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A Pilot Study on Awareness of Ergonomics and Prevalence of Musculoskeletal Injuries among Nursing Professionals

Anila Paul
Associate Professor, M.G.M. School of Physiotherapy, Plot No. 46, Sector30, Vashi, Navi Mumbai, Maharashtra-400705

Abstract

Background
Nurses play a major role in patient care and handling in various health care work environments. The physical work load and psychological stress factors affects the performance of nursing professionals.

Objective
To find out the awareness on ergonomics and safety measures at work place among Indian Nursing professionals and to study the prevalence of musculoskeletal injuries among them.

Methods
Cross sectional observational pilot study with the help of pre validated questionnaire to collect the information from 34 Nursing professionals working in a hospital at Navi Mumbai. The questionnaire included items to collect demographic data, awareness on ergonomics and safety measures practiced by them. Standardized Nordic Questionnaire was used for the detection of musculoskeletal symptoms among them. Based on the data collected from the questionnaire, the analysis was done.

Results: 53 % of the nurses were not aware about ergonomics and safety measures. 75 % of them were not following ergonomics. Based on the Standardized Nordic questionnaire, 53% of the nurses had musculoskeletal complaints. 30 % of them had pain on lower back. 43 % of them were prevented from their work due to the musculoskeletal aches. The musculoskeletal troubles increased with increase in years of experience in Chi-square test value 12.147 (p-value<0.05). The analysis showed no correlation between awareness on ergonomics and musculoskeletal complaints among nurses with Chi-square value 3.032 (p-value<0.05).

Conclusions
The awareness on ergonomics and safety measures among these nurses found to be less. The improper lifting and patient handling techniques could have lead to musculoskeletal aches among them. As years of experience advances the incidence of aches and pains also found to be increased.

Implications: The physical performance of nurses can be improved by giving proper awareness and training on ergonomics, safety measures and patient lifting and transferring techniques. This need to be stressed in the nursing curriculum.

Key Words
Ergonomics, Musculoskeletal injuries, Nordic questionnaire.

Background
Nurses play a major role in patient care and handling in various health care work environments. They are required to lift and transport patients or equipments, often in difficult environment particularly in developing nations where lifting aids are not always available or practicable. Low back pain is the most common cause of early retirement on ground of ill health, sickness absence, job changes and a fall in the work speed among the working population(1). An important reason for musculoskeletal pain might be due to the inadequate implementation of ergonomic measures and the lack of using adequate implementation strategies (2). Ergonomics is the science of relationship between human, environment and machine and technology, trying to improve their relationship and making a balance between them (3). Studies demonstrate that work related stress brings about hazardous effects both on the health of the nurses and their ability to cope with job demands (4).

Aims & Objectives
• To find out the awareness on ergonomics and safety measures at work place among Indian Nursing professionals
• To study the prevalence of musculoskeletal complaints among Indian Nursing professionals.
• To find out the relation between the years of experience and the musculoskeletal complaints among nurses.
• To find out the relation between the awareness on ergonomics and musculoskeletal complaints among nurses.

Methodology
This study is a cross sectional observational pilot study conducted on nursing professionals. A pre validated questionnaire was used to collect the information from 34 Nursing professionals working in a hospital at Navi Mumbai. With the prior permission from the hospital authority, the questionnaires were distributed among the nurses before the lecture on ‘ergonomics for nurses’. All the subjects responded to the questionnaire. The questionnaire included items to collect demographic data, awareness on ergonomics and safety measures practiced by them. Standardized Nordic Questionnaire (SNQ) was used for the detection of musculoskeletal symptoms among them. Standardized Nordic Questionnaire (SNQ) is a reliable and valid tool to detect musculoskeletal troubles (5). Based on the data collected from the questionnaire, the analysis was done using Chi-square test.
Figure 1: **AGE OF THE SUBJECTS**: 71% of the nurses were in the age group of 20-30, 26% of them in the age group of 30-40 and 3% in the age group of 40-50.

Figure 2: **YEARS OF EXPERIENCE**: 68% of the nurses had an experience up to 6 years, 20% of them had 6-12 years of experience and 12% of them had 12-18 years of experience.

Figure 3: **REGULAR EXERCISE HABIT**: 74% of the nurses do not have a habit of doing regular exercises.

Figure 4: **GET REST PERIOD**: 74% of the nurses were not getting proper rest duration during the working hours.

Figure 5: **AWARENESS ON ERGONOMICS / SAFETY MEASURES**: 53% of the nurses were not aware about ergonomics and safety measures and only 47% were aware about ergonomics.

Figure 6: **FOLLOWING ERGONOMICS**: 75% of the nurses were following any of ergonomic or safety measures.
Nordic Questionnaire

Figure 7: MUSCULO SKELETAL TROUBLES FACED IN LAST 12 MONTHS: Based on the Standardized Nordic Questionnaire (SNQ), 53% of the nurses had faced musculo skeletal complaints in last 12 months

Figure 8: AREAS INVOLVED: 55% of the nurses had pain in the low back, 17% on the knees, 39% on upper back, 17% on neck, 22% on shoulders, 5% on elbow, 11% on hips and 5% on foot

Figure 9: NURSES PREVENTED FROM WORK: 39% of them were prevented from their work due to the musculoskeletal aches

Results

Demographic data

The relation between age and the musculoskeletal aches among nursing population, was analyzed with Chi-square test. A value of 12.147 (p-value < 0.05) showed that there is significant difference. The musculoskeletal troubles increased with increase in age.

The relation between awareness on ergonomics and musculoskeletal complaints was analyzed with Chi-square test. A value of 3.032 (p-value > 0.05) indicated that there is no significant change. The result says that there is no correlation between awareness on ergonomics and musculoskeletal complaints among nurses.

Discussion

In the present study, the awareness on ergonomics and safety measures among Indian Nursing professionals found to be less (47%). When we look into the nursing curriculum and training, the importance given to practices of efficient and safe patient and equipment handling is found to be less especially when they are in clinical assignments. Education programs on prevention and coping strategies need to be made mandatory to nurses to promote efficiency in patient care (6).

In the present study, 53% of nurses were facing musculoskeletal complaints and majorly at lower and upper back, neck and shoulders. This might be due to the altered posture and mechanics they are using in clinical practices and the lack of rest period during working hours (3). The repeated and constant stress on the soft tissue structures could lead to musculoskeletal aches and troubles.

The relation between years of experience and musculoskeletal complaints found to be significant in this study. The reason could be the repetitive or cumulative stress and abnormal posture and techniques (7). Prevention of occupational injuries among nurses is vital to provide quality patient care service, improve employee morale and enhance productivity by reducing time loss and sickness absenteeism. The relation between awareness on ergonomics and aches found to be not significant in the present study. In a developing country like India, the implementation of advanced equipments and patient lifting and transferring technologies may not be practical in all hospitals. But the nurses need to be trained on simple and safe manual techniques for lifting and transfers. Lack of regular exercise might have added to prevalence of aches.

Conclusion

Education and training programs on ergonomics and efficient patient handling has to be given stress to improve the efficiency in patient care. Regular exercise sessions and correction of abnormal posture and techniques has to be corrected to reduce the occurrence of musculoskeletal complaints among nurses.

Implications

Regular training on general fitness and ergonomics training can be useful in prevention of musculoskeletal complaints among Nurses.
References

Transcultural Nursing: Cultural Competence in Nurses

Ansuya
Lecturer, Manipal College of Nursing, Manipal University, Manipal

Abstract

Providing holistic care is a basic responsibility of the nurse. Today nurses provide health care to culturally diverse client population in variety of setting and different places. Providing care to culturally diverse population has become a challenge for nurses. So nurses need to know the importance of the concept of transcultural nursing and to be competent to deliver the comprehensive care. To be culturally competent the nurse needs to understand his/her own world views and those of the patient, to avoid stereotyping and misapplication of scientific knowledge. Cultural competence is obtaining cultural information and then applying that knowledge. Knowledge of cultural information is very essential for delivery the quality of care and it improves health outcomes.

Key Words

Culture, Transcultural nursing, Cultural competence nursing care.

Providing holistic care is a basic responsibility of the nurse. So nurses need to be competent to deliver the comprehensive care. Today nurses provide health care to culturally diverse client population in variety of setting and different places. Providing care to culturally diverse population has become a challenge for nurses. To be culturally competent the nurse needs to understand his/her own world views and those of the patient, to avoid stereotyping and misapplication of scientific knowledge. Cultural competence is obtaining cultural information and then applying that knowledge. Knowledge of cultural information is very essential for delivery the quality of care and it improves health outcomes.

The American Nurses Association (1994) states that, culture is central concept of nursing. Acknowledgement and acceptance of cultural differences and understanding of specific responses to illness are prerequisite for providing safe and care.

In 1978 Dr. Medeline Leininger, founder of the concept of Transcultural nursing, stated that nursing is caring, and the core of transcultural nursing caring for people from diverse cultural context.

Definition

Culture is that complex whole which includes knowledge, belief, art, moral, law, custom and other capabilities acquired by man as a member of society. (Taylor)

Transcultural nursing refers to formal area of humanistic and scientific knowledge and practices focused on holistic care phenomena and competencies to assist individuals or groups to maintain or regain their health and to deal with disabilities, dying or other human conditions in cultural, congruent and beneficial ways.

Medeline Leininger has been defined as a “formal area of study and practice focused on comparative human care (caring) differences and similarities of the beliefs, values, and patterned life ways of cultures to provide culturally congruent, meaningful, and beneficial health care to people”.

Cultural competence nursing care refers to the explicit use of culturally based care and health knowledge in sensitive, creative and meaningful ways to fit the general life ways and needs of individual or groups for beneficial and meaningful health and wellbeing or to face illness, disabilities or death.

In our society, nurses encounter all sorts of cultural differences, such as ethnic customs, traditions and taboos. It provides plenty of opportunities for challenges stemming from cultural diversity. To be culturally competent the nurse needs to learn how to mix a little cultural understanding with the nursing care they offer. In some parts of the United States culturally varied patient populations have long been the norm. But now, even in the homogeneous state, a dramatic increase in immigrants from all over the world.

Since the perception of illness and disease and their causes varies by culture, these individual preferences affect the approaches to health care. Culture also influences how people seek health care and how they behave toward health care providers. How we care for patients and how patients respond to this care is greatly influenced by culture. Health care providers must possess the ability and knowledge to communicate and to understand health behaviors influenced by culture. Having this ability and knowledge can eliminate barriers to the delivery of health care. These issues show the need for health care organizations to develop policies, practices and procedures to deliver culturally competent care.

Essential elements to culturally competent

Valuing diversity.

Having the capacity for cultural self-assessment.

Being conscious of the dynamics inherent when cultures interact.

Having institutionalized cultural knowledge.

Having developed adaptations of service delivery reflecting an understanding of cultural diversity.

Major challenges for cultural competency in healthcare

Meyer CR. (1996) describes

- The first is the straightforward challenge of recognizing clinical differences among people of different ethnic and racial groups.
- The second, and far more complicated, challenge is communication. This deals with everything from the need for interpreters to nuances of words in various languages.
- The third challenge is ethics. Respect for the belief systems of others and the effects of those beliefs on well-being are critically important to competent care.
The final challenge involves trust. For some patients, authority figures are immediately mistrusted, sometimes for good reason. Having seen or been victims of atrocities at the hands of authorities in their homelands, many people are as wary of caregivers themselves as they are of the care.

Leininger’s Culture Care Theory

Leininger’s Culture Care Theory (1991) underlines the meaning and importance of culture in explaining an individual’s health and caring behaviour, and her Culture Care Theory is the only nursing theory that focuses on culture. Leininger discovered that patients from diverse cultures valued care more than the nurses did.

Leininger (1997, states that culture refers to “the life ways of an individual or a group with reference to values, beliefs, norms, patterns, and practices” and agrees that culture is learnt by group members and transmitted to other group members or intergenerational. It distinguishes between emic and etic perspectives of culture. Emic refers to an insider’s views and knowledge of the culture, while etic means the outsider’s viewpoints of the culture and reflects more on the professional angles of nursing. The environmental context, which includes physical, ecological, sociopolitical and cultural settings, gives meaning to human expressions of care. Ethnohistory refers to the past events and experiences of individuals or groups, which explain human life ways within particular cultural contexts over short or long periods.

The assumptions are

- Care (caring) is essential to curing and healing, for there can be no curing without caring.
- Every human culture has lay (generic, folk or indigenous) care knowledge and practices and usually some professional care knowledge and practices, which vary transculturally.
- Culture care values, beliefs, and practices are influenced by and tend to be embedded in the worldview, language, philosophy, religion (and spirituality), kinship, social, political, legal, educational, economic, technological ethnohistorical, and environmental contexts of cultures.
- A client who experiences nursing care that fails to be reasonably congruent with his/her beliefs, values, and caring life ways will show signs of cultural conflict, noncompliance, stress and ethical or moral concern.

Cultural and social structure dimensions refer to the dynamic, holistic, and interrelated features of culture (or subculture) related to religion or spirituality, kinship (social), political (and legal), economic, education, technology, cultural values, language and ethno historical factors of different cultures.

Professional care systems refer to formally taught, learnt and transmitted professional care, health, illness, wellness and related knowledge and practical skills that prevail in professional institutions.

Lay care systems refer to culturally learnt and transmitted knowledge and skills used to provide assistive, supportive, enabling or facilitative acts towards or for another individual or group to improve a human life way, health condition or to deal with handicaps and death.

Leininger’s Sunrise Model to depict the Culture Care Theory

Characteristics of Cultural competence

- It includes knowledge and skills as well as the following:
- Developing an awareness of one’s own culture, existence, sensations, thoughts, and environment without letting them have an undue influence on those from other backgrounds.
- Demonstrating knowledge and understanding of the client’s culture, health-related needs, and meanings of health and illness.
- Accepting and respecting cultural differences.
- Not assuming that the healthcare provider’s beliefs and values are the same as the client’s.
- Resisting judgmental attitudes such as “different is not as good.”
- Being open to cultural encounters.
- Being comfortable with cultural encounters.
- Adapting care to be congruent with the client’s culture.
- Cultural competence is an individualized plan of care that begins with performing an assessment through a cultural lens.

Barriers

Nurses’ ability to provide culturally competent nursing care may be hampered by following barriers.

- Lack of knowledge about the cultural and ethnic values which may cause them to misinterpret a client’s behaviour.
- Emotional responses such as fear distrust can arise any time when members do different cultural groups meet.
- Ethnocentrism tendency to be biased toward their own culture believing that their own beliefs and values are right and that that other cultures are wrong.

Language barrier.

Conclusion

The goal of transcultural nursing is to develop a scientific and humanistic body of knowledge in order to provide
specific and culture-universal nursing care. So nurses need to be culturally competent to provide comprehensive/holistic care.

References
4. http://tcn.sagepub.com/content/13/3/261.extract
A Survey to Assess the Knowledge, Practice, and Attitude on Acute Respiratory Infection Among Mothers of Under Five Children at MCH Clinic, Ramghat, Pokhara, Nepal

Ashalata W Devi¹, Lama Ranjana², Adhikari Laxmi²

¹Lecturer, Manipal College of Medical Sciences (Nursing Programme), Kathmandu University, ²2nd year B.Sc.N.student MCOMS (Nursing Programme)

Abstract

Acute respiratory infection is the most common and frequent illnesses experienced globally. It is found that about two million deaths cases are recorded each year. Number of death cases by this disease is highest in the developing countries. Various environmental and host factors are associated with the morbidity and mortality rate due to ARI. The environmental factors are overcrowding, large family, high population density, poor housing condition, poor socio-economic status, parental smoking and environmental pollution etc. The host factors are avoidance of exclusive breast feeding, poor nutrition and absence of immunization against specific respiratory illness such as measles, whooping cough, and diphtheria.

Objectives

To assess the knowledge, practice and attitude of mothers about acute respiratory tract infection (ARI), to find the association between the knowledge and selected variables, to find the correlation between knowledge score and practice, and to ascertain the relationship between the practice and attitude.

Material and Methods

A survey conducted among 100 mothers attending the MCH clinic, Ramghat, Pokhara, Kashi District, Nepal. Results: Out of 100 mothers, 45% of mothers were between the ages of 20-25 years, 66 % of the mothers belonged to nuclear family and majority 66% of the mothers had five family members. About 47% of the mothers were literate up to secondary level, 71% of the mothers were housewife. About 41% of mothers were having one child, 93% mothers had completed immunization for their children and 98% with monthly income of > 1$. About 92% of the mothers were non-vegetarian, 71% of them had pakka house, 85% had cross ventilation, 95% with adequate lighting, and 99% had neat and clean surrounding. About 87% of the mothers had organized disposal of waste material and 33% of them gets health related information from newspaper/TV/ other media. Regarding knowledge on ARI, 73% of the mothers had fair knowledge and 5% had poor knowledge. About 97% of the mothers had good practice and none were with poor practice on ARI. Regarding attitude on ARI, 91% of the mothers had good attitude and no mothers with poor attitude. There was no significant association between the knowledge score and selected variables like age, type of family, education, immunization, family income, food habit, cross ventilation and disposal of waste material. There was no significant correlation between the knowledge and attitude, knowledge and practice but there was significant correlation between the practice and attitude. Conclusion: The study was conducted aiming to find out the levels of knowledge, practice and attitude of the mothers about ARI. The study findings revealed that 73% of the mothers had fair knowledge on ARI, 97% of them had good practice, and 91% of them had good attitude towards ARI. There was no significant association between the knowledge score and selected variables like age, type of family, education, immunization, family income, food habit, cross ventilation and disposal of waste material. There was no significant correlation between the knowledge and attitude (p>0.05). There was no significant correlation between the knowledge and practice (p>0.05). There was significant correlation between the practice and attitude (p<0.05).

Key Words

mother, knowledge, practice, attitude, ARI.

Introduction

The childhood period is also a vital period because of so-called socialization process that is transmission of attitudes, customs, and behaviours. In addition of course, they are vulnerable to disease, death, and disability owing to their age, sex, place of living, socio-economic status and most of other variables. Certain specific biological and psychological needs must be met to ensure the survival and healthy development of the child and future adult.¹

It is well recognized fact that acute respiratory tract infection (ARI) among under five children is one of the serious disease which accounts for high morbidity. It has been estimated that about 20% of the infants born in developing countries fails to celebrate their 5th birthday and one fourth to one third of the child morbidity is attributed to ARI as underlying or contributing causes.²

The incidence of ARI in India is 23% in urban and 17.65% in the rural area and overall mean incidence is 20.32%, the evidence of pneumonia, malnutrition, low birth weight, indoor air pollution have a relatively higher risk of developing respiratory tract infection.¹

The ministry of health and population recognizes acute respiratory infection (ARI) as one of the major public health problems in Nepal among the children < 5 years of age. The national ARI control program is an integral part of primary health care and accorded high priority by the MoHP, Nepal government. The programme primarily focused on children under 5 years because majority of deaths in this age group are related to ARI. Compared to the earlier fiscal years, the number of reported new cases has increased at the national level. The program recognizes the important role of mothers and other caretakers in identifying the difference between the need for home care and the need for referral to health facilities. Therefore, all the health workers should be able to communicate the necessary information effectively to the mothers and caretakers.³
With the above background, this study was conducted with the following objectives:
1. To assess the knowledge, practice and attitude of mothers about ARI.
2. To find the association between the knowledge and selected variables.
3. To find the correlation between knowledge and attitude.
4. To find the correlation between knowledge and practice.
5. To ascertain the relationship between the practice and attitude.

