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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 City .................................................................5
   Aadil I Kadiwala, Varsha Hun, Ekta Patel

3. Assessment of Anthropometric Measures and Prediction of Obesity among Selected Nursing College Students ..................................................................................................................................................9

4. The Effects of Music Therapy Intervention on the Pain and Anxiety Levels of Cancer Patient: A Systematic Review ........................................................................................................................................14
   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 Nadu ............................................................29
   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 Pradesh .............................................................31
   Batthina 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 Review ................................................................. 44
   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, India ............................................................................. 50
   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., Smita Nair

19. Common Perceptions about Cancer: North Indian Female Cancer Patients and Normal Public’s Perspectives about Cancer ................................................................................................................................... 80
   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 Pradesh........................................... 83
   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, Vadodara ................................................................. 92
   Ravindra H.N., Sanket M. Patel, Sonal Patel

23. Substance Use and Rave Parties – Global Scenario ......................................................................................... 97
   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

Rita Sarkar, Sunita Ahalawat, Meena Kumari

25. Peer Education Method Better in Improving First Aid Skills of Traffic Accidents than Demonstration: A Comparative Study

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)

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

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

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

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

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

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

Sonam Kalra, Ancy Ramesh

33. Effectiveness of Video Teaching Programme on Knowledge about Anaemia among Countryside Children with Anaemia

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

Srinivasan Gandhi, Jothimani K.

35. Assess the Living Experiences of Men Suffering from Prostate Cancer in Selected Hospital of North India: A Qualitative Study

Sudhir Gupta, Srinivasan P, Sanasam Bankim
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 Nida, Umasanker Yadav
A Study to Assess the Level of Anxiety and Coping Strategies Regarding Pubertal Changes among Pre Adolescent Girls in Selected Schools of Tiupati

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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

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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
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 and 13. 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 Padamavathammmma 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**

<table>
<thead>
<tr>
<th>Level of Anxiety on pubertal changes</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>54</td>
<td>49.1</td>
</tr>
<tr>
<td>Moderate</td>
<td>47</td>
<td>42.7</td>
</tr>
<tr>
<td>Severe</td>
<td>9</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>100</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Coping strategies regarding pubertal changes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>42</td>
<td>38.2</td>
</tr>
<tr>
<td>Good</td>
<td>55</td>
<td>50.0</td>
</tr>
<tr>
<td>Very good</td>
<td>13</td>
<td>11.8</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>100</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>SD</th>
<th>Std error mean</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety scores</td>
<td>35.45</td>
<td>110</td>
<td>6.027</td>
<td>0.575</td>
<td>37.452**</td>
<td>0.000</td>
</tr>
<tr>
<td>Coping scores</td>
<td>67.14</td>
<td>110</td>
<td>8.970</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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).

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 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.

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

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

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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 sayajigajn, 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 factors 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 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 Design**

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

**Section 1: 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, 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**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Malnutrition</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Grade-1</td>
<td>59</td>
<td>73.8%</td>
</tr>
<tr>
<td>2.</td>
<td>Grade-2</td>
<td>12</td>
<td>15.0%</td>
</tr>
<tr>
<td>3.</td>
<td>Grade-3</td>
<td>9</td>
<td>11.3%</td>
</tr>
<tr>
<td>4.</td>
<td>Grade-4</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>80</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Mean score</th>
<th>Mean percentage</th>
<th>“r” value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Malnutrition(Y)</td>
<td>1.37</td>
<td>1.72%</td>
<td>+0.79</td>
</tr>
<tr>
<td>2.</td>
<td>Dental caries(Y)</td>
<td>1.12</td>
<td>1.4%</td>
<td></td>
</tr>
</tbody>
</table>

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

The obtained $\chi^2$ value for recent child illness is 8.173, that is more than the table value 7.815 at 0.05 level. Hence the obtained $\chi^2$ 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 discusses 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**

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

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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.” 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. 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

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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.

The Waist hip ratio (WHR) is a simple measure of central obesity. WHR was shown to be a good predictor of health risk. 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. These anthropometric indices have been frequently used in epidemiological studies as they can be determined easily and at low cost. Maintaining good health status during college stage is very crucial. Obese students are more likely to become obese adults.

**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.
- 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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>BMI Level</th>
<th>No. of adolescent girls</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Under Weight</td>
<td>62</td>
<td>30.5%</td>
</tr>
<tr>
<td>2</td>
<td>Normal</td>
<td>115</td>
<td>56.7%</td>
</tr>
<tr>
<td>3</td>
<td>Over Weight</td>
<td>24</td>
<td>11.8%</td>
</tr>
<tr>
<td>4</td>
<td>Obese</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>203</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>WHR Level</th>
<th>No. of adolescent girls</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Normal</td>
<td>78</td>
<td>38.4%</td>
</tr>
<tr>
<td>2</td>
<td>Obese</td>
<td>125</td>
<td>61.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>203</td>
<td></td>
</tr>
</tbody>
</table>

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

Table 3: Association between BMI with WHR

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Body Mass Index</th>
<th>Waist Hip Ratio</th>
<th>Chi-Square value</th>
<th>Degrees of Freedom</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Under Weight</td>
<td>18</td>
<td>44</td>
<td>9.539</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Normal</td>
<td>44</td>
<td>71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Over Weight</td>
<td>14</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Obese</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*-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 [13]

Recent figures from the IOTF website showed prevalence rates of overweight/obesity as 40 percent 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 ≥ 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 ≥ 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 adulthoods. 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 comorbidity. 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.

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

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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 attention. 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 treated. 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 patient.

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 object. Anxiety can be aggravating when it consistently intensifies to a point of debilitating and distressing effect on the one’s life. 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 one.

Pain and anxiety constitute a provoker of frequent complaint in the case of advanced stage cancer such as breast cancer and so forth. They generally range from the moderate to severe level that necessitates a proper management of medical administration by health practitioners including the nurses. 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,
non-pharmacologic management of the pain and anxiety is needed to ramp up the pharmacological therapy applied to the cancer patients.

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 therapy. 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 symptoms. 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, musicotherapy, 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). This result is in conformity with the research conducted by Li et 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).

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). The result of the research conducted by Jasemi, Aazami & Zabihi 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 group.

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).

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 group. This is in line with the result of research conducted by Bradt, J at 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 medicine. 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 ($P=0.051$).

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 Good. 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 anxiety.

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 cancer.

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, noradrenalin 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 cormus 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 calming.

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 theories.

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, advisedly including harps, piano, orchestra, slow jazz, dan flute (Bradt, J et 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 earphone.

**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 advisable 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 Committe
Doi: 10.1007/s10549-011-1533


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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

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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...
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.

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.

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.

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.

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 regards 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 regards 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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre Test</th>
<th>Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inadequate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Knowledge</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>36.0</td>
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<tr>
<td></td>
<td>4</td>
<td>8.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre Test</th>
<th>Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inadequate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Knowledge on Practice</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Knowledge on Practice</td>
<td>10</td>
<td>20.0</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Score</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t-value</th>
<th>P-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>Practice</td>
<td>Mean</td>
<td>N</td>
<td>SD</td>
<td>Mean</td>
<td>N</td>
</tr>
</tbody>
</table>

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 Ramchandra, 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 committe, college of nursing, svims.

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8. Miss. More Ujwala Ramchandra, 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.
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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

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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 quantitative 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,
toxic psychosis, gastritis, pancreatitis, cardiomyopathy, peripheral neuropathy and gastrointestinal cancers. In addition to that it’s a leading cause of suicide, automobile accidents, injuries and deaths due to violence.\textsuperscript{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 productivity.\textsuperscript{5}

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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{7}

Globally, the World Health Organization (2012) has reported alcohol as one of the leading risk factors for morbidity and mortality worldwide, 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 reported to consume alcohol regularly. On an average an individual consumption amounts to 6.2 liters of alcohol each year.\textsuperscript{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 school.\textsuperscript{10}

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,\textsuperscript{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.\textsuperscript{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.

**Statement 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 socio 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)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Pre – Test Level of Knowledge</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adequate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Moderately Adequate</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>3.</td>
<td>Inadequate</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Post – Test Level of Knowledge</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>1.</td>
<td>Adequate</td>
<td>25</td>
<td>83.30</td>
</tr>
<tr>
<td>2.</td>
<td>Moderately Adequate</td>
<td>5</td>
<td>16.70</td>
</tr>
<tr>
<td>3.</td>
<td>Inadequate</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Groups</th>
<th>Mean Post - Test</th>
<th>Post – Test Mean Difference</th>
<th>Post – Test Standard Deviation</th>
<th>Independent ‘t’ test Value</th>
<th>‘P’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Experimental group</td>
<td>22.90</td>
<td>9.17</td>
<td>2.28</td>
<td>12.571*</td>
<td>0.0001</td>
</tr>
<tr>
<td>2.</td>
<td>Control group</td>
<td>13.73</td>
<td></td>
<td>3.28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

From the above table we interpret the mean post-test scene 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 scene 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**


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.


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


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

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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)
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 center’s (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, Tamil Nadu. A purposive sampling technique was used to select 30 samples that full 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 shows that the majority (74%) of the mothers belong 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

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

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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

¹10.5958/0974-9357.2019.00083.7
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 babies. It also protects the infant from early malnutrition and some infections.

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.

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.

