whose secretions end up outside the body e.g. prostate gland and sweat glands. It is approximately the size of a walnut. The urethra - a tube that goes from the bladder to the end of the penis and carries urine and semen out of the body - goes through the prostate. There are thousands of tiny glands in the prostate - they all produce a fluid that forms part of the semen. This fluid also protects and nourishes the sperm.⁵

Prostate cancer (PCa) is the second most common cause of cancer and the sixth leading cause of cancer death among men worldwide. The worldwide PCa burden is expected to grow to 1.7 million new cases and 499 000 new deaths by 2030 simply due to the growth and aging of the global population.⁶

According to the official census published by American Cancer Society, prostate cancer was reported as the second leading cause of cancer death among American men after lung cancer and its incidence ranked the first among all cancers in 2013.¹⁰ The incidence of Prostate Cancer in India is 19,095 and Mortality is 12,231 according to Globacon, 2012¹⁰

Methodology

Rigor/Trustworthiness: According to Polit & Beck (2012) “Reliability refers to accuracy of measurement”

For open ended interview guide, the analysis of responses was done and themes were coded. The reliability is calculated using Lincoln and Guba model (1985) on four aspects of enhanced trustworthiness of a study including Credibility by *prolonged engagement and peer debriefing*, Transferability by *Thick description*, Conformability by *Bracketing* and

Dependability by *External audits*. The analysis of response was done and themes were coded. Coding was done by the researcher and the experts.

Procedure: Qualitative research approach and Descriptive phenomenological design was used in this study. Formal administrative approval was obtained from Surgical Oncologist Grecian super speciality cancer hospital of Mohali, North India to conduct the study. Data was collected from 12 December 2016 to 15 Jan 2017. The *ethical clearance* was obtained from university research ethics committee of Maharishi Markandeshwar Deemed to be University Mullana, Ambala (MMU/IEC/8) and the study was carried out in accordance with the guidelines laid by Indian Council of Medical Research ICMR(2006). Sample size comprises of 10 men with prostate cancer admitted in Grecian super specialty cancer hospital were included in the study by criterion sampling technique. Data saturation was achieved after interviewing 8 patients with prostate cancer. Researcher interviewed 2 more prostate cancer men to explore the possibility of any new code and to confirm that saturation had been achieved. Before starting the study the investigator maintained the rapport with participants and introduced him to the participants and introduction of the study was given to the men suffering from Prostate Cancer. Informed consent was obtained from the respondents and respondents were assured about the confidentiality of their response. Sample characteristic data was collected from the participants using Interviewing technique. Open ended interview guide was used to explore living experience of men with prostate cancer. Researcher started with general questions and proceeded with interview guide which consist of 14 items to explore feelings, expectation, and issues of men suffering from prostate cancer. Duration of interview and number and order of question varied from one participant to another. Length of interview lasted from 20 minutes to 40 minutes. All interviews were conducted in hospital in a separate room.

Analysis

Analysis for quantitative data: Frequency and percentage was used to analyses sample characteristics including demographical and clinical variables.

Analysis for qualitative data: Data analysis was guided by Giorgi's (1985) Framework. The basic outcomes of this model are the description of the meaning of an experience often through the identification

of useful themes. Themes are a way of describing large quantities of data in a condensed manner.

Results: Thematic Analysis

The following themes and subthemes were emerged from qualitative data as depicted in the table 1.

Table No. 1: Themes and subthemes

S. No.	Themes	Subthemes
A	Corroboration of Illness	1. Facts and Perspectives
		2. Confirmation and worries
B	Illness and impact	1. Fear of getting worse
		2. Impact on Health
C	Treatment and expectations	1. Mode of treatment
		2. Finance and burden
		3. Changes and satisfaction
D	Quality of Life	1. Family and Supporter
		2. Responsibilities
		3. Future and Almighty

Experiences of Men with Prostate Cancer

A. Corroboration of Illness: The subthemes in Corroboration of Illness are grouped into two categories that are Fact and Perspectives, and confirmation and worries.

1. Facts and perspectives: Prostate Cancer is a topmost cancer among men and they do have certain preconceived opinions about cancer. In this regards some of the participants verbalized that

“It is known to be the deadliest disease... its name is not to be taken.” (P1)

“My wife suffered from throat cancer and she died in 2008.... I kept thinking about her every time.... May be that’s why even I got cancer.” (P3)

Mostly all of the respondents gave preconceived opinion regarding cancer as it affects the patient’s psychological health. Most of the participants verbalized that cancer leads toward death.

B. Illness and Impact: Under this theme there are two sub themes that are Fear of getting worse and Impact on Health.

1. Fear of getting Worse:

“I didn’t tell to any of the family members that I have this disease... Everything I hid myself. Sometimes,

I think that I will inform to family members but I worried that they start to take tension...there is no benefit to tell them. One thing is certain that I cannot overcome the pain in my body.” (P1)

“This was there, that what will happen or not?... after all it is cancer. I got tensed...but I thought it can be cured and it is there in my mind that there will be some treatment which can cure the disease and my life be safe otherwise there is only problem. Time will leads toward death as it will always happen in cancer. Usually death happens in cancer... after all this disease is like so....” (P10)

Fear of getting worse is a biggest issue, all the patient experienced certain issues related to treatment of prostate cancer like extreme tension and worry and many of the participants verbalized that they had to face fear as it usually happen in cancer.

2. Impact on Health: If a person is having prostate cancer he has lots of impact on health which may not allow an individual to perform activities of daily living.

“My body became stiffed when I was operated... Weather it was operation or accident it was always worst” (P7)

Outliers: *“I am unable to see the impact of prostate cancer. My Moustache was very thick but suddenly hair started falling then I realized something is going on... otherwise nothing else ha!.ha!.ha!.ha! (P2)*

Most of the participants have lots of impact on their health as they became week and their physical health is much affected as their skin complexion is also changed. But many of the participants are not having any impact on health as most of them are pension holder.

C. Treatment and Expectation: Under this theme there are three sub themes that are mode of treatment, finance and burden and changes and satisfaction.

1. Mode of Treatment: The treatments like chemotherapy and radiation therapy could be helpful in managing prostate cancer but there are certain issues with the patients as they have to face N number of side effects.

“I did not have any idea about the treatment that I am receiving. I came to hospital with no option. In such cases, what should I do...? an individual will only go to the hospital not to the graveyard.” (P7)

Majority of the Participants had taken good and expected treatment to overcome prostate cancer like radiation therapy, some of patients gone for operation. Most of the participants had good faith that prostate cancer treatment is possible with chemotherapy and radiation therapy.

2. Finance and Burden: *“As I am getting my pension I used to give that to my family members. I have two children both are earning so there is no tension about what to do or what not to do? and I know treatment is possible” (P 2)*

Most of the Participants were supported well enough by their family member with regards to financial issue. Even their children also supported them well enough by spending for patient rather than for own expense.

D. Quality of life: The subtheme in quality of life is grouped into three categories that are Family and Supporter, Responsibilities and Future and Almighty.

1. Family and Supporter: *“My family members gave me medication on time, gave me food at time and took proper care of me” (P1)*

My wife and my son got worried more from the rest of family. Sometime they used to cry.” (P8)

Family members are the only one who care and help the most of the time as they never take it as burden and they voluntarily do all work regarding care and all. Most of the participant verbalized that they had enough support from their family member and nurtured with adequate love and affect to overcome the prostate cancer.

2. Responsibilities: *“By god’s grace I have done all my Responsibilities.” (P6)*

“Mostly I am free from all my responsibilities as my all family members are educated and they do take great care of my family... my wife is lecturer... and my son is also studying well” (P7)

“Responsibilities of entire family were on my shoulder as I had to deal with the money issues... that which is borrowed here and there in family.” (P 9)

Discussion

The first theme emerged from the study was corroboration of illness under which two subthemes

identified were Facts and perspectives and confirmation and worries.

Current findings are similar with study conducted by Smolsky et al. (2013) where they found that Prostate Specific Antigens Using Surface-Enhanced Raman Scattering-Based Immunoassay for accurate diagnosis of Prostate Cancer. Further Result showed that PSA markers in clinical fluids have strong potential for application was an accurate diagnosis of prostate cancer.⁷

The second theme emerged was Illness and Impact under which two subthemes were identified i.e fear of getting worse and Impact on Health.

Current findings are similar with study conducted by Langston B, Armes J, Levy A, Tidey E, Ream E in 2012 where they found that Study that symptoms most frequently mentioned by patients include erectile dysfunction, loss of sexual desire or interest, incontinence/leaking, urgency, and hot flashes.⁸

The Fourth theme emerged was Quality of life under which three subthemes identified were Family and Support, Responsibilities and Future and Almighty. Current findings are similar with study conducted by Jayadevappa R, Schwartz JS et al. (2011) where they found that patients’ assessment of satisfaction with care, quality of care, and outcomes has become a central issue in patient-centered prostate cancer (PCa) care. The study result showed that Prostate cancer patients were satisfied with the care provided to them.⁹

Participants stated that they had completed all their responsibilities and had a better quality of life. In contrast the study was conducted by Zajdlewicz L, Hyde MK, Lepore SJ et al. (in 2011) where they found that longer-term impact of disease progression and treatment adverse effects on health-related quality of life (QoL) of men.¹⁰

Conclusion

The present study revealed that most of the participants worried about confirmation of prostate cancer as they had many questions in their mind that what would happen after the confirmation. Participants expressed that the prostate cancer can affect their health and also stated that they were afraid about the consequences. Most of the participants had undergone proper treatment. Most of the participants showed positive attitude towards the management of prostate

cancer as they knew very well that it could be treated. Majority of the participants expressed that they faced problems in various aspects like unable to keep up with daily living activities and financial issues. Participants expressed that prostate cancer not only affect them but could also affect their family and friends. Most of the participants expressed that they had completed their responsibilities. They also expressed that only God could save them because most of the participants had strong faith in God.

Conflict of Interest: Nil

Source of Funding: Nil

Reference

- 1 Coppin C, Porzsolt F, Autenrieth M, Kumpf J, Coldman A, Wilt T. Immunotherapy for advanced renal cell cancer. In: Coppin C, editor. *Cochrane Database of Systematic Reviews* [Internet]. Chichester, UK: John Wiley & Sons, Ltd; 2004 [cited 2017 Apr 26]. Available from: <http://doi.wiley.com/10.1002/14651858.CD001425.pub2>
- 2 Elekta | Wavelength Magazine [Internet]. [cited 2017 Apr 30]. Available from: <https://wavelength.elekta.com/>
- 3 Kelly:Feber Lab | Urological cancer research in London [Internet]. [cited 2017 Apr 30]. Available from: <https://www.kellyfeber.com/>
- 4 Prostate Cancer. Natl Cancer Inst [Internet]. [cited 2017 Apr 29]; Available from: <http://www.cancer.gov/cancertopics/types/prostate>
- 5 Prostate - Anatomy Pictures and Physiology [Internet]. [cited 2017 Apr 29]. Available from: http://www.innerbody.com/image_repmov/repo09-new4.html
- 6 Prostate cancer to be second most common cancer by 2020, Health News, ET 79. Health World [Internet]. [cited 2017 Apr 30]. Available from: <http://health.economictimes.indiatimes.com/news/industry/prostate-cancer-to-be-second-most-common-cancer-by-2020/54320423>
- 7 Smolsky J, Kaur S, Hayashi C, Batra S, Krasnoslobodtsev A. Surface-Enhanced Raman Scattering-Based Immunoassay Technologies for Detection of Disease Biomarkers. *Biosensors* [Internet]. Multidisciplinary Digital Publishing Institute; 2017 Jan 12 [cited 2017 Apr 30];7(1):7. Available from: <http://www.mdpi.com/2079-6374/7/1/7>
- 8 Ben Langston, Jo Armes Support Care Cancer [Internet]. Springer-Verlag; 2013 Jun 3 [cited 2017 Apr 30];21(6):1761–71. Available from: <http://link.springer.com/10.1007/s00520-013-1751-5>
- 9 Jayadevappa R, Schwartz JS, Chhatre S, Gallo JJ, Wein AJ, Malkowicz SB. The burden of out-of-pocket and indirect costs of prostate cancer. [Internet]. Wiley-Liss Inc.; 2010 Aug [cited 2017 Apr 30];70(11):1255–64.
- 10 Zajdlewicz L, Hyde MK, Lepore SJ Health-Related Quality of Life After the Diagnosis of Locally Advanced or Advanced Prostate Cancer: A Longitudinal Study. [Internet]. [cited 2017 Apr 30]. Available from: <http://www.medscape.com/medline/abstract/28282307>

A Study to Evaluate the Impact of Internet Exposure on Academic Performance and Social Behavior of Adolescents: A Narrative Review

Sumit Kumar¹, Siva N.², Alamelu M.³

¹M.Sc. Nursing 1st Year, ²Assistant Professor, Department of Child Health Nursing, ³Vice Principal cum HOD Pediatric Department, School of Nursing Sciences and Research, Sharda University, Greater Noida, U.P.

Abstract

Introduction: The internet today is a worldwide entity whose nature cannot be easily or simply defined. To many, the internet is a large computer network linking together millions of smaller computers at numerous sites in various countries belonging to thousands of business, government, research, educational and other organizations. To the internet users, the internet is a global community-one with a very active life. In today world, the Internet plays a vital role in the teaching, research and learning process in academic institutions. Thus, the advent of the Internet has heralded the emergence of a new form of knowledge production and distribution – the soft form.

Aim: The aim of the study is to assess the impact of internet exposure on academic performance and social behavior of adolescents.

Methodology: Intervention: Structured questionnaires and attitude scales.

Types of studies: Cross-sectional descriptive research design.

Types of participants: Adolescent students.

Setting: Selected inter-colleges of Greater Noida.

Outcome: This narrative review result has appeared that Internet exposure have adverse impact of academic performance and social behavior of adolescent students.

Keywords: *Internet Exposure, Academic Performance, Social Behavior, Adolescent Students.*

Introduction or Background

The internet is a valuable source of information used by student in projects and assignments. With over 50 million websites on the net, the chances are that information on any subject however obscure can be found using appropriate search tools. It also serves as a useful tool for lecturers in helping to prepare lesson plans using a number of sites dedicated to providing educational material.¹

There are great possibilities for higher education at all levels through the use of internet because curricula can be developed collaboratively and educational materials distributed and updated more cheaply, offering

additional ways for students to interact with their study materials as well as their instructors.²

A descriptive study was conducted in the tertiary institutions of Bhutan to study the impact of the internet on academic performance of the Bhutanese students. The study was conducted on 154 participants from three academic institutions as there samples. Qualitative research approach was used in conducting the research study. Results indicated that only academic oriented internet utilization contributes to the better academic performance with the significance value $p=0.001$ while social and recreational function of the internet would hinder the achievement of better academic result. Also, there were difference between the internet use and

gender, the internet use and age groups and the internet use and institutions in Bhutan. Thus study concluded that excessive internet exposure for social and recreational causes can lead to decreased academic performance.³

A study was conducted by on Internet use and its impact on secondary school students in Chiang Mai, Thailand. Study was conducted on 952 students of secondary schools. The method used was online survey method. This study found that 3.7% were classified as addictive Internet users using the scale cut off point recommended by the Delphi panel of experts. Internet addictive users spent significantly longer on the Internet than students who were classified as normal users (Mdn = 29.00 and Mdn = 16.00, respectively, $p < 0.01$). School problems, physical and mental health problems, and relationship problems were reported as being negative impacts of Internet use. So the research study concluded that internet adversely affect the health status as well as physical status of students.⁴

A descriptive research study was conducted by, on adolescent students in Ghaziabad city in Uttar Pradesh, The study was conducted to know the influence of access use of internet on academic performance among intermediate adolescents. The samples for this study was 300 intermediate adolescent students of Ghaziabad city. The data was collected by means of structured questionnaires. The results shows that calculated F-value is greater than the critical F-values at 0.01 levels proves that internet exposure affects the academic performance of the students found that out of 300 secondary school children internet usage pattern is extremely high among them. Only 10 percent adolescents i.e. they are not addicted to internet, though this is a small figure, but it shows a rising trend as compared to the trends found at the advent of internet and its usage. The research study conclude that the high intensity of Internet use will bring negative effects if the users do not know their priorities⁵

A survey research study was conducted by was conducted to investigates the effects of internet on the academic performance of students in tertiary institutions within Niger state, Nigeria. The study comprised of 300 students as the samples from three separate institutions by using random sampling method. The research design adopted was the survey method using questionnaires as the instrument of data collection. Descriptive statistics was used to analyze the collected data The finding reveals that majority of the respondents 63% accepted that the internet is very useful as it improve their academic

performance; also 30% of the respondents point out that internet is useful as it make academic activities much easier for them. Only 6% of the respondents said that the internet makes academic activities difficult and also 3% of the respondents indicated decreased in academic performance. So this study proves internet is one of the beneficial tools in academic progress of individual.⁶

A Survey research study was conducted in sultanates of Oman. The study was conducted to explore to what extent the Internet can affect the behaviour of Omani teenagers (e.g. through harassment, sensual and inappropriate content, racist/violent material), to discover the reasons why Omani teenagers engage in these negative online activities and to recommend strategies designed to minimize participation in these activities amongst teenagers. The sample for this study was 500 school going children from sultanates of Oman. Research method used for this study was qualitative research method. Results shows that 82.5% of the students think that going online affects their academic performance, social life and their health as well, whereas 17.5% of them think it does not and this proves that there is negative relationship between internet exposure and academic progress as well as social behavior.⁷

A descriptive survey research was conducted in Batagarawa Local Government school, Katsina State, Nigeria yo indicate the impact of internet exposure on academic as well as social performance of students The study clearly indicates that psychosocial behaviour of secondary school students is highly influenced by the use of social media sites. the p-value obtained 0.00 is less than the alpha value of 0.05 level of significance and a degree of freedom of 304, based on the influence of social media usage on academic performance of secondary school students, 180 students are highly influenced with a mean of 12.49 as compared to their counterparts that are low influenced with a mean of 24.33 as such the null hypothesis is then rejected. This clearly indicates that social media use has significant effect on academic performance of secondary school students.of Study confirms the internet exposure effect the health and academic behavior of child in negative way.⁸

Findings

The systematic search was conducted by formulating the terms separately and in integration with all synonyms, also according to the database. Likewise, a manual Google scholar search was undertaken using the

keywords and search synonyms from already articles. An addition of 6 articles was found in the database. Initial search recovers 1170 articles over which 270 articles were selected manually. 150 articles were rejected as a result of replication in the database. Replication was removed and reviewed 120 articles for acceptability. 114 more studies were rejected because of unreachability of the full text. Hence 6 articles were screened which includes quantitative study.

Discussion

These findings are supported by a descriptive survey study conducted by Pardhasaradhi, V, Goel. V reported that The results shows that calculated F-value is greater than the critical F-values at 0.01 levels proves that internet exposure affects the academic performance of the students found that out of 300 secondary school children internet usage pattern is extremely high among them.

Conclusion

In this narrative review, 1 study states that participants have positive impact of academic performance and social behavior by internet exposure, 5 studies state that participants have adverse impact of academic performance and social behavior by internet exposure.

Source of Funding: Self-funding

Ethical Clearance: Prior permission was obtained from the principal of selected schools of Greater Noida Uttar Pradesh

- Informed written consent was taken from each participant under the study. Objective of the study was maintained with honesty, privacy confidentiality and anonymity.

Conflict of Interest (Nil): There is no conflict of interest in present narrative review

Reference

1. Austin W, Totaro M W, High school students academic performance and internet usage. Journal of economics and economic education research, (2011). 41.
2. Emeka and Nyeche Impact of Internet Usage on the Academic Performance of Undergraduates Students. International Journal of Scientific & Engineering Research, (2016) 1
3. Dorji, L, The impact of Internet on academic performance of student at the tertiary level of education. (2017) (1) 30.
4. Wanajak K, Internet use and its impact on secondary school students. Edith Cowan University research online (2011) (1) 33.
5. Pardhasaradhi V, Goel V, To study the influence of access use of internet on academic performance of adolescence. International Journal of applied and pure science and agriculture, (2015). 1 (12).
6. Jibrin M A, Musa M N, Shittu T, Effects of internet on the academic performance of tertiary institution students. International journal of education, learning and training, (2017). (2) 57.
7. Al-Badi A, Mahrougi S A, Ali O, The influence of the internet on teenagers. Journal of internet social networking and virtual communities. (2016). (1)2.
8. Umar T I, Idris M, Influence of social media on psychosocial behaviour and academic performance of secondary school students. Journal of education and entrepreneurial, (2018).

Effectiveness of Kangaroo Mother Care (KMC) on Lactation among Mothers of Low Birth Weight (LBW) Newborn

Supriya A. Shinde¹, Jyoti A. Salunkhe², Vaishali Mohite³, Avinash Salunkhe⁴, S.V. Kakade⁵

¹2nd Yr. M.Sc. Nursing Student, ²Professor, Dean (Academics), ³Dean/Principal, ⁴Vice-Principal, ⁵Associate Professor; Krishna Institute of Medical Sciences Karad KIMSUDU Karad.