Material and Methods

Type of study: A Survey study.
Place of study: Mothers who were attended MCH clinic, Ramghat, Pokhara, Kaski District Nepal.
Duration of the study: 1 and ½ month
Study population: One hundred (100) mothers of age 20-35 years.
Study tool: Demographic Proforma, Knowledge questionnaire, Practice questionnaire, and Attitude scale on acute respiratory infection
Study design: Descriptive study
Methodology: Interview with structured questionnaire
Statistical analysis: Data obtained was analyzed using SPSS-Package (version 12.0).

Result

Table 1- shows that out of 100 mothers, 45% of mothers were between the ages of 20-25 years, 66% of the mothers belonged to nuclear family and majority 66% of the mothers had five family members. About 47% of the mothers were literate up to secondary level, 71% of the mothers were housewife. About 41% of mothers were having one child, 93% mothers had completed immunization for their children and 98% with monthly income of > 1$. About 92% of the mothers were non-vegetarian, 71% of them had pakka house, 85% had cross ventilation, 95% with adequate lighting, and 99% had neat and clean surrounding. About 87% of the mothers had organized disposal of waste material and 33% of them gets health related information from newspaper/TV/other media.

Table 2- shows that the range, minimum score, maximum score, mean, median and standard deviation of knowledge, practice, and attitude scores.

Fig 1- shows that 73% of the mothers had fair knowledge and 5% had poor knowledge.
Fig.2- shows that 97% of the mothers had good practice and there is no one with poor practice.
Fig.3- shows that 91% of the mothers had good attitude and there is no one with poor attitude.

The data in table 3- shows that there was significant

Table 1: Distribution of mothers on the basis of their sample characteristics

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<th>frequency</th>
<th>N = 100 percentage</th>
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<td>31-35</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Type of family</td>
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<td></td>
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<td>66</td>
<td>66</td>
</tr>
<tr>
<td>Joint</td>
<td>34</td>
<td>34</td>
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Table 2. Range, Minimum, Maximum, Mean, Median and Standard Deviation of knowledge, practice and attitude scores on ARI

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<thead>
<tr>
<th>Number of family members</th>
<th>N=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three</td>
<td>20</td>
</tr>
<tr>
<td>Four</td>
<td>28</td>
</tr>
<tr>
<td>Five</td>
<td>18</td>
</tr>
<tr>
<td>More than five</td>
<td>34</td>
</tr>
<tr>
<td>Education of mother</td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>6</td>
</tr>
<tr>
<td>Primary</td>
<td>14</td>
</tr>
<tr>
<td>Secondary</td>
<td>47</td>
</tr>
<tr>
<td>Higher secondary</td>
<td>26</td>
</tr>
<tr>
<td>Graduate</td>
<td>7</td>
</tr>
<tr>
<td>Occupation of mother</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>71</td>
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<tr>
<td>Service</td>
<td>18</td>
</tr>
<tr>
<td>Shopkeeper</td>
<td>3</td>
</tr>
<tr>
<td>Tailor</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td>Number of children</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>41</td>
</tr>
<tr>
<td>Two</td>
<td>37</td>
</tr>
<tr>
<td>More than two</td>
<td>22</td>
</tr>
<tr>
<td>Immunization</td>
<td></td>
</tr>
<tr>
<td>Complete</td>
<td>93</td>
</tr>
<tr>
<td>Incomplete</td>
<td>7</td>
</tr>
<tr>
<td>Family income (monthly)</td>
<td></td>
</tr>
<tr>
<td>&lt; 1$</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 1$</td>
<td>98</td>
</tr>
<tr>
<td>Food habit</td>
<td></td>
</tr>
<tr>
<td>Vegetarian</td>
<td>8</td>
</tr>
<tr>
<td>Non-vegetarian</td>
<td>92</td>
</tr>
<tr>
<td>Type of house</td>
<td></td>
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<tr>
<td>Kachha</td>
<td>7</td>
</tr>
<tr>
<td>Pakka</td>
<td>71</td>
</tr>
<tr>
<td>Semi-pakka</td>
<td>22</td>
</tr>
<tr>
<td>Cross ventilation</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>85</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>95</td>
</tr>
<tr>
<td>Inadequate</td>
<td>5</td>
</tr>
<tr>
<td>Surroundings</td>
<td></td>
</tr>
<tr>
<td>Neat and clean</td>
<td>99</td>
</tr>
<tr>
<td>Dirty</td>
<td>1</td>
</tr>
<tr>
<td>Disposal of waste material</td>
<td></td>
</tr>
<tr>
<td>Organized</td>
<td>87</td>
</tr>
<tr>
<td>Randomly here</td>
<td>13</td>
</tr>
<tr>
<td>and there</td>
<td></td>
</tr>
<tr>
<td>Awareness regarding ARI</td>
<td></td>
</tr>
<tr>
<td>got from</td>
<td></td>
</tr>
<tr>
<td>No one</td>
<td>7</td>
</tr>
<tr>
<td>Newspaper/TV/Other media</td>
<td>33</td>
</tr>
<tr>
<td>Health magazine</td>
<td>26</td>
</tr>
<tr>
<td>Health professional</td>
<td>27</td>
</tr>
<tr>
<td>Relative or friends</td>
<td>7</td>
</tr>
</tbody>
</table>

Table: ARI got from

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Practice</th>
<th>Attitude</th>
<th>N=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>Min.</td>
<td>Max.</td>
<td>Mean</td>
</tr>
<tr>
<td>Score</td>
<td>Score</td>
<td>Score</td>
<td>Score</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>14</td>
<td>8.82</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>10</td>
<td>8.85</td>
</tr>
<tr>
<td>14</td>
<td>24</td>
<td>38</td>
<td>31.61</td>
</tr>
</tbody>
</table>
correlation between the practice and attitude (p<0.05).

Maximum possible score for knowledge = 15, Maximum possible score for practice = 10, Maximum possible score for attitude = 40.

Data regarding to knowledge of mother on ARI was collected by administering knowledge questionnaire with interview technique. The data were categorized as good, fair, and poor knowledge.

**Fig. 1.** Represents that 73% of the mothers had fair knowledge and 5% of the mothers had poor knowledge.

Regarding to knowledge about acute respiratory infection, 73% of the mothers were having fair knowledge about ARI, its causes, mode of transmission, risk factors, sign and symptoms of upper respiratory tract infection and lower respiratory tract infection, preventive measures and its complications.

Data regarding to practice of mothers on ARI was collected by administering practice questionnaire with interview technique. Data were categorized as poor practice, fair practice and good practice and represented in fig 2.

**Fig. 2:** Cylindrical diagram representing the practice score

Fig.2 represents that 97% of the mothers had good practice while there is no one with poor practice.

Regarding to practice, 93% of the mothers were not smoking during pregnancy, 67% were not used firewood for cooking, 92% were taking nutritious diet during pregnancy, 79% of the mothers were not having underweight baby (<2.5 kg) at birth, 88% were given colostrums to their babies, 95% were given exclusive breast feeding, 92% were completed immunization for their babies, 82% were started weaning at 6 months, 90% were having proper ventilation at home and 99% of them used to visit health centre when their baby is sick.

Data regarding to attitude of mothers on ARI was collected by administering attitude scale with interview technique. Data were categorized as poor attitude, fair attitude and good attitude and is represented in fig.3.

**Fig. 3:** Represents that 91% of the mothers had good attitude while there is no one with poor attitude.

Regarding to attitude scale, 69% of the mothers had negative response towards the statement on ARI is not transmitted from children to mothers, 67% on common cold is not included in ARI and 90% on ARI cannot be treated. Regarding the positive attitude, 90% of the mothers had positive response on the statement that ARI is life threatening problem, 98% on smoking during pregnancy harms the fetus, 99% on overcrowded environment and smoke contribute to ARI, 98% had positive attitude on colostrums should be given to the baby, 95% on exclusive breast feeding prevents from ARI, 100% on children should be taken to the hospital when they are sick and 98% on immunization protects the baby from diseases.

Association between knowledge score and selected variables:

There was no significant association between the knowledge score and selected variables like age, type of family, education, immunization, family income, food habit, cross ventilation and disposal of waste material.

Correlation between knowledge score and attitude

There was no significant relationship between the knowledge and attitude (P>0.05).

Correlation between knowledge and practice

There was no significant relationship between the knowledge and practice (P>0.05).

**Table 3.** Correlation between practice and attitude

<table>
<thead>
<tr>
<th>Test of significance</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>0.269</td>
<td>0.007**</td>
</tr>
</tbody>
</table>

P=0.05, **= significant

**Table 3.** shows that there was significant relationship between the practice and attitude (p<0.008).

**Discussion**

A study conducted by Kakade Sangeeta (2005) who found that there was significant relationship between the knowledge and practice (p<0.008), and significant
relationship (p<0.01) between the knowledge and attitude of mothers towards ARI, which is contradictory with the present study findings.  

The present study findings reveal that regarding knowledge about acute respiratory infection, 73% of the mothers had fair knowledge about ARI, its causes, mode of transmission, risk factors, signs and symptoms of upper respiratory tract infection and lower respiratory tract infection, preventive measures and its complications. The findings are supported by the above study to some extent as the findings were 83% of mothers had knowledge about the anatomy and physiology of respiratory system, 46% had knowledge regarding cause, and spread of the disease, 35% had the knowledge about the preventive, promotive, and curative aspects of ARI. 

A study by Kappor SK and et al. (1990) and found that regarding to mild episode of ARI more than half the mothers preferred to take their children to doctor, which supports the present study finding as 99% of the mothers used to visit health centre when their baby is sick. 

A study conducted by Valdes Roque AI and et al. (1999) found that mothers who were hospitalized their children with ARI had poorer knowledge, attitude and practices on ARI than mothers who were attended clinic, which is supported to the present study findings as 73% of the mothers who were attending the clinic had fair knowledge about ARI. 

A study conducted by Onta SR, Yenden B. in Eastern Nepal and revealed that knowledge of mothers about ARI was low, which in contradicting the present finding as 73% of mothers had fair knowledge about ARI. 

Conclusions

The mothers of the children under five years needs to promote their knowledge on preventive, promotive and curative measures of ARI, and also needs to develop the positive attitude towards the condition and prevention of untoward complication of ARI. The findings of the study reveals that it is essential to provide proper health services and health promotional activities like better MCH care, immunization as to improve their living conditions. Awareness should be given to keep smoke free environment, better nutrition, promotion of breast feeding etc., as an important measures to reduce the morbidity and mortality rate of under five children due to ARI and to promote the health condition of Nepal.

Recommendations

1. A similar study can be conducted in a broader area in order to draw generalization.
2. A similar study can be conducted among rural mothers of under five children.
3. A comparative study can be done with different groups of mothers from urban and rural areas.
4. The similar study can be conducted among health workers.

References

1. Basavanthappa BT. Community Health Nursing, New Delhi, Jaypee Brothers, 284-87.
A Study on Fear of Medical Experiences in School Children

Buvaneswari R¹, Murali Mohan²
¹Asst. Professor, ²Asst.Lecturer, JSS College of Nursing, Saraswathipuram Mysore, Karnataka

Abstract

Background

When kids anticipate “going to the doctor”, many become worried and apprehensive about the visit. Some fears and guilt feelings surface easily, so that kids can talk about them. Others are harbored secretly and remain unspoken. Health care experiences often involve separating children from family, friends & familiar environments. Invasion of the child’s privacy & threats to body integrity are not uncommon. All of these experiences are threatening to children & will, depending on the child, produce some level of fear of medical experiences.

Methods

The descriptive survey method was used. Samples comprised of 100 school children between the age group of 10-12 years and studying 6th & 7th standard. Convenient sampling technique was used to obtain a sample. Data was collected by using Child Medical Fears Scale.

Results

The majority of children (50%) were in the age of 11 years. 53% of children were boys & 47% were girls. 50% of children were studying 6th standard and another 50% studying 7th standard. Majority of children (98%) had previous exposure to medical services. Majorities (64%) of children were having less fear toward medical experiences & there was no significant association between levels of fear of medical experiences among school children and their selected personal variables.

Conclusion

The study concluded that children were having less fear toward medical experiences. There was no association between the level of fear toward medical experiences among school children and their selected personal variables.

Key Words

Fear, Medical Experiences, Children

Introduction

He has not learned the lesson of life who does not every day surmount a fear—Ralph Waldo

Most children experience fears at some time during their lives. In most cases these fears are a normal part of development. As with adults, it is appropriate for children to be fearful at times. Fears alert us of dangerous situations.¹

The school-age years, from 6 to 12, are characterized by slow, steady physical growth and rapid social and cognitive development. Sources of fear for school-age children include societal change, school, competitive athletics, rushed schedules, and the media. Fear is the state of being afraid of something to which someone can assess a value. In fear, the variables are fixed so that the object, person or situation can be appraised for the amount of possible harm they may cause. Then an appropriate plan may be established to combat the cause of the fear. School age children with a high level of fear lose their ability to learn and perform goal-oriented behaviors.² Fear is a normal developmental characteristic. It has been defined as a specific biological & psychological response to a very real or imagined threat. Medical fears are defined as “any experience that involves medical personnel or procedures involved in the process of evaluating or modifying health status in traditional health care settings.”³

Children’s responses to health care experiences have been a concern of health care providers and researchers for several decades. Much nursing research has been directed toward developing a better understanding of children’s responses to stressful medical experiences in order to develop effective interventions to ameliorate stress. Many children respond to stressful medical events with distress, others do not. Intrinsic characteristics, such as fear of medical experiences, have been documented to be one variable that influences their response to a variety of experiences in health care.¹

A comparative study was conducted to describe the reports of fears of medical events among school-age children with emotional disorders and compare their reports with those of parents and health care providers. Thirty children, parents, and health care providers (N = 90) completed the CMFS; the parents and health care providers also completed demographic instruments. Overall, the children reported lower fear scores of medical events than in previous research studies. Boys reported lower fear scores (p = .03) than girls. There was a statistical difference (p = .006) between the mean scores of the children and those of the parents and health care providers, with the children reporting less fear.⁴

The study examined the self-reported fears of school-age children living in the United States and in Nepal. Thirty school-age children from each country, matched by sex and age, participated in this study. The revised version of the Child Medical Fear Scale was used to identify medical fears of children. Results shows that among 17 feared items, the result showed getting a shot to be the most feared item reported by both groups. Nepalese children reported higher fear scores than did American children. It also was found that there was a significant difference in fear scores between Nepalese boys and girls, with girls reporting higher fear scores than boys. There was no difference in fear scores between American boys and girls.⁴

Health care experiences in general, are threatening to preschool & school age children. Things that often top kids’ lists of concerns about going to the doctor include: Separation, pain, the doctor and the unknown. In addition, children often harbor feelings of guilt. They may believe that
their illness or condition is punishment for something they have done or neglected to do. Children who feel guilty may also believe that examinations and medical procedures are part of their punishment.\(^5\)

**Statement of Problem**

A study to assess the fear of medical experiences among school going children aged between 10-12 years in selected school of Mysore.

**Objectives**

1. To assess the fear of medical experiences among school going children through Child Medical Fears Scale (CMFS).
2. To determine the association of levels of fear of medical experiences among school going children with their selected personal variables viz. age, sex, standard, previous experiences of hospitalization.

**Hypothesis H\(_1\)**

There will be significant association of levels of fear of medical experiences among school going children with their selected personal variables viz. age, sex, standard, previous experiences of hospitalization.

**Methodology**

The research approach and design adopted for the study was descriptive approach. The population consisted of school children between the age group of 10-12 years and studying 6\(^{th}\) & 7\(^{th}\) standard. Convenient sampling technique was used to obtain a sample of 100 school children. Data was collected by using child medical fears scale. The Child Medical Fears Scale consists of 17 items. For the present study 16 items were selected. The child is asked to rate on a three point scale, how afraid he/she is of selected experiences associated with health care. The response format is 0 = not at all afraid, 1 = a little afraid, 2 = a lot afraid. There are no reversed scored items. The range of the possible scores on the 16 item CMFS is 0 to 32. It is further arbitrary divided into less fear (0-16) and greater fear (17-32).

**Findings**

**Part 1: Sample characteristics**

**Table 1.** Frequency and percentage distribution of school children according to their selected personal characteristics

<table>
<thead>
<tr>
<th>S.No</th>
<th>Personal variable</th>
<th>f /%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age in years</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Previous exposure to medical services</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

The data presented in Table 1 shows that majority of children (50%) were in the age of 11 years & 45% of them were 12 years old, remaining 5% were 10 years old.

53% of children were boys & 47% were girls. 50% of children were studying 6\(^{th}\) standard and another 50% studying 7\(^{th}\) standard. Majority of children (98%) had previous exposure to medical services & only 2 of them had no previous history of hospitalization.

**Part-II: Data related to scores of medical experiences fear among school children**

**Table 2.** Mean, standard deviation, median, and range of school children’s fear of medical experiences scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Children’s fear of medical experiences</td>
<td>14.43</td>
<td>14 ± 5.64</td>
<td>2-31</td>
<td></td>
</tr>
</tbody>
</table>

The data presented in Table 2 shows that school children’s fear of medical experiences scores ranged from 2 – 31. The mean score is 14-43 with standard deviation of ± 5.64. The median score is 14.

**Table 3.** Frequency and percentage distribution of level of School children’s fear of medical experiences

<table>
<thead>
<tr>
<th>Level of medical fear</th>
<th>Score</th>
<th>f /%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-16</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>17-32</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Data presented in Table 3 shows that majority (64%) of children were having less fear toward medical experiences and remaining (36%) were having greater fear toward medical experiences. Similar findings have seen in study conducted by Wilson AH, Yorker B which showed majority of children reported lower fear scores. Boys reported lower scores than girls.

**Part-III: Data related to the association between levels of School children’s fear of medical experiences and their selected personal variables.**

**Table 4.** Chi-square values between levels School children’s fear of medical experiences and their selected personal variables

<table>
<thead>
<tr>
<th>S. No</th>
<th>Variables</th>
<th>Levels of medical fear</th>
<th>Chi-square value</th>
<th>Table Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age in years</td>
<td>Less 0-16</td>
<td>Greater 17-32</td>
<td></td>
</tr>
<tr>
<td>10 - 11</td>
<td>38</td>
<td>17</td>
<td>0.065</td>
<td>3.841</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sex</td>
<td>Boys</td>
<td>Girls</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>30</td>
<td>17</td>
<td>0.184</td>
<td>3.841</td>
</tr>
<tr>
<td>30</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Standard</td>
<td>VI</td>
<td>VII</td>
<td></td>
</tr>
<tr>
<td>3234</td>
<td>1816</td>
<td></td>
<td>0.168</td>
<td>3.841</td>
</tr>
<tr>
<td>4</td>
<td>Previous exposure to medical services</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>651</td>
<td>331</td>
<td></td>
<td>#0.0726</td>
<td>3.841</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># = Significant at 0.05 level of significance df=1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* = Yates corrected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The data presented in Table – 4 shows that the computed chi-square value for association between children medical fear & selected personal variables were not found to be statistically significant at 0.05 level.

**Conclusion**

Fear can be problematic for children who come into contact with medical care. The findings of this study are important to nurses in understanding children’s fears of medical experiences. Nurses can support children in dealing with their fears of medical experiences by recognizing these fears and taking into consideration the child’s family, sex, and culture when planning care.

**Acknowledgement**

We express our thanks to school children who participated in the study and the authorities who provided permission to conduct the study.

**Interest of Conflict**

Nurses need to be attentive to children’s fears and coping strategies because children often perceive fears and coping strategies differently from adults. As a result, nurses should encourage children to express their fears in order to help them cope effectively.