According to breast feeding promotion network of India only 10% of hospitals and maternity facilities in India had BFHI status in 2005.

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 36 weeks 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

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

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge</td>
<td>16.82</td>
<td>3.53</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Level of Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adequate knowledge</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate knowledge</td>
<td>71</td>
<td>71%</td>
</tr>
<tr>
<td>3</td>
<td>Inadequate knowledge</td>
<td>27</td>
<td>27%</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Demographic Variables</th>
<th>Chi-Square Value</th>
<th>Table Value</th>
<th>Degree of Freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td>5.25\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>Religion</td>
<td>1.93\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Occupation of mother</td>
<td>40.22*</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Education</td>
<td>2.44\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>Income</td>
<td>5.98\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>6.</td>
<td>Dietary pattern</td>
<td>10.21\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Source of information</td>
<td>2.57\textsuperscript{NS}</td>
<td>12.59</td>
<td>6</td>
</tr>
</tbody>
</table>

\*\*–indicates significant at 0.05 level of significance  
\textsuperscript{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.\textsuperscript{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

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

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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.
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 dysmenorrheal, 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**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sample Characteristics</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>12 years</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>(b)</td>
<td>13 years</td>
<td>42</td>
<td>42%</td>
</tr>
<tr>
<td>(c)</td>
<td>14 years</td>
<td>43</td>
<td>43%</td>
</tr>
<tr>
<td>(d)</td>
<td>15 years</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>2.</td>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Hindu</td>
<td>64</td>
<td>64%</td>
</tr>
<tr>
<td>(b)</td>
<td>Christian</td>
<td>31</td>
<td>31%</td>
</tr>
<tr>
<td>(c)</td>
<td>Muslim</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>(d)</td>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>Educational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>VII Standard</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>(b)</td>
<td>VIII Standard</td>
<td>95</td>
<td>95%</td>
</tr>
<tr>
<td>(c)</td>
<td>IX Standard</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(d)</td>
<td>X Standard</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The study findings revealed that, out of 100 adolescent girls enrolled in the study, (5%) were 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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Knowledge Score</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inadequate knowledge</td>
<td>32</td>
<td>32%</td>
<td>12.55</td>
<td>3.54</td>
</tr>
<tr>
<td>2.</td>
<td>Moderate knowledge</td>
<td>61</td>
<td>61%</td>
<td>12.55</td>
<td>3.54</td>
</tr>
<tr>
<td>3.</td>
<td>Adequate knowledge</td>
<td>7</td>
<td>7%</td>
<td>12.55</td>
<td>3.54</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Demographic Variables</th>
<th>Chi-Square Value ($\chi^2$)</th>
<th>Degree of Freedom (Df)</th>
<th>Table Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age in years</td>
<td>7.5</td>
<td>6 NS</td>
<td>12.59</td>
</tr>
<tr>
<td>2.</td>
<td>Religion</td>
<td>1.33</td>
<td>6 NS</td>
<td>12.59</td>
</tr>
<tr>
<td>3.</td>
<td>Education</td>
<td>1.11</td>
<td>6 NS</td>
<td>12.59</td>
</tr>
<tr>
<td>4.</td>
<td>Age at menarche</td>
<td>20.36</td>
<td>6 S</td>
<td>12.59</td>
</tr>
<tr>
<td>5.</td>
<td>Previous knowledge of menstrual hygiene</td>
<td>1.44</td>
<td>2 NS</td>
<td>5.99</td>
</tr>
</tbody>
</table>

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 ($\chi^2 = 20.36$).  

**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**

8. JHSR International journal of health sciences and research vol.3; p. no. 75-88.
Effectiveness of Health Awareness Programme on Knowledge Regarding Cervical Cancer and Human Papilloma Vaccine among Adolescent’s Girls at Waghodia Taluka

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

Abstract

Background: Cancer is a 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 Wagahodiya, 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.
Cancer is a group of diseases involving abnormal cell growth with the capacity to invade or spread to other parts of the body. Cancer is a 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 the third most common form of gynecologic cancer. Advanced disease often has post coital bleeding, sciatica pair 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 programon 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.

Semple: 80 Adolescents girls Waghodiya taluka Vadodara.

Inclusion criteria: Adolescent girls who are able to speak & write in Gujrati & 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 administering 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 adolescent 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 adolescent 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

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Knowledge level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate</td>
<td>30</td>
<td>37.5%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>50</td>
<td>62.5%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate</td>
<td>00</td>
<td>00%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>80</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Knowledge level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate</td>
<td>30</td>
<td>37.5%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>50</td>
<td>62.5%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate</td>
<td>00</td>
<td>00%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>80</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Variable &amp; Sr. No.</th>
<th>0-10</th>
<th>11-20</th>
<th>Total</th>
<th>X^2</th>
<th>Df</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) 9-15</td>
<td>11</td>
<td>22</td>
<td>36</td>
<td>6.70</td>
<td>1</td>
<td>6.70&gt;3.841 S</td>
</tr>
<tr>
<td>(b) 15-20</td>
<td>19</td>
<td>28</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Primary</td>
<td>12</td>
<td>7</td>
<td>19</td>
<td>6.99</td>
<td>1</td>
<td>6.99&gt;3.841 S</td>
</tr>
<tr>
<td>(b) Secondary</td>
<td>18</td>
<td>43</td>
<td>61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table No. 3: Association between Pre-test and Demographic Variable

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income (a) Below 10.00</td>
<td>12</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>(b) 10.000-15.000</td>
<td>18</td>
<td>41</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Knowledge about immunization (a)</td>
<td>13</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>(b) No</td>
<td>17</td>
<td>30</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Living area (a) Urban</td>
<td>11</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>(b) Rural</td>
<td>17</td>
<td>43</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Family history of cancer (a)</td>
<td>13</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>(b) No</td>
<td>17</td>
<td>41</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>HPV vaccine (a) Yes</td>
<td>16</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>(b) No</td>
<td>14</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Detected cervical cancer (a)</td>
<td>11</td>
<td>22</td>
<td>33</td>
</tr>
<tr>
<td>(b) No</td>
<td>19</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
</tbody>
</table>

**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**


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). 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).

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+/-.76 and group 3, 6.00+/-.100. 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**

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

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Abstract

Introduction: Tuberculosis is a contagious disease, caused by acid fast bacilli. Tuberculosis being a communicable disease has spread and made many people it’s 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 it’s 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 prevellance 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).

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 respectably 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+/−3.9 which is higher in Libyans (11.7+/−3.8) than non-Libyans (9.7+/−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 neeed 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 area 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 standard 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](image-url)
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-probablity 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 marrital status, $P<=0.005$. 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.

Sourse 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


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.


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

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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”.

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
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, Srinivasapuri; 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

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

<table>
<thead>
<tr>
<th>Categories of Knowledge Scores</th>
<th>Possible Range Knowledge of Scores</th>
<th>Obtained Range Knowledge of scores</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Knowledge &lt;68%</td>
<td>0 – 75</td>
<td>45 – 74</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Adequate Knowledge ≥68%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n=30
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

<table>
<thead>
<tr>
<th>Knowledge Score</th>
<th>Mean</th>
<th>‘t’ value</th>
<th>‘p’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>21.53</td>
<td>5.15</td>
<td>0.0001*</td>
</tr>
<tr>
<td>K2</td>
<td>18.82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level of significance, \( t (29) = 2.05 \)

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

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

<table>
<thead>
<tr>
<th>Categories of Expressed Practice Scores</th>
<th>Possible Range of Scores</th>
<th>Obtained Range of Scores</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Practice &lt;67%</td>
<td>0 – 100</td>
<td>62 – 96</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Good Practice ≥67%</td>
<td></td>
<td></td>
<td>24</td>
<td>80</td>
</tr>
</tbody>
</table>

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

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

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

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Score</td>
<td>56.46</td>
<td>56.5</td>
<td>7.07</td>
</tr>
<tr>
<td>Expressed Practice Score</td>
<td>79.43</td>
<td>82.5</td>
<td>9.98</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Scores</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
<th>‘r’ value</th>
<th>‘p’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Score</td>
<td>56.46</td>
<td>7.07</td>
<td>0.46</td>
<td>0.01*</td>
</tr>
<tr>
<td>Expressed Practice Score</td>
<td>79.43</td>
<td>9.98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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 Bhakta 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 Dharshini 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 Yasmin 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


Prevalence of Superstitions in Indian Society in 21st Century

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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.¹⁰¹¹

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%). 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 a sin. 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)

<table>
<thead>
<tr>
<th>Superstitious activity</th>
<th>Maximum Response</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Common superstitious activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Use of lemon and chillies outside house door</td>
<td>To reduce the evil effects</td>
<td>241</td>
<td>84.6</td>
</tr>
<tr>
<td>2. Not cutting nails after sunset</td>
<td>Brings bad luck</td>
<td>181</td>
<td>63.5</td>
</tr>
<tr>
<td>3. Not going near peepal tree at night</td>
<td>People tree have ghosts around it</td>
<td>164</td>
<td>57.5</td>
</tr>
<tr>
<td>4. Not sweeping floor in evening</td>
<td>Goddess Lakshmi will walk out of house</td>
<td>230</td>
<td>80.7</td>
</tr>
<tr>
<td>5. Not washing hair on tuesday or thursday</td>
<td>Harmful for family members</td>
<td>181</td>
<td>63.5</td>
</tr>
<tr>
<td>6. Eating curd and sugar before heading out</td>
<td>Brings good luck</td>
<td>201</td>
<td>70.5%</td>
</tr>
<tr>
<td>(b) Death related superstitious activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Pregnancy and new-born related superstitious activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1: Maximum belief response for different superstitious activities (out of n=285)

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

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 newborn, 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**

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

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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.
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 sanitation.