Abstract

Background: Prematurity is one of the main causes of neonatal mortality in India. The birth of a LBW infant can have adverse effect on the breastfeeding pattern.

Methodology: True experimental research design was used for this research study. Mother of LBW newborn admitted at Krishna Hospital, Karad were selected as a sample for this study. Simple Random Sampling Technique was used for selection of sample. 120 samples were included in this study. There were 60 mothers in experimental (KMC) and 60 mothers in control group.

Results: There were majority of women from 18 -30 yrs. of age category in KMC and CMC group. Majority of women were well educated and had education from 1st – 15th standard. In KMC Group, The mean of BBAT Scale in pretest was 3.833 and SD 1.416 and in posttest it was mean 7.133 and SD 0.8919. In CMC group, the mean of BBAT Scale in pretest was 4.650 and SD 1.516 and in posttest it was mean 5.733 and SD 1.614. So KMC improve Lactation also.

Conclusion: This study shows a great impact on Lactation. KMC can helpful to gain weight of the LBW babies.

Keywords: Kangaroo Mother Care, BBAT (Bristol Breastfeeding Assessment Tool), Lactation, Low Birth Weight, effectiveness.

Background

“Nothing in this world can take the place of the mother for an infant, the mother is the source of warmth and nutrition.”

Pregnancy is a magical time for that every mother waiting to have in her life time, to bring out a creature within her, arising for pregnancy is an creative time for each woman. It carried out enjoyment of being able to upbringing an angel coupled with hardship that doesn't let her sleep till result of pregnancy. A gorgeous time which carried out a new live to the world, pregnancy convert lady from woman to mother. ¹

Dr. Stern proved that becoming a mother means of shifting of role from woman to mother during which she is experiencing both changes that are physical and psychological.²

Incidence of LBW highest in South Asia, India second highest in the world In 2013, as many as 22 million newborns—an estimated 16% of babies born globally—had Low Birth Weight, in conformity with the UNICEF. In terms of regional variations, South Asia had the highest incidence of LBW, with 28% newborns weighing less than 2.5 kg.³

Kangaroo embryo Baby are born very immature - as are human “premature” babies. It is in fact extremely premature, very tiny, about the size of a peanut. When it is born, the kangaroo baby has no hair and is called a PINKY. This means the pink skin of baby can be in direct contact with the inside of the pouch, which is mostly skin with very few hairs. Hence: skin-to-skin contact.⁴

Corresponding Author:

Jyoti A. Salunkhe

Professor, KINS, Karad

e-mail: jasalunkhe.salunkhe9@gmail.com

Kangaroo mother care is a skin-to-skin contact which is a part of revolution in premature infants care method defined as continuous (as close to 24 hrs./day as possible) skin-to-skin contact between mother and her infant, ensured by placing infant in a strictly upright position on mother's chest (kangaroo position). Nutrition is based on (but not limited to) breast milk. We can start KMC as soon as baby is stable, and receiving oral feeds.

A RCT was conducted among the 50 LBW babies at Krishna Hospital, Karad by Ms. S. Mane in 2012. Its result shows that the KMC was effective for maintaining temperature regulation, improving weight, LATCH and arousal regulation of LBW babies.⁸ As compare to this study I had evaluate maternal factors related to birth and care of LBW babies. Lactation was evaluated by using BBAT Scale. Mothers who delivered LBW baby, they are suffering from stress and anxiety and it may lead to poor lactation and latch. So there is demand to ameliorate breastfeeding, whereas it will help to improve health status of dyad and also helpful to achieve goal of the KMC.

Methodology

The true experimental design was used on 120 (60 in control group and 60 in experimental group) mothers of LBW newborn which were selected by simple random sampling technique, by using lottery method in KMC Ward at Krishna Hospital, Karad.

The study conducted on Mothers delivered baby ≤ 2.499 kg. birth weight. The tool used for collecting data was BBAT standardized scale. Data was collected from September 2018 to October 2018.

Formal permission was obtained from Ethical committee of KIMSUDU. The informed consent was taken from the respondents. Lactation was assessed before intervention for both groups. KMC was given to experimental group and rooming in, swaddling, breastfeeding were given to control group. KMC was started on 2nd day of delivery, for 8hrs. /day by $\frac{1}{2}$ to 1 hr. interval and each episode for 30 – 45min for 7 days. Post observation was assessed for both group on 7th day.

Results

The data was analyzed as per objectives of study:

- To assess effectiveness of KMC (Kangaroo Mother Care) on lactation among mothers of LBW (Low Birth Weight) newborn.

- To find an association between effectiveness of KMC on lactation with selected demographic variables.

Table No. 1 reveals that in KMC group there was improvement in BBAT scale by means of and significant effect found as $p (< 0.0001)$. In CMC group there was improvement in BBAT scale and significant effect found as $p (< 0.0001)$; but was not as more as KMC group, only some amount of lactation was improved as shows difference between pretest (Mean = - 3.300 and SD = 1.453) and posttest's (Mean = -1.083 and SD = 1.319). So as to compare CMC, KMC was effective to improve lactation.

There was significant association found between KMC and variables like age of the mother, Education, Parity, mode of delivery and Weight of the newborns at birth.

There was significant association found between CMC and variables like age of the mother, education (secondary), parity, mode of delivery, Weight of the baby at birth ($< 1.5\text{kg}$ to 2.499 kg) . There was no significant association found between primary and graduate education and weight of newborn ($P > 0.05$)

Table No. 1 – Pretest and Posttest mean and SD of BBAT (Bristol Breastfeeding Assessment Tool) scale of KMC group and CMC group

Group	Areas of analysis	Mean	SD	t-value	P – value
KMC Group	Pretest	3.833	1.416	17.590	< 0.0001 Extremely significant
	Post test	7.133	0.8919		
	Difference	-3.300	1.453		
CMC Group	Pretest	4.650	1.516	6.364	< 0.0001 Extremely significant
	Post test	5.733	1.614		
	Difference	-1.083	1.319		

Discussion

In a year, about 20 million infant with LBW are born worldwide which imposes a heavy burden on health care and social system in developing countries.⁶

In the past, parents of premature babies were excluded from care directly after birth, including the neonatal ICU. Now, it's known that separation causes harm to all babies – especially preterm infants and also its harmful for mother also.

In the present study there is amelioration in good latching and profuse breast milk secretion on 5th or 7th

day of KMC as effect of skin to skin contact similar findings were noted by the study done by Ramanathan K, Paul VK⁷ et.al. the result shows that, the number of mothers exclusively breastfeeding their babies at 6th to 7th day of KMC was double in the KMC group than in the control group (12/14 vs. 6/14) ($p < 0.05$). It suggest that Kangaroo mother care has positive effect on the success of the breastfeeding as well breastfeeding status after 5th or 7th day of KMC intervention and total breastfeeding duration.

In the present study breastfeeding was improved after providing KMC to interventional group. Similar findings were noted in the article from Iran Red Crescent Med J., which was written by Mohammad Heidarzadeh, Mohammad Bagher Hosseini et. al⁸. Results shows that 157(62.5%) mothers performed kangaroo mother care (KMC group) versus 94 (37.5%) in conventional method care (CMC group). In KMC group 98 (62.5%) mother's lactation was improved vs. 34 (37.5%) mothers in CMC group were present with improved lactation; but it was not as much as improved than KMC group as $P = < 0.0001$ for KMC group, at the time of hospital discharge. It suggest that Exclusive breastfeeding is essential components of Kangaroo Mother Care.

During data collection investigator come across with a fruitful experience by subject related to KMC effect, she said that there was increased breastmilk secretion than prior, after giving KMC. In a present study mother's had initially decreased milk production investigator observed that after giving KMC there was increase in their milk production as $p < 0.005$. Similar findings were noted in a randomized controlled trial conducted by Mrs. S. Mane⁵ at Krishna Hospital, Karad. Her results showed improved lactation as KMC was significantly effective than CMC as $p < 0.005$.

In the present study there was significant effect of KMC on Lactation after giving KMC than CMC group, the mean of BBAT Scale in pretest was 3.833 and SD 1.416 and in posttest it was mean 7.133 and SD 0.8919. In CMC group, the pretest mean of STAI Scale was 4.650 and SD 1.516 and in posttest it was mean 5.733 and SD 1.614. So KMC improve Lactation and it was improved in KMC group mothers than CMC group mothers. Similar findings were noted in a randomized control trial done by Mohammad Heidarzadeh, Mohammad Bagher Hosseini⁸ et. al. on The Effect of Kangaroo Mother Care (KMC) on Breast Feeding at the Time of NICU Discharge noted that in KMC mean = 27.75 ± 5.45 and

in CMC mean = 28.10 ± 6.03 respectively, as $P = 0.48$.

Conclusion

The study concluded that KMC is an effective method to improve lactation. This difference was significantly proven, as $P < 0.0001$.

The present study observed that mothers from KMC group had improved Lactation pattern as compare to CMC group ($P < 0.0001$) as per paired 't' test. Lactation improved in KMC group after giving KMC than before. Previously amount of milk was less; but after skin to skin contact amount of milk increased.

Source of Funding: Self

Conflict of Interest: Nil

References

1. 50 Best Quotes about Pregnancy [Homepage on the internet]: Available from-<http://www.pregnancyrelated.com/best-pregnancy-quotes/>
2. Alexandra Sacks, M.D. The Birth of a Mother [Monograph on the internet]. Newyork: The Newyork Times; May 8, 2017: Available from-<https://www.nytimes.com/2017/05/08/well/family/the-birth-of-a-mother.html>
3. Healthworld.com. Low birth weight, preterm delivery cause most newborn deaths in India: 1 Nov. 2016. Available from: <https://health.economictimes.indiatimes.com/>
4. Kangaroo Mother care. History of KMC: 2012 – 2018: Available from: <http://www.kangaroomothercare.com/beginning-KMC.aspx>
5. Mane S. Effect of KMC on LBW babies in early postnatal period at Krishna Hospital, Karad. April -2012.
6. Gabriel R., Pelaez. KMC an example to follow from developing countries. *BMJ*. 2004; 329 (13) 1179 – 82
7. Ramanathan K, Paul VK, Deorari AK, Taneja U, George G. Kangaroo Mother Care in very low birth weight infants. *Indian J Pediatr*. 2001; 68(11):1019–23. [PubMed]
8. Mohammad H., Mohammad BH. et. al. The Effect of Kangaroo Mother Care (KMC) on Breast Feeding at the Time of NICU Discharge. *Iran Red Crescent Med J*. Published online 2013 Apr 5. ; 15(4): 302–306. doi: 10.5812/ircmj.216020

Assess the Impact of Strained Interpersonal Relationship with Parents on Juvenile Delinquency among Delinquent Children in Haryana: A Retrospective Case Control Study

Talwinder Kaur¹, Srinivasan. P², Manpreet Sharma³

¹Former M.Sc. Nursing Student, ²Former Professor, Hod, ³Assistant Professor, Department of Mental Health Nursing, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana, Haryana, India

Abstract

The objectives of the study were to assess and compare IPR score with parents among case (Delinquent children) and control (Non-delinquent children) group and to determine the association of IPR scores with selected variables among case and control group. A Non-Experimental Retrospective (Case and Control) design was used. One twenty participants were enrolled for the study. Out of which 60 delinquent children were enrolled as case group with total enumerative sampling technique and 60 school children were enrolled as control group based on matching and homogeneity with case group on convenient basis (Matching was done for age group and Homogeneity was done by enrolling only male children). Data was collected by using Modified Washington State Juvenile Court Assessment Scale for interpersonal relationship with self report technique. The findings of this study showed that the mean IPR score in case group was significantly lower than control group (70.83 Vs 74.58: $t=4.74$, $p=0.01$) which indicate control group had better IPR with parents. A significant association of IPR scores with selected variables was found i.e youth occupation (0.002) and father education (0.05) in case group and with religion(0.02), place of residence (0.008) and youth was raised by single parents(0.04) in control group. The overall prediction of IPR by the independent variables for case group was with the variability of $R^2=31\%$ (0.317) and for the control group was with the variability of $R^2=27\%$ (0.271).

Keywords: *Interpersonal relationship, Parents, Juvenile delinquency, Delinquent home, Delinquent children and Non delinquent children.*

Introduction

A Juvenile or child means a person who has not achieved eighteen years of age. According to JJA(Juvenile Justice Act) 1986, Juvenile means under 16 years of age for a boy and under 18 years of age for a girl. By JJA 2000, age for juvenile boys has been increased up to 18 years.¹

A delinquent young person is disregard and stubborn, runs away from home and school, cannot be manageable by the parents and teachers, is not compliant to any kind of discipline, is willfulness and repeated acts in a manner injurious to the welfare and happiness of others and himself.²

A child is a branch of community in which he lives and gain social protocols which make sure smooth process of socialization. Several young people have been connected different popular pattern of relationship among family, school and working place. Life has become so competitive and tough. To obtain different opportunities young people have become more violent and becoming dependent to drug and using assault opposed to their peers. Juvenile delinquency revealed all crimes which were devoted by young people against society between the age of 12-20 years.³

Corresponding Author:

Srinivasan P.

Former Professor, HOD of Department of Mental Health Nursing, Maharishi Markandeshwar College of Nursing, Maharishi Markandeshwar (Deemed to be University), Mullana 133 207, Ambala District, Haryana, India, Present- Nursing Tutor, College of Nursing, AIIMS, Patna

e-mail: srinivasan.p@aiimspatna.org

According to the latest National Crime Record Bureau (NCRB) report 2012, crimes involving children have increased from 0.8 % (2001) to 11.8 % (2011).⁴

Total 36,138 cases were registered in 2014. Out of these cases, the highest belonged to riots (1,733 cases) followed by kidnapping at rank two (1,635 cases) and cases of rape stood third (1,488 cases).⁵

Family factors that may have an impact on offending like the level of parental direction, the way parents control a child, especially harsh punishment, parental dispute, offender parents or siblings, parental mistreat or ignorance and the nature of parent child relationship.⁶

Recent research finds that the lack of supervision or support a child needs is a link to delinquency in any race. It occurs more in single parents homes because they have a harder time doing those things. Poverty is also reason in the family that leads to family breakups and delinquency.⁷

Many studies have established a clear correlation between a lacks of control and violate. A lack of control is also combined to poor interrelationship between children and parents. Children who are usually in dispute with their parents may be less favorable to discuss their activities with them.⁸

When the family is unable to provide this much needed guidance and support, child will not develop properly, with juvenile misconduct becoming a potential consequence.⁹

Positive relationship with parents may function as a protective against delinquency because parents provide support for conventional behavior and sanctions against conduct problems.¹⁰

Methodology

The study was conducted during the period from March 2016 to July 2017 in the state of Haryana, India. A sample of 120 children participated in this retrospective study with the prior permission from member of juvenile justice board and in-charge of delinquent home (for Delinquent children) and also from the principal of participating school (for Non-delinquent children). The *ethical clearance* was obtained from university research ethics committee (MMU/IEC/788) and the study was carried out in accordance with the guidelines laid by Indian Council of Medical Research ICMR(2006). The assent from children and written consent from their

parents/legal guardians was collected prior to the study. Quantitative research approach with Retrospective case and control design was used in this study. Children aged 13-18 years with alertness, oriented and ability to read, comprehend and speak English/ Hindi and residing in selected delinquent home of Ambala District were included for case group and studying in selected school of Barara District with the same criteria was included for control group. Children who are non- literate, not willing to participate and not having both biological parents were excluded. One twenty participants were enrolled for the study. Out of which 60 delinquent children were enrolled as case group with total enumerative sampling technique and 60 school children were enrolled as control group based on matching and homogeneity with case group on convenient basis (Matching was done for age group and Homogeneity was done by enrolling only male children). Data was collected by using Modified Washington State Juvenile Court Assessment Scale.

Description of Tool

1. Selected Variables:

Demographic variable: It consists of items regarding demographic variables. The demographic variables include age, religion, youth occupation, place of residence, number of siblings, type of family, father education, mother education, father occupation, mother occupation, total monthly income and duration of stay in delinquent home, which were collected from participants with self report (Paper and pencil) technique.

Conduct variable: It consist of items regarding conduct of the child like number of classes youth failed, number of times youth suspended since first grade, youth argues or fights with others students, history of substance abuse, peer relation with kind of peer group, type of crime and history of committed crime, which were collected from parents with self report (Interview) technique.

Specific IPR variable: It consists of single item about specific child rearing includes whether the youth was raised by single parents, which was collected from participants with self report (Paper and pencil) technique.

2. Modified Washington State Juvenile Court Assessment Scale for Interpersonal Relationship:

3. It consist of 26 items on 3 (1-3) point rating scale with total score ranging from 26-78 in order to assess the interpersonal relationship of children with

parents, which were collected from participants with self report (Paper and pencil) technique. The calculated Cronbach Alpha Internal consistency was 0.79 (Acceptable range is 0.7-0.9).

Procedure

The permission was taken to conduct the study in the Delinquent Home (from member of juvenile Justice Board and in-charge of Delinquent home) of Ambala District for case group and in the Govt. Senior Secondary School (from Principal of School) of Barara District for control group. Introduction was given about research and researcher to participants. The assent was taken from the participants and consent from the parents. Collected baseline data (demographic variable, specific IPR variable) from the participants in both case and control groups with self report (paper and pencil) technique. Collected data about IPR on the basis of Modified Washington State Juvenile Court Assessment Scale from the participants in both case and control groups with self report (paper pencil) technique. Participants were asked to fill out IPR related information of pre delinquent

period for the case group (before detention) and of their past life for the control group. Further, collected the data regarding conduct variables from parents with self report (interview) technique in both case and control groups.

Data Analysis

Kolmogorov-Smirnov test was applied to check the normality of data distribution. Data was normally distributed in both case and control groups, hence parametric tests were applied.

Results

Homogeneity between the case and control group by χ^2 between case and control group in terms of demographic and specific IPR variable at 0.05 level of significance which infer that both the groups were homogenous in terms of demographic variables except place of residence (0.001), father education (0.04), and total monthly income (0.001).

Percentage distribution of case and control groups in terms of level of IPR is shown in figure 1.

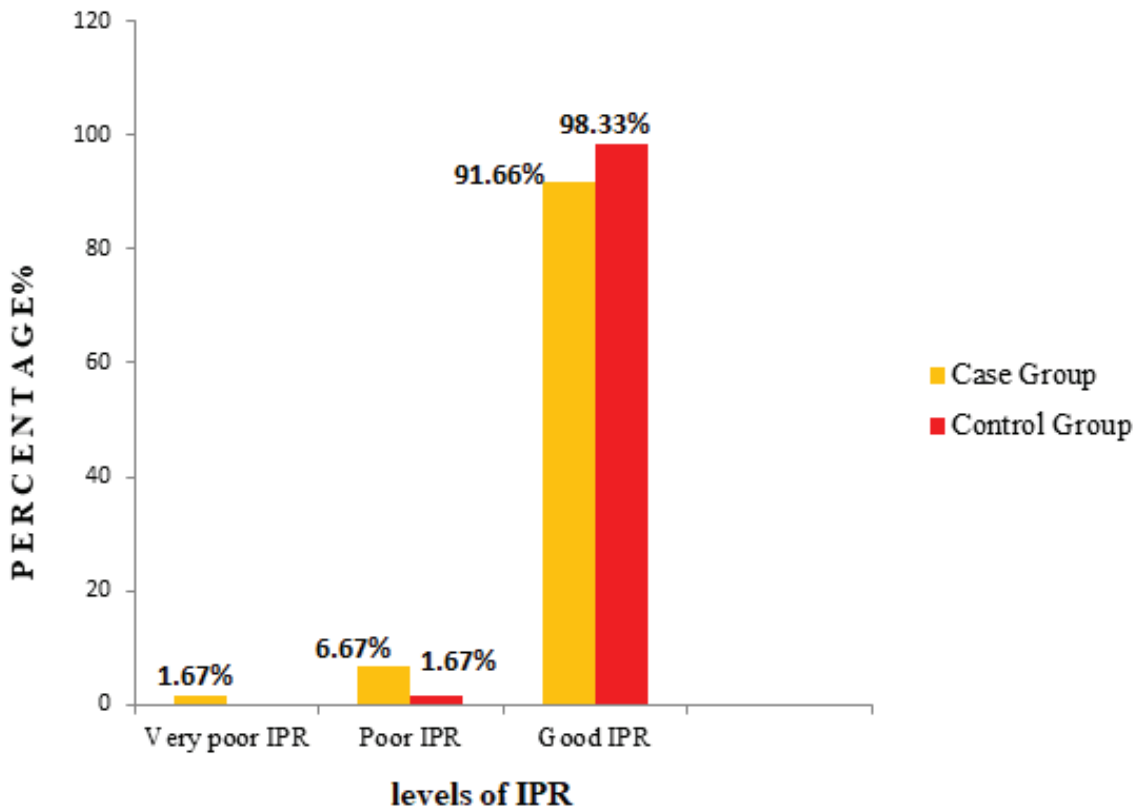


Figure 1: Level of IPR among Case (Delinquent Children) And Control (Non-Delinquent Children) Group

Mean, mean difference, standard error of mean difference and t value of IPR between case and control groups is shown in table 1.