**References**

Identification of Health Problems of Patients Undergoing Hemodialysis Using Self Care Deficit Theory and Application of Nursing Process Approach Care

Elsa Sanatombi Devi¹, Ravindra Prabhu², Bhanumathi PP³, Leena Sequiera⁴, Sreemathi S Mayya⁵, Bairy KL⁶, Manu Mohan K⁷

¹Associate Professor, ²Professor & head Nephrology Department KMC, ³Nursing Consultant, Koyli college of Nursing Kannur, Kerala, ⁴Lecturer, MCON, ⁵Associate Professor, Department of statistics, ⁶Professor & Head Pharmacology department KMC, ⁷KMC Manipal

Abstract

Effective nursing care requires identification of the needs of the patient and planning nursing care according to patient’s needs. In the Indian context it is very much necessary to study the nursing care needs of patients undergoing hemodialysis protocol based on the nursing care needs of patients are available in countries like U.S.A. Interview carried out among 50 patients on their health problems while undergoing Hemodialysis were ranked so that priority care can be provided. Following the priority problems, a nursing process approach was developed, which has been used by nurses working in the dialysis unit while taking care of the clients. The study found that the nursing process approach was very effective and proved rational care of patients undergoing Hemodialysis as it could prevent the complications.

Key Words

Hemodialysis, Physical and psychological problems, Nursing personnel, and Nursing process approach.

Introduction

In developed and developing countries with increase in life expectancy, industrialization, changes in life style and progressive control of communicable diseases, chronic diseases such as cardiac diseases, diabetes-mellitus and end-stage renal diseases are increasing steadily. Seemingly acute and chronic renal failure have become one of the most common and serious health problems. Renal failure is characterized by progressive destruction of renal mass with irreversible sclerosis and loss of nephrons over a period of atleast few months to years, depending on the underlying etiology. Glomerular Filtration Rate (GFR) progressively decreases with nephron loss and is associated with signs and symptoms of uremia. In this stage either dialysis or renal transplant is needed to sustain life. (¹)

In India, in one million population an estimated incidence of ESRD is approximately 1,00,000 each year. Of these 90% never see a nephrologist, of the 10,000 patients who do consult a nephrologist, Renal Replacement Therapy (RRT) is initiated in 90%, the other 10% are unable to afford any form of renal related treatment. India has no governmental reimbursement for dialysis or transplantation and only a small percentage of patients with ESRD had employer sponsors of health insurance that pays for renal related treatment of the patients referred to nephrologists. Approximately 30% to 40% are critically ill and require immediate dialysis because of symptoms that include pulmonary edema, pericardial effusion, severe metabolic acidosis, and encephalopathy. Majority of 9,000 patients who receive RRT are begun on hemodialysis. Only a small proportion (0.5%) usually those who are older, more affluent and unsuitable for transplantation, start continuous ambulatory peritoneal dialysis. Of the 8,500 patients, who begin hemodialysis, about 60% are lost to follow up within 3 months. (²)

Dialysis as a technology has power and control over the individuals whose survival purely depends on it. But this dependence of a renal failure patient on technology can lead to dehumanization. Although hemodialysis is a life saving measure, it does not completely replace the functioning of the kidney. People undergoing hemodialysis still suffer from a variety of problem. Therefore effective nursing care requires identification of the needs of the patient and planning nursing care according to patient’s needs. In the Indian context it is very much necessary to study the nursing care needs of patients undergoing hemodialysis even though enough literatures on nursing care protocol based on the nursing care needs of patients are available in countries like U.S.

Method and Materials

The present study utilized survey approach which was conducted in Kasturba Hospital, Manipal, Manipal Hospital Bangalore and KLE Hospital Belgaum. Fifty patients and 30 nurses were selected using purposive sampling technique. Phase -1 of the study utilized survey design in order to identify the patients’ health problems using Self care deficit model developed by Dorothea Orem(⁶) Fig: 1, and ranked them as per their self expressed priority and nursing process related to the health problems were developed by the researcher keeping in mind the high quality critical nature of care in the dialysis unit.

In the second phase of the study the investigator provided the nursing process approach of care materials to nurses in the hemodialysis units of the three selected hospitals of Bangalore, Belgaum and Udupi district of Karnataka. The tools contained knowledge related to care of patients undergoing hemodialysis and also knowledge of practice structured questionnaire to note their change in the practice skills while caring for hemodialysis patients.

Result and Discussion

The data presented in Table-1 show the frequency and percentage distribution of health problems related to nursing care needs of patients undergoing hemodialysis as expressed by them. The analyses show that more than 50% of subjects had 24 out of 27 problems, majority of the subjects (94%) had weakness after hemodialysis, 92% had worries about being not able to work as they could do before.

Sleep disturbance during or after hemodialysis was
experienced by 78% of patients, 74% of them felt frustrated that they have to depend on others to fulfill their needs. Majority 68% were disinterested in life and were easily annoyed, 66% of the subjects had feeling of rejection because of the physical limitations and another 66% of them had fever after hemodialysis. Sixty-four percent of patients felt frustration about treatment, 62% of them experienced fast heart beat during and after hemodialysis, and they also had difficulty in complying with the restricted dietary pattern. Sixty percent of the patients had blurring of vision, 56% of them had pain at the site of fistula and 54% of them felt that their family members and friends had deserted them. Twenty-six percent of the patients had constipation after hemodialysis and 24% had diarrhea after hemodialysis.

Sanner’s study proved that patients with ESRD have a high incidence of sleep disorders, especially of periodic limb movements in sleep and sleep-related breathing disorders are prone to an increased cardiovascular morbidity and mortality. About 70% of patients with ESRD have pathologic breathing patterns during the night. Thirty three patients were selected consecutively out of 78 patients with ESRD who were undergoing maintenance hemodialysis.

Questionnaires were used to evaluate health-related quality of life: the Notingham Health Profile part 1 and the Medical Outcomes Study Short Form -36 for 33 patients (20 males and 13 females).

It was also found that majority (52%) of the subjects was above 47 years. Subjects were mostly males (66%), married (70%), literate (98%) and unemployed (62%). Most (54%) family's money income was below Rs.5000. Disease related data of the patients showed that 52% of the patients had undergone hemodialysis more than 102 times since the beginning and 76% of them followed a schedule of twice a week. The expenditure per dialysis of 58% of sample ranged between Rs.1000-1500 and 94% of the sample underwent hemodialysis due to chronic renal failure.
The prioritized health problems scaled down to nursing process was found to be effective in increasing the knowledge of nursing personnel on the care of patients undergoing hemodialysis, $t_{(29)} = 8.954$, $p<0.05$. The nursing process learning material was found to be effective in increasing the knowledge of practice of nursing personnel $t_{(29)} = 5.554$, $p<0.05$. There was no significant association between the pre-test knowledge on the care of patients undergoing hemodialysis and selected factors: age, professional qualification, years of experience and attendance in in-service education. There was significant association between the pre-test knowledge of practice and selected factors: age, years of experience and attendance in in-service education, $c^2 = 12.44$, 10.30 and 12.52 respectively. There was no significant relationship between the pre-test knowledge and knowledge of practice. There was low positive relationship between the post-test knowledge and knowledge of practice, $r = 0.376$ [df $(29) = 0.361$]. There was cent percent agreement on the usability of nursing process approach to patient care.

Tulasi’s study on the effectiveness of instructional module on self-care practices of renal transplant patients was found to be highly effective among the renal transplant patients. The study findings revealed that the mean post-test knowledge score of experimental group was significantly higher than that of the control group. The SIM was found to be a simple, convenient and time saving method of providing information to renal transplant patients. (4)

Conclusions

The findings of the study have implications in various areas of nursing education, practice, administration and nursing research. Nursing education should emphasize on prospective nurses to impart health information regarding prevention of many of the renal related problems and also develop their self-care abilities. CRF places the patient to severe restrictions and life style changes. It is the responsibility of the nursing personnel to help prevent complications of CRF and Hemodialysis in order to reduce mortality and morbidity. The nurse practitioners must provide information to patients and their relatives all about CRF, its effects and outcomes and also the possible complications of hemodialysis. Research can also focus on specific areas of chronic renal failure and its impact on the family, spouse and the society at large.

References

Evidence Based Maternity Care in India: The Role of Nurses

Eva Chris Karkada
Lecturer, Department of OBG Nursing, Manipal College of Nursing, Manipal University, Mangalore

Abstract

Several methods have been used for improving the quality of maternity and newborn care. Almost all of these methods have their origin in evidence-based practice to apply the best evidence in clinical care. Evidence-based practice is simply the integration of the best available research-based evidence, clinical expertise, and patient needs, values and preferences to develop a system of quality care. Quality improvements thus require professional consensus about implementation of research-based clinical evidence, and attention to patient needs, values and preferences. Although evidence-based practice has been recognized as necessary for quality care in developed countries, it has often been conceptualized in terms of research-based clinical evidence and less attention has been paid to patient needs and preferences. Patient satisfaction has indeed been recognised as an important outcome measure for the quality of health care. Furthermore identifying patient needs and requirements has been judged essential for both measuring and improving quality of care.

Key Words
Evidence Based Practice, maternity care, maternity nurse

The evidence base for care during pregnancy and childbirth has been progressively developed and refined over several decades. Through updating and further development of these is needed to guide maternity policy, practice, education, and research. Evidence-based maternity care uses the best available research on the safety and effectiveness of specific practices to help guide maternity care decisions and to facilitate optimal outcomes in mothers and newborns. Although the field of pregnancy and childbirth pioneered evidence-based practice, there remains a widespread and continuing underuse of beneficial practices, overuse of harmful or ineffective practices, and uncertainty about effects of inadequately assessed practices. Many factors shape both views about suitable care and patterns of care, which often do not reflect the best current research. Thus, it is always important to ensure that policy and practice are in fact guided by the best available research. Informed decision making should consider safety and effectiveness as well as values and circumstances of individual women.

Overuse of Maternity Practices

Many maternity practices that were originally developed to address specific problems have come to be used liberally and even routinely in healthy women. Examples include labor induction, analgesia, and caesarean section. These interventions are experienced by a large proportion of childbearing women; are often used without consideration of alternatives; involve numerous co-interventions to monitor, prevent, or treat side effects; are associated with risk of maternal and newborn harm; and greatly increase costs. Mothers and babies would benefit from giving priority to effective, safer care and using risky interventions for well-supported indications only when other measures are inadequate. The following practices would instead be consistent with evidence-based practice, i.e., avoiding induction for convenience, using labor support, water tubs, and other validated non-pharmacologic pain relief measures like music therapy, acupressure, foot massage, breathing techniques, TENS therapy and stepping up to epidurals only if needed; and applying the many available measures for promoting labor progress before carrying out caesarean section for failure to progress. Such protocols would require considerable change in many settings, but would lead to a notable reduction in the use of more consequential procedures and an increase in cost savings. Available systematic reviews also do not support the routine use of other common maternity practices, including numerous prenatal tests and treatments, continuous electronic fetal monitoring, rupturing membranes during labor, and episiotomy.

It is challenging for childbearing women to gain access to complete high-quality information and learn about benefits and harms of common labor interventions, and of alternative measures; and to clarify their preferences. Women need opportunities to become informed about these matters and to weigh options well before labour. Due to personal values and preferences, women may exercise their right to informed choice and prefer care involving greater likelihood of harm than other possible paths. However, it is inappropriate for clinicians, and nurses to recommend, encourage, or give priority to use of care practices with increased risk of harm to mothers and newborns because the path is more convenient, efficient or lucrative for professional work.

Underuse of Maternity Practices

Systematic reviews clarify that many effective maternity practices with no known adverse effects are underutilized. Greater application of these forms of care would lead to improved outcomes for many mothers and babies. In pregnancy, such care includes prenatal vitamins, measures for preventing preterm birth, and hands-to-belly maneuvers to turn fetuses to a head-first position before birth. The many beneficial, underused practices around the time of birth include continuous labor support by husband or mother, numerous measures that increase comfort and facilitate labor progress, non supine positions for giving birth, delayed cord clamping, and early mother-baby skin-to-skin contact. Best available evidence also supports providing access to childbirth education for antenatal mothers improves childbirth satisfaction and better outcomes for mother and newborn. Systematic reviews also identify many strategies for increasing both establishment and duration of breastfeeding and effective ways to treat postpartum depression through mother craft classes. But in India, these practices are rarely put into the real clinical situation.
Barriers to Evidence-Based Maternity Care

Efforts to increase access to evidence-based maternity care should address barriers to quality improvement. Barriers to evidence-based maternity care include the following:

- lack of set maternity performance measures with client’s feedback and then using them for measuring, reporting, rewarding, and improving performance
- adverse effects of the malpractice system
- limited reliance on best evidence in leading guidelines for maternity care
- loss of core childbearing knowledge and skills among health professionals
- limited attention to harms and iatrogenesis
- challenge of translating research into practice
- adverse effects of pressure from organization
- inadequate informed consent processes and women’s lack of preparation for making informed decisions
- limitations of views put forth in media

Efforts to improve consumer decision making processes, and other factors that impact clinical decisions should identify best evidence and develop policies, programs, and processes that align these systems with optimal care.  

Role of Nurses in implementation of Evidence Based Maternity Care

Nurses working in obstetric units and labour theatres, play a very important role in initiating, implementing and maintaining evidence-based maternity care for antenatal, intranatal and postnatal mothers.

Treat every woman with respect and dignity, fully informing and involving her in decision making about care for herself and her baby in language that she understands, and provide her the right to informed consent and refusal.

Possess and routinely apply midwifery knowledge and skills that enhance and optimize the normal physiology of pregnancy, labour, birth, breastfeeding, and the postpartum period.

Inform the mother of the benefits of continuous support during labour and birth, and affirm her right to receive such support from companions of her choice, such as mothers, partners, family members, etc. Continuous support has been shown to reduce the need for intrapartum analgesia, decrease the rate of operative births and increase mothers’ satisfaction with their birthing experience.

Provide drug-free comfort and pain-relief methods during labour, explaining their benefits for facilitating normal birth and avoiding unnecessary harm, and showing women (and their companions) how to use these methods, including touch, holding, massage, positioning and coping/relaxation techniques. Respect women’s preferences and choices.

- Provide specific evidence-based practices proven to be beneficial in supporting the normal physiology of labour, birth, and the postpartum period.
- Avoid potentially harmful procedures and practices that have no scientific support for routine or frequent use in normal labour and birth. When considered for a specific situation, their use should be supported by best available evidence that the benefits are likely to outweigh the potential harms and should be fully discussed with the mother to ensure her informed consent.
- Implement measures that enhance wellness and prevent maternal and neonatal mortality
- Provide education about and foster access to good nutrition, clean water, and a clean and safe environment;
- Provide education in and access to methods of disease prevention, including HIV/AIDS prevention and treatment, and tetanus toxoid immunization;
- Provide education in responsible sexuality, family planning, and women’s reproductive rights, and provide access to family planning options;
- Provide supportive prenatal, intrapartum, postpartum, and newborn care that addresses the physical and emotional health of the mother and the newborn within the context of family relationships and community environment.
- Provide access to evidence-based skilled emergency treatment for life-threatening complications. Ensure that all maternal and newborn healthcare providers have adequate and ongoing training in emergency skills for appropriate and timely treatment of mothers and their newborns.
- Provide a continuum of collaborative maternal and newborn care with all relevant health care providers, institutions and organizations. Include traditional birth attendants and others who attend births out of hospital in this continuum of care. Specifically, individuals within institutions, agencies and organizations offering maternity-related services should:
  - Collaborate across disciplinary, cultural, and institutional boundaries to provide the mother and the newborn with the best possible care, recognizing each other’s particular competencies and respecting each other’s points of view;
  - Foster continuity of care during labour and birth for the mother and the newborn from a small number of caregivers;
  - Provide consultations and transfers of care in a timely manner to appropriate institutions and specialists;
  - Ensure that the mother is aware of and can access available community services specific to her needs and those of her newborn.  
- Strive to achieve the 10 Steps to Successful Breastfeeding as described in the WHO/UNICEF Baby-friendly

Hospital Initiative

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement the policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within a half-hour of birth. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed.
5. Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.
6. Give newborn infants no food or drink other than
breastmilk, unless medically indicated.
7. Practice “rooming in”- allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

**Conclusion**

There is a need to increase the public’s awareness of evidence-based maternity care practices, to support further research in this area, and to develop performance measures that promote evidence-based care. Implementing these recommendations has the potential to greatly increase access to evidence-based maternity care in India and to provide quality care for clients of maternity services.

**References**

A Comparative Study to Assess the Level of Perception on Postnatal Nursing Care Between Primiparous and Multiparous Mothers at Selected Postnatal Wards Hassan

Nandikonda Geetha Reddy
Assistant Prof, Hyderabad central university, Hyderabad, Andhra Pradesh

Abstract

The puerperium is often overlooked period of time. Postpartum care presents a special challenge not simply because it concerns at best two people with very distinct needs- the mother and the baby-but because of the wide range of disciplines which make a contribution to good quality care. The people in general are not much interested in the care of the mother after delivery. People in general do not see the need for elaborate postnatal care especially multipara mother as they feel she is much experienced so she can manage the postnatal period without any help. People lack knowledge about importance of postnatal care. There is difference between multiparous and primiparous in different aspects. In a study multiparous mothers scored higher on self care, infant care, maternal competence than did primiparous mothers regardless than did primiparous mothers regardless of the care delivery system.

This article shows that there is no difference between primiparous and multiparous mothers though there knowledge is lacking in different aspects. Both should be considered same and should be given care, information, regarding self and new born.

Key Words
Assess perception, postnatal nursing care, primiparous, multiparous, and puerperium.

Background and Objectives

Postpartum is a crucial period for a mother. Many postpartum complications occur during this period. Unrecognized postpartum disorders can lead to physical discomfort, psychological distress and poor quality of life for the mothers.

If proper care is not given, it can ruin the future of the mother. One of the most important problems with mothers is that they lack proper knowledge regarding the importance of postnatal period which leads to death of women. Every year from complications related to pregnancy and child birth. 60% of all maternal deaths occur after delivery; yet, less than 17% of women receive any postpartum care. 15% of all pregnant women develop life threatening complications. One in every four adult women in developing countries suffers long or short term illness due to pregnancy and child birth. Still only 52% of women are involved in decision making on importance in child care and self care. People in general are not much interested in the care of the mother after delivery.

In a study it is said that in America less consideration is given for maternal rest than in Korea. It is felt that a new mother receives inadequate consideration in the United States. Korean culture thought that maternal rest is crucial to recovery.

In many studies the mother have expressed negative perceptions on postnatal care and the care takers show difference in care between primiparous and multiparous mothers as they feel that multiparous mothers have experience in child care and self care.

Postnatal practices can greatly influence the health status of and hence studies in this field are of great importance to all those who are concerned with M.C.H. It is she who with her own knowledge and perceptions influenced the well being of herself and new born. Therefore improving mother’s knowledge and modifying her beliefs regarding postnatal care can positively influence the maternal health. This indicates the need to study the perception of mothers on postnatal care.

The following are the objectives of the study:
- To assess the level of perception on postnatal nursing care by primiparous mothers.
- To find out perception on postnatal nursing care by multiparous mothers.
- To compare the perception of postnatal nursing care between primiparous and multiparous mothers.
- Association of socio-demographic variables with perception of primiparous and multiparous mothers.

Conceptual Frame Work

The conceptual study adopted for the study was Rosentoch (1974) and BECKER’S (1975); Health Belief Model.

Methodology

The Research design used for this study was explorative descriptive survey design. The independent variable was parity of mothers and Dependent variable was level of perception on importance of postnatal nursing care.

The setting of the study was selected government hospitals at Hassan District.