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 classmates.

**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 terms 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 labouer. 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**

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Range of Knowledge Score</th>
<th>n/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>13-18</td>
<td>1</td>
</tr>
<tr>
<td>Average</td>
<td>7-12</td>
<td>41</td>
</tr>
<tr>
<td>Poor</td>
<td>0-6</td>
<td>58</td>
</tr>
<tr>
<td>Mean</td>
<td>6.94</td>
<td>SD</td>
</tr>
</tbody>
</table>

Maximum knowledge score = 18 Minimum knowledge score = 0

Table 1 depicts frequency and percentage distribution of 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 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**

<table>
<thead>
<tr>
<th>Level of practice</th>
<th>Range of Practice Score</th>
<th>n/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>9-12</td>
<td>1</td>
</tr>
<tr>
<td>Average</td>
<td>5-8</td>
<td>37</td>
</tr>
<tr>
<td>Poor</td>
<td>0-4</td>
<td>62</td>
</tr>
<tr>
<td>Mean</td>
<td>4.86</td>
<td>SD</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± SD</th>
<th>Mean Difference</th>
<th>t value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test knowledge score</td>
<td>6.94±2.255</td>
<td>8.26</td>
<td>30.393</td>
<td>99</td>
<td>0.00**</td>
</tr>
<tr>
<td>Post test knowledge score</td>
<td>15.2000±1.93845</td>
<td>30.393</td>
<td>99</td>
<td>** significant p value &lt;0.05</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± SD</th>
<th>Mean Difference</th>
<th>t value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>4.80±1.206</td>
<td>5.61000</td>
<td>24.160</td>
<td>99</td>
<td>0.00</td>
</tr>
<tr>
<td>Post test</td>
<td>10.41000±1.98018</td>
<td>24.160</td>
<td>99</td>
<td>** significant p value &lt;0.05</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Mean</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>6.94</td>
<td>.137</td>
</tr>
<tr>
<td>Practice</td>
<td>4.86</td>
<td>.105</td>
</tr>
</tbody>
</table>
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% week 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 form each other. Children influence more other children then 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 Yand Williams M.A *(2011)*\(^6\) assessed the need of hand washing intervention by evaluation of the 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


**References**


**Conflict of Interest:** None

**Source of Funding:** Self
Effectiveness of Structured Teaching Program Regarding Knowledge on Adolescent Psychological Problems among Teachers

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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 (χ² = 7.89, df=3) and area of expertise (χ² =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, bulling, 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**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Level of Knowledge</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>1</td>
<td>Inadequate</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>51</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>Adequate</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The data in above table reveled 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**

<table>
<thead>
<tr>
<th>Test</th>
<th>Aspect of Knowledge</th>
<th>Statements</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Mean %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>Psychological problem</td>
<td>40</td>
<td>15-29</td>
<td>22.32</td>
<td>2.93</td>
<td>55.8</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td>23-37</td>
<td>32</td>
<td>3.2</td>
<td>80</td>
</tr>
</tbody>
</table>

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 (χ² = 7.89, df =3) and area of expertise (χ² =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.

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 blueprint 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


5. Dr Chandhra Shekar, Dr B.M. Suresh, et.al, Manual on students counseling for college teachers. 3rd edition. NIMHANS, Bangalore 2007; 11-37.

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

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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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group I</td>
<td>O1</td>
<td>X1</td>
<td>O2</td>
</tr>
<tr>
<td>Experimental Group II</td>
<td>O1</td>
<td>X2</td>
<td>O2</td>
</tr>
<tr>
<td>Control Group</td>
<td>O1</td>
<td></td>
<td>O2</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Groups</th>
<th>Laughter therapy</th>
<th>Mean difference</th>
<th>df</th>
<th>‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental I</td>
<td>17.60 ±4.27</td>
<td>14.60</td>
<td>1</td>
<td>-12.225*</td>
</tr>
<tr>
<td>Control</td>
<td>32.20 ±4.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental I</td>
<td>15.43 ±4.43</td>
<td>4.57</td>
<td>1</td>
<td>-3.902*</td>
</tr>
<tr>
<td>Control</td>
<td>20.00 ±4.63</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*= 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

<table>
<thead>
<tr>
<th>Test</th>
<th>Meditation</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>31.80 ±3.47</td>
<td>13.58*</td>
</tr>
<tr>
<td>Post test</td>
<td>16.86 ±5.09</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>22.43 ±3.22</td>
<td>13.55*</td>
</tr>
<tr>
<td>Posttest</td>
<td>11.90 ±4.96</td>
<td></td>
</tr>
</tbody>
</table>

*= Significance

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

<table>
<thead>
<tr>
<th>Test</th>
<th>Meditation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental II</td>
<td>17.07 ±5.19</td>
<td>11.45*</td>
</tr>
<tr>
<td>Control</td>
<td>32.26 ±4.82</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental II</td>
<td>11.48 ±2.59</td>
<td>8.43*</td>
</tr>
<tr>
<td>Control</td>
<td>20.00 ±4.63</td>
<td></td>
</tr>
</tbody>
</table>

*= 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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Assessment</th>
<th>F-value</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre test</td>
<td>Post (5)</td>
<td>Post (10)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Exp I</td>
<td>32.70 ±3.075</td>
<td>29.30 ±3.395</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Exp II</td>
<td>31.80 ±3.80</td>
<td>23.87 ±3.478</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Control</td>
<td>31.20 ±2.124</td>
<td>31.20 ±1.901</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Assessment</th>
<th>F-value</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre test Post (5) Post (10) Post (15) Mean ± SD Between groups Within group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp I</td>
<td>23.90 ± 3.977</td>
<td>19.13 ± 3.569</td>
<td>18.47 ± 4.659</td>
</tr>
<tr>
<td>Exp II</td>
<td>22.43 ± 3.224</td>
<td>17.97 ± 3.952</td>
<td>15.37 ± 3.662</td>
</tr>
<tr>
<td>Control</td>
<td>20.43 ± 3.936</td>
<td>21.77 ± 3.002</td>
<td>20.60 ± 2.978</td>
</tr>
</tbody>
</table>

* = 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 score 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. 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. 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. 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.

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


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

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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 Newborn 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
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.7 The 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, coefficient 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 knowledge regarding danger signs in neonates. In Pre-test, majority of nursing students (64.9%) had below average knowledge score in new borns 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 of nursing students 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

<table>
<thead>
<tr>
<th>Knowledge Score</th>
<th>Range</th>
<th>Median</th>
<th>Mean +SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>9-20</td>
<td>13</td>
<td>13.23+3.09</td>
</tr>
<tr>
<td>Post-test</td>
<td>18-30</td>
<td>25.5</td>
<td>25.3+2.58</td>
</tr>
</tbody>
</table>

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

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

‘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

<table>
<thead>
<tr>
<th>Areas</th>
<th>Max. Score</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Actual gain</th>
<th>Possible gain</th>
<th>Modified gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Mean%</td>
<td>Mean</td>
<td>Mean%</td>
<td></td>
</tr>
<tr>
<td>Neonatal Jaundice</td>
<td>9</td>
<td>3.76</td>
<td>41.77</td>
<td>7.87</td>
<td>87.44</td>
<td>4.11</td>
</tr>
<tr>
<td>Respiratory Problem</td>
<td>12</td>
<td>5.30</td>
<td>44.16</td>
<td>9.81</td>
<td>81.75</td>
<td>4.51</td>
</tr>
<tr>
<td>Hypothermia</td>
<td>9</td>
<td>4.17</td>
<td>46.33</td>
<td>7.65</td>
<td>85</td>
<td>3.48</td>
</tr>
</tbody>
</table>

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 SGarg\textsuperscript{11} 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)\textsuperscript{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)\textsuperscript{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 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**


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>
<thead>
<tr>
<th>S. No.</th>
<th>Ques.</th>
<th>Myth prevalent</th>
<th>No. and percentage of women who perceive it as truth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cancer survivors</td>
</tr>
<tr>
<td>1</td>
<td>What do you think causes cancer?</td>
<td>a. Not squeezing the breast among newborn girls to bring out witches milk is causing lumps later</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Not taking proper sexual abstinence precaution during menstruation causes cervical cancer</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Not drinking haldi milk regularly during menses can cause uterine malignancies</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Deficiency of vitamins can cause cancer</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Touch of a cancer patient/ Contact transmission</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Mobile phone usage</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. If no one in the family have cancer, one will not get cancer</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>h. Too much sugar in diet</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Why do you think cancer cases are on a rise these days?</td>
<td>a. Wearing black undergarments</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Too much deodorant</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Consuming things earned with black money can cause cancer</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Too much pollution</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Eating cheese and fast foods</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Living near power lines</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>How do you think cancer can be treated?</td>
<td>a. Cancer spreads faster if exposed to air</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Biopsy causes cancer to spread</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Herbal treatment can cure cancer</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Vitamin supplements can cure cancer</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Beetroot juice everyday can cure cancer</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Bitter almonds everyday can cure cancer</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. Ginger garlic consumption everyday can cure cancer</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>h. Positive attitude alone can cure cancer</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Yoga and exercises everyday can cure cancer</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Do you think a cancer survivor can do all normal activities?</td>
<td>a. Cancer is equal to death sentence</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Cancer can never be completely cured</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Cancer survivor must be kept away from work</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Maximum survival after cancer care is &lt;5 year</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Cancer survivors will never get their hair back</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Cancer survivors cannot be sexually active</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. Cancer survivors must not be given normal diet</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>h. Cancer survivors must not be exposed to children and pregnant women</td>
<td>12</td>
</tr>
</tbody>
</table>
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 mensens 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 cancer\(^2\). Other point’s raised were Wearing black undergarments, too much deodorant which continues to be a recurring theme in research literature\(^4\), 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