Table 1: Mean, Mean Difference, Standard Error of Mean Difference and ‘t’ Value of Score of IPR Between Case and Control group

N=120

Group Value	Mean	Mean Difference	S.D _D	S.E _{MD}	“t” value	P Value
Case (n=60)	70.83					
		3.75	1.90	0.79	4.74	0.01*
Control (n=60)	74.58					

t'(118) = 1.984, *Significant (p<0.05)

Association of IPR scores with selected variables was

tested by using one way ANOVA and Independent t test among case and control group. There was no significant association of IPR scores with selected variables except youth occupation (0.002), father education (0.05) among case group where as in control group, there was significant association between IPR scores with religion (0.02), place of residence (0.008) and youth was raised by single parents (0.04). This inferred that IPR score is dependent on demographic variables and specific IPR variable.

Further Post Hoc test was applied to reveal the mean difference of significant association in case group (father education and youth occupation) which is shown in table 2.

Table 2: Post Hoc Showing significant mean difference in Association of IPR score with Father Education and youth occupation in case group

N= 60

S. No.	Selected variables	Categories	Mean Difference	Standard Error	Significant
1.	Father education	No formal vs Primary	-5.722	2.024	0.032*
2.	Youth occupation	Student vs Child labor	8.204	2.223	0.001*

*Significant (p<0.05)

^{NS}= Not significant (p>0.05)

Further multiple regression analysis was performed for prediction of IPR with parents by multiple independent variables as shown in Table 3. The data entered were continuous variables for raw data, dichotomous variables for categorical data and dichotomous dummy variables for more than 2 groups of categorical data. Based on simultaneous regression, the overall prediction of IPR by the above independent variables for case group was 31.7% (R=0.563 with the variability of R²=0.317) and for the control group was 27.1% (R=0.521 with the variability of R²=0.271).

By stepwise regression analysis, the non-statistically significant independent variables were excluded and regression analysis was performed by including the significant independent variables i.e occupation

of mother among case group (p<0.05) and place of residence and religion among control group (p<0.05).

The predictability of IPR by Occupation of mother- House wife (reference group- Laborer) in case group was 10.5% (R=0.324, R²=0.105) [in model 1, the predictability of IPR by place of residence-Rural (reference group- Urban) was 11.6% (R=0.341, R²=0.116) whereas in model 2 when place of residence was combined with religion the predictability of IPR by place of residence and religion-Hindu (reference group-Sikh) together was 18.4% (R=0.430, R²=0.184) in the control group. It concludes among control group (non delinquent children) place of residence alone had higher prediction in comparison to model 2 as shown in table 3 (multiple correlation coefficient)

Table 3: Stepwise Regression showing the predictability of IPR by independent variables in Case and Control Group (Multiple correlation coefficient)

N= 120

Group	Independent variables	R	R ²	F value	df	Significance
Control (n=60)	Place of residence	0.341	0.116	7.622	1/58	0.008*
	Place of residence and Religion	0.430	0.184	6.448	2/57	0.003*
Case (n=60)	Occupation of mother	0.324	0.105	6.807	1/58	0.012*

*Significant (p<0.05) ^{NS}= Not significant (p>0.05)

The regression coefficient revealed that in case group occupation of mother- House wife (reference group- Laborer) had negative direction of prediction on IPR with parents which inferred that if the chance of mother's occupation as house wife or home maker among delinquent children increases by 1 point then

IPR decreases by 1.6 points (B= -1.652). Similarly in the control group place of residence- Rural (reference group- Urban) residence combined with religion- Hindu (reference group-Sikh) had negative direction of prediction as shown in table 4.

Table 4: Coefficients of stepwise regression showing the direction and magnitude of predictability of IPR by independent variables in Case and Control Group (Regression coefficient).

N= 120

Group	Model	Unstandardized Coefficients		Standardized Coefficients	t	Significance
		B	SE	B		
Control (n=60)	(Constant)	77.778	1.225		63.515	0.000
	Place of residence	-2.556	0.926	-0.341	2.761	0.008*
	(Constant)	80.866	1.845		43.828	0.000
	Place of residence	-2.350	0.902	-0.313	2.605	0.012*
Case (n=60)	Religion	-3.088	1.413	-0.263	2.186	0.033*
	(Constant)	73.228	1.118		65.524	0.000
	Occupation of mother	-1.652	0.633	-0.324	2.609	0.012*

*Significant (p<0.05)

NS= Not significant (p>0.05)

Discussion

The present study aimed to assess the impact of Strained Interpersonal Relationship (IPR) with parents on juvenile delinquency among children residing in selected delinquent home Ambala, Haryana.

In the present study nearly half (41.7%) of the delinquent children those who have committed crime and stayed in delinquent home belonged to the age groups of 15-16 years and 16-17 years. These findings were similar to the study conducted by Jennifer L. White, Terrie E. Moffitt, Felton Earls and Lee Robins (2010) where they found that four-fifth of children destined to be criminal will be antisocial by the age of 11 years of age and two-third of antisocial by the age of 15 years.¹¹

In the present study the mean IPR score in case group (70.83) was lower than control group (74.58) and 't' value was 4.74 that is significant at the level of 0.05. The similar study was conducted by Bandura and Walters (2013) to compare delinquent boys with non-delinquent boys where they found that parents of delinquents' boys show rejection and lack of affection. The fathers of delinquent boys used harsh physical punishment and ridicule to discipline their off spring, which concluded delinquent boys had poor IPR with parents than non-delinquent boys.¹²

In the present study there was an association of parent child relationship with father education and youth occupation in case group where as in control group with youth was raised by single parents. The similar study was conducted by Bor Williams, McGee Tara Renne and Fagen Abigail (2009) to assess early risk factor for adolescent delinquent behavior among adolescent in Australia and New Zealand, where they found that adolescents living with single-parent household are more likely to engage in deviant activity than youngsters living with both natural parents because the presence of an additional adult providers greater control on youngster's behaviors. Youngsters living with both natural parents were less susceptible to pressure from their friends to engage in delinquency than youngster living in other family structure.¹³

Conclusion

There was a significant difference in the mean score of IPR between case and control group that indicate control group had better IPR than case group. Hence there is significant impact of strained IPR on delinquency among children residing in delinquent home.

Conflict of Interest: None

Source of Funding: None

References

1. Adenwalla MM. Child Protection and Juvenile Justice System for Juvenile in Conflict with Law. 2016
2. Sharma BR, Dhillon S, Bano S. Review Article- Juvenile delinquency in India – a cause for concern. 2012. 31(1):68–72.
3. Martin. Juvenile Delinquency. Theories of Causation. 1/19/2005 p-61. 2010. Available from <https://wwwscribd.com/-J-D.T>
4. Patnaik B, Shamey K. A Study on Factors Underlying Juvenile Delinquency and Positive Youth Development Programs. Department of Humanity Social Science. 2013. Odisha. India.
5. Juveniles Imprisonment. The Indian Express [Internet]. [cited 2017 Apr 18]. Available from: <http://indianexpress.com/article/india/crime/75-of-juveniles-in-2014-were-between-16-18-years-of-age>
6. Graham J, Bowling B. Young People and Crime, Home Office Research Study. 2015. London: Home Office.
7. Matherson J. Working with adolescent girl in a residential treatment centre. *Journal of child and youth care* 2012. (2): 31-39
8. Causes and Solutions of Juvenile Delinquency - Reading Craze [Internet]. [cited 2017 Apr 18]. Available from: <http://readingcraze.com/index.php/cause-and-solution-of-juvenile-delinquency/>
9. Carson DK, Chowdhury A, Perry CK, Pati C. Family characteristics and adolescent competence in India: Investigation of youth in southern Orissa. *Journal of Youth and Adolescence*. 2013. Apr 1;28(2):211-33.
10. Deković M. Risk and protective factors in the development of problem behavior during adolescence. *Journal of youth and adolescence*. 2011 Dec 1;28(6):667-85.
11. White JL, Moffitt TE, Earls F, Robins L, Silva PA. How early can we tell?: Predictors of childhood conduct disorder and adolescent delinquency. *Criminology*. 2010 Nov 1;28(4):507-35.
12. Bandura A, Walters RH. Social learning and personality development. New York: Holt, Rinehart and Winston; 2013.
13. Bor Williams,, McGee Tara Renne and Fagen Abigail A. Early risk factor for adolescent delinquent behavior; Australain Longitudinal Study. *Australian and New Zealand Journal of Psychiatry* 2009. 38(5); 365-372.

Prevalence of Pelvic Floor Dysfunction among Women in South India

Vijayalakshmi R¹, Kanchana S²

¹Principal, Tagore College of Nursing, ²Principal, Omayal Achi College of Nursing, Chennai, Tamilnadu, India

Abstract

Aim and Objective: To assess the prevalence of pelvic floor dysfunction among women.

Methodology: Quantitative approach, descriptive survey research design adopted for this study.

Population comprised of all women between 3 months to 1 year post delivery status and having either of the symptoms of urinary incontinence, bowel incontinence, pelvic organ prolapse, pelvic pain or dyspareunia. Pelvic floor dysfunction was assessed using pelvic floor distress inventory scale, for the women residing in the 26 villages of Tamil Nadu.

Result: 424 women screened, 232 (54.7%) women were identified to have risk for pelvic floor muscle dysfunction, 45.3% of women had normal pelvic floor muscle strength. Majority of them (93.2%) had reported pelvic pain followed by (82.4%) having urinary incontinence. Only (1.4%) of them had reported to have pelvic organ prolapse.

Conclusion: Pelvic floor dysfunction causes a lot of burden among the women and studies have showed a trend of increasing prevalence. Community based nursing interventions are very much needed to prevent women from encountering pelvic floor dysfunction which will significantly affect their quality of life.

Keywords: Pelvic floor dysfunction, pelvic floor distress inventory scale, Urinary Incontinence.

Introduction

Women are the source of life of the universe and women's health is directly proportional to the nation's health and women play a key role in the family. The entire family's health is based on the health of the women. Healthy women give birth to healthy child and healthy children make healthy nation.

Women experience health issues sometimes because of their reproductive anatomy. 'Pregnancy and Childbirth' the natural process which occurs in women's life is nowadays treated as disease because of the social processes and lack of quality healthcare services which has made women's health at risk.² The current healthcare system in the developing countries is not tailor made for women even as men and women undergo similar health problems. Complicating the healthcare system the gender based inequalities such as lack of education, income and employment has limited the ability of the women to protect them.³

One amongst the health problems of women which affects their quality of life of is 'Pelvic floor dysfunction'. Pelvic Floor Dysfunction (PFD) is defined as presence of any of the symptoms such as 'Urinary Incontinence (UI)', 'Faecal Incontinence (FI)', 'Pelvic Organ Prolapse (POP)', 'sensory or emptying abnormalities of the lower urinary tract', 'defecation dysfunction', 'sexual dysfunction' and 'chronic pain syndromes', which can present separately or coexist. Vaginal delivery has been repeatedly mentioned as one of the main contributing factor. Any factor which weakens the pelvic floor muscle causes dysfunction of these major functions in women. These problems affect the women's health very badly and disrupt the quality of life of women as they get older.⁶

During the vaginal birth the muscles and nerves of the pelvic floor are stretched and undergo intense pressure and may become injured which impacts the functions of the pelvic floor and it requires women to rebuild their strength through various means. Reviews

have showed that women who have vaginal delivery are having more risk for 'pelvic floor dysfunction' than women who have cesarean birth and also they say that it increases with 'multiple child births'⁷

The major contributing factors to pelvic floor dysfunction among women are 'increasing weight', 'pregnancy and childbirth', 'frequent lifting of heavy objects', 'having surgery or injury to pelvic floor' and 'straining bowel patterns'. Pregnancy and child birth are considered as known risk factors for many years. The mechanical strain which happens during child birth process causes 'partial denervation of the pelvic floor' and causes injury to the muscle and connective tissue. The injury caused to the muscles affects the core functions of the pelvic floor of supporting the women pelvic organs leading to prolapse, incontinence of urine and faeces etc.⁹

'Pelvic Floor Dysfunction (PFD)' was considered as one of the largest 'unaddressed issues in women's health'. Worldwide statistics regarding urinary incontinence showed that around '200 million people' are affected with some form of 'PFD'. It was observed that 'One in four women over the age of 18' years have experienced episodes of urinary incontinence. It was also found that women wait for '6.5 years' to have a proper diagnosis for such symptoms.

The prevalence rates were found to be high across women in developed and developing countries. In India research studies have reported prevalence rate of '21% with 19.02% of the women' experiencing urinary incontinence and 1.99% experiencing pelvic organ prolapse. The prevalence of incontinence was found to be '18.6%' in another study where the prevalence was reported in '12.5% of primi mothers' as compared to '26.4% in multiple child births'. 'Prevalence of pelvic floor dysfunction' was reported to be high among the women in the rural areas. Rural areas reported prevalence of 44.2% (38.0 – 50.8 %). The reason being most of the women do lot of heavy lifting activities and give birth to more number of children.

Objectives

1. To assess the level of pelvic floor dysfunction among women.
2. To associate the level of dysfunction among women with their demographic variables.

Materials and Method

Research Approach: Quantitative approach

Research design: Descriptive survey research design.

Population

Target Population: Comprised of all women between 3 months to 1 year post delivery status and having either of the symptoms of urinary incontinence, bowel incontinence, pelvic organ prolapse, pelvic pain or dyspareunia residing in the villages.

Accessible Population: Comprised of all women between 3 months to 1-year post-delivery status either with urinary incontinence, bowel incontinence, pelvic organ prolapses, pelvic pain and dyspareunia in the 26 selected villages which comprised a total of 424 women.

Sample

The samples of the study consisted of women between 3 months to 1-year post-delivery status who were identified using pelvic floor distress inventory and fulfilled the inclusive criteria.

Setting

The study was conducted in Thiruvallur district of Tamil Nadu. 26 villages were selected for the study.

Data collection: Pelvic floor dysfunction was assessed using pelvic floor distress inventory scale which assessed the presence of symptoms for urinary incontinence, bowel incontinence, pelvic organ prolapse, pelvic pain and dyspareunia which was prepared by the investigator. This tool was used for inclusion of women to the main study data collection. The tool consisted of 15 items with "yes" or "no" options. 'Yes' for an item was taken as positive for having pelvic floor dysfunction. Women who had the presence of either one of the following, urinary incontinence/bowel incontinence/pelvic organ prolapsed/pelvic pain/dyspareunia were included for the study.

A total of 424 women were in 26 villages from 3 months to 1-year post-delivery status. There were 232 women who had pelvic floor dysfunction. The number of villages and samples taken in each village is presented below.

Data Collection Procedure: The investigator visited the villages one by one and got the list of the women (3 months post labour to 1 year) from balwadi workers and village health nurse. Then the investigator met the women individually at their households, they were seated comfortably with adequate privacy. To obtain the true and free responses the women were explained regarding the purpose and usefulness of the study. The investigator assured the clients about anonymity and confidentiality. The background data of the women was then collected, and they were screened for pelvic floor dysfunction using the pelvic floor distress inventory.

Data Analysis:

Description of Pelvic Floor Muscle Dysfunction Among Rural Women

Table 1: Frequency and Percentage distribution of pelvic floor dysfunction among the rural women

N=424

Total Number of Women Screened in 26 Villages	Total number of women found with pelvic floor muscle dysfunction N (%)	Total Number of women with normal pelvic floor N (%)
424	232 (54.7)	192 (45.3)

The above table depicted that among the 424 women screened, 232 (54.7%) women were identified to have risk for pelvic floor muscle dysfunction, 45.3% of women had normal pelvic floor muscle strength.

Table 2: Frequency and percentage distribution of specific pelvic floor dysfunction among the rural women

N=232

Type of Pelvic Floor Dysfunction	Frequency (N)	Percentage (%)
Urinary Incontinence	193	82.4
Bowel Incontinence	116	50.0
Pelvic Organ Prolapse	3	01.4
Pelvic Pain	218	93.2
Sexual Dysfunction	128	54.6

The above table2 showed that among the 232 women identified with pelvic floor dysfunction, majority of them (93.2%) had reported pelvic pain followed by (82.4%) having urinary incontinence. Only (1.4%) of them had reported to have pelvic organ prolapse.

Discussion

Screening for Pelvic floor dysfunction: 424 eligible women from 26 villages screened, 232(54.7%) women were identified to have any one of the pelvic floor muscle dysfunction. Women who had at least one pelvic floor muscle dysfunction were included in the study. The present finding was supported by the studies conducted in rural India with prevalence of pelvic floor dysfunction ranging from 38% to 50.8%. The findings also proved the burden of the problem among women who had multiple child birth. Systematic review conducted by Bozkurt M et al., highlighted that traumatic birth, usage of forceps, length of the second stage of delivery, and sphincter damage as modifiable risk factors for pelvic floor dysfunction. Women with multiple vaginal deliveries undergo constant damage to the pelvic floor and becomes at risk for pelvic floor dysfunction.

Among the women who had reported pelvic floor muscle dysfunction, 193(82.4%) of them had urinary incontinence, 116(50%) of them had bowel incontinence, 3(1.4%) of them had pelvic organ prolapse, 218(93.2%) had pelvic pain and 128(54.6%) of them had sexual dysfunction. The present study findings were supported by a systematic review done by GuriRortveit and Yngvild S. Hannestad, where in the study had reported urinary incontinence of 25 – 45 %, pelvic organ prolapse of 5 – 10%. Majority of the women reported urinary incontinence and pelvic pain which affects their quality of life to the maximum.

Demographic, Obstetrical, Clinical and Study specific characteristics of study participants: The demographic variables among the 220 women, Most of the women 82(74.5%) and 76(69%) were between 21 – 30 years of age. Most of them 42(38.2%) and 47(42.7%) had middle school education, 84(76.4%) and 79(71.9%) were Hindus, 54(49.1%) and 63(57.2%) were belonging to joint family, 84(76.4%) and 87(79.1%) had monthly income within Rs. 11361, 83(75.5%) and 85(77.2%) were unemployed and having sedentary lifestyle and 106(96.4%) and 107(97.3%) of the women were having non vegetarian food pattern.

With regard to the Obstetrical factors among the study participants most of them 48(43.6%) and 42(38.2%) had one child birth, 29(26.4%) and 33(30%) had 2-3 years birth spacing between two children and 60(54.5%) and 55(50%) had normal vaginal delivery.

With regard to clinical factors pertaining to last child birth among the study participants 65(59.1%) and 53(48.2%) had 6-10 kg weight gain during pregnancy, 77(70%) and 80(72.7%) of them had medical induction of labour and 49(57%) and 41(59.4%) of them had less than one hour of second stage of labour, 69(62.7%) and 72(65.5%) had children with birth weight between 2-3 kilograms, 43(39.1%) and 40(36.4%) were in between 7 – 9 months post natal period, 31(28.25) and 36(32.7%) had perineal trauma during last child birth and 15(13.6%) and 21(19.1%) were presently obese

With regard to study specific factors among the study participants 42(38.2%) and 34(30.9%) had family history of pelvic floor dysfunction and all of them had I degree relationship, among the family members with pelvic floor dysfunction 26(61.9%) and 22(64.7%) had urinary incontinence. Among the 220 women 6(5.5%) and 8(7.3%) had previous information about pelvic floor dysfunction and all of them had information from health care personnel and none of them did any type of exercises.

Demographic and clinical variables of the women with pelvic floor dysfunction showed clearly majority of women having family history, sedentary life style, medical induction of labor, vaginal delivery and birth spacing less than 2 years. These factors are largely supported by many epidemiological studies and systematic reviews. In a study conducted by Jennifer M. Wu et al., where prevalence and trends of these pelvic floor disorders in U.S. women from 2005–2010 was studied it was found that there are various factors associated with pelvic floor dysfunction. The study findings showed that Higher BMI, greater parity, and hysterectomy being associated with higher odds of one or more pelvic floor disorder.

The above observations were also supported by studies conducted by AratiMahishale and Himani Dave among 100 postnatal women from tertiary care hospital, Belagavi. The study findings showed that type of delivery and working status of postnatal women as major contributing factors for urinary incontinence. Other contributing factors were identified as mode of delivery, parity, urinary tract infection, occupation and level of physical activity.

A large scale study conducted by Uma Singh et al among 3000 women presented the contributing factors for urinary incontinence which was the most common

among the pelvic floor muscle dysfunction as age more than 40 years, multiparity, postmenopausalStatus, body mass index more than 25, history of diabetes and asthma, habit of taking tea, tobacco, pan, and betel are risk factors found to be associated with increased prevalence of urinary incontinence in univariate analysis. On multivariate analysis, age more than 40 years, multiparity, vaginal delivery, hysterectomy, menopause, tea and tobacco intake, and asthma were found to be significantly associated with overall incontinence.

Another study conducted by Trupti et al among 552 women showed a prevalence of Urinary Incontinence to have significant association with increasing age and obstetrical factors such as high parity, young age at first childbirth, forceps delivery and prolonged labour.