In this study non probability convenient sampling was used. The sample size was 120 mothers, 60 primiparae and 60 multiparae mothers. The target population of the present study includes the primiparous and Multiparous mothers who had normal vaginal delivery admitted in the postnatal unit, of various hospitals at Hassan.

The tool used for this study consisted of two sections.
- Section A consist of Socio-Demographic Data
- Section B consists of modified perception scale.

Data is collected through interviewing method, which consists of socio-demographic variables, Questionnaires on perception scale.

Content validity of the tool was given by experts and the found to be reliable and feasible during the pilot study. Descriptive and inferential statistics were used for the data analysis.

Results

The Data were analyzed and interpreted in terms of objectives formulated The statistical tests carried out for analysis were frequency, percentage, mean, standard
The results reveal that there was significant difference in level of perception between primiparous and multiparous mothers.

Women’s reproductive rights include information and freedom to choose the care, which is most appropriate to her and not hazardous to her body, women in the present situation are incapable to choose the appropriate care, because of lack scientific knowledge and their underprivileged position. Only if women are given proper knowledge and they are empowered they can make choices of their own. The midwives should encourage the mothers during check-up for institutional delivery to decrease the mortality rate and postpartum complications. In postnatal period the mother should be provided with complete information on self care and baby care. The misconceptions related to postnatal nursing care should be cleared. Nursing personnel should be given in service education related to postnatal nursing care, so that they provide care according to the condition of the mother. The number of staff nurses can be increased in postnatal ward. So they can concentrate completely on the mother and provide them information on self care, baby care, health education before they get discharged. Nursing administrator can arrange orientation programme and in service education for staff nurses on prevention of postnatal complications, immunization programme, breast feeding.

**Recommendations**

There are very less research done on postnatal care. There is need to continue the research on postnatal care in order to improve the knowledge of mother about self care and baby care. To decrease the mortality rate of neonate and mothers. To make know all nurses that there is not much difference between primiparous and multiparous mothers' perception this study is done.

- Similar study can be conducted for a larger group sample and in different settings.
- Comparative study can be conducted between nurses and mothers perception.
- Comparative study can be conducted between private setting and Government setting.

**Interpretation and conclusion**

The study attempted to examine the following hypothesis
1. The perception of primiparous mothers on postnatal nursing care will be significantly different than the perception of multiparous mothers.
2. The perception of primiparous and multiparous mothers will have significant association with demographic variables.

The research reveals that there was significant difference in level of perception between primiparous and multiparous mothers.

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![Comparison of Overall Perception Level](image)

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Assessment of percentage of difference in perception

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<th>Perception</th>
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<tr>
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<td>Child</td>
<td>65.9%</td>
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<tr>
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Effective Clinical Instructor-A Step Toward Excellence in Clinical Teaching

Girija K.M
Lecturer, College of Nursing Sultan Qaboos University, Sultanate of Oman

Abstract

The challenge of clinical teaching is to transform novice nursing students to practicing nurses. The teaching–learning interaction is complex and its effectiveness depend upon the teaching and learning styles of the instructor and student. Clinical instructors with model professional behaviors facilitate clinical learning. A pivotal factor for student success is the teacher’s interpersonal and instructional abilities. Student satisfaction with clinical teaching reflects not only strength of clinical teachers but also the positive aspects of clinical education. Clinical teaching excellence could be achieved by having effective clinical instructor characteristics such as professional competence, expert knowledge, demonstrable clinical competence with skills in clinical teaching, positive interpersonal relationships with students that portray confidence, respect, support and accessibility, with effective communicative and collaborative skills. As multicultural faculties are involved in clinical instructions, being aware of effective clinical instructor characteristics that are perceived as important by nursing students, teaching strategies and attitudes can be reinforced, changed, or developed towards excellence in clinical teaching. Being effective clinical Instructor, nursing students can feel clinical learning as an enjoyable experience.

Key Words
Clinical Teaching, Effective Clinical Instructor, Clinical Teaching Excellence

Introduction

Clinical education is challenging experiences for most students because it allows them to participate actively in the health care team, seeks solutions to real problems and learns by doing while caring for patients. The three distinguishing positive characteristics of clinical education are Problem-centered approach, experienced base learning model and Combination of individual and team learning. The clinical teachers’ breadth of knowledge with appreciable clinical skills and their ability to present content as clear and well organized, interacting skillfully with students, being enthusiastic, providing good clinical supervision and exhibiting model professional behaviors were accepted as effective clinical instructor characteristics towards excellence in clinical teaching.

Clinical Teacher effectiveness is more difficult to evaluate in diverse, often fast paced, highly complex clinical settings than in more controlled environments such as seminars, laboratories and classrooms. Current procedures used to evaluate teaching in health related fields are generally student-based. Evidence suggests that student ratings can be reliable and valid indicators of effective teaching. Despite the need for effective clinical education, the criteria for determining effective clinical teaching remains poorly defined. Clearly, there is urgent and compelling need to gain better understanding of what constitutes effective clinical teaching. This article is an overview of the effective clinical instructor characteristics towards the excellence in clinical teaching. The three key roles of clinical teachers are

1. Being a role model
2. Clinical supervisor
3. Instructional leader/scholar.

Role Modeling

Role modeling is a powerful teaching technique. Faculty should serve as role models and mentors to students. The role modeling process should be purposeful that demonstrate the knowledge, skills, attitudes and ethical behaviors that students should acquire. Role modeling requires demonstration of clinical competence and discusses the criteria by which the outcome was achieved, so the learner will more effectively imitate the behavior. The ability to establish clinical credibility has profound impact on the overall instructional influence of the teacher. Clinical Nurse educators as members of the academic community, are presumed to be governed by institutional policies and become role models of professional behavior for their students.

Clinical Supervision

Clinical supervision ensures safe patient care and excellent clinical learning. Clinical supervisory skills demand structuring the work and learning environment. Problem solving and critical appraisal of skills, observing and offering feedback on students performance and providing professional support and encouragement are part and parcel of clinical supervision. Environmental factors such as ideal clinical student–teacher ratio of 6:1 mostly agreed by students, contusive clinical environment, acceptance by clinical staff and also the peer group they stay together for clinical placement are influential factors for effective clinical supervision ensuring quality clinical teaching and learning. Efficient clinical supervisor is systematic, objective, creative and able to motivate students to utilize the available clinical recourses to the best towards achievement of effective clinical learning.

Instructional Leadership

Three components of Instructional leadership are curriculum development, the evaluation with improvement of teaching and educational research. Curriculum development should promote excellence in clinical education through organization of clerkship, specification of learning objectives, identification of reasonable educational resources and clearly defined evaluation procedures. Systematic evaluation and improvement of clinical teaching is essential. Creation of new knowledge through investigation of issues of clinical
teaching-learning and innovative clinical teaching methods by collaborative research do exert a powerful influence on design and implementation of effective clinical teaching. A well planned educational program combined with motivated dynamic proficient faculty can create the best positive clinical teaching-learning environment for students.

**Effective Clinical Instructor Characteristics**

The nurse educators are in a unique position to assess cognitive, emotional, and learning strengths and weaknesses of student. The instructor must provide the student with individualized learning opportunities to perform safe patient care. The effective nurse educator must demonstrate good interpersonal skills, clinical competency, professionalism, and an understanding of the principles of adult learning. Nurse educators need to apply ethical behaviors in order to encourage a positive student-instructor relationship and to create a safe and nurturing environment. A better understanding of how students view the ethical behavior of their instructors may help not only in the understanding of their behaviors, but also in awareness of the importance of acting as role models to their students. It makes good sense to be proactive rather than reactive in terms of reviewing, developing, adapting, and implementing ethical guidelines for clinical practice.

Most studies which explored effective clinical instructor characteristics revealed that, students agree that the best clinical teachers are with sound interpersonal skills, able to provide constructive feedback, clinically competent, and know how to teach. Interpersonal relationships was the most highly valued effective clinical educators’ characteristic perceived by both Australian students and clinical educators.

Faculty strength as being knowledgeable, strategic teacher, creating positive learning environment, demonstrating professionalism, displaying scholarly traits and being supportive with demonstrable clinical competence, skills in clinical teaching are reported by undergraduate and graduate nursing students in a descriptive, retrospective qualitative study on strength and weakness of faculty teaching performance in La Salle University School of Nursing USA by Zane et al, (2004)^4^. Viverais-Dresler and Kutschke^5^ reported that nursing students emphasized the importance of clinical instructor being accessible, impartial, direct, honest, and being with a profile of fostered mutual respect. Claudette, (2006)^6^ explored student’s perception of effective clinical teaching at Thompson Rivers University, British Colombia and found that students are remarkably consistent and rated teacher's knowledge, feedback and communication skills as the most important effective clinical teaching qualities. Teacher's knowledge on clinical setting, curriculum, the learner and teaching/learning theory are considered very critical and important for being an effective clinical teacher.

A survey on students’ perception of effective clinical instructor characteristics among nursing students of College of Nursing at Sultan Qaboos University^7^ revealed that clinical instructors’ professional competence and relationship with students were considered as important dimensions. All students identified “clinical instructor’s role modeling behavior, evaluating students objectively and providing timely, constructive feedback” as the most important and effective professional characteristics of the clinical instructor. Providing freedom for discussion, being approachable, supportive and helpful in the clinical settings were rated as important clinical instructor characteristics under the category of relationship with students. Study results highlighted that all students wished to be respected as an individual by each clinical instructor.

Excellence in clinical teaching could be achieved by inculcating effective clinical instructor characteristic perceived important by nursing students. Three main dimensions of effective clinical instructor characteristics are professional competence, relationship with students and personal attributes of the Instructor. Professional competence includes knowledge and clinical skills, teaching ability, evaluation process, accessibility, communicative and collaborative ability.

1. **Professional Competence/Nursing Competence**

   a. **Knowledge/Skills**
      - Demonstrate knowledge of nursing in the area of instruction
      - Show clinical skill competence
      - Able to co-relate theory to practice
      - Able to transfer knowledge and skills to students for safe practice
      - Know the learner individually
      - Facilitate critical thinking in clinical practice
      - Role modeling-Demonstrate skills, attitudes, values that are to be developed in students in clinical area

   b. **Accessibility**
      - Available to students in the area of clinical Instruction
      - Have designated office and clinical hours

   c. **Evaluation Procedures**
      - Provide study guides/ outlines
      - Evaluate students objectively and fairly
      - Provide individualized timely feedback
      - Provide constructive and specific feedback
      - Gives tests that reflect course objectives, lecture materials, and study guides.

   d. **Communicative and Interpersonal Skills**
      - Communicate effectively; breaks down content in a down-to-earth manner
      - Inform students about goals, expectations, desired outcomes, deadlines.
      - Interact with students
      - Able to collaborate with other disciplines
      - Receptive to people and ideas
      - Open minded, objective, non-judgmental

II. **Relationship with students**

   - Respect student as an individuals
• Encourage students to feel free to ask questions or help
• Permit freedom for discussion
• Permit expression of feeling
• Be supportive and helpful
• Encouraging demeanor
• Friendly attitude
• Mentoring approach

III. Personality Traits / Personal Attribute
• Approachable
• Be honest and direct with students
• Demonstrate self-control & patience
• Show enthusiasm in nursing and teaching
• Be flexible when the occasion calls for it
• Respond promptly and confidently
• Exhibit responsibility and autonomy
• Be energetic and eager to know
• Have sense of humor
• Be organized and dedicated
• Be respectful and self-confident
• Be creative and well-prepared.

Implications
Clinical instructor must be aware of what characteristics of nursing instructors do learners consider ideal or most helpful to their success as nursing students. The review of expected effective characteristics of clinical instructors may assist faculty to appreciate and acknowledge areas of success as well as areas needing improvement. It also aid future nursing teachers and administrators to promote optimal clinical learning experiences for all types of nursing students. Academic administrators can optimally orient new clinical faculty to effective clinical teaching behavior and guide faculty development process. The expected effective clinical instructor characteristics could be useful as educational tool to assist faculty in providing effective clinical instruction. Nursing administrators may consider discussion about student rights, responsibilities and ethical faculty behavior, especially for new faculty. Academic administrators can act quickly when students complain about faculty members and approach the fact finding sessions with a continuous quality improvement perspective.

Conclusion
Being knowledgeable, strategic teacher, creating positive learning environment, demonstrating professionalism, displaying scholarly traits and being supportive with demonstrable clinical competence, skills in clinical teaching are always appreciated as great qualities of good clinical instructors. Clinical teacher’s feedback and communication skills are also emphasized by students. Important Clinical Instructor characteristics are categorized into three dimensions such as professional competence with teaching ability, interpersonal relationship with students and personal attribute of the instructor. Faculty awareness of students’ views on their teaching performance triggers their creativity and can bring the improved quality teaching with better outcome. Clinical competence of the instructors is important as instructors want to be considered as good role models for their students as well as their credibility as good teachers. Feedback from students on their perception of effective clinical teaching criteria can always open up clinical instructor’s creativity.

References
4. Zane RW, Pamela JB, Janice MB, Diane MW, Kathleen O. Strengths and Weaknesses of Faculty Teaching Performance Reported by Undergraduate and Graduate Nursing Students: A Descriptive Study. Journal of Professional Nursing. (2004); 20 (2) :118-128
Effectiveness of Planned Teaching Programme on Knowledge Regarding Basic Life Support Among Young Adults

Janisha K P¹, Vasantha Priya², Fermina Jose³
¹M. Sc (N), ²Associate Professor, ³Assistant Professor, Department of Medical Surgical Nursing Rajiv Gandhi College of Nursing, Bennerghatta Road, Bangalore Karnataka, India

Abstract

Various teaching and reinforcement programmes have been very successful in developing skills and knowledge which required to a rescuer in a resuscitation attempt. The purpose of the study was to find the effectiveness of a planned teaching programme using power point slides in improving the knowledge of young adults between twenty two to twenty five years of age regarding Basic Life Support. A quasi experimental one group pretest posttest design was used in 40 samples. Statistical analysis of data revealed that the planned teaching programme regarding basic life support was effective in improving the knowledge of young adults regarding Basic Life Support. (t value = -1.68 and p value <0.05)

Key Words

Planned teaching programme, Knowledge, Basic Life Support, Knowledge questionnaire

Background and Need

Basic life support performed by bystanders improves outcomes in cardio-respiratory collapse. Yet less than 1% of the general population can perform it effectively. It has been estimated that if 15-20% of the population could perform basic life support, out of hospital mortality could be significantly reduced. The most effective way of achieving this is to teach this technique in schools, making it a “life skill”.

The rescuer or resuscitator is just a common person who may have learnt a standard method of application of Basic Life Support best suited to his skill. He trained to reach victim, identify problems, and provide emergency care by using facilities or materials available at that time before regular medical help imparted. (Gupta L.C 2000). In India the outreach programme about basic life support is limited. In order to equip the people in the community, basic life support outreach programme might be needed. Parents, students and other members of the public are the individual likely to administer basic life support prior to the arrival of emergency medical services personnel. Knowledge regarding Basic life support to the young adult group is necessary because they are the active energetic and productive generation in the community.

Purpose of the Study

The purpose of the study was to determine the knowledge of young adult using a knowledge questionnaire related to Basic Life Support and also to find the effectiveness of a planned teaching programme in improving the knowledge of young adults between twenty two to twenty five years of age regarding basic life support. These findings will help in standardizing the use of picture book in the wards there by reducing the worries of children related to surgery and help them in easy and early recovery. These findings will help in educational programmes with effective teaching strategies for motivate people to do the basic life support in emergency and helpful for the health care personnel to conduct community based programme regarding basic life support where they cannot reach at exact time in emergencies

Objectives of the Study

Objectives of the study were to:
1. Assess the knowledge of young adults on basic life support.
2. Determine the effectiveness of planned teaching programme on basic life support.
3. Identify the association between knowledge on basic life support and selected demographic variables like age, gender, educational specialization, area of residence, previous exposure to the life threatening situations etc.

Hypotheses

The hypotheses will be tested at 0.05 level of significance.

\[ H_1 \] Mean post-test knowledge score of young adults regarding basic life support will be significantly higher than their mean pretest knowledge score.

\[ H_2 \] There will be significant association between pretest knowledge score and selected demographic variables (i.e.) age, gender, educational specialization, area of residence, previous exposure to the life threatening situations and previous information from other sources.

Methods and Procedure

Design and sample: The study was conducted in the month of November 2009. In this study the samples selected were 40 young adults between the ages of twenty two to twenty five years who were studying in a selected college in Bangalore. A quasi experimental one group pretest post test design was used and the sampling technique used was random sampling.

Tools used: Tools used were a background proforma and knowledge questionnaire regarding basic life support.

Background proforma: This was developed to acquire the information regarding the young adult. This included the details like age, gender, educational specialization, area of residence, previous exposure to the life threatening situations, types of situations, information received about BLS and source of information.

Knowledge questionnaire regarding basic life support: It consists of structured knowledge questionnaire to determine the knowledge of the young adult with 35 items. The questionnaire covered three sections with various aspects. Section A consist of 5 items regarding anatomy and physiology of body system, Section B deals with 10 items about general concept of BLS and Section C consist of 20 items regarding procedure of CPR. Each item has got a score
The maximum possible score was 35. The scores were interpreted as, Poor (<40%), Average (40%-50%), Good (50%-80%) and Very good (>80%).

The tools as well as the power point prepared in English. To determine the clarity of all items, to assess the understandability of the power point and to determine the time required for completion of the questionnaire, the pretesting was conducted in the month of October 2009 among two young adults in a selected college. The average time taken to complete the questionnaire was 35 minutes. There was no difficulty in understanding any of the items, so all items were retained.

**Ethical permissions:** To conduct the research study, ethical committee clearance was obtained from the Institutional ethics committee of the college. Administrative permission from the Principal and HOD’s of various departments of the college was taken. A subject information sheet and informed consent were prepared and informed consent from the young adults was taken.

**Intervention:** In this study planned teaching programme related to basic life support was given for the young adults in the experimental group, after the pretest. It is a systematically organized and developed instruction and teaching aids (power point & adult resuscitation manikin) designed for the group of young adults to enhance their knowledge regarding basic life support

**Pilot study:** The pilot study was conducted on 6 young adults in a selected college. Questionnaire was given to the young adults for pretest just before the teaching programme and post test was conducted 8th day of pretest. The study was found to be feasible.

**Data collection:** The data collection done in the month of November 2009. The samples were selected based on the inclusion criteria. 40 samples selected randomly from total 96 of young adult in the selected college. The samples gathered in class room after getting the subject consent. Questionnaire regarding basic life support administered to the samples. Demographic proforma was filled by the subjects. After pre test planned teaching programme was given with teaching aids of power point & adult resuscitation manikin. On 8th day of pretest the post test was done, by administering the same questionnaire for the young adults.

**Results**

In the study most of the young adults were females (62.5%). Out of 40 young adults 20% of them faced life threatening situation like cardiac arrest, motor vehicle accidents etc in their life.

**Background characteristics:**

Table 1: Sample characteristics of the young adults. 