A Study to Assess the Knowledge of Postnatal Mothers Regarding Prevention of Puerperal Complications in Selected Hospital at Chinakakani, Guntur (Dt), Andhra Pradesh

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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 (χ² =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

<table>
<thead>
<tr>
<th>Countries</th>
<th>MMR in 2005</th>
<th>MMR in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>720</td>
<td>660</td>
</tr>
<tr>
<td>Asia</td>
<td>310</td>
<td>290</td>
</tr>
<tr>
<td>India</td>
<td>420</td>
<td>360</td>
</tr>
<tr>
<td>United States</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Uae</td>
<td>37</td>
<td>33</td>
</tr>
</tbody>
</table>

**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**

1. To assess the knowledge of postnatal mothers on prevention of puerperal complications.
2. 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:

1. Integrated self of defined concepts.
2. Existence and relational statements that present a view of phenomenon.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>χ²</th>
<th>Table value</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td>4.71 NS</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>Education</td>
<td>13.38*</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Parity</td>
<td>6.1 NS</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>Source of information</td>
<td>1.83NS</td>
<td>12.59</td>
<td>6</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Knowledge 0-15%</td>
<td>36</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate Knowledge 16-22%</td>
<td>13</td>
<td>13</td>
<td>20.5</td>
<td>8.13</td>
</tr>
<tr>
<td>Adequate Knowledge 23-30%</td>
<td>51</td>
<td>51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Chi square value of Knowledge Scores

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>χ²</th>
<th>Table Value</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>4.71</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>13.38*</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Religion</td>
<td>14.77*</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Parity</td>
<td>6.1 NS</td>
<td>12.59</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Source of information</td>
<td>1.83NS</td>
<td>12.59</td>
<td>6</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Demographic Variables</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>&lt;below 20 years</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>b.</td>
<td>21-25 years</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>c.</td>
<td>26-30 years</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>d.</td>
<td>31years &amp; above</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Hindu</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>b.</td>
<td>Christian</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>c.</td>
<td>Muslim</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>d.</td>
<td>Others</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Know to read and write</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>b.</td>
<td>1st to 10th standard</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>c.</td>
<td>Intermediate</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>d.</td>
<td>Graduation and above</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1st delivery</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>b.</td>
<td>2nd delivery</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>c.</td>
<td>3rd delivery</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>d.</td>
<td>4th delivery</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

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 (χ² = 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).
A Study to Assess the Knowledge of Staff Nurses Regarding Neurorehabilitation in Dhiraj Hospital

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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-square 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. 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

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 was 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

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>09</td>
<td>15%</td>
</tr>
<tr>
<td>Average</td>
<td>51</td>
<td>85%</td>
</tr>
<tr>
<td>Good</td>
<td>00</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Median and Above</th>
<th>&lt;Median</th>
<th>X²</th>
<th>Df</th>
<th>T value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td></td>
<td></td>
<td>0.004</td>
<td>1</td>
<td>3.842</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>23-28</td>
<td>37</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>29-34</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td></td>
<td></td>
<td>0.135</td>
<td>1</td>
<td>3.841</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>11</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>28</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Professional Experience</td>
<td></td>
<td></td>
<td>0.082</td>
<td>3</td>
<td>7.815</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>&lt;1 year</td>
<td>12</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-3 years</td>
<td>22</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-5 years</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;5 years</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Previous area of experience</td>
<td></td>
<td></td>
<td>3.140</td>
<td>1</td>
<td>3.841</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Critical ward</td>
<td>25</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General ward</td>
<td>14</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Have you under gone any training on Neurorehabilitation?</td>
<td></td>
<td></td>
<td>0.659</td>
<td>1</td>
<td>3.841</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>30</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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., Sanket M. Patel, Sonal Patel

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 revels 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). Healthcare-acquired infections (HAIs), also known as nosocomial infections, are infections that patients get while receiving treatment for medical or surgical conditions.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Type of Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>Urinary tract infections</td>
</tr>
<tr>
<td>22%</td>
<td>Surgical site infections</td>
</tr>
<tr>
<td>15%</td>
<td>Pneumonia (lung infections)</td>
</tr>
<tr>
<td>14%</td>
<td>Bloodstream infections</td>
</tr>
</tbody>
</table>

Healthcare associated infections (HCAI) or nosocomial infections constituting a major health problem worldwide; among them the major one is Catheter Associated Urinary Tract Infection.

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.

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 associated with 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 cooperation 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  

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Categories of knowledge score</th>
<th>Percentage</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inadequate</td>
<td>&lt;33%</td>
<td>78.9%</td>
<td>0%</td>
</tr>
<tr>
<td>2.</td>
<td>Adequate</td>
<td>34-66%</td>
<td>21.1%</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>Excellent</td>
<td>&gt;67%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Table 2:** Distribution of pre test and post test checklist according to the percentage  

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Categories of attitude</th>
<th>Percentage</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inadequate</td>
<td>&lt;33%</td>
<td>56.7%</td>
<td>0%</td>
</tr>
<tr>
<td>2.</td>
<td>Adequate</td>
<td>34-66%</td>
<td>43.3%</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>Excellent</td>
<td>&gt;67%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**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  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre test</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Std. Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge regarding urinary catheterization</td>
<td>Post-test</td>
<td>13.83</td>
<td>5.22</td>
<td>35.99</td>
<td>43.57</td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td>8.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Std. Deviation</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice score regarding urinary catheterization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>8.68</td>
<td>5.2</td>
<td>0.89</td>
<td>45.11</td>
</tr>
<tr>
<td>Post-Test</td>
<td>13.88</td>
<td></td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

* 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 reveal 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 reveal that association between practice score of staff nurses and demographic variable. Significant demographic variable are gender of staff nurses with $\chi^2$ value 5.73 (1df =3.84) and professional qualification with $\chi^2$ 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.


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. 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.

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.

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 snuffed.

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
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.

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-cafeine 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.

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. 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 date rape drug.
Club Drugs and HIV/STD Infection

An exploratory study was conducted by Chen et al. 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. 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.

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.

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.

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.

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 hasish 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 hashash 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.

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.\footnote{10}

**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 coping 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**
   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.\footnote{11}

**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

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A Descriptive Study to Assess the Knowledge and Practices Regarding Prevention of Puerperal Infection among Postnatal Mothers in Civil Hospital, Panipat, Haryana

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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 society. This period is not only the termination of pregan 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 society. This period is not only the termination of pregan 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 pregrenant 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...
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. Nosocomical 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 until 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 ≤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 ≥ 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)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Level of Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low (0-12)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Average (13-24)</td>
<td>76</td>
<td>63.33%</td>
</tr>
<tr>
<td>3.</td>
<td>High (25-38)</td>
<td>44</td>
<td>36.66%</td>
</tr>
</tbody>
</table>

- 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)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Level of Practice</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Unsatisfactory (0-10)</td>
<td>63</td>
<td>52.5</td>
</tr>
<tr>
<td>2.</td>
<td>Satisfactory (11-20)</td>
<td>57</td>
<td>47.5</td>
</tr>
</tbody>
</table>

- 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 36.36% 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


Peer Education Method Better in Improving First Aid Skills of Traffic Accidents than Demonstration: A Comparative Study

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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,
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 accident.

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 patients. 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. Peer education program focuses on reducing negative influence of information, prevention, and self-intervention. This method is strategy to ease delivery of information to teenagers.

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 actively.

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 al. 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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>N</th>
<th>Mean ± SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages</td>
<td>Peer Education</td>
<td>24</td>
<td>16,66 ± 0,481</td>
<td>16,46-16,87</td>
</tr>
<tr>
<td></td>
<td>Demonstration</td>
<td>24</td>
<td>16,83 ± 0,380</td>
<td>16,67-16,99</td>
</tr>
</tbody>
</table>

The table shows the average of the respondents’ ages of both groups is 16 year old.