Conclusion

Pelvic floor dysfunction causes a lot of burden among the women and studies have showed a trend of increasing prevalence. Pelvic floor dysfunction can be easily prevented by women with improved awareness and by performing regular pelvic floor strengthening exercises. The major problem in India and other developing countries was the lack of awareness about the preventing measures and contributing factors of pelvic floor dysfunction.

Simple, yet effective, community based nursing interventions are very much needed to prevent women from encountering pelvic floor dysfunction which will significantly affect their quality of life.

Ethical Clearance

The study was approved by the institutional ethical review board. Consent was obtained from the Head of the institution, and the person in-charge Community Health Centre, and the village leaders. Written informed consent was obtained from the samples after clear explanation of the study purpose, type of data required, nature of commitments, participation, procedure and potential benefits, and the right to withdraw from the study at any point of time was also explained. Confidentiality of all personal details disclosed by the samples and full privacy was assured.

Source of Funding: Self

Conflict of Interest: Nil

References

1. AbouZahr C, de Zoysa I, Garcia Moreno C. Executive Summary: Women and Health. Today's Evidence. tomorrow's Agenda. World J Urol. 2010;18:53.
2. United Nations. The fourth domain for gender equality, decision-making and power. Achieving Gender Equality, Women's Empowerment and Strengthening Development Cooperation. 2010. 55-59 p.
3. Memon HU, Handa VL. Vaginal childbirth and pelvic floor disorders. Women's health (London, England). 2013;9(3):10.2217/whe.13.17. doi:10.2217/whe.13.17.
4. Kaiser Permanente Division of Research. One In Three Women Has Pelvic Floor Disorder. Science Daily. Science Daily, 5 March 2008; Available from <https://www.sciencedaily.com/releases/2008/03/080302150723.htm>
5. Nygaard I, Barber M, Burgio K. Prevalence of symptomatic pelvic floor disorders in US women. J Am Med Assoc [Internet]. 2008;300(11):1311-6. Available from: <http://jama.ama-assn.org/content/300/11/1311.short>
6. AratiMahishale, Himani Dave. Contributing Factors for Urinary Incontinence in Postnatal Women – a Survey. IOSR-JSPE. 2016;3(6):1–5.
7. Bodhare TN, Valsangkar S, Bele SD. An epidemiological study of urinary incontinence and its impact on quality of life among women aged 35 years and above in a rural area. Indian J Urol [Internet]. 2010;26(3):353–8. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2978433&tool=pmcentrez&rendertype=abstract>
8. Wu JM, Vaughan CP, Goode PS, et al. Prevalence and Trends of Symptomatic Pelvic Floor Disorders in U.S. Women. *Obstetrics and gynecology*. 2014;123(1):141-148. doi:10.1097/AOG.000000000000057.
9. Singh U, Agarwal P, Verma M, Dalela D, Singh N, Shankhwar P. Prevalence and risk factors of urinary incontinence in Indian women: A hospital-based survey. Indian J Urol [Internet]. 2013;29(1):31. Available from: <http://www.indianjurol.com/text.asp?2013/29/1/31/109981>

Innovative Teaching Pedagogy in Nursing Education

Beulah Jasmine Rao

Assistant Professor, Beulah Jasmine Rao, School of Nursing Science and Research, Knowledge Park-II, Sharda University, Greater Noida, Uttar Pradesh

Abstract

There are a variety of teaching strategies that instructors can use to improve student learning. It is of great importance to select appropriate teaching strategies in nurse education to make the training more appealing and more effective. In this article, few teaching strategies will be introduced to help instructors learn how to involve the teaching strategy in the nurse education, Faculty and students work together to create environments that promote leadership, Interprofessional education, transformative research and cultural inclusiveness. Through innovative teaching and learning approaches that address a variety of learning styles, professors actively engage students.

Whether it's future researchers and nursing faculty looking to advance their careers or nurses, nurse practitioners and physician assistants seeking greater clinical knowledge, all students at the School of Nursing benefit from professors with diverse interests who create learning environments that empower them to be agents of health care change. Technology allows students to maximize learning time by completing coursework before coming to class. The elimination of lecture-style instruction engages students in a two-way flow of information.

Faculty recognizes adults learn differently and instruction must accommodate multiple learning styles. New research validates that student-driven education promotes retention far better than lecturing. Ultimately, School of Nursing graduates effectively function to the highest standards of care.

Keywords: *Interprofessional education, concept mapping, Debate, Simulation, Fidelity education, Virtual simulation.*

Introduction

“When it comes to innovation in nursing education, the time is now... and tomorrow”

Education is a light which shows the right direction to mankind to surge. The purpose of education is not just making a student literate but also adds rationale thinking, knowledgeably and self sufficiency, Critical thinking is crucial to providing safe, competent, and skillful nursing practice

Innovation is the act of constructive thinking, grouping knowledge, skills, and attitude into new, original & rational ideas. In nursing education, to prepare nurses to change environments and practice in new environments, a need for innovation always exists. Therefore, new strategies must be used in nursing education. Simulation and personal digital assistants (PDAs) are some of the new strategies.¹

The nursing profession has long embraced innovation-in professional practice and in education. It has had to, experts say. Over the years, nursing has had to cope with various shortages of nurses and faculty members to educate them, as well as evolutions in technology and models of health care delivery, an increasingly diverse population, and a shift toward more patient-centered care.

A teacher tries his best to impart knowledge as the way he understood it. So, any communication method that serve this purpose without destroying the objective could be considered as innovative method of teaching.

Usage

The use of innovative method in health care institutions has the potential not only to improve education, but also to empower people, strengthen governance and galvanize the effort to achieve the

human development goal for the country suggest that use of more creative methodologies like utilizing web based teaching, portfolios, case studies and a range of other creative teaching strategies.²

Nursing in Digital Age

Nursing Informatics: Nursing Informatics is defined as “science and practice (that) integrates nursing, its information and knowledge, with management of information and communication technologies to promote the health of people, families, and communities worldwide.” Nursing informatics empowers nurses in achieving a good patient centered health care.

High Tech High Touch Approach: High tech high touch approach in nursing was devised to preserve the human component of nursing care without undermining the technological advancements in the field of patient care. Present day nursing education is preparing students to maintain the human element of nursing care with the help of sophisticated technology and gadgets.³

Simulations in Nursing Education: A simulation-based approach to learning has proven to be highly effective across industries because it allows students to develop crucial skills without risk. Simulations are getting wider acceptance in nursing education system, According to the National League for Nursing (NLN), simulation as a teaching method also is effective because it allows students to develop skills through practice in a context that mirrors real-life conditions.

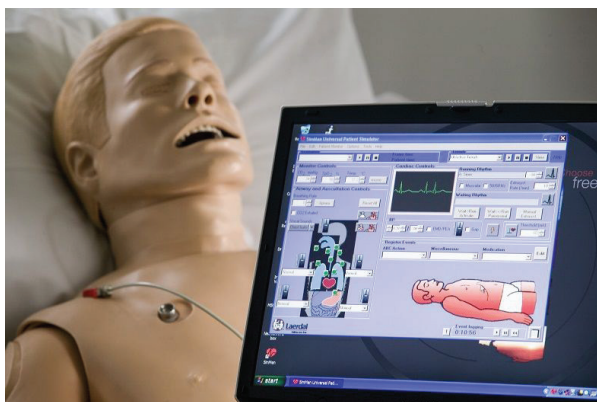


Fig. 1: Simulation in Lab

Technology & Nursing Education: Technology exerts greater influence on nursing education as a tool for teaching and learning. Computers are used in all the fields of healthcare with the advent of advanced technology. The quality of nursing research increases with the greater access of literature through internet.

Advanced Educational Technology: Advanced educational technology media like projectors, Smart boards, computer models and simulation labs are now widely used by nursing teachers to provide effective teaching experiences to students. Nursing students widely use smart phones, tablets and android applications as means for educational support. Android apps provide information to the fingertips of the students in no time and is increasingly used in clinical nursing education.⁴

Animations & Cinematic Technology: Animations are now widely used to enhance the learning experience. Video assisted teachings with the help of animation are being widely used in nursing education. Nursing procedures, physical examination, breathe sounds and stages of labor can be made clear and thorough with the help of these visual learning technologies. The use of cinematic technology in the class room teaching provides a varied learning experience which engages students in learning complex material through visual illustrations.

Online education: Fifteen years ago, you might have had to shop around for a nursing program that offered a comprehensive array of online classes that would allow you to become an RN. Today, nursing schools everywhere offer a variety of online courses so that you don't have to quit your day job to further your education, whether it's for a bachelor's degree or a graduate degree.

Interprofessional education: A growing number of nursing schools are teaming up with their counterparts from medical and pharmacy schools and others to establish opportunities for students to learn with people from other health care disciplines.⁵

New models of academic progression. In 2010 the Academic Progression in Nursing (APIN) initiative was launched to support seamless academic progression between community colleges and universities. Today, in a growing number of areas, students can begin their coursework in nursing at a community college, transfer those credits and finish their baccalaureate degree at a university.

Dedicated education units (DEUs): and similar models promote collaboration between the school of nursing and health care setting, and these partnerships yield many benefits for both students and staff. Whether it is a DEU or another type of partnership, students learn to practice nursing with and be mentored by an experienced clinician.

Case base learning: The investigative case-based learning approach is a method of learning and teaching that gives students opportunities to direct their own learning as they explore the science underlying realistically complex situations.

Jigsaw Teaching: The jigsaw technique is a “tried and true” cooperative learning strategy that helps students create their own learning. Students are arranged in groups and assigned a different piece of information. In their groups, students learn the piece of information well enough to be able to teach it to another group of students.⁶

QR Codes: QR (Quick Response) codes are easy to create and have multiple uses in classrooms at all grade levels. QR codes can lead students to information just by scanning the code on a student’s digital device. In the classroom, students can use QR codes to

- Check their answers
- Vote on answers during class discussions
- Extend information found in textbooks
- Get survey information for math units on data
- Participate in scavenger hunts
- Access video tutorials on the material being taught
- Link students directly to Google maps

Project-Based Learning: Research confirms that project-based learning (PBL) is an effective and enjoyable way to learn. PBL also develops deeper learning competencies required for success in college, career, and civic life. Project-based learning uses real-world scenarios, challenges, and problems to engage students in critical thinking, problem solving, teamwork, and self-management. Once students solve the problem or challenge, they present their solutions.

Crossover Learning: Learning in informal settings, such as museums and after-school clubs, can link educational content with issues that matter to learners in their lives. These connections work in both directions. Learning in schools and colleges can be enriched by experiences from everyday life; informal learning can be deepened by adding questions and knowledge from the classroom. These connected experiences spark further interest and motivation to learn.

These crossover learning experiences exploit the strengths of both environments and provide learners with

authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings.

Computational Thinking: Computational thinking is a powerful approach to thinking and problem solving. It involves breaking large problems down into smaller ones (decomposition), recognizing how these relate to problems that have been solved in the past (pattern recognition), setting aside unimportant details (abstraction), identifying and developing the steps that will be necessary to reach a solution (algorithms) and refining these steps (debugging).

Such computational thinking skills can be valuable in many aspects of life, like deploying a scientific team to tackle a difficult challenge like an outbreak of disease.

Learning by doing science (with remote labs): Engaging with authentic scientific tools and practices such as controlling remote laboratory experiments or telescopes can build science inquiry skills, improve conceptual understanding, and increase motivation. Remote access to specialized equipment, first developed for scientists and university students, is now expanding to trainee teachers and school students. A remote lab typically consists of apparatus or equipment, robotic arms to operate it, and cameras that provide views of the experiments as they unfold.

Asset based teaching: Asset-based teaching seeks to unlock students’ potential by focusing on their talents. Also known as strengths based teaching, By building on strengths students already possess, asset-based teaching seeks to create lifelong learners who are confident in their abilities to master new skills.

Feedback Sandwich: This clinical teaching tool is based on research from the 1980s, with the finding that specific feedback should be directly related to performance. Feedback has three functions:

- Reinforce the learner
- Inform the learner of a way to improve the skill
- Motivate the Learner (Docheff, 1990)

The idea of the sandwich is to include all three functions of effective feedback

Concept mapping: Is a technique that allows students to understand the relationships between ideas by creating a visual map of the connections. Concept

maps allows the student to see the connections between ideas that they already have, connect new ideas to their existing knowledge; and organize ideas in a logical, but not rigid, structure that allows new information or viewpoints to be included in the future

Evidence-Based Practice (EBP)

EBP is imperative for ensuring patient safety. Although teaching strategies to enhance EBP knowledge and skills are recommended, recent research indicates that nurses may not be well prepared to apply EBP. A three-level hierarchy for teaching and learning evidence-based medicine is suggested, including the requirement for interactive clinical activities in EBP teaching strategies.

Interactive method including interactive lectures, small group work, journal clubs, reading quizzes, clinical nurse presentations, workshops and problem-based learning are needed in teaching EBP. An interactive approach involves an interaction amongst the participants. Effective learning reflects the quality of teaching. Learning through a constructivist approach refers to the creation of an environment in which the learner is an active participant who gains experience and engages in reflection, leading to problem-based, transformative learning

Teaching and learning strategies have included clinical practicum projects, lectures, small group work, post-clinical conferences, online modules and simulations. EBP teachers who collaborate with their students, and nurses in clinical practice also influence students' integration of EBP.⁷

Online Course

An online course does not have scheduled on-campus class meetings. It is an integrated learning program entirely accessible at any time and any place via a computer with an Internet connection.

Online education is widely accepted as student-centered education. To ensure the effectiveness of the online learning environment, instructors should create a detailed course plan, which includes selecting course materials and discussion topics, plus designing activities. Online education provides increased because attending classes on campus is often difficult for nurses responsibilities.

Debating

It is presenting the "pro and "con arguments of a specific assertion, proposition, or solution to a problem. This teaching/learning strategy offers students an opportunity to learn new content in an exciting way.

Debating permits students to become actively involved in learning the course content while it promotes critical thinking and enhances verbal communication skills. Also, debating triggers higher order learning, such as analysis, synthesis, and evaluation.

It can help students learn to both read and write critically. Bradshaw and Lowenstein claimed that debating is a useful teaching/ learning activity for nursing students at all levels. Debating can be used when teaching a controversial issue or discussing a trend in nursing education. All students are responsible for researching the issue being proposed. Debaters need to examine relevant literature, analyze the data, develop a solution or hypothesis, and present their ideas clearly and formidably during the debate. After the debate, the students in the audience evaluate the debaters' presentations and participate in post-debate discussion. This type of debate with feedback engages all the students in learning, improves team collaboration, and develops critical thinking

Student-Directed Learning

Students must do more than just listen: They must read, write, discuss or be engaged in solving problems. Most important, to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis and evaluation." Gone are the stage and the podium from where a professor orates and imparts noble truths. Face-to-face collaboration enables students and faculty to extract the greatest value from both academic and personal perspectives. Since students learn based upon their personal experiences, motivators and capacities, professors develop classroom and clinical lessons that enable students to apply and develop their greatest talents.

Myers-Briggs Type Indicator– Personality Assessment

Understanding the dynamics of one's personality enables an individual to act more genuinely, work more efficiently and functions effectively in a team environment. The Myers-Briggs Type Indicator (MBTI) is a trusted personality assessment used worldwide

to measure psychological types and provide an understanding of different personality preferences, as well as help students enhance a team's dynamic.

The knowledge gained from the data reports promotes a greater understanding of self and others by increasing awareness of how individuals gather information, make decisions and interact with others. Students can focus on their talents and strengths while increasing their understanding of others' differences and improve their problem-solving skills. After taking their MBTI assessment, students have their confidential results delivered to them.

University Based Education

Previously, the GNM and ANM courses were offered in Schools of Nursing that were not affiliated to any University. Now, B Sc. Nursing and MSc. Nursing courses are being offered to nursing students in Colleges of Nursing which is either affiliated to, or a constituent of a university

Innovative Evaluation Strategies

Innovative evaluation strategies like 'Objective Structured Clinical Evaluation' (OSCE), Rubrics, are now widely being used in nursing education. OSCEs are widely used to evaluate clinical skills and competencies. In clinical nursing education, rubrics are used to objectively assess student performance and it focuses on aspects of patient safety

Educational Quality Assurance

The trend of educational quality assurance has emerged recently. It is a process of monitoring and evaluating the efficacy and effectiveness of educational provision and to institute remedial measures as and when needed. In India nursing education is flourishing in an unprecedented manner, naturally this will lead to the dilution in the quality of nursing education. Accrediting agencies like ISO has taken the initiative of accrediting colleges of nursing in India

Conclusion

Nursing education is experiencing many changes, from the traditional classroom to web-based clinical instruction, the transition continues Using innovative teaching strategies is crucial skill for teaching and education staff, innovating our teaching strategy is no easy feat, combination of technologies & Social media plays a critical role in this by promoting the integration

of technologies, humanization of virtual interactions, and personalization of learning, New technologies continue to emerge and bring with them the promise to reform and revitalize today's higher education system Globally, there has been a call for a paradigm shift, from a teacher to a learner centered approach in nursing education, effectiveness of several of these technologies in improving student learning and achievement (e.g., Active Learning Classrooms, Simulation Technology), Furthermore, educators must be fully trained and incentivized to use new technologies. Nonetheless, these technologies and/ or others not yet conceptualized will surely be incorporated into health care education as it evolves to meet the many challenges of 21st-century learning.

Conflict of Interest: There is no conflict.

Source of Funding: Self

Ethical Clearance: Ethical clearance has taken from Institutional ethical committee.

References

1. Kemp JE, Morrison GR, Ross SM. Developing evaluation instruments. In: *Designing Effective Instruction*. New York, NY: MacMillan College Publishing; 1994.
2. Morgan RL, Whorton JE, Gunsalus C. A comparison of short term and long term retention: lecture combined with discussion versus. *J Instr Psychol*. 2000;27:53.
3. Johnson JP, Mighten A. A comparison of teaching strategies: lecture notes combined with structured group discussion versus lecture only. *J Nurs Educ*. 2005;44:319e322.
4. Goodin HJ, Stein D. Deliberative discussion as an innovative teaching strategy. *J Nurs Educ*. 2008;47:272e274.
5. Gomez GE, Gomez EA. Learning of psychomotor skills: laboratory versus patient care setting. *J Nurs Educ*. 1987;26:20e24.
6. Nagle BM, McHale JM, Alexander GA, French BM. Incorporating scenario-based simulation into a hospital nursing education program. *J Contin Educ Nurs*. 2009;40:18e25.
7. Reese CE, Jeffries PR, Engum SA. Learning together: using simulations to develop nursing and medical student collaboration. *Nurs Educ Perspect*. 2010;31:33e37.

Determinants of High Neonatal Mortality Rates in Migori County Referral Hospital in Kenya

Brian Barasa Masaba¹, Rose Mmusi-Phetoe²

¹University of South Africa and Migori County Referral Hospital, Kenya, ²University of South Africa, South Africa

Abstract

Background: Neonatal mortality is a significant public health problem worldwide. In Kenya, neonatal mortality rates are unacceptably high within the sub-Saharan region. In 2017 the country had 20.9 deaths per 1000 live births above the WHO target of 12 deaths per 1000 live births.

Purpose: The purpose of this study was to investigate the determinants of high neonatal mortality rates in Migori County, Kenya. The neonatal mortality cases were utilised as the target population to the study.

Method: A quantitative, descriptive, cross-sectional, non-experimental research design was used. A systematic sampling technique was employed to draw a sample of 201 archived neonatal cases out of 420 neonatal mortality medical records, which constituted the study population. Data were collected by means of a developed questionnaire. The Statistical Package for Social Sciences (SPSS) Version 21 was used to analyse data.

Results: The main findings revealed the leading determinants of neonatal mortality were early neonatal period, prematurity, low birth weight, neonates with intrapartum complications and poor 1st Apgar score. Obstetrical haemorrhage and HIV were the main maternal complications associated to neonatal mortalities, while the leading direct causes of death in this study were birth asphyxia and sepsis.

Conclusions: To reduce mortalities, a multifaceted approach is needed to establish quality improvement in neonatal intensive care and reduce preterm birth incidences in Migori County.

Keywords: *Determinants, Kenya, Migori County, neonatal mortality, neonates.*

Introduction

The first 28 days of life of a newborn baby is the neonatal period¹. This period represents the most vulnerable time for a child's survival². According to UNICEF², there were approximately 2.5 million neonatal deaths, or roughly 47% of all under-fives died globally in the year 2017. This translates to 7,000 newborn deaths every day³. The majority of the neonatal deaths are concentrated in the first day or first week after birth, with roughly 1 million dying on the first day and close to 1 million dying within the next six days of life².

UNICEF⁴ reported that in 2017, the largest number of newborn deaths occurred in Southern Asia at 39%, followed by sub-Saharan Africa at 38%. This shows that the majority of deaths occur in low and middle-income countries⁴. Approximately 40,000 newborn babies die in Kenya within the first month of life annually⁵. In

2016, the neonatal mortality rate for Kenya was 22.6 per 1,000 live births⁴. The Neonatal Mortality Rate (NMR) has fallen gradually from 45.5 deaths per 1,000 live births in 1960, but the country is yet to achieve the Sustainable Development Goal (SDG) 3 target 2 of reducing neonatal mortality to 12 deaths per 1,000 live births⁴. Children who die within the first 28 days of life often do so as a result of diseases and conditions that are readily preventable or treatable with proven, cost-effective interventions⁶.