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Variable</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>22</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>b</td>
<td>23</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>c</td>
<td>24</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
<td>d</td>
<td>25</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Male</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>b</td>
<td>Female</td>
<td>25</td>
<td>62.5</td>
</tr>
<tr>
<td>3</td>
<td>Educational specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Mathematics</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>b</td>
<td>Physical Sciences</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>c</td>
<td>Commerce</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>d</td>
<td>Social sciences</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>e</td>
<td>Natural sciences</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>f</td>
<td>Languages</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>4</td>
<td>Area of residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Urban</td>
<td>23</td>
<td>57.5</td>
</tr>
<tr>
<td>b</td>
<td>Rural</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>5</td>
<td>Previous exposure to life threatening situations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Yes</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>d</td>
<td>No</td>
<td>32</td>
<td>80.0</td>
</tr>
<tr>
<td>6</td>
<td>If yes, type of situations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Cardiac arrest</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>b</td>
<td>Respiratory arrest</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c</td>
<td>Motor vehicle accident</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>d</td>
<td>Any other specify</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>7</td>
<td>Have you received any information about BLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Yes</td>
<td>16</td>
<td>40.0</td>
</tr>
<tr>
<td>b</td>
<td>No</td>
<td>24</td>
<td>60.0</td>
</tr>
<tr>
<td>8</td>
<td>If yes the source of information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Mass media-TV, radio, newspapers</td>
<td>9</td>
<td>56.3</td>
</tr>
<tr>
<td>b</td>
<td>Contact with health personnel</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>c</td>
<td>Information from parents/relatives/friends</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>d</td>
<td>Any other specify</td>
<td>4</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 2: Frequency and percentage distribution of pre-test and post-test knowledge score of young adults n=40

<table>
<thead>
<tr>
<th>Range of score</th>
<th>Pre-test f</th>
<th>Post-test</th>
<th>Cumulative frequency %</th>
<th>f</th>
<th>Percentage</th>
<th>Cumulative frequency %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>7</td>
<td>17.5</td>
<td>17.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-8</td>
<td>19</td>
<td>47.5</td>
<td>65.5</td>
<td>1</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>9-11</td>
<td>13</td>
<td>32.5</td>
<td>97.5</td>
<td>2</td>
<td>5.0</td>
<td>7.5</td>
</tr>
<tr>
<td>12-14</td>
<td>1</td>
<td>2.5</td>
<td>100.0</td>
<td>3</td>
<td>7.5</td>
<td>15.0</td>
</tr>
<tr>
<td>15-17</td>
<td>2</td>
<td>5.0</td>
<td>30.0</td>
<td>6</td>
<td>15.0</td>
<td>30.0</td>
</tr>
<tr>
<td>21-23</td>
<td>17</td>
<td>42.5</td>
<td>72.5</td>
<td>9</td>
<td>22.5</td>
<td>95.0</td>
</tr>
<tr>
<td>24-26</td>
<td>2</td>
<td>5.0</td>
<td>100.0</td>
<td>40</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Data presented in Table 2 shows the pre-test and post-test knowledge score of young adults. In the pre-test, all patients were within the range of 3-14, with highest frequency (47.5%) for the class 6-8. In the post-test, all young adults were within the range of 12-32 with highest frequency (42.5%) for class 24-26.

Data in Table 3 shows that all young adults obtained score ranging between 40-80% in the post-test compared to pre-test where majority scored below 40%. It indicates considerable gain in knowledge score and effectiveness of PTP

**Table 3:** Grading and the result of pre-test and post-test knowledge score of young adults

<table>
<thead>
<tr>
<th>Score</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Poor (&lt;40%)</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>Average (40%-50%)</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Good (50%-80%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Very good (&gt;80%)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Effectiveness of PTP (planned teaching programme) on Basic Life Support

Paired t-test is used in order to find out the significance of difference between the mean pre-test and post-test knowledge on basic life support and is presented in table4. The data presented in Table 4 shows that mean post-test knowledge score (24.23) is higher than the mean pre-test knowledge score (7.88). The computed ‘t’ value showed that there is significant difference between the pre-test and post-test mean knowledge score. Hence, null hypothesis is rejected and research hypothesis is accepted. This indicates that PTP is effective in increasing the knowledge score of young adult on basic life support.

**Table 4:** Mean, Mean difference, standard deviation and ‘t’ value between pre-test and post-test knowledge score of young adults.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Mean</th>
<th>S D</th>
<th>Mean Differences</th>
<th>S D of Differences</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preknowledge</td>
<td>7.88</td>
<td>2.065</td>
<td>16.35</td>
<td>4.46</td>
<td>23.17</td>
<td>39</td>
<td>&lt;0.05</td>
<td>1.68</td>
</tr>
<tr>
<td>Post knowledge</td>
<td>24.23</td>
<td>3.731</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Association between pretest knowledge and selected variables

Chi-square is used in order to find out the significance association between pre-test knowledge score and selected variables on basic life support. The p-values obtained were not significant at 0.05 level except , educational specialization. The computed chi-square value for educational specialization was 4.183. Thus, it can be interpreted that there is significant association between knowledge and educational specialization.

Conclusion

Young adult’s knowledge about basic life support is poor. This study highlighted that there was significant association between knowledge and educational specialization. Planned teaching programme is effective in improving the knowledge of the young adults about basic life support. Health teaching is an essential part of healthcare delivery system. Healthcare providers have to be trained for educating this emergency management for the public as they are not able to reach at the golden time of emergency.

Discussion

Finding of the study shows that young adults having poor knowledge regarding basic life support. Educational Specialization influenced the knowledge of the young adults. This result is supported by a randomized clinical trial conducted in Austria. A study conducted to testing student’s knowledge and skill in delivering CPR in graduate students. They acquired higher knowledge score (26.1) in post test than the pre test knowledge score (9.2) (p=0.001). Knowledge score of the natural science group students are significantly higher than the knowledge of the other group (50.9% versus 77.3%; p, 0.001).3 This shows knowledge regarding basic life support is influenced by the educational specialization.

The planned teaching programme used in this study was found to be effective in improving the knowledge. A study conducted to school children and teachers in the western education and library board in Northern Ireland to assess the effectiveness of a programmed of CPR. Pupils were given 22-point questionnaire to assess knowledge of basic life support immediately before and after a teacher led training session. It significantly improved score following training (57.2% and 77.7%, respectively, p<0.001).4 Based on the present study, the following recommendations were made:

1. The study can be replicated on a larger sample using random sampling so that the findings can be generalized.
2. An exploratory study can be conducted to identify the knowledge of the general population in all age group.
3. An exploratory study can be conducted to identify utilization of governmental facilities (108 emergency calling service in Karnataka)
4. A study can be conducted to assess the long-term effects of individual planned teaching programme in general population.
5. A comparative study can be undertaken to evaluate different teaching strategies, self-instructional module (SIM), peer evaluation and education by health care provider teams.
6. A study can be conducted to evaluate the skill of the young adults in order to identify the application of knowledge in practice.
References

Deep Vein Thrombosis (DVT) Prophylaxis: Awareness or Ignorance Amongst Staff Personnel

Manpreet Kaur1, Komal Yadav2, Vikas Yadav2, Babita Gupta3, Sangamitra Kamble1, M.C. Misra4
1Senior Resident, Department of Anaesthesia & Critical Care, 2Staff Nurse, 3Associate Proffesor, Department of Anaesthesia & Critical Care, 4Chief, JNPA Trauma Centre, AIIMS and Prof. & Head Department of Surgery, All India Institute of Medical Sciences, New Delhi -110029, India

Abstract

Background

Deep vein thrombosis (DVT) is still an underestimated complication in trauma patients. Only 10 percent of individuals who require DVT prophylaxis receive it; the remaining 90 percent of individuals are deprived of DVT prophylaxis because of ignorance and lack of awareness.

Aims & Objectives

• To assess awareness in hospital staff (nurses and doctors) regarding DVT and its prophylaxis using 14 point Questionnaire
• To assess patient comfort with the DVT pump

Methodology

A 14 point Questionnaire was randomly distributed to 100 staff personnel who included doctors of various disciplines and nurses of wards and intensive care units of multispecialty tertiary trauma centre. Results were evaluated and studied.

Observations and Results

100% of personnel’s were aware that DVT pump was useful. The compliance of using DVT pump while at work was 0-30%, 30-60% and 60-100% in 6%, 28% and 66% staff respectively. The reason for noncompliance in 36% staff members was busy schedule and 32% staff stated that they were not advised by the treating physician. 4% personnel’s had doubt regarding the site of application of DVT pump. 72% staff believed that DVT cannot occur in upper limb and 8% stated that DVT pump cannot be applied on single limb. 6% mentioned that it cannot be used in hemodynamically unstable patients while 2% stated that it cannot be used in patients on ventilator. 36% of staff was not aware that fracture pelvis and spine are high risk for DVT. 6% believed that with low molecular heparin prophylaxis DVT pump is not required even in high risk patients. 24% patients complained that DVT pump was uncomfortable.

Conclusions

Despite the availability of resources for DVT prophylaxis, there is still ignorance regards its use in medics and paramedics. There is a need to increase the awareness of DVT, individual’s risk factors and triggering events so that we can reduce the number of patients that die every year from DVT and its complications.

Key Words

Deep vein thrombosis, DVT, Awareness

Introduction

Deep vein thrombosis (DVT) represents one of the most commonly occurring and serious medical conditions, yet it is an underestimated health problem. It is often a silent killer that can go unrecognised because of its minimal symptoms but as medical professionals we must raise awareness, advance prevention and treatment. Only 10 percent of individuals who require DVT prophylaxis actually get it; the remaining 90 percent of individuals are deprived of DVT prophylaxis because of ignorance and lack of awareness (1). Thus we conducted an audit on DVT awareness among health care professionals which included doctors of various specialties and nurses of various wards and intensive care units in a tertiary trauma centre with the objective of improving health care delivery. The audit also helped in the assessment of patient comfort with the DVT pump.

Material and Methods

The audit was conducted at a multispeciality tertiary trauma centre using a 14 point questionnaire pertaining to DVT, its prophylaxis and treatment. Questionnaire (Table 1) was randomly distributed to 100 staff personnel’s who included doctors of various disciplines and nurses of wards and intensive care units of Apex Trauma Centre. Responses were evaluated and studied using a database.

Table 1

Unit: ___________Number of years in current role: ___________Shift: ___________
1. Does our system have a DVT prophylaxis policy? ÌYes ÌNo ÌDon't know
2. While at work how would you rate your compliance with DVT pump? Ì0-30% Ì30-60% Ì60-100%
3. I can't apply DVT pump at times because: ÏToo busy forget/don't think about it Ïdon't like to apply ÏI am not aware of benefit of DVT pump ÏI am not convinced of its use ÏDoctors don't advice it
4. Is DVT pump required in all patients? ÌYes ÌNo Ìdoubtful
5. Is DVT pump useful? ÌYes ÌNo Ìdoubtful
6. Where DVT pump has to be applied? ÌThigh ÌCalf ÌArm
7. Is DVT pump comfortable to your patient? ÌYes ÌUncomfortable ÌPainful
8. Site where DVT can occur? ÌLower limb ÌUpper limb ÌBoth
9. In which patient DVT pump can not be applied? ÌSame lower limb fracture ÌLower limb thrombosis ÌBoth
10. Low molecular weight heparin (LMWH) is going on, is DVT pump still required? ÌYes ÌNo ÌVaries
11. Can you apply DVT pump in 1 limb?
3. I can't apply DVT pump at times because? The reason
2. While at work how would you rate your compliance

The questionnaire and the pertinent response given by
participated in the audit. Of these 14% were resident doctors

Patients with treatment of limb fracture, or major head injury), and who have received
recommend DUS screening in patients who are at high risk
screening for asymptomatic DVT (Grade 1B). We do
recommend DUS screening in patients who are at high risk for
for VTE (eg, in the presence of a SCI, lower-extremity or pelvic

Results and Observations

100 health care professionals (medics and paramedics)
participated in the audit. Of these 14% were resident doctors
of various medical disciplines and the remaining were
nursing staff.

The questionnaire and the pertinent response given by
the health care professionals are given below:

1. Does our system have a DVT prophylaxis policy? 100%
of personnel's were aware that DVT pump was useful.
2. While at work how would you rate your compliance with DVT pump? The compliance of using DVT pump while at work was 0-30%, 30-60% and 60-100% in 6%, 28% and 66% staff respectively.
3. I can’t apply DVT pump at times because? The reason for noncompliance in 36% staff members was busy schedule. 32% staff stated that they were not advised by the treating physician and 10% forgot to apply it. None of them had conviction that it was not useful.

Discussion

DVT occurs when a thrombus (blood clot) forms in one of the deep veins, partially or completely occluding circulation. It can occur anywhere in the body; the arms, legs or the pelvis but the commonest site of origin is deep calf veins. These clots can break off from the veins, travel through the heart, and lodge in the pulmonary circulation causing potentially life-threatening pulmonary thromboembolism (PE) which is the leading cause of preventable mortality in hospital admitted patients. Incidence of DVT is unknown because it is hard to diagnose and because most DVT is silent and can mimic other common conditions such as heart attack, pneumonia, and anxiety.

Prevention of DVT is far easier than treating it. Awareness of DVT and PE amongst the staff personnel is the best way to prevent this condition and hence save health care costs. It is essential to be aware of the risk factors for DVT and to be vigilant with patients who have them.

Trauma patient with multisystem injuries and high injury severity score (ISS) often have increased risk for thromboembolic events. Deep vein thrombosis (DVT) has been reported to occur in 20% to 40% of high-risk trauma patients if no prophylaxis is used. A meta-analysis of 29 trials in over 8000 surgical patients demonstrated that low dose heparin significantly decreased the incidence of DVT from 25.2%, in patients with no prophylaxis, to 8.7% in treated patients (p< 0.001). Safe and effective thromboprophylaxis is highly desirable to prevent DVT. Unfractionated heparin, low-molecular-weight heparin (LMWH), sequential compression device (SCDs), and vena cava filters are used as prophylaxis in trauma patients. The Eighth ACCP Conference
on Antithrombotic and Thrombolytic Therapy; recommendations from the American College of Chest Physicians have the following recommendations for trauma patients [Table 2] (6).

Various national campaigns to drive awareness on DVT and PE prevention have emerged. In 2003; several organizations like Venous Disease Coalition, Clot Care organization etc. formed the coalition to prevent deep vein thrombosis. Currently, the Joint Commission on Healthcare Accreditation (JCAHO) is developing nationwide standards to make DVT prophylaxis obligatory. All healthcare professionals need to have greater awareness of DVT and communicate the risk factors, symptoms and prevention measures. Nurses are in a unique position to increase awareness and prevent DVT by the implementation of protocols being set for the prevention of DVT.

Role of Health Care Professionals

It is recommended that every hospital must develop a formal strategy that addresses the prevention of VTE (Grade 1A) (6). Scoring of risk factors allows the level of risk to be categorized according to the ACCP guidelines (low, moderate, high, highest) and matched with specific recommendations for prophylaxis (6, 7, 8). All the patients admitted to trauma intensive care units should have an additional nursing assessment form for DVT risk assessment and the preventive measures being taken. All the health care professionals must be observant for signs and symptoms of DVT which include warmth, swelling, tenderness, redness or discoloration in the affected area, usually in one calf. Every hospitalized patient should be assessed for VTE risk factors and prescribed prophylactic measures including early mobilization, leg exercises and possible use of graduated compression stockings (GCS) or intermittent pneumatic compression devices and anticoagulants during the entire course of their treatment. On fitting of mechanical devices one must check integrity of patient’s skin at regular intervals and provide patient with written and verbal information on how to wear and take care for the GCS. Nurses must be accountable for administering pharmacologic agents and monitor patients for bleeding complications.

Patient Education

Medics and paramedics must advise patients on lifestyle change (weight loss, smoking cessation, regular exercise) in at-risk patients. Patients on oral anticoagulants should be provided with information on medications/foods that affect INR. Educating patients and families on signs/symptom, prevention, treatment of DVT and PE can increase the general public awareness. Patients should be involved in the process by having them complete a patient questionnaire. Genetic testing may be advised by a healthcare provider for those who have had DVT or a family history of it.

Guidelines and continuing education

Continuation of monitoring assessment during hospital stay and compliance with VTE management guidelines can reduce the burden of this preventable problem of DVT. American College of Chest physicians-evidence based clinical practical guidelines (8th Edition) (6) are the most widely followed. All the hospitals should have a well designed written, formal strategies and prophylaxis policies. Health care professionals should actively participate in education and training of general masses regarding risks and prevention of DVT. Risk assessment models have been developed to predict the level of thrombotic risk in a given patient. Interdisciplinary communication can further facilitate the successful VTE prevention.

All healthcare professionals need to have greater awareness of DVT and communicate the risk factors, symptoms and prevention measures. Skilled nursing care can save lives through vigilance for clinical signs and symptoms of VTE and inculcate the DVT prophylaxis into the hospital system; thus reducing the burden of this preventable problem.

Conclusions

Despite the availability of resources for DVT prophylaxis, there is still ignorance regards its use in medics sand paramedics. There is need to increase the awareness of DVT, individuals’ risk factors and triggering events so that we can reduce the number of people that die every year from DVT and its complications.

Acknowledgements

Nil

Interest of conflict

Nil

References

A Correlative Study to Assess the Effect of First Trimester BMI on Obstetric Outcome

Sreedevi C1, Blessy Prabha Valsaraj2, Maria Pais3
1Lecturer, 2Associate Professor, 3Assistant Professor, Manipal College of Nursing, Manipal University, Manipal-576104, Karnataka

Abstract

Healthy body weight on conception and adequate weight gain during pregnancy is important to ensure that the mother and baby remain well. About 30% of women living in South Asia enter pregnancy with severe or moderately severe underweight and do not gain sufficient weight during gestation to allow the fetal growth to proceed unimpeded. In India, out of twenty million babies born every year, about seven million are low birth weight. The aim of the present study was to determine the effects of first trimester BMI on pregnancy, labour and fetal outcomes, which will help to identify how significant is the BMI monitoring in antenatal period for preventing complications.

Antenatal and intranatal records of 250 primigravid women were studied over a period of one month for knowing the complications which had occurred to mother and her fetus during antenatal and intranatal period. Statistical analysis was done by using SPSS 11.5 package and relation was found using logistic regression.

Complications like gestational diabetes mellitus, gestational hypertension, preterm delivery, meconium stained liquor, low birth weight, small for gestational age and IUGR were found to be more in abnormal first trimester BMI categories. Abnormal first trimester BMI revealed to be associated with severe maternal and neonatal complications. Therefore pregnant women should maintain a normal BMI to achieve a healthy pregnancy outcome.

Key Words
Primigravida women, first trimester BMI, obstetric outcome.

Introduction

The mother and the child have always been considered as one unit be it biologically, socially, or culturally. The biological support that the mother gives to the child during its growth and development through pregnancy and lactation in turn, depends on her own nutritional status. Throughout pregnancy the women have to adapt to extreme physiological and physical changes. These include weight gain, endocrinological changes and physical symptoms such as nausea, vomiting, water retention, bowel habit changes and heart burn.

It is generally stated that maternal weight gain during the first trimester of pregnancy is unrelated to birth weight, but not in the second and third trimesters. About 30% of women living in South Asia enter pregnancy with severe or moderately severe underweight and do not gain sufficient weight during gestation to allow fetal growth to proceed unimpeded. Maternal weight gain above the Institute of Medicine (IOM) guidelines is associated with excessive postpartum weight retention. Increased maternal BMI is associated with increased risk of developing minor complications like symphysis pubis dysfunction, heartburn and chest infection during pregnancy. Higher maternal BMI in the first trimester and a greater change in BMI during pregnancy were associated with longer gestation and an increased risk of postdates pregnancy. Higher maternal BMI during the first trimester was also associated with decreased likelihood of spontaneous onset of labour at term and increased likelihood of complications. Therefore, interventions aimed at achieving adequate weight gain during pregnancy will have an impact on preventing both poor birth outcomes and improving the future health of the mother.