Table 2 Distribution of Respondents’ Sexes

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Categories</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Peer Education</td>
<td>Male</td>
<td>11</td>
<td>45,8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>13</td>
<td>54,2%</td>
</tr>
<tr>
<td></td>
<td>Demonstration</td>
<td>Male</td>
<td>9</td>
<td>37,5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>15</td>
<td>62,5%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Skills</th>
<th>N</th>
<th>Min-Max</th>
<th>Median</th>
<th>95% CI</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>24</td>
<td>16-19</td>
<td>18</td>
<td>17,30-17,95</td>
<td>0,000</td>
</tr>
<tr>
<td>After</td>
<td>24</td>
<td>24-28</td>
<td>26</td>
<td>25,24-26,60</td>
<td></td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Skills</th>
<th>N</th>
<th>Min-Max</th>
<th>Median</th>
<th>95% CI</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>24</td>
<td>16-19</td>
<td>18</td>
<td>17.52-18.30</td>
<td>0.000</td>
</tr>
<tr>
<td>After</td>
<td>24</td>
<td>20-26</td>
<td>22</td>
<td>21.00-22.40</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Skills</th>
<th>N</th>
<th>Min-Max</th>
<th>Median</th>
<th>95% CI</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Education</td>
<td>24</td>
<td>24-28</td>
<td>26</td>
<td>25.24-26.60</td>
<td>0.000</td>
</tr>
<tr>
<td>Demonstration</td>
<td>24</td>
<td>20-26</td>
<td>22</td>
<td>21.00-22.40</td>
<td></td>
</tr>
</tbody>
</table>

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 together\(^{15}\). 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 friends\(^{10}\). 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 purpose 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 demonstration\(^{20}\). 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 improved\(^{21}\).

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 action\(^{22}\).

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 movies\(^{23}\).

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 victim\(^{25}\).
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 aid 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 individuals 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 matter.

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 norms.

Skill is result of improvement or individual’s experience in which is applied into his action. 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 flexibly. This information becomes the basic of improvement of individual’s skills in conducting first aid.

**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 Clearance:** 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


A Descriptive Study to Assess the Cognitive Style among Teachers Working in Selected Schools of Vadodara (With a View to Improve Cognitive Process)

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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 socio-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 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 interactions.
interaction, class-room environment they create, good mental health and adjustment etc. 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 khanndagale (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 thiruvananthpurum, 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. 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. 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.

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 dominancy of the brain. Very same tool investigator has used to assess the cognitive styles (dominancy 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>
<thead>
<tr>
<th>Table 1: Frequency and percentages distribution of samples, according to their demographic characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=40</td>
</tr>
<tr>
<td>Sr. No.</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Method**

To conduct research study permission was obtained from Sumandeep Vidyapeeth institutional ethics committee (SVIEC). Number:SVIEC/ON/Nurs/BNPG18/D19002.
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

<table>
<thead>
<tr>
<th>Cognitive style of Teachers</th>
<th>Frequency (N)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong left brain: 0-4</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>Moderate left brain: 5-8</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td>Middle brain: 9-13</td>
<td>21</td>
<td>52.5%</td>
</tr>
<tr>
<td>Moderate right brain: 14-17</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>Strong right brain: 18-21</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>

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 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 Sumandeep Vidyapeeth institutional ethics committee (SVIEC). Number :SVIEC/ON/Nurs/BNGP18/D19002.

References

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

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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

<table>
<thead>
<tr>
<th>Characteristic of Respondents</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53</td>
<td>48.6</td>
</tr>
<tr>
<td>Female</td>
<td>56</td>
<td>51.4</td>
</tr>
<tr>
<td>Medical History None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular (hypertension and heart disease)</td>
<td>58</td>
<td>76.3</td>
</tr>
<tr>
<td>• Diabetes Mellitus</td>
<td>3</td>
<td>3.9</td>
</tr>
<tr>
<td>• Hypertension and Diabetes Mellitus</td>
<td>13</td>
<td>17.1</td>
</tr>
<tr>
<td>• Diabetes Mellitus and Heart Disease</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>• Hypertension, Diabetes Mellitus and Heart Disease</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Deterioration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not experiencing deterioration</td>
<td>70</td>
<td>64.2</td>
</tr>
<tr>
<td>Experiencing deterioration</td>
<td>39</td>
<td>35.8</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>69</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td></td>
</tr>
</tbody>
</table>

   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

<table>
<thead>
<tr>
<th>Characteristic of Respondents</th>
<th>Mean</th>
<th>Min-Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>62,14</td>
<td>31-97</td>
</tr>
<tr>
<td>Female</td>
<td>63,37</td>
<td>38-97</td>
</tr>
<tr>
<td>Female</td>
<td>60,96</td>
<td>31-95</td>
</tr>
</tbody>
</table>

   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

<table>
<thead>
<tr>
<th>Scoring</th>
<th>Mann-Whitney U</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEWS</td>
<td>Median (Min-Max)</td>
</tr>
<tr>
<td>No</td>
<td>1 (1-4)</td>
</tr>
<tr>
<td>Deterioration</td>
<td>3 (0-9)</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
</tr>
</tbody>
</table>

   *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

<table>
<thead>
<tr>
<th>Area</th>
<th>Std. Error</th>
<th>p-value</th>
<th>IK 95% Bottom</th>
<th>IK 95% Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEWS</td>
<td>0.830</td>
<td>0.037</td>
<td>0.000</td>
<td>0.811</td>
</tr>
</tbody>
</table>

   *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**

<table>
<thead>
<tr>
<th>Score of MEWS</th>
<th>Cut-off</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0.462</td>
<td>0.957</td>
<td></td>
</tr>
</tbody>
</table>

*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\(^6\text{–}^8\). 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 Khajedaluee 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 Sattayasonomboon (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**

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


A Video Assisted Teaching on Preventing Method of School Bullying among Secondary School Teachers in Selected Urban Area of Vadodara

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1HOD of Obstetrics and Gynecological, 2B.Sc. Nursing 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 part 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 questionare 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 services

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 provocation.\(^2\)

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.\(^3\)

**Need 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: goal-directedness, 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. Goal-directedness was 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 adolescents by explaining the purpose to the study. The investigator 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 Sumandep Vidhyapeeth. 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 school teachers.

**Section-2:** Effectiveness of video assisted teaching 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**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Knowledge level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate</td>
<td>60</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>00</td>
<td>00%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate</td>
<td>00</td>
<td>00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Distribution of Post Test Knowledge Score in Percentage**

**Table 2: Distributions of post test knowledge score of school teachers regarding prevention of school bullying**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Knowledge level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate</td>
<td>00</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>29</td>
<td>49.2%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate</td>
<td>31</td>
<td>50.80%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Section-2: Effectiveness of Ved TIO Assisted Teaching Programme**

**Table 3: Comparison of pre test and post test knowledge score**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Std. Deviation</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge regarding stem cell collection, preservation &amp; its benefits</td>
<td>Pre-test 1.0</td>
<td>Post-Test 2.56</td>
<td>0.1</td>
<td>23.31</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level *t (0.05, 59 df) = 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 23.31 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.

**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 sumanddeep vidhypeeth. Ethical clearance was obtained from the SVIEC.

**Reference**

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
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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 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 part First part consists socio demographic data consists of Self structured questionnaire. 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 questionnaire 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.
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% - GOOD

Data collection procedure: The researcher decided to carry out 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

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>No. of staff nurses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate knowledge</td>
<td>41</td>
<td>68.3%</td>
</tr>
<tr>
<td>Moderately adequate knowledge</td>
<td>19</td>
<td>31.7%</td>
</tr>
<tr>
<td>Adequate knowledge</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2: Post test level of knowledge on recent trends in infertility management

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>No. of staff nurses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate knowledge</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Moderately adequate knowledge</td>
<td>10</td>
<td>16.7%</td>
</tr>
<tr>
<td>Adequate knowledge</td>
<td>50</td>
<td>83.3%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: Determination of overall knowledge score before and after structured teaching programme

<table>
<thead>
<tr>
<th>Overall Knowledge Score</th>
<th>No. of staff nurses</th>
<th>Pretest Mean±SD</th>
<th>Posttest Mean±SD</th>
<th>Student paired t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>13.77±3.22</td>
<td>25.57±1.93</td>
<td>t=30.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p=0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>significant</td>
</tr>
</tbody>
</table>

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.

References:
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
advantages in preparing the nursing students before going for clinical placements.\textsuperscript{7}

Omer\textsuperscript{3} 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, Omer\textsuperscript{3} 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 Brysiewicz\textsuperscript{8} 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 Rossman\textsuperscript{9} 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.\textsuperscript{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.\textsuperscript{11} While Lubbers and Rossman\textsuperscript{9} mentioned that the higher the fidelity model is, the closer will the model resemble the real situation, available studies such as Tosterud et al.\textsuperscript{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 competent in performing nursing procedures to avoid patients from injury.\textsuperscript{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.\textsuperscript{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.\textsuperscript{12}

Despite the importance of utilising types of CSM, there are still lack evidence to associate nursing students’ satisfaction and confidence level with CSM.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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 analyze the data. Mean \((M)\) and standard deviation \((SD)\) were utilized 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 \(\text{(Teaching method used in simulation are helpful and effective, } M = 3.98, SD = 0.69)\) and item 2 \(\text{(Simulation provides them with a variety of learning materials and activities which could promote their learning in clinical or practical skills curriculum, } M = 3.98, SD = 0.65)\). On the other hand, the lowest mean score in this scale was given to item 5 \(\text{(The way their instructor(s) taught them using the simulation was suitable to the way they learn, } M = 3.76, SD = 0.68)\).

**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 \(\text{(It is their responsibility as a student to know what they need to learn from the simulation activity, } M = 4.01, SD = 0.67)\), whereas the lowest score was given to item 6 \(\text{(They are confident that they are mastering the content of the simulation activity that their instructor presented to them, } M = 3.59, SD = 0.68)\).