This study adopted previously developed conceptual frameworks on neonatal determinants by Nisar⁷ in Pakistan and Wuraola⁸ in Nigeria. The model grouped the determinants into distal and proximal factors^{7,8}. The distal factors include the mother's socioeconomic status, while proximal factors include the gender of the neonate, birth size, birth rank, birth interval, Antenatal care

visits, delivery complications, delivery mode, delivery place, illness/disorders of the neonate and maternal childbearing age; these factors are expected to influence the neonate survival and mortality chances^{7,8}. This study sought to explore and describe the determinants of high neonatal mortality in Kenya. The root causes, what the current interventions are, the gaps, and what could be done to help Migori County Referral Hospital reduce the risk to neonatal mortality were explored.

Method

Design and setting: This study utilised a hospital based descriptive, cross-sectional, non-experimental research design. The study was conducted at Migori County Referral Hospital in Kenya. Migori County is located in the Western part of Kenya in the former Nyanza Province.

Subjects: Approximately 420 neonatal mortality cases formed the total population size.

Sampling and sample size: A sample size of 201 cases was determined using Cochran's⁹ formula and 420 cases as the study population. A systematic sampling technique was used to select a sample of neonatal cases from the neonatal mortality register at the Migori County Referral Hospital's health records department on 21 November 2018.

Inclusion and exclusion criteria: The inclusion criteria for this study were: The neonates should have been born in the hospital or admitted in the institution while alive; The neonates should have died within 28 days of life in the hospital and death of the neonate should have occurred in the 3 years preceding the year of the study, that is, between 1 January 2015 and 31 December 2017.

The exclusion criteria in this study were: Babies dying 29 days after delivery; neonatal deaths occurring at home or on the way to the hospital, neonatal deaths (2 days) after hospital discharge and files on deceased neonates before 1 January 2015 or after 31 December 2017 were excluded.

Independent and dependent variable: The study's dependent variable was neonatal death as noted on the case file, while the independent variables were neonatal case characteristics: gestational age (calculated from last menstrual period), Apgar score, presenting complaint (the reason for admission), cause of death, gender,

birth weight, birth order and respective case's maternal characteristics.

Data tool and Data Collection: Data were collected from 21 November 2018 to 26 December 2018 with the use of a questionnaire. This study adopted data collection tool of a previous Nigerian study, the tool was developed in English¹⁰. The mortality register in the hospital record department was reviewed first to establish a list of all neonatal deaths during the period 1 January 2015 to 31 December 2017 as this formed the study population. This was found to be 420 neonatal cases. The researchers administered the data collection tool to collect the necessary information from the identified files in the hospital records department.

Data analysis: Data were coded, and entered into the Statistical Package for Social Sciences (SPSS) Version 21, from 20 to 31 January 2019. Descriptive statistics analysis in the form of percentage distribution tables were used to describe and summarise data.

Results

Table 1 presents the deceased neonate's background characteristics. More deaths occurred in the early neonatal period compared to late neonatal period, and preterm neonates had lower survival chances compared to full term neonates. Other neonates that were more likely die were those who had low birth weight, males, firstborns and whose mothers were of age group 30-39 years.

Table 2 presents determinants of neonatal mortality to include; Apgar scoring, neonatal and maternal complications. The study revealed that neonates who were more inclined to die were those with poor 1st Apgar scores compared to 2nd Apgar score. Intrapartum complications were the leading reason for admission to their newborn intensive care unit (NICU). Lastly obstetrical haemorrhage was the most prevalent maternal complication, followed by HIV and malaria.

When it comes to the direct causes of death, Table 3 shows that the two top leading direct causes of death in Migori County Referral Hospital in this study were birth asphyxia and sepsis.

Discussion

The purpose of this study was to explore the determinants of high NMRs in Migori County Referral Hospital, Kenya. The study revealed that early neonatal

period, prematurity, low-birth weight and intrapartum complications were the major neonatal mortality determinants. In this study majority (84.6%) of the deceased neonates died during the first week of life. One can conclude that the highest neonatal deaths were likely to occur during the early neonatal period. This is supported by global study by Lawn et al ¹¹, Brazilian ¹² and Germany ¹³ study that associated early neonatal period to neonatal mortality. Neonatal deaths in the first 6 days are mainly caused by maternal factors, and pregnancy and childbirth complications ¹².

The researchers found that majority (64.2%) of the deceased neonates were born below the gestational age of 37 weeks. This implies that the likelihood of dying during the neonatal period was higher for preterm neonates than for term- and post-term neonates combined. Approximately 1 million children die each year due to complications of preterm birth ¹⁴ an estimated 15 million babies are born preterm (before 37 completed weeks of gestation). Babies born early or preterm may develop conditions that place them at higher risk for short-term problems, long term neurological complications and even death ¹⁵.

This study shows that majority (56%) of the deceased neonates had birth weight below 2.5kg (low birth weight) in this study. This implies LBW neonates had the lowest survival chances in this study. Similar findings were noted in studies in Nigeria ¹⁶, Colombia ¹⁷ and South America ¹⁸. These neonates required long stays in the NICUs in order to gain weight ¹⁸. The latter could expose them to infections and other complications ¹⁸. Globally LBW contributes to 60% to 80% of all neonatal deaths ¹⁹. The current study supports the conclusion made Lederman et al ¹⁷, that reductions of neonatal mortality could be realised if the percentage of babies born at weights <3000g could be decreased.

This study connotes that obstetrical haemorrhage was the most prevalent maternal complication, followed by HIV and malaria. Although almost half (49.2%) of the mothers had no illnesses nor complications, their neonates died pointing to some causes of neonatal deaths at the level of the health facility. These findings were expected as they are found to be in line with studies conducted in Bangladesh ²⁰, multi-country survey in 29 countries ²¹ and WHO studies ²² where the leading causes of maternal deaths were haemorrhage and hypertension, which together account for more than half of maternal deaths and increase neonatal mortality risk ²².

The study showed that the two leading causes of death in the Migori County Referral Hospital in this study were birth asphyxia and sepsis, followed by preterm births and RDS. This finding corroborates with other worldwide studies that the direct causes associated with neonatal mortality include preterm birth complications (34%), intrapartum-related complications (24%), sepsis/meningitis (12%), pneumonia (10%), congenital abnormalities (9%), tetanus (2%), diarrhoea (2%) and others accounting for 6% of the total deaths ²³. According to Gillam-Krakauer and Gowen ²⁴, the incidence of birth asphyxia is higher in developing countries where there may be limited access to maternal and neonatal care; of those babies affected. Neonatal sepsis results in death or major disability for 39% of those affected, even with timely antimicrobial treatment ²⁵. Still, sepsis is one of the leading causes of deaths in developing countries, whereas extreme prematurity is the leading cause of death in developed countries ²⁶.

Other determinants were those neonates scoring less than 7/10 in the 1st Apgar score faced greater risk of neonatal death compared to low 2nd Apgar scores. This simple Apgar score tool can accurately predict mortality and encephalopathy in the newborn and neonatal periods as noted in Zambian study ²⁷. The majority (41.8% and 21.4%) were firstborns and above fourth born child respectively. Previous studies suggested that this observation may be due to high risk of complications during delivery among nuliparous and grand-multiparous mothers ²⁸. Lastly, male neonates were more inclined to die than female neonates in this study. The protective factor of female sex was attributed to the faster maturation of the lungs and consequent fewer respiratory complications ²⁹.

Conclusion

This study concludes that enabling neonates to graduate their early neonatal period and reducing preterm births could significantly reduce the neonatal mortalities in the Migori County Referral Hospital.

Limitations of the study: The shortcomings in this study were that it is retrospective in nature and the gathering of data was from a single county hospital.

Acknowledgment: We thank the University of South Africa, Migori County Ministry of Health and Migori County Referral Hospital for permissions to conduct the study.

Table 1: Background of deceased neonates n=201

Background of deceased neonates		%
Age at Death (days)	1-7	84.6
	15-21	1.5
	22-28	1.0
	8--14	12.9
Gestational age	37-42	33.8
	Above42	2.0
	<37	64.2
Birth Weight	<2.5KG	55.7
	2.6-3.5KG	36.3
	Above3.6Kg	8.0
Gender	Male	53.2
	Female	46.8
Birth Order	1 st born	41.8
	2 nd born	10.4
	3 rd born	14.4
	4 th born	8.5
	Above 4 th born	21.4
	Not recorded	3.5
Maternal Age (Years)	21-29	33.3
	30-39	35.3
	40-49	3.0
	Below 20	20.9
	Not recorded	7.5

Table 2: Determinants of neonatal mortality n=201

Determinants of neonatal mortality		%
1 st Apgar	≤3/10	20.9
	4/10-6/10	34.8
	≥7/10	24.4
	Not recorded	19.9
2 nd Apgar	≤3/10	7
	4/10-6/10	42.3
	≥7/10	30.8
	Not recorded	19.9
Neonatal Complications	intrapartum	44.8
	preterm	37.8
	sepsis	15.9
	congenital	1.5

Cont... Table 2: Determinants of neonatal...

Maternal Complications	obstetrical haemorrhage	18.4
	malaria	10.4
	puerperal sepsis	4.0
	pre-eclampsia	3.0
	diabetes	1.5
	heart disease	1.0
	others	8.0
	none	49.3
	not recorded	4.5
	Maternal HIV status	Non reactive
Reactive		18.4
Not recorded		13.4

Table 3: Cause of Death n=201

Cause of Death	%
Birth Asphyxia	35.8
Sepsis	22.9
Preterm	19.9
Respiratory distress syndrome	19.4
Jaundice	1.0
Congenital anomalies	1
Total	100.0

Conflict of Interest: The authors declare that they have no competing interests

Source of Funding: Self

Ethical Approval: The study was approved by UNISA Health Studies Research and Ethics Committee, Migori County Referral Hospital and the Ministry of Health Migori County.

References

1. Abbing-Karahagopian V, Bhat N, Pathirana J, Harris T, Kapoor A, Keene DL. Neonatal death : Case definition & guidelines for data collection, analysis, and presentation of immunization safety data. *J Vaccine*. 2016;34(16):6027–6037.
2. UNICEF. Neonatal mortality 2018 [cited 2019 Mar 13]. Available from: https://data.unicef.org/wp-content/uploads/2018/09/NMR_mortality_rate_2018.xlsx
3. WHO. Neonatal mortality 2018 [cited 2019 Mar 13]. Available from: <https://www.who.int/gho/en/>
4. UNICEF. EVERY CHILD ALIVE The urgent need to end newborn deaths 2018 [cited 2019 Mar 13]. Available from: www.unicef.org/every-child-alive.

5. Lancet. Every Newborn Series:Kenya 2014 [cited 2018 Jan 19]. Available from: <http://www.thelancet.com/serieeverynewborn>
6. UNICEF. Levels and Trends in Child Mortality. New York: United Nations Children’s Fund; 2014.
7. Nisar Y Bin, Dibley MJ. Determinants of neonatal mortality in Pakistan: secondary analysis of Pakistan Demographic and Health Survey 2006-07. BMC Public Health. 2014;14(1):1–12.
8. Wuraola G. Underlying and Proximate Determinants of Under-five Mortality in Nigeria: Understanding the Pathways of Influence. Covenant Univ. 2017;1(1):1–95.
9. Cochran WG. Sampling technique. New York: John Wiley & Sons; 1977.
10. Ezeh OK, Agho KE, Dibley MJ, Hall J, Page AN. Determinants of neonatal mortality in Nigeria: evidence from the 2008 demographic and health survey. BMC Public Health. 2014;14(521):1–10.
11. Lawn JE, Cousens S, Zupan J. Neonatal Survival 4 million neonatal deaths : When ? Where ? Why ? Lancet. 2005;2(15):9–18.
12. Kassar SB, Melo AMC, Coutinho SB, Lima MC, Lira PIC. Determinants of neonatal death with emphasis on health care during pregnancy, childbirth and reproductive history. J Pediatr (Rio J). 2013;89(3):270–277.
13. Garten L, Ohlig S, Metz B, Bühner C. Prevalence and Characteristics of Neonatal Comfort Care Patients : A Single-Center, 5-Year, Retrospective, Observational Study. Front Pediatr. 2018;6(221):1–8.
14. WHO. Preterm birth 2016 [cited 2018 Dec 22]. Available from: <http://www.who.int/mediacentre/factsheets/fs363/en/>
15. Blencowe H, Cousens S, Chou D, Oestergaard M, Say L, Moller A, et al. Born Too Soon : The global epidemiology of 15 million preterm births. BioMed Cent. 2013;10(1):1–14.
16. Onwuanaku CA, Okolo SN, Ige KO, Okpe SE, Toma BO. The effects of birth weight and gender on neonatal mortality in north central Nigeria. BMC Res Notes. 2011;4(562):1–6.
17. Lederman A, Kiely L, Rees JM. Weight Associated With Lowest Neonatal Mortality : Infants of Adolescent and Adult Mothers. Univ Washingt. 2011;6(6):1161–1166.
18. Demitto MDO, Gravena F, Dell’Angolo MC, Antunes MB, Pelloso SM. High risk pregnancies and factors associated with neonatal death. Rev Esc Enferm USP. 2017;51(1):1–7.
19. WHO. WHO Care of the preterm and low-birth-weight newborn 2019 [cited 2019 Mar 13]. Available from: <https://www.who.int/reproductivehealth/global-estimates-preterm-birth/en/>
20. Khanam R, Ahmed S, Creanga AA, Begum N, Koffi AK, Mahmud A. Antepartum complications and perinatal mortality in rural Bangladesh. BMC Pregnancy Childbirth. 2017;17(81):1–8.
21. Vogel JP, Souza JP, Mori R, Morisaki N, Lumbiganon P, Laopaiboon M, et al. Maternal complications and perinatal mortality : findings of the World Health Organization Multicountry Survey on Maternal and Newborn Health. Int J Obstet Gynaecol. 2015;4(121):76–88.
22. WHO. Maternal mortality 2018 [cited 2019 Mar 13]. Available from: <http://www.who.int/entity/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/index.html>
23. UNICEF. Committing to Child Survival : A Promise Renewed Progress Report 2013 [cited 2019 Mar 13]. Available from: www.apromiserenewed.org
24. Gillam-Krakauer M, Gowen CW. Birth Asphyxia. PubMed. 2018;2(1):1–6.
25. James Wynn, Hector Wong, Thomas Shanley, Mathew Bizzaro, Lisa Saiman, Richard Polin. Time for a neonatal – specific consensus definition for sepsis. Natl Inst Heal. 2015;15(6):523–528.
26. Muthukumar N. Mortality profile of neonatal deaths and deaths due to neonatal sepsis in a tertiary care center in southern India : a retrospective study. Int J Contemp Pediatr. 2018;5(4):1583–1587.
27. Chola R. A study to determine the association between 5 minute apgar scores in term newborns and mortality, neonatal encephalopathy and neurodevelopment at eight weeks postnatal age, at the University Teaching Hospital. Univ Zambia. 2016;1(1):1–45.
28. Debelew GT, Afework MF, Yalew AW. Determinants and Causes of Neonatal Mortality in Jimma Zone, Southwest Determinants and Causes of Neonatal Mortality in Jimma Zone, Southwest Ethiopia : A Multilevel Analysis of Prospective Follow Up Study. PLoS One. 2014;9(9):1–12.
29. Ribeiro AM, Lima MDC, Sarinho SW, Guimarães MJ, Coutinho SB. Risk factors for neonatal mortality among children with low birth weight. Rev Saúde Pública. 2009;43(2):1–9.

Planning and Implementing Objective Structured Clinical Examination (OSCE) as a Clinical Examination Method in Mental Health Nursing: Perceptions of Undergraduate Nursing Students in Oman; A Pilot Study

Divya K. Y.¹, Blessy Prabha Valsaraj², Mohammed Ghalib Qutishat¹, Khulood Rashid Saif Al Abri¹

¹Lecturer, ²Assistant Professor, College of Nursing, Sultan Qaboos University, Oman

Abstract

Objective: The main objective was to explore the perceptions of undergraduate nursing students on OSCE as a method of clinical evaluation in mental health nursing clinical examination and to compare the scores of written clinical examination and OSCE in mental health nursing.

Method: A quantitative research using descriptive survey design was done among Baccalaureate Nursing students enrolled for Mental Health Nursing Clinical Course, NURS 3017 in the spring 2018. Pierre et al's (2004) OSCE evaluation questionnaire was used to assess student's perception about OSCE.

Results: A paired t test was conducted to compare the scores of OSCE and final written clinical examination. There was a significant difference in the mean scores of OSCE (Mean=31.03, SD=3.05) and written clinical examination (Mean=29.67, SD=3.35); $t=2.24$, $p=.031$. These results suggests that students scored better in OSCE as compared to written clinical examination. The perception of the students towards OSCE as a clinical examination method shows that 51% of the students prefer OSCE over clinical written examination.

Conclusions: It is a mandatory requirement for nurse educators today to have a patient safety curriculum. OSCE gives a fair chance to all the students to go through same process of evaluation and examiners can make sure every student has learned necessary skills appropriately to provide comprehensive care in the respective field. Hence OSCE should be integrated with other method of clinical evaluation in mental health nursing education in Oman.

Keywords: *Objective structured clinical examination, nursing, mental health, clinical examination.*

Introduction

Objective Structured Clinical Examination is used to evaluate medical scholars since 1970s, and recently being used increasingly by nursing and other allied health professionals. Since OSCE gives a fair chance to evaluate all the students through the same process it can be incorporated mandatorily into educating and evaluating health professionals.⁽¹⁾

The conventional clinical and practical examination is overwhelmed with several problems. A study aimed

to compare OSCE vs Traditional evaluation method (TEM) in assessing the skills of nursing students was carried out and to obtain opinion about OSCE and TEM from participants and evaluators of OSCE. There was 100% agreement toward the usefulness of OSCE as an evaluation method by the nursing student and the clinical instructors.⁽²⁾

Communication is the essence of mental health care. OSCE has been found as an alternative evaluation method to assess communication skills of the students. Studies have demonstrated that the validity of the OSCE scores depends on the quality of the rating scales used in OSCE.⁽³⁾

Student's feedback is the most appropriate measure for successful organization and implementation of the OSCE and also provides directions for further

Corresponding Author:

Divya K.Y.

College of Nursing, Sultan Qaboos University, Oman
Contact information: +968 2414 5482/ +968 91446631
e-mail@ kydivyam@gmail.com/ divyaky@squ.edu.om

improvement. For the best use of OSCE as a method of evaluation, one must judiciously formulate and pilot new OSCE stations and the checklists in order to ensure the reliability and validity of examination, and also carefully consider the type of skills to be evaluated, duration and interdependence of stations to confirm the students has achieved mandatory skills to practice in the selected clinical specialty.

Method

A quantitative research using descriptive survey design was done among Baccalaureate Nursing students enrolled for Mental Health Nursing Clinical Course, NURS 3017 in the spring 2018. Permission for the study was obtained from ethical committee of College of Nursing, Sultan Qaboos University. The results were analyzed using SPSS 22 version. Level of statistical significance was set at $p < 0.05$.

Sultan Qaboos University at Oman encourages the use of OSCE as one of the assessment method in clinical course. The present study was conducted among 39 students to assess their perception on OSCE as a clinical examination method in mental health nursing. At the time of data collection this was the only available students enrolled for the course. In order to preserve anonymity each student was assigned a number from 1 to 39.

There were a total of 4 stations with multiple skill assessments. Station 1: a manned station with assessment of history, Mental status examination and communication skills. A simulated patient was trained to act out the role of the patient as per the scenario. Patients with different diagnosis were presented to avoid contamination. Station 2: Unmanned station, on pharmacological management of mental and behavioural disorders. Station 3: skill station on restraints and ECT with a simulated patient for the related clinical skill performance on aggression management, pre ECT and post ECT care. Station 4: a case scenario is kept at the station, student is expected to read and analyse the case and formulate 3 prioritized nursing diagnoses and explain the first priority nursing diagnosis. A total of 12 minutes per station is allowed for the students for station and the students are expected to switch over the station as the bell rings. Every station was evaluated out of 10 and an average was computed on 20. A mock OSCE was carried out in the previous week to familiarize the students and examiners to the OSCE process.

Following the OSCE the student's perceptions on OSCE as a method for clinical evaluation was collected in the classroom on the same day by using Pierre et al's (2004) OSCE evaluation questionnaire.

The questionnaire consists of 30 items grouped into 4 sections i.e.; student evaluation of OSCE attributes (12 items), student evaluation of quality of performance testing of OSCE (8 items), students perception of validity and reliability about OSCE (4 items) and students perception regarding OSCE organization (6 items). It is a standardized valid and reliable tool (0.82) in the public domain and could be used without special permission.

The students had a written clinical examination at the same week for 1 hr with 30 multiple choice questions assessing various domains of learning. Comparison of student's score of written clinical examination with OSCE was done using paired t test.