Methods

The descriptive correlative survey design was used for this study. Data were collected from 250 primigravid women as well as from their antenatal and intranatal records through interview and check list at Sree Avittom Thirunal (SAT) Hospital, Women and Children Hospital, Thycaud and Government Hospital, Peroorkada, Trivandrum, Kerala. First trimester BMI was determined and it was categorized into; Underweight - BMI <19.8 Kg/m², Normal BMI - BMI 19.8 to 26.0 Kg/m² and Over weight - BMI 26.1 to 29.0 Kg/m² based on Institute Of Medicine guidelines.

Women who were registered between seven and ten weeks of pregnancy having done regular antenatal checkup and complete records of antenatal and intranatal period were included in the study.

Results

Out of 250 women, 128 (51.2%) were in the age group of 20-24 years, 156 (62%) were Hindus and most of the women were house wives 243 (97.2%). Based on BMI, most of the women were in the category of normal BMI. (Table 1)

When women with normal BMI were compared with underweight women, they had significantly increased risk of gestational hypertension (OR 2.9, 95%CI 1.38-6.13), preterm delivery (OR3.8, 95%CI 1.54-7.46), low birth weight (<2.5kg) (OR 2.20, 95%CI 1.26-3.86), and IUGR (OR 2.33, 95%CI 1.29-4.23). Women who were classified under overweight were significantly at increased risk to have gestational hypertension (OR 10.07, 95%CI 4.36-23.28), gestational diabetes mellitus (OR 12.13, 95%CI 4.813-30.548), preterm delivery (OR 5.57, 95%CI 2.29-13.49), and IUGR (OR 3.32, 95%CI 1.59-6.87) than those with a normal BMI. (Table 2)

Table 1. Distribution of women according to first trimester BMI

<table>
<thead>
<tr>
<th>First trimester BMI</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>99</td>
<td>39.6</td>
</tr>
<tr>
<td>Over weight</td>
<td>46</td>
<td>18.4</td>
</tr>
<tr>
<td>Normal BMI</td>
<td>105</td>
<td>42</td>
</tr>
</tbody>
</table>

n=250
Table 2: Effect of first trimester BMI on Obstetric outcome

<table>
<thead>
<tr>
<th>Obstetric Outcome</th>
<th>f</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestational hypertension</td>
<td>65</td>
<td>2.9</td>
<td>1.38-6.13</td>
<td>0.005</td>
</tr>
<tr>
<td>Under weight</td>
<td>27</td>
<td>10.07</td>
<td>4.36-23.28</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Over weight</td>
<td>26</td>
<td>10.12</td>
<td>3.48-30.55</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Normal weight</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gestational diabetes mellitus</td>
<td>40</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Under weight</td>
<td>9</td>
<td>2.12</td>
<td>0.45-3.28</td>
<td>0.005</td>
</tr>
<tr>
<td>Over weight</td>
<td>23</td>
<td>12.13</td>
<td>4.81-30.55</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Normal weight</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Preterm delivery</td>
<td>53</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Under weight</td>
<td>26</td>
<td>3.38</td>
<td>1.54-7.46</td>
<td>0.003</td>
</tr>
<tr>
<td>Over weight</td>
<td>17</td>
<td>5.57</td>
<td>2.30-13.49</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Normal weight</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Low birth weight</td>
<td>118</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Under weight</td>
<td>56</td>
<td>2.20</td>
<td>1.26-3.86</td>
<td>0.006</td>
</tr>
<tr>
<td>Over weight</td>
<td>23</td>
<td>1.69</td>
<td>0.84-3.41</td>
<td>0.141</td>
</tr>
<tr>
<td>Normal weight</td>
<td>39</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>IUGR</td>
<td>93</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Under weight</td>
<td>43</td>
<td>2.33</td>
<td>1.29-4.23</td>
<td>0.005</td>
</tr>
<tr>
<td>Over weight</td>
<td>24</td>
<td>3.32</td>
<td>1.64-6.71</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Normal weight</td>
<td>26</td>
<td>1</td>
<td>1.59-6.87</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Discussion

The study revealed that out of 250 postnatal women, 99 (39.6%) were under weight, 46 (18.4%) overweight and remaining 105 (42%) were in normal BMI category. This supports the findings of the study done in North India among 380 women, which showed 46 (12.1%) were underweight, 99 (26.1%) were overweight, 30 (7.9%) were obese and the remaining 205 (53.9%) were normal BMI.

The present study revealed that compared to women with a normal BMI, underweight women has significantly increased risk of pregnancy complications and fetal complications like gestational hypertension, preterm delivery, low birth weight (<2.5kg), and IUGR. Women classified as overweight by their BMI were significantly more likely to have pregnancy, labour and fetal complications like gestational hypertension, gestational diabetes mellitus, preterm delivery, and IUGR than those with a normal BMI.

This finding supports the results of the study done in North India which revealed that anemia and low birth weight was significantly present among lean women. Obese women had a significant risk for gestational diabetes, pre-eclampsia, cesarean delivery and macrosomia.

It also supports the study done in Abareen, UK which revealed that increasing BMI is associated with increased incidence of pre-eclampsia, gestational hypertension, macrosomia, induction of labour and caesarean delivery; while underweight women had better pregnancy outcomes than women with normal BMI.

These also support the findings of the study conducted in North West Thames which showed that compared to women with normal BMI, the obese pregnant women had increased risk of gestational diabetes mellitus, proteinuric pre-eclampsia, induction of labour, delivery by emergency caesarean section, postpartum haemorrhage and birth weight above the 90th centile.

Conclusion

The study concludes that the women under abnormal first trimester BMI had more risk of getting maternal and fetal complications. A healthy life style including physical activity and healthy eating which are more common in underweight women, were more strongly helpful for the obese population. The study recommends Continuing education programmes through mass media, health education to nurses and grass root health workers i.e. dais, public health workers etc., to gain more knowledge and impart knowledge and positive attitude towards prevention and control of obstetric complications to gravid women is an essential aspect. Prevention of excess antenatal weight gain and gaining weight within the inter conception period should be encouraged.

References

Influence of Environmental Variables on Toddler’s Growth and Social Maturity

Maxie Andrade, Navaneetha M. Former, Binu Margaret

1Lecturer, 2Associate Professor, 3Asst. Professor, Manipal College of Nursing, Manipal

Abstract

Development of children has been considered as an integral part of the national development. Early childhood years are the significant periods in life which are the foundation for several complex behaviours. The key to man’s health lies largely in his environment. Much of man’s ill health can be traced to adverse environmental factors and man is often responsible for pollution of environment. A study to assess the growth and social maturity of the toddlers in relation to housing structure an dwelling proximity to mass waste dumping site revealed that growth and social maturity were not associated but there was significant relationship of housing structure as well as dwelling proximity to mass waste dumping site with growth and social maturity. The rural toddlers exhibited better growth in comparison to urban slum toddlers with reference to national and international norms. However the urban slum dwellers seem to attain social maturity at an early age. There was no significant difference in social maturity between them except in the Self Help Dressing Skill.

Introduction

The health policy for children recognises children as the nation’s supreme important asset and declares that the nation is responsible for their future and solicitude. The governments across the globe having understood the need for under-five care and basic sanitation at the Millennium Declaration, are committed to undertake measures to improve sanitation as well as to reduce under-five mortality and morbidity rates. About 2.1 million Indian under five children die each year. UNICEF in its “State of the World’s Children” 2008 report states that 129 countries are reported to be on track to achieve Millennium Declaration Goals, whereas 60 countries including India are off the course. Making progress towards achievement of the goals has been slower in India in comparison to some other countries.

In children growth and development progress together and are interdependent. Though genetic factors are out of an individual’s control, environmental factors can be thoughtfully modified for optimum growth and development. The child and the environment are inseparable and their constant interaction culminates in the emergence of various behaviour patterns fostering an overall development of the child. To the young, the risk of dying is very closely related to the environment. A joint report from UNICEF and WHO in 2006 showed that 1.1 billion people do not have access to clean water and 2.6 billion people do not have access to basic sanitation. Worldwide an estimated 23 billion deaths could be prevented each year in a healthier environment.

Child health plans can’t be developed in isolation but are implemented in conjunction with the development of other core infrastructure facilities. Growth monitoring and promotion is one of the very important responsibilities of nurses towards under-five care. Nurses are effective screening agents of growth and development of children. In an attempt to elicit the disparity in growth and social maturity among rural and urban slum toddlers a study titled “assessment of growth and development of toddlers in relation to selected environmental variables in selected areas of Udupi District” was undertaken with the purpose of providing evidence base on the influence of waste dumping site and housing structure on growth and social maturity of toddlers, to convince the local bodies to plan and promote actions towards town planning thereby improving the health status of children.

Objectives

Of the study were to determine, describe and compare the growth and social maturity among rural and urban slum; compare the growth with national and international norms; find association between growth and social maturity, growth and environmental variables, social maturity and environmental variables.

Methodology

This study adopted a quantitative approach with a cross sectional survey design. The study was undertaken at Udupi District’s mass waste dumping site where migrant families dwelt in tent houses close to the dumping site within a half kilometre perimeter. The rural counterpart lived in pucca houses in a village, 20 kms away from the waste dumping site. Apparently healthy caretakers (as reported by caretakers) who lived with their parents and could speak in Kannada were included in the study. Forty each dyads were selected as sample from either setting through non-probability purposive sampling technique. Weighing scale, height scale, tape measure and inch tape were calibrated. Housing structure was assessed through observation with a 16 item scale. Reliability was assessed through inter rater reliability method. Data was collected during January 2008, through home visits of 30-45 minutes duration after obtaining official permission from Panchayat and parent’s consent.

Vineland Social Maturity Scale, a standardized instrument was used to assess the social maturity which included both observation and interview techniques. Social maturity in this study referred to the adaptive functioning or skills of an individual and is a measure of social competence in seven areas namely: Self Help General, Self Help Eating; Self Help Dressing; Locomotion; Occupation; Communication and Socialization.

Results

60% of the toddlers were in the age group of 13-24 months, 57.5% were females and 47.5% were the first born. A total of 36 (90%) of urban sum and 34 (85%) of rural toddler families were living in the study setting for more
than two years. About 97.5% of rural parents were literates whereas only 37.55 of fathers and 17.5% of mothers of rural slum toddlers were literates. 60% of the rural parents had a monthly income of above Rs. 5001/- whereas 60% of urban slum parents had a monthly income of below Rs 2000/-. All of the urban slum toddlers lived in tent houses and 90% of rural toddlers lived in pucca houses, rest 10% in katcha houses. Majority (80%) of the rural mothers were housewives as compared to 45% of urban slum mothers. Most (82.5%) of the urban slum fathers were coolie workers in contrast the majority (80%) of the rural fathers were non-coolie workers.

Rural toddlers exhibited better growth in comparison to urban slum toddlers and the difference was statistically significant at p<0.05: weight (t_{78} = 6.134); height (t_{78} = 6.134); chest circumference (t_{78} = 4.435); head circumference (t_{78} = 4.469); mid arm circumference (Z = 3.197). Though urban slum toddlers attained social maturity at an earlier age in comparison to rural, Man Whitney U and Z values showed no significant difference in social maturity except in the area of Self Help Dressing (Z = 2.633) at p < 0.05. Chi square test revealed no significant association between growth and social maturity. The proximity of tent houses, presence of elder children in the family and neighbourhood, culture and lifestyle of migrant urban slum families might have influenced the early attainment of social maturity.

About 45% of urban slum and 37.5% of rural toddlers exhibited head circumference more than the chest circumference. 75% of the rural toddlers met the 3rd percentile norm of WHO, NCHS and IAC (Indian Affluent Children) for weight whereas only 35% of urban slum toddlers met the IAC norm for weight. 92.5% of the rural and 35% of urban slum toddlers met the IAC norm for height. Ninety five percentage of rural and 82.5% of urban slum toddlers exhibited the IAC norm for mid arm and chest circumference, which was the better finding in comparison with all growth parameters. 92.5% of rural and 62.5% of urban slum toddlers met the 3rd percentile norm of WHO and IAC for head circumference.

Comparison of social quotient with Binet Kamath test of intelligence revealed 50% of rural and 37.5% of urban slum toddlers were with above average intelligence. 50% of urban slum and 27.5% rural toddlers were with average intelligence. Housing structure and dwelling proximity to mass waste dumping site were significantly associated with social maturity, weight, height and circumference of head and chest. Chi square test used to find the association of growth and social maturity with demographic variables revealed the following:

a. Weight: with whom the toddler lived, father’s occupation, parents education and income
b. Height: with whom the toddler lived, birth order, parents education income and occupation
c. Head circumference: with birth order, mother’s education and father’s occupation
d. Chest circumference: with parents education and father’s occupation
e. Social maturity with mothers’ education.

**Implications**

The study revealed that growth of independent of social maturity and there was difference in growth of rural and urban slum toddlers. Growth and social maturity were significantly associated with housing structure and dwelling proximity to mass waste dumping site. Environmental influence on growth is not widely studied and hence there is scarcity of data in this field for comparison. However the findings have implications to nursing practice, education, research and administration.

The findings can’t be generalized owing to a few limitations of the research approach and design. The sampling technique, stranger effect towards the researcher, care taker bias in estimation of toddler’s social maturity in response to interviewed questions and non-consideration of birth weight were the limitations of the study. The urban slum toddler’s parents could not recall the birthdate and birth weight, thus age was considered as reposed by the caretaker or parents. The urban slum families were migrants with a few returning to native places during monsoon and early winter.

The practicing nurses may initiate and participate in activities related to sanitation of the community, school, home and workplace. Nurses can play a pivotal role in recommending measures to the local government for town planning. Nurse teachers should train nursing students to assess the environmental factors influencing the growth and development of under-fives and to take initiative in educating parents to alleviate the adverse impact.

**Conclusion**

Nurses can play a pivotal role in promoting health of our young citizens, respecting their right to health in the healthy environment by planning and implementing environmental measures, monitoring impact of measures by screening them for growth social maturity and health. This in part contributes to attainment of Millennium Development Goals in collaboration with health and other sectors.

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Perceptions of Health Care Consumers and Deliverers Nurses, Nursing Practice and Nursing Education System

Maxie Andrade1, Erna Judith Roach2, Anice George3
1M. Phil Nursing, 2M. Phil Nursing, 3M. Phil, Ph. D nursing, Dean, Manipal College of Nursing, Manipal and Nursing Director, Manipal University

Abstract

A profession will be in a better position to pursue its goals when its actions are guided by an accurate understanding of its public image. India has a well planned public health care delivery system on one side as well as a huge burden of the global case load on the other. No doubt, nurses are the essential and indispensable members of the health team in the public health care delivery system. Being on the verge of the decade (2001-2010), it is essential that we evaluate where we are in terms of quantity and quality of national health care requirements and the professional education system with regard to nursing per se.

Key Words
Perceptions, health care consumers, nurses, nursing practice and nursing education system.

Introduction

India has a well planned public health care delivery system on one side as well as a huge burden of the global case load on the other. Current public health care sector is unable to cater to the vast majority, owing to lacunae within the system input and process. The growing literacy rate and the wide ‘rich – poor gap’ has influenced private sector to take a lead in ‘profit oriented’ health care, leaving the poor to seek health care through the ill equipped public sector. To overcome these challenges, the nation has now invested in ‘Private – Public Partnership’ approach.

The foundation for the structural development of the health care delivery system was laid by Sir Joseph Bhore, way back in 1946. Possibly India would have been on par with any other developing country, had his recommendations for health care structure and manpower were realized in time. However Indian Health Policy of 2002 stresses on the need for trained nursing manpower of all cadres, to realize the achievement of Millennium Development Goals. Consumer Protection Act of 1986 has given momentum towards quality concepts in India and has alerted the Indian health care industry to be on their toes on the issue of “quality” 1, 2.

India has opened avenues for nurses to work abroad since the last few decades. The demand for trained nurses has grown considerably both in national and foreign markets. Developing and the developed nations view India, as one of the ‘cheapest source’ of nurse manpower. On par with this, the Indian Nursing Council (INC) has shown considerable interest in producing a pool of trained nurses of graduate and post graduate category at a faster rate. In the race of demand driven nurse manpower supply requirements, the growth of ‘Indian nursing education industry’ has made a remarkable progress both in terms of generating manpower and revenue. Being on the verge of the decade (2001-2010), it is essential that we evaluate where we are in terms of quantity and quality of national health care requirements.

Addressing the nurses on the International Nurses Day (2010), Hon’ble Vice President of India, Shri M. Hamid Ansari said, "The immense shortage in nursing personnel is a significant impediment in achieving our health care objectives. India has only 8 nurses per ten thousand population and nurse population ratio of 1:1100 as compared to developed countries averages of 1:150. Of the 10.35 lakh registered nurses in India, active nurses pursuing the profession are only four lakhs. For every three doctors there are two nurses as compared to three nurses per doctor in developed countries. Over 60% of the nursing educational institutes are in the Southern and Western India whereas the greatest shortfall of nursing personnel is in the high focus states in Northern and Eastern India. We have a huge gap of around ten lakh nurses who need to be trained in a time bound manner to meet the shortfall and to achieve the Bhore committee recommendation of a nurse population ratio of 1:500." This statement quantifies and justifies the fact of need for nurses to meet national requirements as well as confirms INC’s motive of increasing the nursing manpower reserve.

Health care needs inter-sectoral co-ordination as health is not an uni-dimensional phenomenon. Moreover it is an area where benefits cannot be measured in monetary terms. Cost effectiveness and cost utility analysis will help us to measure the quality indicators. The growing number of nursing colleges with a quality component in their training programmes, no doubt will produce committed, dedicated, well oriented and competent nurses, empowered to meet the national public health goals.

Nursing and nurses in India do not enjoy the same status and recognition as in developed countries. This is probably one of the many reasons for nursing shortage. However our nation has considered nurses as one of the indispensible manpower resources right from its first five year plan. Though public health centers are ill equipped, short staffed and are with heavy workload, the pay and perks are considerably good. Is the current shortfall of nurses because of inadequate nursing educational institutes in the earlier decades? Possibly this could also be one of the many reasons, with the assumption that many young ladies/gentlemen might have preferred this profession but could not seek entry.

The current scenario of growth in nursing educational institutes and nursing entrants appear to be a push-pull scenario, a nexus between economic principles of demand, supply and income. There is no doubt that we have excellent nursing educational institutions in India, both in public and private sectors, who have made and are making remarkable contributions towards nurse manpower supply and reserve.

Linking nursing education to health care economics raise a few questions in us. Is the demand for Indian nurses abroad because of low cost for hiring or the truly exceptional nature of health service delivery by Indian nurses? Is the growth of
There is no clear cut definition of qualification required for nurses whether qualified, licensed or not, are collectively revealed in this study are expressed in three sections below. Some of the issues of concern perceived by health care consumers, deliverers and nurse educators in a few areas. Some of the issues of concern revealed in this study are expressed in three sections below.

1. Issues on Nurses

- Nurses whether qualified, licensed or not, are collectively called as nurses. Designations of Auxiliary Nurse Midwife, Home Nurse, Registered Nurse (diploma/B. Sc./M. Sc.) etc. carry a word ‘NURSE’, because of which the public perceives everyone as same. The dress code of nurses in a variety of settings for all cadres is the same; hence the public are unable to differentiate the different cadres of nurses or nurses with different qualifications.

- There is no clear cut definition of qualification required for various cadre in nursing. A diploma nurse in most of the hospitals handles, nursing administration. A ward sister functions similar to a staff nurse and vice versa. Clear job descriptions are non existent and where present, do not specify the boundaries clearly.

- Nurses function under the Medical Officer/Superintendent and do not have autonomy. Many hospitals employ non-qualified/unlicensed nurses or pay less to qualified nurses.