**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.\textsuperscript{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.\textsuperscript{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 Omer\textsuperscript{3} 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.\textsuperscript{3} According to McCabe et al.\textsuperscript{12} confidence is when one is able to perform a task effectively in a particular circumstances. McCabe et al.\textsuperscript{12} suggested that self-confidence is an important predictor of future career success of a nursing student. Larue et al.\textsuperscript{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.\textsuperscript{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.\textsuperscript{11}

Thus, nursing students in this study have shown great gains in satisfaction and confidence in learning 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.\textsuperscript{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**


A Descriptive Study to Assess the Perception and Attitude of Primary School Teachers towards Delinquent Children among Selected Schools of Vadodara District

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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 need 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 0-5 years, 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 “delinquer” 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.
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.

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 school teachers 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

<table>
<thead>
<tr>
<th>Age</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>32</td>
<td>53.33</td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>21</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>50+</td>
<td>1</td>
<td>1.67</td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Gender</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>22</td>
<td>36.66</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
<td>63.34</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PG</td>
<td>38</td>
<td>63.34</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>22</td>
<td>36.66</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Experience</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 YR</td>
<td>13</td>
<td>21.66</td>
<td></td>
</tr>
<tr>
<td>5-10 YR</td>
<td>37</td>
<td>61.66</td>
<td></td>
</tr>
<tr>
<td>10-15 YR</td>
<td>7</td>
<td>11.68</td>
<td></td>
</tr>
<tr>
<td>&gt;15</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Previous Exposure to Delinquent Child</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>60</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>No. of Children in the Family</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>21.66</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>29</td>
<td>48.34</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>4&gt;</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

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 = $\sum/N=1674/60$

$\bar{X} = 27.9$

Attitude:

Mean = $\sum/N=3133/60$

$\bar{Y} = 52.2$

Karl Pearson’s correlation coefficient formula:

$$r = \frac{\Sigma(x-\bar{x})(y-\bar{y})}{\sqrt{\Sigma(x-\bar{x})^2 \Sigma(y-\bar{y})^2}}$$

$$r = \frac{981.84}{\sqrt{(595.3) (3635.68)}}$$

$$r = 0.7$$

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 School Teachers 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.

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Assessment of the Effectiveness of Planned Teaching on Knowledge Regarding Cardiac Catheterization among Staff Nurses Working in Selected Hospitals

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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.
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, balloons 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 centres. 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 valvuloplasty, patent foramen ovale repair or atrioseptal defect repair. Very often the two 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 nurses. 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.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 yrs</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td>5-10 yrs</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>10-15 yrs</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>&gt;15 yrs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Professional Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GNM</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>PB B.Sc.</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Basic B.Sc.</td>
<td>22</td>
<td>55</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Majority of staff nurses 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% possess General Nursing and Midwifery and only 7.5% were post basic B.sc. nursing.

Table 2: Overall comparison of effectiveness of planned teaching regarding cardiac catheterization among staff nurses.

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Percentage</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>15.02</td>
<td>3.36</td>
<td>48.46</td>
<td>18.50</td>
<td>0.0001*HS</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>Post Test</td>
<td>21.72</td>
<td>2.38</td>
<td>70.08</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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.

Table 3: Area wise pre test and post test knowledge score of study subjects regarding cardiac catheterization

<table>
<thead>
<tr>
<th>Area</th>
<th>Maximum Score</th>
<th>Pre test</th>
<th></th>
<th></th>
<th>Mean Gain %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Mean</td>
<td>Percentage</td>
<td>Mean</td>
<td>Percentage</td>
</tr>
<tr>
<td>Knowledge on Anatomy and Physiology of heart</td>
<td>3</td>
<td>1.30</td>
<td>43.33</td>
<td>2.08</td>
<td>69.17</td>
</tr>
<tr>
<td>Indication and purpose of cardiac catheterization</td>
<td>4</td>
<td>2.45</td>
<td>61.25</td>
<td>3.18</td>
<td>79.38</td>
</tr>
<tr>
<td>procedure of cardiac catheterization</td>
<td>5</td>
<td>2.35</td>
<td>47.00</td>
<td>3.70</td>
<td>74.00</td>
</tr>
<tr>
<td>Nursing management of patient with cardiac catheterization</td>
<td>18</td>
<td>8.25</td>
<td>45.83</td>
<td>11.78</td>
<td>65.42</td>
</tr>
<tr>
<td>Complication of Cardiac catheterization</td>
<td>1</td>
<td>0.68</td>
<td>67.50</td>
<td>0.85</td>
<td>85.00</td>
</tr>
</tbody>
</table>

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 ‘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

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 maturation. The health of adolescents attracted global attention in the past decade. Adolescence being rapid growth period is at risk of developing nutritional deficiencies including anaemia. 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.

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

Datacollection process: Two schools were randomly selected. After obtaining the official permission from the concerned authorities and informed consent from the samples ant 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**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Numbers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 yrs</td>
<td>32</td>
<td>21.33</td>
</tr>
<tr>
<td>13 yrs</td>
<td>38</td>
<td>25.33</td>
</tr>
<tr>
<td>14 yrs</td>
<td>32</td>
<td>21.33</td>
</tr>
<tr>
<td>15 yrs</td>
<td>27</td>
<td>18.00</td>
</tr>
<tr>
<td>16 yrs</td>
<td>21</td>
<td>14.00</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemic history</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>10</td>
<td>5.66</td>
</tr>
<tr>
<td>Moderate</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Mild</td>
<td>80</td>
<td>54.33</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

| 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 Anaemic 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**

<table>
<thead>
<tr>
<th>Anaemia</th>
<th>Pre-test score Mean±S.D</th>
<th>Post test score Mean ±S.D</th>
<th>T value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causes (4)</td>
<td>1.74 ±0.747</td>
<td>3.27 ± 0.737</td>
<td>14.863</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Risk factor(10)</td>
<td>2.90 ±1.202</td>
<td>8.54 ±1.086</td>
<td>35.996</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Diagnose and Treatment(4)</td>
<td>2.18 ±0.936</td>
<td>3.40 ± 0.711</td>
<td>11.951</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Prevention(7)</td>
<td>3.59±1.322</td>
<td>5.95 ±0.892</td>
<td>15.995</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Health education(5)</td>
<td>1.85± 0.968</td>
<td>3.74 ±1.001</td>
<td>14.262</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Total sub score</td>
<td>12.19 ±2.773</td>
<td>24.90 ±2.013</td>
<td>42.234</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
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% respectively.

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 results. 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 knowledge.

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 occupation.

**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 anemia 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**

A Study to Evaluate Effectiveness of Triaging the Triage: Reducing Waiting Time to Triage in the Command Post to 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 09(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 08(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 examined ³. 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**

**H$_1$**: 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.

**H$_2$**: 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.

**H$_3$**: There will be a correlation between pre-test knowledge and practice scores of staff nurses regarding triage training 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: 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**

**Table: Frequency and Percentage of Staff nurses according to socio-demographic variables n = 50**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Demographic Variables</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age (in Yrs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>33</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>26-30</td>
<td>17</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Professional Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GNM</td>
<td>45</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>B.Sc. (N)</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Professional Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs</td>
<td>30</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>3-6 yrs</td>
<td>20</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>
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.

---

**Table: Frequency and Percentage of Staff Nurses' Age**

<table>
<thead>
<tr>
<th>Area of Working</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
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<tr>
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<td>35</td>
<td>70</td>
</tr>
<tr>
<td>Rural</td>
<td>15</td>
<td>30</td>
</tr>
</tbody>
</table>

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**Table: Frequency and Percentage of Staff Nurses' In-Service Education Regarding Triage**

<table>
<thead>
<tr>
<th>In-Service Education Regarding Triage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>No</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

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**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 assessing the effectiveness of a planned training programme regarding command post to emergency department triage among staff nurses.

Maximum nurses i.e. 33 (66%) belong to the 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


Assess the Living Experiences of Men Suffering from Prostate Cancer in Selected Hospital of North India: A Qualitative Study

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Abstract

Background: 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 uncontrolable 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
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 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

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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
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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Themes</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Corroboration of Illness</td>
<td>1. Facts and Perspectives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Confirmation and worries</td>
</tr>
<tr>
<td>B</td>
<td>Illness and impact</td>
<td>1. Fear of getting worse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Impact on Health</td>
</tr>
<tr>
<td>C</td>
<td>Treatment and expectations</td>
<td>1. Mode of treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Finance and burden</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Changes and satisfaction</td>
</tr>
<tr>
<td>D</td>
<td>Quality of Life</td>
<td>1. Family and Supporter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Responsibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Future and Almighty</td>
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</tbody>
</table>

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

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


2 Elekta | Wavelength Magazine [Internet]. [cited 2017 Apr 30]. Available from: https://wavelength.elekta.com/


A Study to Evaluate the Impact of Internet Exposure on Academic Performance and Social Behavior of Adolescents: A Narrative Review

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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
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.

A descriptive research study was conducted by on adolescent students in Ghaziabad city in Uttar Pradesh, India. 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 priorities.

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.

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.

A descriptive survey research was conducted in Batagarawa Local Government school, Katsina State, Nigeria to 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. 