Findings

The data were analysed using the statistical package for social sciences version 22. A test for normality, the Kolgorov-Smirnov goodness of fit test, was carried out on each item. The data was normally distributed.

Table 1: Descriptive statistics showing sample characteristics n=39

Sl. No.	Item	Category	Frequency (f)	Percentage (%)
1.	Gender	Male	10	26
		Female	29	74
2.	Age in years	20-21	26	66
		22-23	13	34
3.	Number of clinical postings completed	3	36	92
		4	1	3
		5	2	5
4.	Experienced OSCE before	Yes	39	100
		No	0	0
5.	Current experience with OSCE	Excellent	4	10
		Very Good	8	20
		Good	24	62
		Poor	3	8
6.	Do you prefer OSCE over clinical written	Yes	22	56
		No	17	44

Table 1 shows that 29(74%) were females, 26 (66%) were belonging to the age group of 20-21 years, 36(92%) had completed 3 clinical postings prior to this course, all of them 39(100%) experienced OSCE before, 24(62%) had good experience with OSCE and 22(56%) prefer OSCE over clinical written examination.

Table 2: Students perception on OSCE attributes n=39

Sl. No.	OSCE Attributes	Agree f & (%)	Neutral f & (%)	Disagree f & (%)
1.	Exam is fair	17 (44)	13(33)	9 (23)
2.	Wide knowledge area is covered	23(59)	10(26)	6 (15)
3.	Need more time at stations	30(77)	2(5)	7 (18)
4.	Exam well administered	20 (51)	5(13)	14 (36)
5.	Exam well-structured and sequenced	20 (51)	7(18)	12 (31)
6.	Exam minimized chance of failing	19 (49)	8(21)	12 (31)
7.	OSCE less stressful than other exams	16 (41)	1(3)	22 (56)
8.	Allow student to compensate in some areas	26 (67)	7(18)	6 (15)
9.	Highlighted areas of weakness	24 (62)	8(21)	7 (18)
10.	Exam is intimidating	13 (33)	12(31)	14 (36)
11.	Students are aware of level of information needed	20 (51)	8(21)	11 (28)
12.	Wide range of clinical skill is covered	30 (77)	3(8)	6 (15)

Table 2 shows 30(77 %) of the students agreed that OSCE covers a wide range of clinical skills and they need more time at each station. 26 (67%) agreed that OSCE allowed the student to compensate in some areas. 24(62%) agreed that OSCE highlighted areas of weakness, 23(59%) agreed that wide knowledge area is covered in OSCE, 20(51%) agreed that exam is well administered, well-structured and sequenced and students are aware of the level of information needed. 19 (49%) agreed that OSCE minimized the chance of failing, 16(41%)agreed that OSCE is less stressful than other exams. Also 14(36%) of them disagreed that exam is intimidating.

Table 3: Student evaluation of quality of performance testing of OSCE n=39

Sl. No.	OSCE Organization	Agree f & (%)	Neutral f & (%)	Disagree f & (%)
1.	Fully aware of the nature of exam	26 (67)	7 (18)	6(15)
2.	Tasks reflects those taught	25 (64)	6 (15)	8(21)
3.	Time at each station was adequate	15 (38)	18 (46)	6(15)
4.	Setting and context at each station feels authentic	14 (36)	9 (23)	16(41)
5.	Instructions and clear and unambiguous	23 (59)	3 (8)	13(33)
6.	Tasks asked to perform are fair	20 (51)	11 (28)	8(21)
7.	Sequence of stations are logical and appropriate	25 (64)	9 (23)	5 (13)
8.	Exam provides opportunities to learn	21 (54)	11 (28)	7 (18)

Table 3 shows that 26(67%) agreed that they were fully aware of the nature of OSCE exam, 25(64%) agreed that OSCE tasks reflects those taught, 18(46%) had neutral perception on time at each station. 16(41%) had disagreed that the setting and context at each station feels authentic. 23(59%) had agreed that the instructions were clear and unambiguous, 20(51%) agreed that the tasks they were asked to perform were fair, 25(64%) had agreed that sequence of stations are logical and appropriate. 21(54%) agreed that exam provided an opportunity to learn.

Table 4: Students perception of validity and reliability about OSCE n=39

Sl. No.	OSCE Organization	Agree f & (%)	Neutral f & (%)	Disagree f & (%)
1.	OSCE exam scores provide a true measure of essential clinical skills	26 (67)	9 (23)	4 (10)
2.	OSCE Scores are standardized	18(46)	11 (28)	10 (26)
3.	OSCE is a practical and useful experience	24(62)	9 (23)	6 (15)
4.	Personality, ethnicity and gender of group will not affect OSCE Scores	24(62)	8 (21)	7 (18)

Table 4 shows that 26(67%) of the students agreed that OSCE provides a true measure of essential clinical skill, 18(46%) agreed that OSCE scores are standardized, 24(62%) agreed that OSCE is a practical and useful experience and personality, ethnicity and gender of the group will not affect OSCE scores.

Table 5: Students Perception regarding OSCE organization n=39

Sl. No	OSCE Organization	Agree f & (%)	Neutral f & (%)	Disagree f & (%)
1.	The announcement about the place of OSCE examination was done well in advance	25(64)	11(28)	3(8)
2.	The time tables of OSCE examination were available and known to student early	22(56)	7(18)	10(26)
3	The revision done before the examination about the different types of clinical procedure	22(56)	11(28)	6(15)
4.	Gave general idea about the OSCE before exam process	23(59)	8(21)	8(21)
5.	The staff were cooperative to answer your questions related to the organization of the examination	21(54)	8(21)	10(26)
6.	The quality of the OSCE labs were good, from set up and cleanliness, suitable, lightening, quietness and ventilation.	21(54)	9(23)	9(23)

Table 5 shows that 25(64%) of the students agreed that announcement of place of OSCE was done in advance. 22(56%) agreed that time table of OSCE were available and known to student early, 22(56%) agreed that revision was done before the examination about

different types of clinical procedure, 23(59%) agreed that they were given a general idea about the OSCE before the exam process, 21(54%) agreed that the staffs were cooperative to answer the questions related to the organization of examination.

OSCE versus clinical written examination scores

Table: 6 Comparison of mean scores of OSCE and clinical written examination n=39

Type of examination	Mean score	SD	Paired differences			t	df	Sig.
			Mean	SD	Standard Error mean			
OSCE	31.03	3.02	1.37	3.81	0.61	2.238	38	.031
Clinical Written Examination	29.7	3.35						

Paired t test was calculated to compare the mean scores of OSCE and clinical written examination. There was a significant difference in the mean scores of OSCE (Mean=31.03, SD=3.02) and written clinical examination (Mean=29.67, SD=3.35), $t=2.238$, $p=.031$. These results suggests the students scored better in the OSCE as compared to written clinical examination.

Discussion

One way to improve the effectiveness of OSCE is to take feedback from teachers and students who were part of it in planning and implementing the same. According to the current study, more than half of the participants agreed that OSCE is fair and wide knowledge area is covered in OSCE, OSCE minimized chance of failing. 77% agreed that OSCE is well administered and wide knowledge area is covered in OSCE.

In the current study student evaluation of quality of performance testing of OSCE revealed that more than half of the students agreed that they were fully aware of the nature of the exam, stations reflected tasks that is taught, and exam provided an opportunity to learn. Similar reports were identified in a study who found that most of the students reported that OSCE was fair and nearly two thirds of them reported that OSCE minimized chance of failing, covered a wide range of clinical skills and was well administered. ⁽⁴⁾

In a study of perceptions of medical students on OSCE as an assessment tool, 72% of them said adequate information was given prior to the examination, 51% said OSCE was stressful, 57% agreed that the time allotted at each station was insufficient and 84% mentioned that OSCE is an acceptable method to assess practical skill for undergraduate medical students. ⁽⁵⁾

In the present study, 64% agreed that information about OSCE exam was given well in advance and the instructions were clear and unambiguous by 59%, 33% said OSCE is stressful 77% agreed that they need more time at individual station, 67% agreed OSCE is a true measure of essential clinical skills.

The present study also aimed to compare the scores of OSCE versus clinical written examination. These results suggests that students scored better in the OSCE as compared to written clinical examination when their clinical skills were assessed.

Conclusion

The student's feedback regarding the introduction of innovative teaching learning method in the undergraduate nursing education is essential in designing more innovative and successful teaching learning activities in the future. The results of the study revealed that though some of the students had an initial resistance in the preparatory phase of OSCE more than half of them recommend to use OSCE in evaluating clinical skills and they prefer OSCE over traditional written clinical examination.

Ethical consideration: Ethical permission was obtained from the college research and ethics committee dated 21/03/2018 (REC/2017-2018/09) for conducting the study. Written consent was obtained from all the participants and the participants were promised anonymity and confidentiality of their grades being used in comparison as part of data collection.

Conflict of Interest: No conflicts of interest is expressed by all the participants

Source of Funding: Dean's fund of 300 OMR was sanctioned for this project which will be availed only after publication.

Acknowledgement: The researchers are grateful to the administration, course coordinator, course team, and the lab assistants of sultan Qaboos University College of nursing for all the support provided throughout the research. The team also express our gratitude to the simulated patients for OSCE and all our students for their sincere remarks on their perception towards OSCE for assessment of mental health nursing clinical skills.

Reference

1. Rushforth HE. Objective structured clinical examination (OSCE): review of literature and implications for nursing education. *Nurse Educ Today*; 2007 Jul; 27(5):481-90.
2. Jelly P and Sharma R. OSCE vs. TEM: Different Approaches to Assess Clinical Skills of Nursing Students. *Iran J Nurs Midwifery Res*; 2017 Jan-Feb; 22(1): 78–80.
3. Cömert M, Christalle E, Dirmaier J, Härter M, Scholl & Zill JM. Assessing Communication Skills of Medical Students in Objective Structured Clinical Examinations (OSCE). A Systematic Review of Rating Scales. *PLoS One*; 2016 Mar 31; 11(3):e0152717. Available as <https://www.ncbi.nlm.nih.gov/pubmed/27031506>
4. Al-Zeftawy1A M, Khaton S E. Student Evaluation of an OSCE in Community
5. Health Nursing Clinical Course at Faculty of Nursing, Tanta University. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*; 2016, Volume 5, Issue 4 Ver. III (Jul. - Aug. 2016), PP 68-76 Available as www.iosrjournals.org Sadia S, Sultana S, Fareesa Waqar F. OSCE as an Assessment Tool: Perceptions of
6. Undergraduate Medical Students. *Anaesth Pain & Intensive Care*; 2009; 13(2):65-67

Nurses' Perception of Ethics and Legal Training of Nurses in Ghana

Konkamani Francis Xavier¹, Rose Mmusi-Phetoe¹, Gloria Thupayagale-Tshweneagae¹

¹*Department of Health Studies, University of South Africa*

Abstract

Background: Ethics and legal training in nursing provides a foundation and point of reference for ethical and legal issues that nurses may encounter during the practice of nursing. Extant research has shown that, in the global context, nurses are the largest group of health care providers. They frequently have to make decisions about their patients. Adequate training on issues of ethics and law is essential.

Purpose: The purpose of this study was to explore nurses' views on the ethics and legal training that they receive from training schools, identify any gaps in curricula and suggest ways to ensure adequacy of the and legal content in the nursing curriculum.

Method: A cross-sectional quantitative design was used in this study. Data were collected by means of a self-administered questionnaire which was developed, tested and disseminated to 150 nurses working in the six district hospitals of Ghana. Data analysis was by SPSS 25.0.

Results: The majority of the nurses believed their training on both and legal issues to be inadequate and felt that some issues were not covered, such as being a witness in court and signing legal documents.

Conclusion: Adequate training on and legal principles applicable to health care is paramount during the preparation of nurses.

Keywords: *Curriculum, ethics, legal, nurses' perception; training.*

Introduction

Nurses play a vital role as facilitators between health facilities, patients and their families in matters that may have legal implications for their health care. Their role stretches from the prevention of any kind of harm to patients while under the nurse's care, to making difficult decisions where harm has occurred, thus subjecting their ethical standing to test¹. Furthermore, the practice of nursing is based upon a social contract that separates professional rights and tasks as well as machines for public accountability. <Author, the meaning of the preceding sentence is not clear, please review.>

²Provides a framework for nurses' ethical decisions. This framework or guide is mandatory for all nurses, and they need to embrace it in order to function within the law and adhere to stipulated ethical standards. The ICN code of ethics prescribes four elements that underpin the standards for ethical conduct, namely the nurses and the people; the nurses and practice; the nurses and the

profession and the nurses and co-workers.

The people's principle posits that all nurses should ensure that an environment is secure and respectful. It further emphasises the provision of sufficient information to all their patients, to ensure that patients' decisions are informed. Nurses are required to adhere to acceptable standards in respect of clinical nursing, management, research and education, and to contribute to an ethical institutional environment by maintaining, promoting and safeguarding co-worker ethical conduct¹.

Nurses face complex decisions regarding treatment, termination of life support, assistance with signing legal documents and issues of confidentiality³. For nurses to be able to function at the required standard, they need to be well prepared to be a patients' advocate, to uphold the law and to maintain ethical standards at all times⁴ makes it clear that practicing nurses should adhere to high ethical standards. The implication is that all nurses should have had sufficient training in ethics and legal

principles to execute their functions appropriately. It is on this basis that the researchers aimed at exploring adequacy of nurses' training in ethics and legal principles in Ghana.

Method

Aim: The aim of this study was to explore nurses' views on the ethics and legal training that they receive at training schools, to identify any gaps in curricula and to suggest ways to ensure adequacy of the ethical and legal content in the nursing curriculum.

Design: A cross-sectional descriptive-exploratory design was used to address the study aim and objectives.

Setting: The study was conducted at all six hospitals in the Upper West Region (Province) of Ghana. The setting was chosen for its convenience and close proximity to the researchers, and the fact that the province has the largest number of hospitals and professional nurses in the country.

Sample: The sample for the study consisted of professional nurses in the Upper West Region who had been practicing nursing for at least five years. The experience limit was set to ensure prolonged exposure in service. The accessible population is as shown in Table 1.

Table 1: Upper West Region Hospitals

Sr. No.	Hospital	Number of participating nurses
1	Wa	54
2	Jirapa Hospital	23
3	Nandom Hospital	20
4	Nandom Hospital	20
5	Lawra Hospital	21
6	Tumu Hospital	15
Total	6	150

Of 150 respondents, 110 completed and returned the questionnaires.

Data collection: Data were collected using a self-administered structured questionnaire about demographic data, nurses' perception of ethical practice and nurses' perception of legal practice. A Likert scale, varying from strongly agree to strongly disagree, was used.

Ethical considerations: Permission was sought and granted by the University of South Africa's

Higher Degrees Committee (Ref: HSHDC/579/2017). Permissions were sought from the six participating hospitals through the regional directors of health services. Participation in the study occurred only after the respondents had signed the informed consent that emphasised voluntary participation and adherence to confidentiality.

Data analysis: Data were analysed using the Statistical Package for Social Sciences (SPSS), version 25. Descriptive statistics were used to summarise the data. Data were presented in the form of bar charts and frequency tables.

Reliability and validity: The developed tool was checked for all the items by all the researchers. It was later pre-tested. Only the first author collected data in all six hospitals to ensure that the toll is presented consistently for all respondents.

Results

The sociodemographic characteristics of respondents showed that the majority of the respondents were between the ages of 20 and 30 years, at 52.7%. of 110 respondents in this study, 62.7% were females, denoting the preponderance of women in nursing.

The major findings of the study as this relates to both legal and ethical issues having been found to be inadequate in the training of student nurses, are sorted into four groups: Patients' Charter, clinical trials, signing of legal documents and knowledge of common offences.

Patients' Charter: More than half of the respondents (52%) reported not receiving any training on the Patients' Charter. The Patients' Charter enables student nurses to understand their rights and responsibilities to patients. This knowledge would further allow nurses to educate the patients' about their rights.

Clinical trials: Sixty-five percent of the respondents reported lack of knowledge about handling clinical trials, and their role as nurses. They reported that they have not been taught about clinical trials. Clinical trials examine how patients react to a particular therapeutic agent, and its tolerance and effectiveness.

Signing of legal documents: A significant number of respondents (59.2%) of the respondents reported to have not received adequate training in the signing of legal documents. Legal documents include the informed consent for minors and those unable to act, such as

comatose patients and patients whose family members cannot be found. It includes assisting in the signing of wills.

Knowledge of common offences: Inadequate knowledge of common offences (including negligence of duty, professional malpractice, battery, assault, invasion of privacy and fraud) was espoused by 55% of the respondents.

Discussion

The purpose of this study was to investigate nurses' views on the adequacy of training in legal and ethical issues, in order to suggest appropriate points to include in the curriculum.

In this study, the respondents lamented lack of training in respect of the National Patients' Rights Charter. This finding is critical and needs to be addressed swiftly, as lack of knowledge might lead to nurses profaning patients' rights. According to⁵ ignorance is not an excuse admissible in law. Patients nowadays are likely to demand to be cared for by nurses who are knowledgeable; they are very much aware of their rights. According to⁶ patients would even go as far as demanding that nurses who care for them should be aware of all the ethical and legal issues that are likely to have an impact on them. ⁷is of the view that nurses who are uninformed on ethical and legal issues are likely to contribute to legal and ethical problems that are encountered in the clinical setting, rather than prevent them.

The respondents in the study also intimated that they are not fully informed about signing legal documents. The only document that they were aware of was the informed consent form. ⁸argue that signing legal documents is not part of the role of a nurse and they argue that a nurse's role is to deliver care to patients; being a witness might create a conflict of interest. However, the proponents argue that nurses should be knowledgeable about the referral routes to, for example, social workers and the hospital's legal department (if there is one).

The majority of respondents (65%) reported not having been taught on clinical trials. In most parts of the world, including Ghana, nurses are placed in different settings, such as oncology, where clinical trials are common. In other instances nurses may be called to participate in clinical trials, which necessitates the inclusion of clinical trials in their training. According to⁹

patients might be concerned about safety issues during clinical trials and nurses need to know which safety measures are in place. ¹⁰further report that, in clinical trials, nurses are no longer used merely as data collectors, but are involved as part of a health care group.

It was furthermore found that some of the respondents were not aware of common offences or did not think offences such as negligence of duty, professional malpractice and invasion of patients' privacy could be punishable by law. Respondents claimed not to have had any training on it. This is a serious shortcoming, because these offences are mostly encountered in the clinical area and all nurses should be informed about these before they go into practice, for their own and patients' safety. ¹support the view that nurses should be aware of the laws and ethics governing their practice to avoid malpractice and breach of ethical principles.

Conclusion

Adequate training on ethics and legal principles applicable to health care is paramount during preparation of nurses. Nursing curricula in this study setting and in all other training institutions should cover enough content in the ethico-legal aspects of nursing. Restructuring of curricula is necessary to ensure that graduates are well-informed about legal and ethical issues in nursing.

Ethical Clearance: Taken from: Research Ethics Committee; Department of Health Studies, University of South Africa (UNISA) HSHDC/579/2017. REC-012714-039 (NHERC).

Source of Funding: Self

Conflict of Interest: Nil

References

1. Jack CL, Singh Y, Ncama BP. A South African perspective to medical law and ethics in nursing: Getting basic principles right. *Afri. J. Nurs. Midwifery*. 2016; 17(2): 118-129. doi: <https://doi.org/10.25159/2520-5293/378>.
2. International Council of Nurses (ICN). *The ICN code of ethics for nurses*. 2012 [cited April 10, 2017]. Available from: <http://ethics.iit.edu/ecodes/sites/default/files/International%20Council%20of%20Nurses%20Code%20of%20Ethics%20for%20Nurses.pdf>.

3. Hoskins K, Grady C, Ulrich CM. Ethics education in nursing: Instruction for future generations of nurses. *Online J issues Nurs.* 2018; 23(1). doi:10.3912/OJIN.Vol23No01Man03.
4. Ghana Nurses' Regulation. *Laws guiding nursing practice.* Nurses' Regulation 1972 (L. I. 683). Accra: Government Print; 1972.
5. Oyetunde O, Ofi B. 'Nurse's knowledge of legal aspects of nursing practice
In Ibadan, Nigeria'. *J Nurs Educ Practice.* 2013; 3(9): 80.
7. Gambhir RS, Dhaliwal JS, Anand S. Knowledge and awareness of Consumer Protection Act among private dentists in Tricity, Punjab. *J Family Med Prim Care.* 2015; 4(3): 347-351. doi: q10.4103/2249-4863.161314.
8. Albina JK. Patient abuse in the health care setting: the nurse as patient advocate. *AORN J.* 2016; 103(1): 74-78. doi: 10.1016/j.aorn.2015.10.021.
9. Lepola P, Needham A, Mendum J, Sallabank P, Neubar D, de Wildt S. Informed consent for Paediatric clinical trials in Europe. Open access. *Arch Dis Child.* 2016; 101:1017-1025. doi: 10.1136/archdischild-2015-310001.
10. Green L. Explaining the role of the nurse in clinical trials. *Nurs Stand.* 2011; 25(22): 35-39.
11. Ness EA, Royce C. Clinical trials and the role of the oncology clinical trials nurse. *Nurs. Clin North Am.* 2017; 52(1): 133-148. doi: 10.1016/j.cnur.2016.10.005.