2. Issues on Nursing Practice

- Non nursing activities such as attending telephone calls, indenting equipment, linen, supplies and maintenance of stock, checking minor and major items, transporting patients, inspecting electricity, plumbing, house-keeping job etc., consume more than 50% of the nurse’s time and workload. Most of the nursing time goes for documentation which is clearly not under the domain of patient care.

- Poor nurse patient ratio, lack of equipment and supplies, pressing demand by educated patients, quality orientation, super-specialization in medicine and surgery, unrealistic expectations of timely effective care by medical fraternity, increasing bio-medical equipments in the unit, increasing health care team members in the unit, making nursing more challenging and risky in the current practice.

- Nurses lack skills in problem solving, communication techniques and ability to convince the management on needs or resources of the nursing unit. Lack of willingness and uniformity in the application of nursing process is a sign of non scientific approach in nursing practice.

- Scant recognition given to nurses and apathy towards their contribution, less budgetary allocation for the nursing department, less remuneration for them, less charges levied for their services, hindrance in hiring qualified nursing manpower, recruitment of non qualified nursing personnel and assigning them designations as nurses, non-involvement of nurses in planning policies and procedures reflect poor management of nursing manpower and nurses performance. One of the nurses said “Patients have sufficient knowledge nowadays about their illness through media and legal rights so their demands have increased in this sector. At the same time hospitals have become the bees hives for making profits. Sandwiched between these two concepts, nurses are working under great stress.”

- Current nurses are task oriented and care is based on physical needs or problems of clients, neglecting psycho-social domains of health. Too many consultants and allied professionals handle one patient. Nurses are unauthorized to communicate diagnosis and treatment related information to patient and relatives although patients expect information from nurses.

- Care seekers do not make an attempt to identify the licensed nurses (whether the nurse caring for them is a licensed or unlicensed nurse). Nursing councils in many states issue licenses which have life long validity, thus the licensed nurses do not take the trouble to keep abreast with the latest scientific advances.

- Many research projects are undertaken by nurses but the results and implications are either not communicated to practicing nurses or nurses are reluctant to change their practice style. Health team members thus are unaware of the contribution by nursing department in health care.

3. Issues on nursing education system

- Current nursing education system is not transparent and is diluted in quality. The relationship between the nursing teachers and the curriculum should be one that would direct the nursing students to build a favorable attitude towards nursing in early years of student life.

- Nursing education has become a business in India. Lack of post graduate teachers and infrastructure in the teaching institutes, use of inappropriate procedures or corruptive practices in granting recognition to nursing schools or colleges has lead to poorly prepared nurse and decline in quality of teaching. One of the nursing teachers...
even commented “Certainly we need qualified post graduate teachers and hence nursing colleges should be increased but not at the cost of diluting quality in nursing education.”

- Theory - practice gap exists and there is no clear boundary for nursing practice and education. INC syllabus is commendable but current nursing education is not focused on the “must know” area. Teachers prepare nurses with greater knowledge which though essential, should be more focused on ‘core areas’ of nursing practice.
- Current students are not practice oriented. Nurses with higher degrees move away from clinical nursing. Current nursing teachers lack confidence and are incompetent to teach clinical skills. This reflects upon the students who upon completion of course are unable to practice independently.
- Specialization in nursing is essential. Nurses with post basic diploma courses who can take the dual role of nurse and teacher, should be hired for specialty units in hospitals so that they can guide students in clinical settings effectively. Teaching faculty with clinical experience and qualification should be hired. One of the physicians said, “Practicing nurses need qualities like “care and compassion”, without which no amount of continuing nursing education can help.”

These issues certainly throw light on the current scenario of nursing practice, nursing education system as well as the status of nurses and call for collective action from nurses working in practice and education side. Interesting thing to note here is that most of these issues can be tackled by nurses themselves. No doubt there are effective nursing leaders in India who can draft strategies to address them and take an initiative to resolve these issues on priority basis. Nurses certainly can assure the public at large that their services are indispensable and are quality oriented. Thus the push-pull scenario can be replaced with aptitude driven quality care to consumers, in whichever setting nurses work, national or international in the very near future.

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Choice of Nursing Career: Pleasure or Pressure
Maxie Andrade
Lecturer, Manipal College of Nursing, Manipal Manipal University, Manipal

Abstract
Nursing is a self-less service and is indispensible in health care delivery. Technology based health care services today demand knowledge and skills of various disciplines, hence the curriculum and the eligibility criteria for nursing career has also been drafted carefully by the regulatory bodies. Though a few students enter nursing with interest, majority feel to quit nursing after joining the course just because they realize the widespread difference in what they perceived as nursing training and what training they actually undergo in nursing. Many nursing students opine that the compact curriculum makes them to be on their toes during the training period. However the demand for nurses is on the rise and will never be a declining trend. Thus the challenge of attracting youngsters to the profession, helping them cope effectively during the training period, enhancing their competency during training and service and retaining them in the profession, is not to be underestimated by the nurse educators, nurse practitioners, nurse administrators and the regulatory body.

Key Words
Choice of nursing career, retention in nursing, caring, commitment.

Introduction
Since 1939, a major concern in our society has been the trend towards the development of professional services. The older well established professions such as law and medicine have developed new super specialties all of which are viewed as professional. However, nursing is still considered as an evolving profession, despite the advances in nursing practice, education and research. ¹

Creating a different image and a different reality requires professionals to believe in who they are and in what they do. Thus for nursing, to create an image requires nurses to value nursing, value the name of nursing, reclaim the name and practice of nursing. The image of nursing has changed over the years and nurses are still striving to create a unique image of their own especially in this era with the revolution in the health care industry. It is motivating to note that nurses have retained their position as indispensible members of the health team however nurses need to give a sensitive thought towards valuing their profession both individually and collectively. ²

Public perception is as important as professionals’ own perception. If public perceives nursing as an incredible profession, more number of nursing entrants one may expect. A study in Udupi district revealed that though nursing profession is well regarded by the public, their knowledge on nurses’ roles and responsibilities, nursing practice settings and standards, and nursing education was poor. Thus a survey was planned in the same district in February 2011, among nursing students to explore the factors influencing the choice of nursing profession. It was noted that more than 90% of the nursing students in the selected school/colleges, except one school of nursing were not of Udupi District. ¹

Objectives, Materials and Methods
High power committee in 1990 reported to introduce aptitude tests but in India no nursing school or college uses nursing aptitude tests yet, for selection of candidates for various courses. The purpose of this survey was to verify the need for introduction of aptitude test for selection of nursing students. Objective of the study was to describe the reasons for selecting nursing career and factors influencing retention in the course.

In the current study the samples were studying in a school or college of nursing which has a parent hospital of its own, where students practiced nursing. Enrolled students from each batch of six randomly selected Schools and Colleges of Nursing of Udupi District were explained about the purpose of the survey after obtaining the administrative permission and ten percent of the willing students from each batch were given a self-report data sheet, with the four questions namely: What made you to choose nursing career? What makes you to remain in nursing? Did you ever felt to quit nursing? If so why? What are the behaviours signifying nursing attributes namely caring, compassion, connectedness and commitment. Tool was administered to 97 participants and only 78 of them returned.

Findings
Among 78, Twenty eight (38.9%) of the nursing students reported that they chose nursing because of its scope, eleven (14%) of them chose because of the job opportunity and another eleven (14%) owing to the financial problems. There were only eleven (14%) who chose nursing because they considered nursing as a noble profession, five (6.4%) of them reported that, nursing profession is a social work, three (3.84%) of them perceived nursing is the best course to serve the humanity and two of them reported that they were motivated by their own mother who are nurses.

Few of the responses did represent the other side of the coin, which possibly most of us predict. Seven (9%) of them chose nursing because of family pressure. Three of them reported that they were interested in medical profession, but could not get the seat for the courses which they applied, hence joined for nursing. However one stated, “Still I don’t know how I chose, uncle called and said, one seat is vacant for nursing, next day I joined here.”

Nursing as a profession was also chosen thoughtfully by some, keeping the personal responsibilities in mind. One of the students said, “My father is sick, I thought by choosing nursing I could help him” and another said, “I chose nursing not out of interest, but being eldest I feel the responsibility to keep my family in good condition” It was good to note that
one of them despite of the negative experience of being nursed rudely during childhood, projected her interest in creating a positive image of nursing and said, “When I was three years old, nurses behaved cruelly and I was irritable, now I want to care patients gently and smoothly”. It was also interesting to note that one of the students wanted to explore what nursing was and said, “I really wanted to know what nursing was”.

Though many found nursing as an economical career with a bright future in terms of scope, job opportunity, job security, good salary and as a channel to go abroad, a few students expressed uniquely on why they want to remain in nursing with responses such as “Nursing has no end and that keeps me in nursing to explore more of it; The changing technology, the subjects taught and the challenges in nursing keeps me in nursing; the Job satisfaction is the driving force, the value and respect patients’ give, keeps me motivated and makes me forget my pain.”

Of the 78 nursing students, fifty one (65%) of them felt to quit nursing course at one time or the other for the reasons namely burden of studies; difficulty to adjust with clinical duties and studies; night duty and assignments; risk of infection; strict rules; fear of taking responsibility; own health problems; family problems and job risks. A few opined that at times when doctors do mistakes, patients shout at nurses. Nursing students feel disrespect from other medical professionals. A few doctors consider nursing students as unwanted objects or as housekeeping staff.

It is also interesting to note here that a few students who entered nursing without interest, developed interest and those with interest, their love for the profession had a negative shift. The reasons were mostly in the clinical learning environments and burden of studies.

A few of the reasons expressed by students need due attention, namely, nursing is for Christians; no standards set for the work done in nursing; mechanical work in clinicals most of the time; I don’t like some procedures in nursing like making bed early morning; IV cannulation and injection are only the nursing procedures; nursing students study unwanted subjects like Sociology, Communication and Education Technology and Community Health Nursing.

Study also revealed that students had difficulty in differentiating the behaviours related to caring and compassion. However it was interesting to note that many students expected a motherly approach in caring with responsibility and accountability. Students described the behaviours such as: a nurse’s plans to continue as a clinical nurse, working for people irrespective of wealth and caste, readiness to work in any shift, expecting no rewards but doing everything for client, continuity and consistency in care despite of monotony in care, reveals commitment to profession and client care.

Discussion

Aptitude towards a profession is as important as the material benefits in a profession including the status and the image. In this survey, many nursing students found nursing as an economical career with a bright future in terms of scope, job opportunity, job security, good salary and as a channel to go abroad. It is noteworthy that there are elements of attraction, but these factors need a blend with an essential quality of service mindedness say the clinical nurses in a study in Udupi District. “It is not with service mindedness current nursing students seek admission to the course, but the scope of nursing and the job opportunities attract young men and women into the profession.” This view certainly calls the nursing community to shoulder the challenge of developing the aptitude among nursing entrants and the clinical nurses. 1

The age old religion bound affinity towards nursing is evident in the nursing books. However, religious influence in selection of course, is not only a factor in the selection of course but also in the performance of job responsibilities. One of the students in this survey opined nursing is for Christians. A study by Pataliah in Bangalore city, among clinical nurses found that performance and religion were significantly associated and a few participants opined that their religion was suited for nursing. 4

Though we nurses are advancing in professionalizing nursing and creating advanced clinical roles such as nurse practitioners, we still sense the need to create recognition of our own within the health team and this is a responsibility vested on each nurse. Nursing students in this survey, did express a valid view on undermining the importance of nurses by doctors in client care and a few of the students felt they were considered lowest in the hierarchy. This view is supported by Deloughery in the book titled, issues and trends in nursing in which author reports, “In the medical care team, the physician tends to be autocratic and looks upon the nurse primarily as his helper following his orders and carrying out whatever he chooses to delegate.” It is because of the authoritarian role of physician, the role of nurse in guiding, helping and comforting the patient has largely gone unrealized. This is more so as technology is advancing wherein the nurse is asked increasingly to take up tasks instrumental to diagnosis and treatment. This view certainly calls the nursing community to wake up and work towards creating an image and recognition for nurses 5.

Few students commented that there are no standards set for the work done in nursing and the work is mechanical. This view is partially supported by an analysis report of the education system in US, which revealed that there is no recognition of the growth of nursing knowledge in terms of theory development and research possibly because of lack of appreciation or understanding of breadth and depth of nursing knowledge. The author states that the lack of clear expectation that nursing education be guided by the scholarship of the discipline creates a number of significant problems for the future, the very least of which is the education of the practitioners that are ill equipped to engage in meaningful way in the work of discipline or who are unclear about their unique perspective or contribution to the interpersonal team 6.

The Clinical Learning Environment (CLE), is an interactive network of forces influencing student learning outcomes in the clinical setting. Interpersonal relationships between the participants in the CLE are crucial to the development of a positive learning environment. Majority of the students in this survey, felt to quit nursing because of unpleasant hospital situations, punishments, teachers, ward sisters or doctors scolding students in front of patients and perceived differences in dignity between health professionals. This calls the nurse educators, nurse administrators and all others participating in the clinical nursing education to collaborate effectively in order to create a CLE which promotes the development of well-educated registered nurses capable of
providing safe and cost effective patient care. 7

Implications

The findings have implications to nursing practice, education and administration. Teaching nursing and practicing nursing both are noble professions and at the same time it is challenging to practice both of these roles at a time. The views expressed by students in this survey help a nurse teacher to realize that the students have varied reasons for choosing a career. A nurse teacher can certainly influence in a student and correct a few misconceptions. Teacher needs to be a facilitator in improving their perception towards nursing career and trying to build recognition of the profession during their study period itself by being a mentor. If we prepare dedicated and committed nurses, certainly it is half task done in creation of a unique image and recognition. These trained nurses will recommend the profession to others and we will have nurses entering the profession with an aptitude for nursing.

Nurses were well appreciated for their nursing skills in the past as olden day nurses say, our training was more of clinical and less of theory. Training was strict and we were on our toes during clinical hours. Olden day nurses are a little displeased with the current nursing education system wherein a few report that nursing students do not like to do few procedures and the supervision of nursing students is not as meticulous as in olden days. In the current survey too, one of the students opined that IV cannulation and injections are nursing procedures and not bed making. There seems to be a need for creating attitudinal shift among such nursing students and nurse teachers need to take this challenging task as a responsibility. 3

One of the students opined that nursing has unwanted subjects like sociology, community health nursing, communication and education technology. Possibly this opinion has come out as a frustration but this can be tackled possibly by selecting able teachers to teach these subjects, with relevant examples on application to nursing. Teachers with aptitude and positive attitude towards nursing can certainly bring the required change and recognition. Students should be taught that the current emphasis is on community oriented population based nursing and hence knowledge from behavioural sciences is as important as basic nursing sciences in nursing. Again, major role here is of the nursing teacher and the practicing nurse, to demonstrate the relevance of these sciences in day to day nursing practice.

There were only two students who said their nursing teachers were the source of inspiration to remain in nursing. A few students expressed that most of the nursing teachers lack nursing skills. How will supervision be possible without possessing necessary skills? This calls for an urgent need for the nursing teachers to strive to build on their clinical skills. Nursing needs to create facilitators and preceptors in clinical practice. A nurse with competent clinical skills will be able to demonstrate care skilfully, be a role model to lay the foundation in bringing a change in attitude of the students towards nursing. Creating masters qualified teachers in bulk in a short period is not an apt goal but creating qualified clinically oriented quality nursing teachers should be. 8

In the current survey, students felt that the first year was frightening with many subjects, assignments and lack of sleep. A few students felt that they study so much but very little is applicable in their clinical practice. Adjustment in studies is very essential to create interest in the career. The pace of study and connectivity are equally important in learning. Students vary in their interests, aptitudes and self-care abilities however these abilities can be developed. Knowledge and skills are equally important as nursing is a practice oriented profession.

A nurse teacher may implement curriculum from an average student’s point of view most of the times, though this option may make brighter students a little disadvantaged. When we train a group of students, with a time bound curriculum creating a pace for different students is difficult. If we enrol students with interest, aptitude and favourable attitude towards the chosen profession, certainly we will be able to train and retain the professionals who will bring recognition and raise the image of the profession.

Conclusion

Survey revealed that students join nursing courses for various reasons among whom a few of them with an aptitude towards nursing. A few students with an aptitude towards nursing find it difficult to adjust with the studies. There seems to be a compromise with the aptitude and barriers in completion of the course. However, creation and development of the aptitude among students is possible and calls for a collective effort, than vesting the responsibility on nursing student and nursing teachers. Nurse administrators, nursing teachers and clinical nurses should stress that the core of nursing is care and our aim in nursing is to make the client independent as soon as possible.

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Ethical Consideration in Research

Raj Rani¹, R.K. Sharma²
¹Professor and Principal, University College of Nursing, BFUHS, Faridkot-151203, Punjab, ²Professor, Department of Public Administration University School of Open Learning, Punjab University, Chandigarh

Abstract

Ethical issues in nursing research are identified and the perspectives for nursing ethics are offer in an effort to develop an ethical behaviour in research. A human subject gives rise to a multitude of ethical questions for healthcare professionals. What will be ethical principles of a researcher respect and when should be conduct with human subject? Ethical guidelines provided an opportunity for research ethics capacity development among research community. Researcher should always respect persons' fundamental rights. This article also discussed ethical principles, informed consent and role of ethical committee.

Key Words
Ethics; Research Ethics; Ethical Committee; Informed Consent

Introduction

Ethics refer to the study of philosophical ideals of right and wrong behaviour. Ethics is the study of good conduct, character, and motives. It is concerned with determining what is good or valuable for all people. Act that are ethical often reflect a commitment to standards beyond personal preferences-standards on which individuals, professions, and societies agree. Advances in management of disease can create concerns about the implementation of new technologies.

Meaning of Ethics: - According to dictionary, Ethics is a system of moral principles or standards governing conduct. Ethical concerns permeate the execution of the design. Nursing research has led to growing concern about the protection of the rights of the study participant it is assumed commonly that qualitative research is unlikely to cause significant harm to participants.

Aim of the discussion of this topic is to consider the ethical issues which arise when planning and carrying out qualitative research into health and health care and to offer a framework within which health services researcher can consider these issues. At base research ethics are not essentially different from any other kind of ethics nor do the ethics of nursing research differ in principle from those applicable to research. However there are aspects of nursing research as out lined below which underline the need of ethical consciousness rising.

Need of Ethical Guidelines

When human are used as study participant as they usually are in the nursing research and medical research care must be exercised in ensuring for protections of those humans being who are participating in research are protected. Requirement for ethical conduct is needed to be mandatory and self evident as to require no further comments or confusion. The fact is that ethical considerations have not always been given adequate attention.

Historical Background of Research Ethical

Why the need for research ethic felt? It has deep hidden roots in the past history centuries ago rather than in recent time e.g.- the Nazi Medical experiments of the 1930 and 1940 the most famous example of resent disregard for ethical conduct. Where the Nazi programme of research involve to use of prisoners of war and racial “enemies” in numerous experiment designed to test the limits of human endurance and human reaction to the disease and untested drugs.

Another example of ethical transgression has also occurred in the United States between 1932 and 1972. A study knows as the Tuskegee Syphilis study which was sponsored by the U.S Public Health Services. Study investigated 400 men from a poor African-American Community. In this study Medical Treatment was deliberately withheld to study the course of the untreated disease.

Another well known case of unethical research involved the injection of live cancer cells into elderly patients at Jewish Chronic Disease Hospital in Brooklyn without the consent of these patient and many more examples are there when the study subjects are forced to participate in the experimental research without knowing the consequences of it their health, then these examples which have emerged to give ethical concern the high visibility to these issues which have today.