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
In the initial search, 1170 articles were identified, of which 270 were selected manually. An additional 6 articles were found in the database. Initial search recovered 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 show 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**


Effectiveness of Kangaroo Mother Care (KMC) on Lactation among Mothers of Low Birth Weight (LBW) Newborns

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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

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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. 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 KIMSDU. 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 ½ 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 (< 1.5kg to 2.499 kg). There was no significant association found between primary and graduate education and weight of newborn (P > 0.05)

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.

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 VK\textsuperscript{7} 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. al\textsuperscript{8}. 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. Mane\textsuperscript{5} 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 Hosseini\textsuperscript{8} 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**

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6. Gabriel R., Pelaez. KMC an example to follow from developing countries. BMJ. 2004: 329 (13) 1179 – 82
Assess the Impact of Strained Interpersonal Relationship with Parents on Juvenile Delinquency among Delinquent Children in Haryana: A Retrospective Case Control Study

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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 R²= 31% (0.317) and for the control group was with the variability of R²=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
According to the latest National Crime Record Bureau (NCRB) report 2012, crimes involving children have increased from 0.8 % (2001) to 11.8 % (2011).

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).

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.

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.

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.

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.

Positive relationship with parents may function as a protective against delinquency because parents provide support for conventional behavior and sanctions against conduct problems.

**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**

*Kolmogrov-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 $x^2$ 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](image)

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

<table>
<thead>
<tr>
<th>Group</th>
<th>Value</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>S.Dd</th>
<th>S.E MD</th>
<th>“t” value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case (n=60)</td>
<td></td>
<td>70.83</td>
<td></td>
<td>3.75</td>
<td>1.90</td>
<td>4.74</td>
<td>0.01*</td>
</tr>
<tr>
<td>Control (n=60)</td>
<td></td>
<td>74.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ t(118) = 1.984, \]  
*Significant (p<0.05)

Association of IPR scores with selected variables was tested by 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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Selected variables</th>
<th>Categories</th>
<th>Mean Difference</th>
<th>Standard Error</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Father education</td>
<td>No formal vs Primary</td>
<td>-5.722</td>
<td>2.024</td>
<td>0.032*</td>
</tr>
<tr>
<td>2</td>
<td>Youth occupation</td>
<td>Student vs Child labor</td>
<td>8.204</td>
<td>2.223</td>
<td>0.001*</td>
</tr>
</tbody>
</table>

*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 R^2=0.317) and for the control group was 27.1% (R=0.521 with the variability of R^2=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, R^2=0.105) in model 1, the predictability of IPR by place of residence- Rural (reference group- Urban) was 11.6% (R=0.341, R^2=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, R^2=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)

<table>
<thead>
<tr>
<th>Group</th>
<th>Independent variables</th>
<th>R</th>
<th>R^2</th>
<th>F value</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case (n=60)</td>
<td>Place of residence</td>
<td>0.341</td>
<td>0.116</td>
<td>7.622</td>
<td>1/58</td>
<td>0.008*</td>
</tr>
<tr>
<td></td>
<td>Place of residence and Religion</td>
<td>0.430</td>
<td>0.184</td>
<td>6.448</td>
<td>2/57</td>
<td>0.003*</td>
</tr>
<tr>
<td>Control (n=60)</td>
<td>Occupation of mother</td>
<td>0.324</td>
<td>0.105</td>
<td>6.807</td>
<td>1/58</td>
<td>0.012*</td>
</tr>
</tbody>
</table>

*Significant (p<0.05) NS= Not significant (p>0.05)
The regression coefficient revealed that in case
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.

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 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

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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

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).

<table>
<thead>
<tr>
<th>Group</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>77.778</td>
<td>1.225</td>
<td>63.515</td>
<td>0.000</td>
</tr>
<tr>
<td>Control (n=60)</td>
<td>Place of residence</td>
<td>-2.556</td>
<td>0.926</td>
<td>-0.341</td>
<td>2.761</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>80.866</td>
<td>1.845</td>
<td>43.828</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Place of residence</td>
<td>-2.350</td>
<td>0.902</td>
<td>-0.313</td>
<td>2.605</td>
</tr>
<tr>
<td></td>
<td>Religion</td>
<td>-3.088</td>
<td>1.413</td>
<td>-0.263</td>
<td>2.186</td>
</tr>
<tr>
<td>Case (n=60)</td>
<td>Constant</td>
<td>73.228</td>
<td>1.118</td>
<td>65.524</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Occupation of mother</td>
<td>-1.652</td>
<td>0.633</td>
<td>-0.324</td>
<td>2.609</td>
</tr>
</tbody>
</table>

*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 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
younger’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


Prevalence of Pelvic Floor Dysfunction among Women in South India

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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’.

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 feces etc.

‘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-yearpost-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

<table>
<thead>
<tr>
<th>Total Number of Women Screened in 26 Villages</th>
<th>Total number of women found with pelvic floor muscle dysfunction N (%)</th>
<th>Total Number of women with normal pelvic floor N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>424</td>
<td>232 (54.7)</td>
<td>192 (45.3)</td>
</tr>
</tbody>
</table>

The above table 1 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

<table>
<thead>
<tr>
<th>Type of Pelvic Floor Dysfunction</th>
<th>Frequency (N)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary Incontinence</td>
<td>193</td>
<td>82.4</td>
</tr>
<tr>
<td>Bowel Incontinence</td>
<td>116</td>
<td>50.0</td>
</tr>
<tr>
<td>Pelvic Organ Prolapse</td>
<td>3</td>
<td>0.14</td>
</tr>
<tr>
<td>Pelvic Pain</td>
<td>218</td>
<td>93.2</td>
</tr>
<tr>
<td>Sexual Dysfunction</td>
<td>128</td>
<td>54.6</td>
</tr>
</tbody>
</table>

The above table 2 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 Guri Rortveit 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 Arati Mahishale 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, postmenopausal status, 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


Innovative Teaching Pedagogy in Nursing Education

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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. 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](image)

**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.

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 though 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.

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 formidable 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**

Determinants of High Neonatal Mortality Rates in Migori County Referral Hospital in Kenya

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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 UNICEF³, 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 Nisar ⁷ in Pakistan and Wuraola ⁸ 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. 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 Cochrane’s 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 English. 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
Overt 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

<table>
<thead>
<tr>
<th>Background of deceased neonates</th>
<th>%</th>
</tr>
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<tr>
<td><strong>Age at Death (days)</strong></td>
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</tr>
<tr>
<td>1-7</td>
<td>84.6</td>
</tr>
<tr>
<td>15-21</td>
<td>1.5</td>
</tr>
<tr>
<td>22-28</td>
<td>1.0</td>
</tr>
<tr>
<td>8-14</td>
<td>12.9</td>
</tr>
<tr>
<td><strong>Gestational age</strong></td>
<td></td>
</tr>
<tr>
<td>37-42</td>
<td>33.8</td>
</tr>
<tr>
<td>Above 42</td>
<td>2.0</td>
</tr>
<tr>
<td>&lt;37</td>
<td>64.2</td>
</tr>
<tr>
<td><strong>Birth Weight</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;2.5KG</td>
<td>55.7</td>
</tr>
<tr>
<td>2.6-3.5KG</td>
<td>36.3</td>
</tr>
<tr>
<td>Above 3.6KG</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53.2</td>
</tr>
<tr>
<td>Female</td>
<td>46.8</td>
</tr>
<tr>
<td><strong>Birth Order</strong></td>
<td></td>
</tr>
<tr>
<td>1st born</td>
<td>41.8</td>
</tr>
<tr>
<td>2nd born</td>
<td>10.4</td>
</tr>
<tr>
<td>3rd born</td>
<td>14.4</td>
</tr>
<tr>
<td>4th born</td>
<td>8.5</td>
</tr>
<tr>
<td>Above 4th born</td>
<td>21.4</td>
</tr>
<tr>
<td>Not recorded</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Maternal Age (Years)</strong></td>
<td></td>
</tr>
<tr>
<td>21-29</td>
<td>33.3</td>
</tr>
<tr>
<td>30-39</td>
<td>35.3</td>
</tr>
<tr>
<td>40-49</td>
<td>3.0</td>
</tr>
<tr>
<td>Below 20</td>
<td>20.9</td>
</tr>
<tr>
<td>Not recorded</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Table 2: Determinants of neonatal mortality n=201

<table>
<thead>
<tr>
<th>Determinants of neonatal mortality</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Apgar</strong></td>
<td></td>
</tr>
<tr>
<td>≤3/10</td>
<td>20.9</td>
</tr>
<tr>
<td>4/10-6/10</td>
<td>34.8</td>
</tr>
<tr>
<td>≥7/10</td>
<td>24.4</td>
</tr>
<tr>
<td>Not recorded</td>
<td>19.9</td>
</tr>
<tr>
<td><strong>2nd Apgar</strong></td>
<td></td>
</tr>
<tr>
<td>≤3/10</td>
<td>7</td>
</tr>
<tr>
<td>4/10-6/10</td>
<td>42.3</td>
</tr>
<tr>
<td>≥7/10</td>
<td>30.8</td>
</tr>
<tr>
<td>Not recorded</td>
<td>19.9</td>
</tr>
<tr>
<td>Neopental Complications</td>
<td></td>
</tr>
<tr>
<td>intrapartum</td>
<td>44.8</td>
</tr>
<tr>
<td>preterm</td>
<td>37.8</td>
</tr>
<tr>
<td>sepsis</td>
<td>15.9</td>
</tr>
<tr>
<td>congenital</td>
<td>1.5</td>
</tr>
</tbody>
</table>

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: 68.2
- Reactive: 18.4
- Not recorded: 13.4

Table 3: Cause of Death n=201

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Asphyxia</td>
<td>35.8</td>
</tr>
<tr>
<td>Sepsis</td>
<td>22.9</td>
</tr>
<tr>
<td>Preterm</td>
<td>19.9</td>
</tr>
<tr>
<td>Respiratory distress syndrome</td>
<td>19.4</td>
</tr>
<tr>
<td>Jaundice</td>
<td>1.0</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
</tr>
</tbody>
</table>

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


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.