The Lived Experience of Doctors of Nursing Practice in Pursuit of a Doctor of Philosophy Degree in Nursing

Michael Greco

Assistant Professor of Nursing, Hofstra-Northwell School of Graduate Nursing and Physician Assistant Studies, Seaview Ave, Suite, Staten Island, NY

Abstract

This qualitative research study using a heuristic, descriptive phenomenological approach explored the lived experience of 12 DNPs who have returned to in pursuit of a PhD in nursing. Three themes were identified from the study participants: Wanting to Know Something More, Social-Individual Tensions, and Challenges to Transformational Learning. Based on the study findings, the DNPs desire to expand on their limited research knowledge and the tensions and challenges to transformational learning surrounding this quest were worth it as the participants gained personal and professional fulfillment.

Keywords: *Clinical doctorate; Nursing doctorate, Doctoral education; DNP to PhD; Research focused doctorate.*

Introduction

Doctoral preparation in nursing has a long history of growth with variation and is at the forefront of discussion within our nursing community. The nursing profession has accepted numerous provisions of doctoral education designed with unique objectives and outcomes. Doctoral program curriculum differs from those designed to focus on clinical practice and supplant the master's degree to programs intended to develop the nurse researcher.⁽¹⁾ Numerous new nursing degrees have emerged in healthcare in the last decade. Some of these emerging degrees are referred to as clinical or practicing doctorates and presently are not recognized as a professional degree for licensure. Practice doctorates have components of research embedded in the curriculum but do not require a dissertation as a culminating degree requirement. These programs place less emphasis on theory, meta-theory, and research method compared to research-focused programs.⁽¹⁾ One alternative to the professional practice doctorate is to obtain the traditional Doctor of Philosophy degree (PhD) whose curriculum focuses on research and developing the nurse scientist. Several healthcare disciplines such as medicine, dentistry, psychology, pharmacology, and physical therapy presently offer the practice doctorate as their professions' terminal degree. Providers who have earned this terminal degree in clinical practice are returning to school to pursue a second doctoral degree,

the PhD.

Ongoing discussion has evolved over the last decade, yielding both constructive and disparaging criticism as well as concerns surrounding the practice degree within the nursing community. One concern associated with the pursuit of a second nursing doctoral degree addresses the value and the application associated with the degree. The individual who possesses a doctoral degree has, by definition, achieved a terminal degree in his/her chosen discipline. Therefore, the pursuit of a second doctorate degree could be perceived by nursing, members of the scientific community, and/or society as an acknowledgement of a hierarchal structure for terminal doctorate degrees.

Unless nursing understands the essence of practicing DNP-prepared nurses actively pursuing the PhD in nursing, the profession will remain in the unknowing of the perspective of having clinical nurses practicing as nurse scientists. Discussions exist in the nursing literature regarding nurses' professional and personal motivation as well as inhibitors and job satisfaction on intent to returning to school in pursuit of a higher educational nursing degrees.⁽²⁾ This trend is often a result of the shift in the nursing shortage with nurses advancing their education for job security.⁽³⁾ It is essential that nursing understand the lived experience of DNP-prepared nurses who are in pursuit of a PhD in nursing.

This qualitative study using heuristic, descriptive phenomenology examines the essence of the lived experience of DNP-prepared nurses actively pursuing the PhD in nursing degree. This study sought to identify common experiences voiced by the DNP participants as they shared and described the experience of returning to school for a second nursing doctoral degree.

Material and Method

A qualitative phenomenological research design using heuristic, descriptive phenomenology was used to examine and understand the essence of the lived experience of DNP-prepared nurses in pursuit of the PhD in nursing degree. After Barry University's Institutional Review Board granted human subject approval, purposive and snowball recruitment strategies were undertaken to help identify potential study participants.

Qualified candidates for the study were DNPs that graduated from an American Association of Colleges of Nursing (AACN) accredited program and who were enrolled in a PhD in nursing program. An information flyer was sent via email to the participants asking for participation. Requests were made to solicit known DNP participants and were asked to distribute the flyer to DNP colleagues who are pursuing a PhD in nursing or who have pursued a PhD in nursing wanted to participate in the study. Assistance was requested from the participants helping to identify other DNP experiencing a similar career trajectory. The sample consisted of 12 ($n=12$) DNPs who were in pursuit of a PhD in nursing, six males and six females. Participants varied in age from 45-65 years. Six of the participants enrolled in the study were actively taking classes from a DNP-PhD bridge program while six were enrolled in a traditional PhD program. Ten of the participants were advanced practice registered nurses and all but three held academic appointments at a college or university.

After consent was obtained and participant questions were answered, data collection began and consisted of semi-structured one-on-one interviews. Two interviews were conducted in person with the additional ten through Skype. In order to obtain basic demographic data, each participant completed a demographic data questionnaire that was collected from the participants and included, gender, age group, race/ethnicity, year DNP program was completed, type of PhD program attended, year PhD studies began, year PhD studies were completed, advanced practice registered nurse (APRN) status and

specialty, academic affiliation with either a college or university, and if the participant held a clinical practice in a healthcare facility. The participants were then asked to provide a pseudonym that was used to identify them aiding to safeguard their identity. The interviews were recorded using two electronic digital recorder devices and interviews ranged from 36-62 minutes in length. The first research question for this study was "What is the lived experience of a practicing DNP returning to school in pursuit of a PhD degree in Nursing?" The second question asked "How do DNPs who have returned to school in pursuit of a PhD in nursing explain their motivation?" A third and final research question sought to answer "What factors do participants perceive have influenced their decision to pursue a PhD in nursing?" At the end of the interview, a member check interview was scheduled. The researcher then utilized the Epoche process by reflecting and journaling, which enabled him to make his experiences, thoughts, and feelings visible as well as observations of behaviors of each participant in the study. All interviews were sent to a transcriptionist who signed a third-party confidentiality form. Interview transcriptions were entered into NVivo for MAC 11.4 computer software and phenomenological reduction were used for data analysis.

Findings

There were many commonalities in the participants' experiences and a total of three themes were uncovered from the analysis that conveyed the experience of these DNP nurses returning to school in pursuit of a PhD in nursing and clearly grounded the data: *wanting to know something more, social-individual tension, and challenges faced to transformational learning.*

Theme I: Wanting to know something more. One theme that emerged from the data analysis was the desire to want to know something more after graduating from a DNP program. This presents a discrepancy between the actual state and the desired state and such progress is rewarded by positive affect. The desire the DNP participants sought out of wanting something more and the lack of skill needed for the DNP to translate evidence contributed to the desire for the DNPs to pursue the PhD degree in nursing. One of the DNP participants verbalized how his DNP limited him in practice and did not offer what it was he needed to *know* to implement research findings. He shared his experience:

“I knew the DNP would not offer me research skills but thought at least the program would cover what was needed to translate the evidence to practice. I was lacking this skill when I finished the DNP program. I think we only had only one class in translational research. What they didn’t cover in my program was the different type of research methodologies, and that’s what I want it. When reviewing literature, you have to understand the research methodology which I don’t think is done very well in the DNP programs.

Another student spoke about occupying a different nursing role and needing additional skills to attain this goal. She shared her plan as: I was interested in health policy. I was also interested in possibly working for the Centers for Disease Control (CDC) or the National Institute of Health (NIH) at the time I decided to enroll in the PhD program. I recognized the fact that I probably needed that PhD, that heavy research-based degree, in order to be appropriately prepared for that kind of role.

Theme II: Social-Individual Tension was represented in this study by reasons that led the DNPs to return to school in pursuit a PhD in nursing. One PhD candidate explained how she was passed over for a position as a Program Director because she did not hold a PhD degree. She spoke about her *social-individual tension*: “The university where I was working was looking for a Program Director for the Nurse Anesthesia Program. They were not looking for DNPs to fill this role and would only interview PhDs. Those of us who held a DNP recognized that the opportunity for advancement was not present. I decided that going back for a PhD would afford me more career advancement.”

One of the DNP to PhD students shared his experience of serving on a hospital research committee and recognized he lacked the skills to conduct research. He explained his *social-individual tension*: “I was invited to serve on the research committee at the medical center where I was practicing at that point in time and I thought if I had a better understanding of the research methodology and entire research process, I would be seen as being a more credible committee member amongst other researchers”.

Theme III: Challenges to Transformational Learning. This description of *transformation* coupled with challenges faced by the DNPs who have returned to school in pursuit of a PhD in nursing connected with the participant’s voices in this study. The following stories explain how

the education experience of returning to school in pursuit of a PhD in nursing has been challenging time during their transformational process. One DNP to PhD student described the *challenges* that returning to school presents:

“This is definitely a challenging experience! It was a humbling experience as well because you are that student again that is back in a desk writing papers for grade, trying to appease your professors. It’s very hard to go back to school for the doctorate degree especially when you already hold a terminal degree”. Other DNP students described a challenge which evolved her engagement in coursework since a terminal degree had already been obtained. One student explained: “It’s 2 years as a DNP, and now another 3 years as a PhD, so it’s a long time to be a student, particularly an adult with a full-time practice”

Conclusion

Based on study findings, DNPs returning to school in pursuit of a PhD in nursing is rigorous, but DNPs are gaining the knowledge quested, leading to success in achieving their professional goals. Participants spoke about *wanting to know something more*, the key factor that motivated the DNP to return to school to pursue a second nursing doctorate degree and the first theme that evolved from analysis of the data. According to Michael and Clochesy,⁽⁴⁾ the focus of DNP program highlights practice and evidence translation. In these DNP programs, less emphasis is placed on research and statistical method when compared to the research focused PhD degree. Since the application of rigorous method and highly advanced techniques in data management and analysis are essential to the translation of evidence into practice, many DNPs are taking the lead and returning to school for a PhD to acquire the skills needed for this practice.⁽⁴⁾ Nurse scientists, holding a PhD degree in nursing, are a critical link in the discovery and translation of knowledge that can be generated by nurses.⁽⁵⁾

Loomis, Willard, and Cohen⁽⁶⁾ found in their Internet-based exploratory study that the majority of DNP students reported considering the PhD degree as their degree of choice but decided to pursue the DNP because of their desire to become clinical experts and were not interested in nursing research. Tomlinson⁽⁷⁾ conducted a qualitative study focusing on the way higher education students understand and interpret the role of their higher education credentials in shaping their future outcomes in the labour market. It was clear from their responses that they viewed the acquisition of higher education qualifications as a significant boost to their level of human capital that would provide them with advantages in the labour market.

The DNPs openly spoke about *social-individual tensions* faced while in pursuit of a PhD degree. Listening to the nursing community erroneously attempt to define the DNP degree and be subjected to other negative opinions and perceptions regarding the degree produces stress on the DNP to PhD student. In addition, participants expressed earning a DNP degree instead of a PhD caused them to be passed over for a promotion in academia. They also spoke about not being considered for promotion solely because they did not carry the PhD credential. They described time management tensions as well as juggling personal and professional responsibilities. In addition, participants expressed the financial challenges and role ambiguity that have developed during the course of their PhD studies. Role stress was identified as some of the social tensions experienced by the participants. Role Stress is described as any physical or psychological strain experienced by an individual who needs greater resources than those available to effectively perform the role. ⁽⁸⁾ Role stress can develop from dissimilar patterns of mismatch in expectations, resources, capabilities, and values about the role one is to assume. ⁽⁹⁾ Among the many dimensions of social and individual tensions, most researchers have focused on the influence of role ambiguity or conflict on personal or organizational outcomes; however, the role of the nurse, more specifically the DNP, has not been the focus in these research studies.^(9,10)

Although much referenced in the adult learning literature about transformational learning, there are limited studies on the challenges faced during transformational learning. Attempts to turn the rhetoric into reality are seen as developments to the teaching and learning process in higher education aiding students to identify and address challenges encountered during their studies. Deep, transformational learning is prized and is meant to be achieved through experience, discovery, social interaction, and individual challenges. ⁽¹¹⁾ There is an absence in the literature surrounding challenges faced with transformational learning.

In conclusion, the DNP participants in this study demonstrated motivation in their quest for knowledge and recognize the benefits of obtaining a PhD degree in nursing. The current study allowed the researcher to derive meaning from the experiences of the DNP returning to school in pursuit of a PhD in nursing degree. The interviews highlighted *wanted to know something more* than what the DNP curriculum offered, *social-individual tension* such as intrinsic or extrinsic motivational factors that have inspired the DNP to return to school in pursuit of a second doctoral degree in nursing, and

obstacles and *Challenges to transformational learning*. Recommendations for future studies should include a larger sample size and a grounded theory design to examine and understand the factors motivating the DNP to return to school in pursuit of a PhD in nursing.

Acknowledgements

The support from my DNP to PhD colleagues who served as my research participants has been overwhelming. The time you spent to describe and discuss your lived experience and share your stories allowed light to be shed on this phenomenon leading to the advancement of nursing science.

Conflict of Interest: The author reports that there is no Conflict of Interest resulting from competitive, collaborative, or relationships or connections with any company or institution connected to this manuscript.

Source of Funding: Self

Ethical Clearance: Human subjects were used in this study. Prior to data collection, IRB approval and informed consent from the participants were obtained. Both are indicated in the submitted manuscript.

References

1. Zaccagnini, ME. White, KW. The doctor of nursing practice essentials. 3rd ed.. Massachusetts: Jones & Bartlett Learning; 2017.
2. Harris, PW., Burman, ME. Nurses returning to school: Motivators, inhibitors and job satisfaction. *Journal of Professional Nursing*. 2016; 32(2), 85-93.
3. Hidle, U. The lived experience of Associate degree nursing students intending to pursue the RN-BSN. *International Journal of Nursing Education* 2014; 6(1). 251-253.
4. Michael, MJ., Clochesy, JM. From scientific discovery to health outcomes: A synergistic model of doctoral nursing education. *Nurse Education*, 2016; 40, 84-86.
5. Institute of Medicine (IOM). The future of nursing. To err is human: Building a safer health system. Washington DC: National Academy Press;1999.
6. Loomis, JA., Willard, B., & Cohen, J. Difficult professional choices: Deciding between the PhD and the DNP in nursing. *Online Journal Issues in Nursing*, 2006; 12(1), 16.

7. Tomlinson, M. The degree is not enough: Students' perceptions of the role of higher education credentials for graduate work and employability. *British Journal of Sociology of Education*. 2008; 29(1), 49-61.
8. Sanaz, R. Role stress amongst nurses at the workplace: Concept analysis. *Journal of Nurse Manger*, 2011; 19, 721.
9. Chen, Y., Chen, SH., Tsai, CY., Lo, LY. Role stress and job satisfaction for nurse specialists. *Journal of Advanced Nursing*, 2007; 59(5), 497-509.
10. Dreher, HM., & Glasgow, M.. *Doctoral advanced nursing practice*. New York, NY: Springer;2011
11. Fook, CY., Sidhu, GK. Investigating learning challenges faced by students in higher education. *Social and Behavioral Sciences*, 2015;186, 604-612.

A Comparative Study to Assess the Efficacy of Salbutamol Nebulization Versus 3% Hypertonic Saline Nebulization among the Under Five Children with Acute Bronchiolitis. A Quasi-Experimental Study. Narrative Review

Murja Yusuf T.¹, N. Siva², Ranjit Ghuliani³

¹M.Sc. (N) 1st Year Student, ²Assistant Professor, Child Health Nursing Department, School of Nursing and Sciences and Research Sharda University, ³Professor, Consultant Pediatric, Sharda Hospital, Greater Noida, Uttar Pradesh

Abstract

Introduction, Acute bronchiolitis is the most common lower respiratory tract infection affecting the under five children affecting both developed country and undeveloped country. The result of hypertonic nebulization studied by many investigators found to be more effective and helpful to baby with no adverse effect of drugs.¹

Aims: The aim of the narrative review is to find the information on effectiveness of salbutamol nebulization and 3% hypertonic saline nebulization in management of under five children with acute bronchiolitis.

Methodology: Intervention - nebulization.

Type of the study: Comparative study, quasi experimental design, pre experimental, true experimental research design.

Type of the participant: Under five children who admitted in the hospital with acute bronchiolitis.

Setting of the study: Sharda hospital in pediatrics ward. Outcome- this narrative review shows that 3% hypertonic nebulization is effective, in treatment of acute bronchiolitis based on cost effect, reduce hospital duration and less side effect to salbutamol nebulization.

Keywords: Acute bronchiolitis, salbutamol nebulization, 3% hypertonic nebulization, under five children.

Introduction

Bronchiolitis is an acute viral infection of the lower respiratory tract affecting infants < 24 months. And is characterized by respiratory distress, wheezing, and crackles respiration. Diagnosis is mainly by history, the primary cause, respiratory syncytial virus, can be identified with a rapid assay. Treatment is supportive with oxygen and hydration. Prognosis is generally excellent, but some patients develop apnea or respiratory failure.³

A Comparative Study conducted by Malik. G.et, al, 2015. To Assess the Effects of Nebulized 3% Hypertonic Saline, 0.9% Normal Saline And Salbutamol In Management of Acute Bronchiolitis Among Indian Children. Objectives of the study is to compare the effects of nebulized 3% hypertonic saline, 0.9% saline

and salbutamol in patients of acute bronchiolitis. Design: Randomized controlled trial. Setting: tertiary care teaching hospital. In this study 100 Children with age 1 to 24 months admitted in hospital with clinical diagnosis of acute bronchiolitis for 2 consecutive years were included in the study. Participants were divided into 3 groups –3% hypertonic saline (HS), 0.9% normal saline and salbutamol. 4 doses of nebulization at an interval of 6 hours were given daily in each group till discharge. Results of the study is baseline Clinical Severity scores in 3% Hypertonic Saline, 0.9% Normal Saline and Salbutamol groups were 5.9±1.5, 5.5±1.0 and 5.1±2.3 respectively (p=0.146). After treatment, the CS scores dropped to 1.0±1.1, 3.3±0.5 and 1.9±1.1 in 3%HS, 0.9% Normal Saline and Salbutamol groups respectively on the 3rd day of treatment (p<0.01). Length of hospital stay in 3% HS, 0.9% Normal Saline

and Salbutamol groups was 3.4 ± 1.7 , 4.9 ± 1.4 and 3.7 ± 1.9 days respectively, which was found to be statistically significant ($p = 0.001$). This study is concluded that 3% Hypertonic Saline nebulization (without additional bronchodilators) is an effective and safe treatment in patients of acute bronchiolitis. It significantly reduces the Clinical Severity scores and length of hospital stay as compared to 0.9% Normal Saline and Salbutamol nebulization.²

A quasi experimental study was conducted by Gupta. V. H., et al. Effectiveness of 3% hypertonic saline nebulization in acute bronchiolitis among Indian children. Aim of the study is to compare the effects of 3% hypertonic saline (HS) and 0.9% normal saline with nebulized 0.9% normal saline with salbutamol in patients of acute viral bronchiolitis. Participants were divided into three groups, that is, 3% HS group, 0.9% normal saline group and 0.9% saline with salbutamol group. Four doses at interval of 6 h were given daily until discharge. The present study is concludes that 3% Hypertonic Saline nebulization (without additional bronchodilators) is an effective and safe treatment for non-asthmatic, moderately ill patients of acute bronchiolitis. The economic benefit of this comparably priced modality of treatment can be enormous in terms of hospital costs with parents returning to work sooner.⁴

A comparative study was conducted by Zamani, M.A et al 2015 on the Therapeutic effects of Ventolin versus hypertonic saline 3% for acute bronchiolitis in children, This double-blinded clinical trial study was conducted in Hajar Hospital, Shahrekord, Iran, from 2011 to 2012. A total of 70 patients under the age of two years with bronchiolitis were divided into two groups of 35 each. Ventolin nebulizer and hypertonic saline 3% nebulizer three times per day were administered in the first (Ventolin) and second (Hyper saline) group, respectively. The length of recovery was compared between the two groups. The data were analyzed by SPSS software (version 22) using chi-square, t-test, paired t-test, and Mann-Whitney. Results of the study was mean \pm SD length of recovery was 4.14 ± 0.9 and 3.06 ± 0.6 in the Ventolin and hyper tonic saline groups respectively. The mean duration of recovery was significantly lower in the hyper saline group ($p < 0.001$). This present study is concluded that hypertonic saline 3% nebulizer has more pleasant therapeutic effects on acute bronchiolitis than Ventolin. Therefore, use of hypertonic saline 3% nebulizer is recommended for the treatment of acute bronchiolitis in children under two years old.⁵