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

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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 suggest 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
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 1to 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. Station3: 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 ofOSCE (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>
<thead>
<tr>
<th>Sl. No.</th>
<th>Item</th>
<th>Category</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gender</td>
<td>Male</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>29</td>
<td>74</td>
</tr>
<tr>
<td>2.</td>
<td>Age in years</td>
<td>20-21</td>
<td>26</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22-23</td>
<td>13</td>
<td>34</td>
</tr>
<tr>
<td>3.</td>
<td>Number of clinical postings completed</td>
<td>3</td>
<td>36</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Experienced OSCE before</td>
<td>Yes</td>
<td>39</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>Current experience with OSCE</td>
<td>Excellent</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very Good</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Good</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Do you prefer OSCE over clinical written</td>
<td>Yes</td>
<td>22</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>17</td>
<td>44</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>OSCE Attributes</th>
<th>Agree f &amp; (%)</th>
<th>Neutral f &amp; (%)</th>
<th>Disagree f &amp; (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Exam is fair</td>
<td>17 (44)</td>
<td>13(33)</td>
<td>9 (23)</td>
</tr>
<tr>
<td>2.</td>
<td>Wide knowledge area is covered</td>
<td>23(59)</td>
<td>10(26)</td>
<td>6 (15)</td>
</tr>
<tr>
<td>3.</td>
<td>Need more time at stations</td>
<td>30(77)</td>
<td>2 (5)</td>
<td>7 (18)</td>
</tr>
<tr>
<td>4.</td>
<td>Exam well administered</td>
<td>20 (51)</td>
<td>5 (13)</td>
<td>14 (36)</td>
</tr>
<tr>
<td>5.</td>
<td>Exam well-structured and sequenced</td>
<td>20 (51)</td>
<td>7 (18)</td>
<td>12 (31)</td>
</tr>
<tr>
<td>6.</td>
<td>Exam minimized chance of failing</td>
<td>19 (49)</td>
<td>8 (21)</td>
<td>12 (31)</td>
</tr>
<tr>
<td>7.</td>
<td>OSCE less stressful than other exams</td>
<td>16 (41)</td>
<td>1 (3)</td>
<td>22 (56)</td>
</tr>
<tr>
<td>8.</td>
<td>Allow student to compensate in some areas</td>
<td>26 (67)</td>
<td>7 (18)</td>
<td>6 (15)</td>
</tr>
<tr>
<td>9.</td>
<td>Highlighted areas of weakness</td>
<td>24 (62)</td>
<td>8 (21)</td>
<td>7 (18)</td>
</tr>
<tr>
<td>10.</td>
<td>Exam is intimidating</td>
<td>13 (33)</td>
<td>12 (31)</td>
<td>14 (36)</td>
</tr>
<tr>
<td>11.</td>
<td>Students are aware of level of information needed</td>
<td>20 (51)</td>
<td>8 (21)</td>
<td>11 (28)</td>
</tr>
<tr>
<td>12.</td>
<td>Wide range of clinical skill is covered</td>
<td>30 (77)</td>
<td>3 (8)</td>
<td>6 (15)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>OSCE Organization</th>
<th>Agree f &amp; (%)</th>
<th>Neutral f &amp; (%)</th>
<th>Disagree f &amp; (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fully aware of the nature of exam</td>
<td>26 (67)</td>
<td>7 (18)</td>
<td>6 (15)</td>
</tr>
<tr>
<td>2.</td>
<td>Tasks reflects those taught</td>
<td>25 (64)</td>
<td>6 (15)</td>
<td>8 (21)</td>
</tr>
<tr>
<td>3.</td>
<td>Time at each station was adequate</td>
<td>15 (38)</td>
<td>18 (46)</td>
<td>6 (15)</td>
</tr>
<tr>
<td>4.</td>
<td>Setting and context at each station feels authentic</td>
<td>14 (36)</td>
<td>9 (23)</td>
<td>16 (41)</td>
</tr>
<tr>
<td>5.</td>
<td>Instructions and clear and unambiguous</td>
<td>23 (59)</td>
<td>3 (8)</td>
<td>13 (33)</td>
</tr>
<tr>
<td>6.</td>
<td>Tasks asked to perform are fair</td>
<td>20 (51)</td>
<td>11 (28)</td>
<td>8 (21)</td>
</tr>
<tr>
<td>7.</td>
<td>Sequence of stations are logical and appropriate</td>
<td>25 (64)</td>
<td>9 (23)</td>
<td>5 (13)</td>
</tr>
<tr>
<td>8.</td>
<td>Exam provides opportunities to learn</td>
<td>21 (54)</td>
<td>11 (28)</td>
<td>7 (18)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>OSCE Organization</th>
<th>Agree f &amp; (%)</th>
<th>Neutral f &amp; (%)</th>
<th>Disagree f &amp; (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>OSCE exam scores provide a true measure of essential clinical skills</td>
<td>26 (67)</td>
<td>9 (23)</td>
<td>4 (10)</td>
</tr>
<tr>
<td>2.</td>
<td>OSCE Scores are standardized</td>
<td>18(46)</td>
<td>11 (28)</td>
<td>10 (26)</td>
</tr>
<tr>
<td>3.</td>
<td>OSCE is a practical and useful experience</td>
<td>24(62)</td>
<td>9 (23)</td>
<td>6 (15)</td>
</tr>
<tr>
<td>4.</td>
<td>Personality, ethnicity and gender of group will not affect OSCE Scores</td>
<td>24(62)</td>
<td>8 (21)</td>
<td>7 (18)</td>
</tr>
</tbody>
</table>
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 \( n=39 \)

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>OSCE Organization</th>
<th>Agree &amp; (%)</th>
<th>Neutral &amp; (%)</th>
<th>Disagree &amp; (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The announcement about the place of OSCE examination was done well in advance</td>
<td>25(64)</td>
<td>11(28)</td>
<td>3(8)</td>
</tr>
<tr>
<td>2.</td>
<td>The time tables of OSCE examination were available and known to student early</td>
<td>22(56)</td>
<td>7(18)</td>
<td>10(26)</td>
</tr>
<tr>
<td>3.</td>
<td>The revision done before the examination about the different types of clinical procedure</td>
<td>22(56)</td>
<td>11(28)</td>
<td>6(15)</td>
</tr>
<tr>
<td>4.</td>
<td>Gave general idea about the OSCE before exam process</td>
<td>23(59)</td>
<td>8(21)</td>
<td>8(21)</td>
</tr>
<tr>
<td>5.</td>
<td>The staff were cooperative to answer your questions related to the organization of the examination</td>
<td>21(54)</td>
<td>8(21)</td>
<td>10(26)</td>
</tr>
<tr>
<td>6.</td>
<td>The quality of the OSCE labs were good, from set up and cleanliness, suitable, lightening, quietness and ventilation.</td>
<td>21(54)</td>
<td>9(23)</td>
<td>9(23)</td>
</tr>
</tbody>
</table>

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 \( n=39 \)

<table>
<thead>
<tr>
<th>Type of examination</th>
<th>Mean score</th>
<th>SD</th>
<th>Paired differences</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSCE</td>
<td>31.03</td>
<td>3.02</td>
<td>Mean</td>
<td>1.37</td>
<td>3.81</td>
<td>0.61</td>
</tr>
<tr>
<td>Clinical Written Examination</td>
<td>29.7</td>
<td>3.35</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 ids 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**


Nurses’ Perception of Ethics and Legal Training of Nurses in Ghana

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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**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Hospital</th>
<th>Number of participating nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wa</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>Jirapa Hospital</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Nandom Hospital</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Nandom Hospital</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Lawra Hospital</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>Tumu Hospital</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>150</td>
</tr>
</tbody>
</table>

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 to 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 to 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. is 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. argue 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 to patients might be concerned about safety issues during clinical trials and nurses need to know which safety measures are in place. further 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 offenses 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. support 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

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The Lived Experience of Doctors of Nursing Practice in Pursuit of a Doctor of Philosophy Degree in Nursing

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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. 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. 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 hierarchical 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. This trend is often a result of the shift in the nursing shortage with nurses advancing their education for job security. 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 DNP's 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) DNP's 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 research question 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 than 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:
Voices in this study. The following stories explain how a PhD in nursing connected with the participant’s 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.

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 DNP students 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.

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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

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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., al 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 ±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-Gonzale 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 total of 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%
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.

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.

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 goggle scholar search was done using the key words and search synonyms fro already articles.an addition of 6 articles was found in the data base. Initial articles were 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
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 impendimt. (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

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.
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 liquor 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, & Muhammed, 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).

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.

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 revealed 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).

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

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