A comparative study was conducted by Flore-Gonzalez J.C, et al., 2015 to assess the effectiveness Epinephrine Improves the Efficacy of Nebulized Hypertonic Saline in Moderate Bronchiolitis: A Randomized Clinical Trial. A randomized, double-blind, placebo-controlled clinical trial were performed on 208 infants hospitalized with acute moderate bronchiolitis. Infants were randomly assigned to receive nebulized 3% hypertonic saline with either 3 mL of epinephrine or 3 mL of placebo, administered every four hours. The primary outcome measure was the length of hospital stay. Results of the study is total of 185 infants were analyzed: 94 in the epinephrine plus 3% hypertonic saline group and 91 in the placebo plus 3% hypertonic saline group. Baseline demographic and clinical characteristics were similar in both groups. Length of hospital stay was significantly reduced in the epinephrine group as compared with the placebo group (3.94 ± 1.88 days vs. 4.82 ± 2.30 days, $P = 0.011$). Disease severity also decreased significantly earlier in the epinephrine group ($P = 0.029$ and $P = 0.036$ on days 3 and 5, respectively). This present study is concluded that nebulized epinephrine in 3% hypertonic saline significantly shortens hospital stay in hospitalized infants with acute moderate bronchiolitis compared to 3% hypertonic saline alone, and improves the clinical scores of severity from the third day of treatment,⁶

A comparative study was conducted by Angoulvant F. et al 2017 to assess the Efficacy of 3% Hypertonic Saline in Acute Viral Bronchiolitis (guarded) Study Group. study was a multicenter, double-blind randomized clinical trial on 2 parallel groups conducted during 2 bronchiolitis seasons (October through March) from October 15, 2012, through April 15, 2014, at 24 French pediatric Emergency Departments. Among the 2445 infants (6 weeks to 12 months of age) assessed for inclusion, 777 with a first episode of acute bronchiolitis with respiratory distress and no chronic medical condition were included. Two 20-minute nebulization treatments of 4 mL of HS, 3%, or 4 mL of normal saline (NS), 0.9%, given 20 minutes apart. Results of the study is 777 infants included in the study (median age, 3 months; interquartile range, 2-5 months; 468 [60.2%] male), 385 (49.5%) were randomized to the HS group and 387 (49.8%) to the NS group (5 patients did not receive treatment). By 24 hours, 185 of 385 infants (48.1%) in the HS group were admitted compared with 202 of 387 infants (52.2%) in the NS group. The risk difference for hospitalizations was not significant according to the mixed-effects regression model (adjusted risk difference, -3.2%; 95% CI, -8.7%

to 2.2%; $P = .25$). The mean (SD) Respiratory Distress Assessment Instrument score improvement was greater in the HS group (-3.1 [3.2]) than in the NS group (-2.4 [3.3]) (adjusted difference, -0.7; 95% CI, -1.2 to -0.2; $P = .006$) and similarly for the Respiratory Assessment Change Score. Mild adverse events, such as worsening of cough, occurred more frequently among children in the HS group (35 of 392 [8.9%]) than among those in the NS group (15 of 384 [3.9%]) (risk difference, 5.0%; 95% CI, 1.6%-8.4%; $P = .005$), with no serious adverse events. This study is concluded that Nebulized HS treatment did not significantly reduce the rate of hospital admissions among infants with a first episode of acute moderate to severe bronchiolitis who were admitted to the pediatric Emergency Department relative to NS, but mild adverse events were more frequent in the HS group.⁷

A comparative study was conducted by Wu, S., et al., (2014). to compare the effect of nebulized 3% hypertonic saline nebulization vs. 0.9% normal saline nebulization on admission rate and length of stay in infants with bronchiolitis. sample were selected are less than 24 months of age A total of 197 patients were selected in the Normal saline nebulization group and 211 in the Hypertonic Saline nebulization group. Admission rate in the 3% hypertonic saline group was 28.9% compared with 42.6% in the Normal Saline group. The study was concluded that there is no significant difference in Respiratory Distress Assessment Instrument score or length of stay between the hypertonic saline nebulization and normal saline nebulization groups.⁸

Findings

The systematic research was conducted by formulating the term separately and in integration with all synonyms, also according to the database. However, a manual google scholar search was done using the key words and search synonyms from already articles. an addition of 6 articles was found in the data base. Initial articles was recover 957 articles over which 250 were selected manually. 120 articles were rejected as a result of replication in the database. Replication was removed and reviewed 98 articles for acceptability. 92 more study were rejected because of unreachable of the full text. However 6 articles were screened which include in the study.

Discussion

The finding are supported with the by a study conducted by Zamani, M.A et al 2015 an experimental

study conducted by The mean±SD length of recovery was 4.14±0.9 and 3.06±0.6 in the Ventolin and hypertonic saline groups, respectively. The mean duration of recovery was significantly lower in the hyper saline group ($p < 0.001$).

Conclusion

There is significant reduction in the severity and duration of hospitalization among the children who undergoes 3% NACL nebulization. This intervention should be encourage and implemented as routine policy for management of mild, moderately severe bronchiolitis due to it effectiveness, less side effect and cost effective.

Sources of Funding: Self-funding

Conflict of Interest: Nil

References

1. Arvind, Bagga, O P Ghai. Essential pediatrics New Delhi, India: CBS publishers and distributors pvt Ltd. (seventh edition ed 2016)
2. Guarav Malik. A comparative study to assess the effectiveness of nebulized 3% hypertonic saline, 0.9% and salbutamol. In management of acute bronchiolitis among Indian children, journal of evolution of medical and dental sciences, 3668. (2015, march 21).
3. Gupta H V. Effectiveness of 3% hypertonic saline nebulization in bronchiolitis among the Indian children. (2016, April-June).
4. Zamani M A. Therapeutic of Ventolin versus hypertonic saline 3% for acute bronchiolitis in children. Medical journal of Islamic republic of Iran, 212. (2015, may6).
5. Flores-González J C, Matamala-Morillo M A, Rodríguez-Campoy P, Pérez-Guerrero J J, Serrano-Moyano B, Comino-Vazquez P. Epinephrine Improves the Efficacy of Nebulized Hypertonic Saline in Moderate Bronchiolitis: A Randomised Clinical Trial. PLoS ONE 10(11): e0142847. (2015)
6. Angoulvant F. Effect of hypertonic saline in emergency department on hospital rate for acute bronchiolitis. (2017, August.7).
7. Wu s, Nebulization hypertonic saline for bronchiolitis. Jama pediatrics. (2014).

A Study to Assess the Knowledge on Decubitus Ulcer and its Management among the Staff Nurses in Selected Tertiary Care Hospital of Moradabad, Uttar Pradesh: A Original Study

Debalina Ghosh¹, Yuha Nida², Umasanker Yadav²

¹PG Tutor, ²PBBSc 2nd Year, Teerthanker Mahaveer College of Nursing, TMU

Abstract

Introduction: The prevention and management of pressure ulcer can be a clinical challenge. Decubitus ulcer known as a pressure sore is a wound caused by protracting pressure against the skin. This may occur from disbursing period in one position, causing the weight of the body to compress capillaries against a bed or chair, especially over bony prominences.

Aim: The aim of the study was to assess the Knowledge regarding Decubitus Ulcer and its management among the staff Nurses and also to find out the association between the Knowledge regarding Decubitus Ulcer and its management with selected demographic variables.

Methodology: Types of studies- Descriptive survey design. **Types of Participants-** Staff Nurses. **Setting-** Selected tertiary care hospital of Moradabad. **Outcome-** Based on the findings and interpretation of the present study, the following conclusion was drawn that 24 (40%) had good level of knowledge and there is a significant association on level of education and working area with level of knowledge.

Keywords: Assessment, knowledge and Tuberculosis.

Introduction or Background

The person experiencing prolonged pressure is at risk of developing a pressure ulcer. Elderly have increased risk because of normal aging changes of the skin. The emaciated persons had little fat deposition at bony prominences and therefore are at risk of developing pressure ulcer. Obesity also is one of the factors that may contribute to pressure ulcer because the adipose tissues are poorly vascularized and more likely to develop ischemic changes. Other causes may include pressure that is caused by tight splint or cast, traction, or other devices.

For every 1,000,000 clients who developed decubitus ulcer, 65000 dies from impediment. (Agency for Healthcare Research Quality, 2008). An 80% increase in the number of clients who were hospitalized due to decubitus pressure ulcer from the year 1993 to 2006. (Agency for Healthcare Research Quality, 2008).⁹

A cross-sectional survey study was conducted to assess the Nurses level of knowledge on prevention and treatment of pressure ulcer among hospitalized patient

and also to found perceived barrier to prevention of it. A total number of 216 staff participated in this study from June-November, 2012. The study result found that mean knowledge score of participants was 41.6, SD 8.8 which signifies inadequate knowledge. Study result also found that lack of time, shortage of staff, patients condition, lack of resources and lack of equipment are that perceived barrier to for pressure ulcer prevention. Finally, the study has concluded that regular in-service education, proper pressure ulcer prevention guideline and use of risk assessment tools can improve the present condition of staff Nurse (Kharabsheh, Alrimawi, & Assaf, 2014)⁸

Another descriptive exploratory study was conducted in the surgical unit, medical unit and clinics of infectious and contagious plastic disease of a teaching hospital of Joao Pessoa, Brazil under a big project which aim was to describe the knowledge of Nursing professionals on prevention of pressure ulcer and their opinion on this. The study was conducted on 69 staff Nurses and Nursing assistant from January to June 2015. The data collected by using a self-administered

questionnaire consisting of questions on the knowledge of Decubitus Ulcer. The study result shows that Nurses have overall higher knowledge than Nursing assistance. The study also identified knowledge gaps about pressure ulcer and its prevention among staff Nurses but in study, 100% participant agree about prevention of pressure ulcer to decrease the length of hospital stay and reduce the cost of living (Rodrigues, et al., 2016).⁷

Ebi, Menji, & Hunde, 2017 conducted another cross-sectional survey study in four public hospitals of Addis, Ababa, Ethiopia to find out knowledge and perceived barrier about pressure ulcer prevention. A total number of 369 staff Nurses participated in this study from 21st April to 29th May 2015 and data was collected by administered self-reported demographic proforma, knowledge questionnaire and attitude liquor scale. The study result reveals that majority 236 (63.85%) of the staff Nurses has unsatisfactory knowledge about pressure ulcer prevention. This unsatisfactory result due to lack of learning resources to up to date their knowledge. The study also found the most common barrier to prevent staff Nurse is shortage of staff Nurse. Except for this lack of resources and availability of library are those another factor for the perceived barrier. Finally, the study has concluded that periodical in-service training and the educational program should conduct to enhance knowledge of staff Nurse.⁵

A descriptive cross-sectional study was conducted among staff nurses employed in selected tertiary care hospital in Khyber teaching hospital road, Peshawar to assess knowledge, attitude and practice regarding prevention of pressure ulcer from September-December,

2016. A self-administered questionnaire consisting of demographic proforma, knowledge questioners, attitude liqueur scale and statements regarding practice of pressure ulcer, was used for data collection. A total number of 100 nurses was selected by using convenient sampling method. Study result revealed that 42 (41.8%) has inadequate knowledge about pressure ulcer prevention but the majority of the staff nurse knows about contributing factor for developing pressure ulcer and critical determinant factor to observe. The study also revealed that only 35 (35%) staff nurse receives training for pressure ulcer. Finally, the study has concluded that in spite of adequate knowledge due to lack of in-service training, policies and guideline, evidence-based practice in clinical makes nurses not to incorporate their knowledge into practice (Muhammad, Ahmad, Khan, Ali, & Muhammad, 2017).³

Findings

Section 1: Description of sample characteristics

Majority of men participated in the study, 38 (63.3%) were Male, 51 (85%) belongs to 20-29 years, 36 (60%) are did a diploma in Nursing, 40 (66.7%) are trained about Decubitus Ulcer during In-service training, 30 (50%) had no previous knowledge, 26 (43.3%) are having 2-5 years and 31 (51.7%) are working in a general ward.

Section 2: Distribution of the level of knowledge among staff Nurses regarding Decubitus Ulcer and its management.

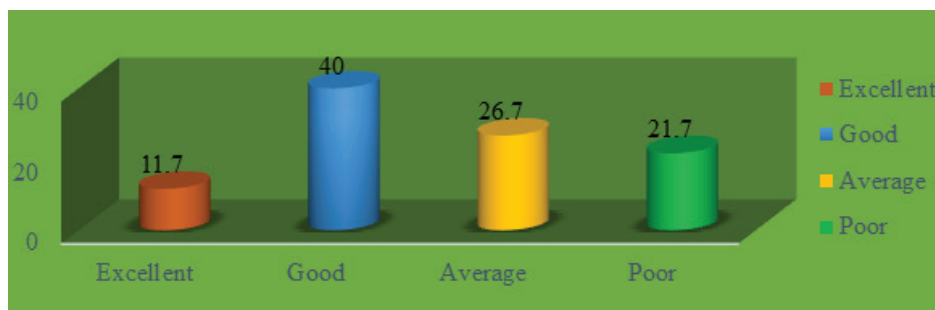


Figure 1: Graphical representation of staff Nurse by their level of knowledge

Cylindrical diagram showing percentage distribution of staff Nurse by their level of knowledge

Figure 1 shows that majority, 24 (40%) staff Nurse is having good knowledge on Decubitus Ulcer, 16 (26.7%) are having average knowledge, 13 (21.7%)

poor knowledge and 7 (11.7%) are having excellent knowledge.

Section 3: Association between the level of knowledge on Decubitus Ulcer and its management with selected demographic variable among staff Nurses.

Section 3 depicted the association of demographic characteristic of staff Nurse level of knowledge. It shows that there is a significant association for level of education and area of work with level of knowledge on Decubitus Ulcer hence, the null hypothesis is rejected and the research hypothesis is accepted.

Discussion

Findings of this study was supported by a cross-sectional multicentre study was conducted in Peshawar, Pakistan to find out knowledge and attitude of Nurses working in the neurology department of 6 tertiary care hospital. A number of total of 52 staff Nurse participated in the study and 2 standardized tools were used for assessing knowledge and attitude. The study result found that 16 (30.77%) had good knowledge, 13 (25%) had average knowledge, 9 (17.31%) had minimal accepted knowledge and 14 (26.92%) had poor knowledge while none of the participants had outstanding and excellent knowledge with a mean score of 28.35+/-6.01. The study result also reveals that the majority of the staff Nurses had a positive attitude to prevent pressure ulcer (Zeb, et al., 2015)²

Sawant & Shinde, 2017 conducted a descriptive cross-sectional study to assess the knowledge and practice of staff Nurses towards prevention of pressure ulcer in tertiary care hospital of Karad, Maharashtra. The study was included 193 staff Nurses was selected through convenient sampling technique. The result shows that majority 102 (52.8%) had good knowledge 89 (46.1%) had average knowledge and 2 (1%) had poor knowledge. Study also proved that only 93 (48.4%) have good practice for prevention of pressure ulcer. There was a significant association between level of knowledge among staff Nurses with age and educational qualification. Hence the study was concluded, the nurse's knowledge and practice towards prevention of ulcer only can be improved through the continuous education program.¹

One more descriptive cross-sectional study was conducted to assess the Nurses knowledge and practice regarding risk factors, prevention and management of pressure ulcers in a teaching hospital of Ugandan. A self-administered questionnaire and observational

checklist were utilized over 56 staff Nurses to collect data. The study results reveled that nurses had limited knowledge about critical parameters of pressure ulcers but the majority of them are aware to find out risk factor for pressure ulcer development. The study also found that less access to current literature, shortage of staff, pressure relieving devices unavailability and risk assessment tool are those barriers to manage a patient with pressure ulcer (Mwebaza, Katende, Groves, & Nankumbi, 2014).⁶

Conclusion

Finally, the study concludes that the majority 24 (40%) of the staff Nurses had a good level of knowledge and there is a significant association on level of education and working area with level of knowledge.

Source of Funding: Self-funding

Ethical Clearance:

- Prior permission was obtained from the Medical superintendent of Tertiary Care Hospital of Moradabad.
- Informed written consent was taken from each participant under the study. The objective of the study was maintained with honesty, privacy confidentiality and anonymity.

Conflict of Interest: Nil

Reference

1. Sawant N, Shinde M. Nurses Knowledge and Practices towards Prevention of Pressure Ulcer in Tertiary Care Hospital. 2017;6(5):739-45.
2. Zeb A, Ilyas SM, Kashif M, Kompal R, Darain H. Knowledge and attitudes on pressure ulcer prevention among nurses working in neurological departments in tertiary care knowledge and attitudes on pressure ulcer prevention among nurses working in neurological departments in tertiary care hospitals of peshawar: a multicenter study. 2016; (January 2015).
3. Muhammad D. Knowledge, attitude and practices of nurses regarding pressure ulcers prevention at a tertiary care hospital of Peshawar, Khyber Knowledge, attitude and practices of nurses regarding pressure ulcers prevention at a tertiary care hospital of Peshawar, Khyber. 2017;(December).

4. Nuru N, Zewdu F, Amsalu S, Mehretie Y. Knowledge and practice of nurses towards prevention of pressure ulcer and associated factors in Gondar University Hospital, Northwest Ethiopia. 2015;1–8.
5. Ebi WE, Menji ZA, Hunde BM. Nurses ' knowledge and Perceived Barriers About Pressure Ulcer Prevention for Admitted Patients in Public Hospitals in Addis Ababa, Ethiopia. 2017;5:1–6.
6. Mwebaza I, Katende G, Groves S, Nankumbi J. Nurses ' Knowledge, Practices, and Barriers in Care of Patients with Pressure Nurses ' Knowledge, Practices, and Barriers in Care of Patients with Pressure Ulcers in a Ugandan Teaching Hospital. 2014;(December).
7. Society M. Knowledge and Opinions of Nursing Professionals about Pressure Ulcers Prevention. 2016;1–13.
8. Suleman M, Rahman A, Kharabsheh A, Faraj R, Rahman A, Rn A, et al. Exploring Nurses Knowledge and Perceived Barriers to Carry Out Pressure Ulcer Prevention and Treatment, Documentation, and Risk Assessment Royal Medical Services The University of Jordan. 2014;4(4):112–9.
9. Agency for Healthcare Research Quality, 2008.

Call for Papers/ Article Submission

Article submission fee

- Please note that we charge manuscript handling charges for all publications. Charges can be enquired by sending mail.
- In cases of urgent publication required by author, he /she should write to editor for discretion.
- Fast tracking charges are applicable in urgent publication
- Please note that we charge only after article has been accepted for publication, not at the time of submission.
- Authors have right to withdraw article if they do not wish to pay the charges.

Article Submission Guidelines

Please submit paper in following format as far as applicable

1. Title
2. Names of authors
3. Your Affiliation (designations with college address)
4. Corresponding author- name, designations, address, E-mail id
5. Abstract with key words
6. Introduction or back ground
7. Material and Methods
8. Ethical Clearance
9. Findings
10. Discussion / Conclusion
11. Conflict of Interest
12. Source of Support
13. References in Vancouver style.
14. Word limit 2500-3000 words, MS WORD Format, single file
15. Please quote references in text by superscripting.

OUR CONTACT INFO

Institute of Medico-Legal Publications

Logix Office Tower, Unit No. 1704, Logix City Centre Mall,
Sector- 32, Noida - 201 301 (Uttar Pradesh)

Mob: 09971888542, Ph. No: +91 120 429 4015

E-mail: editor.ijone@gmail.com, Website: www.ijone.org



International Journal of Nursing Education

CALL FOR SUBSCRIPTIONS

About the Journal

Print-ISSN: 0974-9349 **Electronic - ISSN:** 0974-9357, **Frequency:** Quarterly (Four issues in a year)

“International Journal of Nursing Education” is an international peer reviewed journal. It publishes articles related to nursing and midwifery. The purpose of the journal is to bring advancement in nursing education. The journal publishes articles related to specialities of nursing education, care and practice. The journal has been assigned international standard serial numbers 0974-9349 (print) and 0974-9357 (electronic). The journal is covered by Index Copernicus, Poland and is included in many international databases.

Journal Title	Print Only
Indian Journal of Nursing Education	INR 9000

NOTE FOR SUBSCRIBERS

- Advance payment required by cheque/demand draft in the name of “Institute of Medico-Legal Publications” payable at New Delhi.
- Cancellation not allowed except for duplicate payment.
- Claim must be made within six months from issue date.
- A free copy can be forwarded on request.

Bank Details

Name of account : **Institute of Medico-Legal Publications Pvt Ltd**
Bank: **HDFC Bank**
Branch: **Sector-50, Noida-201 301**
Account number: **09307630000146**
Type of Account: **Current Account**
MICR Code: **110240113**
RTGS/NEFT/IFSC Code: **HDFC0000728**
Please quote reference number.

Send all payment to :

Institute of Medico-Legal Publications

Logix Office Tower, Unit No. 1704, Logix City Centre Mall,
Sector- 32, Noida - 201 301 (Uttar Pradesh) Mob: 09971888542, Ph. No: +91 120 429 4015,
E-mail: editor.ijone@gmail.com, Website: www.ijone.org

Published, Printed and Owned : Dr. R.K. Sharma

Printed : Printpack Electrostat G-2, Eros Apartment, 56, Nehru Place, New Delhi-110019

Published at: Institute of Medico Legal Publications Pvt. Ltd., Logix Office Tower, Unit No. 1704, Logix City Centre Mall Sector- 32,
Noida - 201 301 (Uttar Pradesh) Editor : Dr. R.K. Sharma, Mobile: + 91 9971888542, Ph. No: +91 120- 429 4015