Ethical Dilemmas in Conducting Research

There are research problem in which participant’s, rights and study demands are put in direct conflict posing ethical dilemmas for researches. It could be well understood with the different example of, Research Questions for rigor conflicts with ethical consideration.

i. How emphatic are nurses in their treatment of patients in the coronary care unit? That participant is aware of their role in the study. Yet if researcher inform Nurses participating in this study that their degree of empathy in treating Coronary Care Unit patient will under the screening will their behavior be “Normal”: Here lies the dilemma that usual behavior of nurse is altered because of the known presence of research observer. The finding will not be valid. Another example of research question also attached with the Ethical Dilemmas is that if nurses are not inform about the study that is unethical and without the consent of the subjects research could not be done.

ii. Research Question: Does a new Medication prolong life in patient with Cancer? What are the coping mechanisms of parents? Whose children have a terminal illness? Ethical Dilemma the best way to test for effectiveness of an intervention is to administrate the medication to some participant but with hold if from others to see if differences between group emerge. If the intervention...
is untested (e.g. a new drug) the group receiving the intervention may be exposed to potential hazard or side effects on the other hand the group not receiving drug may be denied a beneficial effect of treatment if any.

iii. Research Question: What are the coping mechanisms of parents whose children have a terminal illness?

To answer this question the researcher may need to probe into the psychological state of the parents at a vulnerable time in their lives. Such probing could be painful and even more traumatic with what they are already undergoing. Yet knowledge of the parent coping mechanism might help to design more effective ways of dealing with parent’s grief and anger.

Codes of Ethics

Largely in response to the human rights volitions various codes of the Ethics have been developed. First internationally recognized efforts to establish ethical standards is referred to as the Nuremberg code, developed after the Nazi atrocities were made public in the Nuremberg trials. Several other international standards have subsequently been developed. Most notable of which is the declaration of Helsinki. It was adopted in 1964 by the world Medical Association and then later revised, most recently in 2000. At present most of the disciplines have established their own code of ethics as:

• Professional Ethics
• Medical Ethics
• Ethics
• International council of Nurses Code.

Other Ethical responsibilities toward state Licensing Law

• Statutory Laws
• Common Law
• Professional code of Ethics.
• Law of privacy
• Animal protection act and fundamental rights of every citizen protected by the constitution.

Ethical Principles in Research

Ethical principles in research need to be followed in letter and spirit at all stages of research as under:

i. Freedom from Harm
ii. Freedom from exploitation
iii. The Risk/Benefit ratio
iv. The Principle of respect for Human dignity
v. The Right to self determination
vi. The Right to full disclosure.

vii. Principle of Justice
viii. Anonymity and Confidentiality
ix. The right to privacy
x. The right to fair treatment.

xi. Principles of essentiality
xii. Principles of voluntaries informed consent and community agreement.

xiii. Principles of professional competence
xiv. Principles of account ability and transparency
xv. Principles of maximization of the public interest and of distributive

xvi. Principles of Institutional arrangements
xvii. Principles of Public domain

xviii. Principles of totality and responsibilities
xix. Principles of compliance

Informed Consent

Informed consent means that participant have adequate information regarding the research and have the power of free choice, enabling them to consent to or decline participation voluntarily.

Content of Informed Consent

Following are the pieces of information to participants:

i. Participant status
ii. Study goals
iii. Type of data
iv. Procedures
v. Nature of Commitment
vi. Sponsorship
vii. Participant Selection
viii. Potential Benefit
ix. Potential Risk
x. Alternative
xi. Compensations
xii. Confidentiality of Pledge
xiii. Voluntary Consent
xiv. Right to withhold and withdrawn information
xv. Contact information

Documentation of Informed Content

Researcher usually document the informed consent process by having participants sing a consent form type bold. Tips in developing a consent form in following guidelines are helpful:

i. Organize the form coherently so that prospective participant can follow the logic of what is being communicated if the form is complex, use heading.

ii. Use a large font so that the form can be easily reads and use spacing that avoids making the documents appear too clear. Make the form as attractive and inviting as possible.

Risk of Participants in Qualitative Health Services Research

The lack of emphasis on ethical aspects of qualitative health services research may relate to a belief that it is unlikely to harm participants. Risk to participants has been recognized by social scientist who pointed out that taking part in research can lead to anxiety in and exploitation of participants and the publication of research finding may damage the reputation of participant or members of their group. There are many risks to participant as under:

i. Anxiety and distress
ii. Exploitation
iii. Misrepresentation
iv. Identification of the participant by self or other

Building Ethics into the Design of the Study

Before Building Ethics in the Study Design Researcher is require to be careful during planning of a research project and ask themselves continually whether planned safe guard for protecting human being are sufficient? While building ethics into the design of the study following are needed to be incorporated as under.
Research Design
Will participants get allocated to different treatment groups fairly? Will research controls add to the risks participants insure? Will the setting for the study be selected to protect against participant discomfort?

Intervention
Is the intervention designed to maximize good and minimised harm under what conditions might a treatment be withdrawn or altered?

Sample
The population defined as to unwillingly and unnecessarily exclude important segments of people. (e.g. women, minority) Is the population defining in such a way that especially high risk people (e.g. unstable patients) can be excused from the study? Will potential participants be recruited into the study equitably?

Data Collection
Will data be collected in such a way as to minimized respondent burden? Will procedure for ensuring confidentiality of data be adequate? Will data collection staff be appropriately trained to be sensitive and courteous?

Reporting
Will participant’s identities be adequately protected while preparing report of research?

Ethical Review Procedure/ Ethical Committee
The need for review or evaluation of research proposals has been emphasized under the statement of General Principles at item No. V pertaining to precaution and risk minimization. It is mandatory that all proposals on research involving human participants should be cleared by an appropriately constituted IEC that is Institutional Ethical committee.

Composition of Institutional Ethical Committees

- The Institutional Ethical committee should be multi sectoral in composition. Independence and competence are the two hall mark of an IES.
- The number of persons in an ethics committee should be kept fairly small (8-12 members). It is generally accepted that minimum of five persons are required to form quorum without which a decision regarding the research should not be taken.
- The IES should appoint from among it’s members a chairman who should be from out side the Institution and not head of the same institution to maintain the independence of the committee.
- The member secretary should be from the same institution and should conduct the business of the committee.
- Other members should be a mix of Medical/ non-medical, scientific and non scientific persons including lay persons to represent the different point of view.

The Composition may be as follows:
1. Chairperson (from outside institution)
2. One- two clinician form various institutions
3. One-two person from basic medical science area.
4. One legal expert or retire Judge
5. One social scientist/representative of non governmental voluntary agency
6. One philosopher/theologist
7. One lay person form the community
8. Member secretary

Terms of Reference

It should includes
- Appointment with reference to the duration of term.
- The policy for removal
- Replacement
- Resignation Procedure frequency of meetings
- Payment of processing fee to the IEC for review
- Honorarium/ Consultancy to the members invited experts etc.

These should be SOP standard operative procedures which should be made available to each member. Every IEC should have its own written SOPs according to which committee should function. The SOPs should be updated periodically based on changing requirements

Training
The EC members should be encouraged to keep abreast of all national and international development in ethics through orientation course on related topics by it’s own members, regular training organized by constituted body so that they become aware of there role and responsibilities.

Regulation
Legislation of guidelines proposed bill which is currently under active consideration by the Ministry of Health. Which
would require that all IEC’s register with this authority? It will also evaluate and monitor functioning of the IEC’s and develop mechanism for enforcing accountability and transparency by instructions.

**Monitoring**

Once I.E.C gives a certificate of approval, it is the duty of the I.E.C to monitor the approved studies.

- Actual site visits can be made especially in the event of reporting of adverse events of violation of human rights.
- Additionally, periodic status reports must be asked for at appropriate intervals based on the safety concerns.
- It should be specified in the standard operating procedures of the institutional ethics committee.

**Record Keeping**

All documentation and communication of I.E.C are to be dated filed and preserved according to written procedures. Strict confidentiality is to be maintained during access and retrieval procedures. The following records should be maintained.

- The constitution and composition of the IEC.
- Signed and dated copies of the latest curricular vitae of all IEC members with record of training if any.
- Standing operating procedures of the IEC.
- National and international guidelines.
- Copies of protocols submitted for review.
- All correspondence with IEC members and investigators regarding application decision and follow up.
- Minutes of all IEC meeting with signatures of the chair person.
- Copies of decisions communicated to the applicant.
- Records of all notifications issued for premature termination of the study with summary of the reasons.
- Final report of the study including microfilm, CD’s and Video recording.

It is recommended that all records must be safely maintained after the completion/termination of the study for a period of 3 year if it is not possible to maintain the same for more than that due to recourse crunch and lack of infrastructure.

**Administration and Management**

A full time secretariat and space for keeping records is required for a well functioning IEC.

- The members could be given a reasonable compensation for the time spared for reviewing the proposal.
- Every Institution should allocate reasonable amount of funds for smooth functioning of the IEC.
- A reasonable fee can be changed to cover for the expenses related to the review and administrative processes.

**Special Considerations**

There are certain specific concerns per training to specialized areas of research which require additional safeguards/ protections and specific considerations for the IEC to take note of e.g. research involving children, pregnant and lactating women and vulnerable participants.

**Conclusion**

The possible drawback of qualitative research guideline may be over perspective inadequate or impractical. How ever it is maintain for the following reasons. Unlike social Sciences, many health services researcher are not trained in philosophical and political aspect of research so may require more guidance on the ethical issue. In addition there is growing anecdotal evidence, both locally and internationally that researcher and ethics committees have difficulty judging the ethical soundness of qualitative project in health services research finally although it is often assumed that involvement in qualitative research is relatively harmless, the actual risk to participant is unknown.

No researcher can have even small piece of information for research purpose without the informed written consent of the respondents one has to conduct research by including all the principles applicable to research and by building ethics into the design of the study at all stages right from the selection of problem till the writing report and completion of study.

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Effectiveness of Discharge Counseling on Compliance and Problems of Patients who have Undergone Heart Valve Replacement

Ramya K R1, G R Andrews2
1Lecturer, Shri Guru Ram Dass College of Nursing, Canal Colony Road, Hoshiarpur, 2Lecturer, College of Nursing All India Institute of Medical Sciences, New Delhi

Abstract
Heart valve surgery is in no way unique in the respect that treatment aimed to improve patient status, may also lead to consequences which can result in the opposite. Whatever the method used, all surgical intervention in the heart valve disease will influence the patient’s quality of life. This randomized control trial was undertaken to evaluate the effectiveness of discharge counseling on improving the compliance and decreasing the problems of patients who have undergone mechanical heart valve replacement. Total 60 patients were studied during June-December 2008. The two groups were homogenous with regard to all demographic and clinical variables. Findings revealed that one to one discharge counseling is effective in increasing the compliance and decreasing the problems after mechanical heart valve replacement as compared to routine care. Hence a protocol should be developed regarding discharge counseling and the nursing personnel working in the cardiothoracic surgery unit need to be trained to provide discharge counseling to patients undergoing heart valve replacement.

Key Words
Heart Valve Replacement, Problems, compliance, discharge counseling.

Introduction
Rheumatic fever and rheumatic heart disease present a problem in all parts of the world, especially in the developing countries. Rheumatic fever often leads to rheumatic heart disease (RHD) which is a crippling disease. The consequences of RHD include continuing damage to the heart, increasing disabilities, repeated hospitalization, and premature death. RHD is one of the most readily preventable chronic diseases. In India, RHD is prevalent in the range of 5-7 per thousand in 5-15 years of age group and there are about 1 million RHD cases in India. RHD constitutes 20 to 30 percent of hospital admissions due to cardiovascular disease in India. A large proportion of affected individuals require valve surgery within 5-10 years. Heart valve surgery is in no way unique in the respect that treatment aimed to improve patient status, may also lead to consequences which can result in the opposite. The ideal substitute for native heart valve has not yet been taken into clinical use. Whatever the method used, all surgical intervention in the heart valve disease will influence the patient’s quality of life. Chronic anticoagulation seems to be mandatory in patients with mechanical heart valve regardless of the valve design and material used. Attempts to manage these patients have resulted in unacceptable rates of valve thrombosis, embolic complications, and bleeding and adequate treatment seems to be of great importance. Patients on anticoagulation therapy are sometimes advised not to alter food habits, avoid alcohol intake and alteration in physical activity, because they may well influence the anticoagulation therapy. Mechanical failure is a well known complication of both mechanical artificial heart valves. Endocarditis is a serious life threatening infection of the heart. Patients with valvular diseases and prosthetic valves are at increased risk for endocarditis. All patients with rheumatic heart disease are advised to have prophylaxis against further attacks. In case of young females, if pregnancy is anticipated in future, it should be discussed because oral anticoagulation during pregnancy may cause neurological or skeletal/facial abnormalities of the fetus.

Although some kind of health education in the form of discharge teaching are very commonly given to patients before getting discharged from the hospital after surgery; no formal study has been reported from India for comparing the effect of discharge counseling on compliance and problems of patients who have undergone heart valve replacement.

Objective
To evaluate the effectiveness of discharge counseling on compliance and problems of patients who have undergone heart valve replacement.

Methodology
This randomized control trial was conducted in the cardiothoracic wards of cardiothoracic vascular center department of AIIMS (All India Institute of Medical Sciences) New Delhi using a post test only design during June-December 2008. It is a tertiary care hospital and reference centre with a bed strength of 2424 which provides medical, nursing, paramedical education, patient care and research par excellence. The department of CTVS is an independent department which has acquired the status of centre of excellence in the field of neonatal paediatric and adult cardiac surgeries. After random assignment out of 60 purposively selected patients’ 30 each in experimental and control group. Both genders, who had undergone mechanical heart valve replacement, above 18 years and who willing to participate in the study were included in the study. But patients who can’t give an adequate response to discharge counseling were excluded from the study.

A demographic data sheet clinical data sheet and a self reported checklist to assess the compliance and problems of patient who had undergone heart valve replacement were the tool of the study, which were developed after thorough review of literature. Validity was established by seeking opinion of 5 experts from the field of nursing education practice, cardiology and cardiovascular surgery. An inter rater reliability was established and feasible. After collecting demographic and clinical data in both the groups structured one to one discharge counseling was given to experimental group at the time of discharge in addition to the routine care.
and routine care was given to control group. The compliance and problems were assessed in both the groups at day 10, 1 month, 3 months after discharge. Collected data were analyzed by using descriptive and inferential statistics. Ethical clearance was obtained from the Ethics committee of AIIMS, New Delhi and informed written consent was obtained the patient and relatives.

Results

Findings of the present study revealed that there was no statistically significant difference among the experimental and control groups in terms of their age, gender, education, marital status, income, area of living, previous surgery, type of surgery, previous history of endocarditis. Hence both groups were homogenous with regard to the demographic and clinical variables.

In both groups majority of the patients were males 80% in interventional and 63.3% in control group. As far as the educational status of the subjects is concerned, 23.33% were graduates/post graduates in the experimental group and 20% in the control group. 36.67% of them had completed their secondary education in both the groups. Subjects who had completed their secondary education were 36.67% in both of the groups. 3.33% of the subjects were illiterates in the experimental group and 6.67% of them in the control group. Amongst the subjects 70% in the experimental group and 46.67% in the control group were married. 30% in the experimental group and 53.33% in the control group were single. In the experimental group 6.7% had their income less than Rs. 2500 and none in the control group. In the experimental group 10% and 16.67% in the control group were having their income in the range of Rs 2501-5000. 66.67% of the subjects in experimental group and 56.67% in control group earned between Rs 5001-10000. 16.7% in the experimental group and 26.67% in the control group had their income more than 10000. Amongst the subjects, 90% in experimental group and 73.33% in control group were living in rural area. In both the groups majority of patients had no history of any previous surgery. (experimental group 90% and control group 93.33%). In both groups majority of the patients had undergone mitral valve replacement (46.7% in the experimental and 43.3% in the control group) followed by double valve replacement (9% in each the experimental and control group) and aortic valve replacement (23.3% in the experimental and 26.7% in the control group). In both groups majority of the patients had no history of endocarditis (90% in the interventional and 96.67% in the control group).

Age of the subjects ranged from 18 to 43 years in the interventional group and 18 to 57 years in the control group. Mean age of the patients in interventional group and control group were 30.67 years and 29.07 years respectively. The mean duration of illness in interventional group was 6.47 years and that of control group was 6.67 years (Table2).

Table 1: Demographic and clinical profile of subjects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Experimental group</th>
<th>Control group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>24 (80)</td>
<td>19 (63.3)</td>
<td>.152</td>
</tr>
<tr>
<td>Female</td>
<td>6 (20)</td>
<td>11 (37.3)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>1 (3.3)</td>
<td>2 (6.67)</td>
<td>1</td>
</tr>
<tr>
<td>Up to 10th</td>
<td>11 (36.67)</td>
<td>11 (36.67)</td>
<td></td>
</tr>
<tr>
<td>10-12th</td>
<td>11 (36.67)</td>
<td>11 (36.67)</td>
<td></td>
</tr>
<tr>
<td>Graduation/PG</td>
<td>7 (23.3)</td>
<td>6 (20)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>21 (70)</td>
<td>14 (46.7)</td>
<td>.067</td>
</tr>
<tr>
<td>Single</td>
<td>9 (30)</td>
<td>16 (53.3)</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 2500</td>
<td>2 (6.7)</td>
<td>0 (0)</td>
<td>.344</td>
</tr>
<tr>
<td>2500-5000</td>
<td>3 (10)</td>
<td>5 (16.7)</td>
<td></td>
</tr>
<tr>
<td>5001-10000</td>
<td>20 (66.7)</td>
<td>17 (56.67)</td>
<td></td>
</tr>
<tr>
<td>&gt; 10001</td>
<td>5 (16.67)</td>
<td>8 (26.7)</td>
<td></td>
</tr>
<tr>
<td>Area of living</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>27 (90)</td>
<td>22 (73.3)</td>
<td>.181</td>
</tr>
<tr>
<td>Urban</td>
<td>3 (10)</td>
<td>8 (26.7)</td>
<td></td>
</tr>
<tr>
<td>Previous surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>29 (96.7)</td>
<td>28 (93.3)</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>1 (3.3)</td>
<td>2 (6.7)</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>26 (86.7)</td>
<td>16 (53.3)</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>3 (10)</td>
<td>9 (30)</td>
<td></td>
</tr>
<tr>
<td>Endocarditis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3 (10)</td>
<td>1 (3.3)</td>
<td>.612</td>
</tr>
<tr>
<td>No</td>
<td>27 (90)</td>
<td>29 (96.7)</td>
<td></td>
</tr>
<tr>
<td>Type of surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVR</td>
<td>14 (46.7)</td>
<td>13 (43.3)</td>
<td>.949</td>
</tr>
<tr>
<td>AVR</td>
<td>7 (23.3)</td>
<td>8 (26.7)</td>
<td></td>
</tr>
<tr>
<td>DVR</td>
<td>9 (30)</td>
<td>9 (30)</td>
<td></td>
</tr>
</tbody>
</table>

At day 10 there was 100% compliance in the interventional group where as the compliance was only 86.67% in the control (routine care) group. At the end of 1 month 93.33% of the subjects were compliant in the experimental group, while only 80% in the control group. By 3 months 96.67% in the experimental group remained compliant while 80% in the control group (Table3).

Table 2: Distribution of subjects according to age and duration of illness

<table>
<thead>
<tr>
<th>Variables</th>
<th>Experimental group</th>
<th>Control group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>18-43</td>
<td>30.67</td>
<td>.293</td>
</tr>
<tr>
<td>Duration (years)</td>
<td>1-16</td>
<td>6.47</td>
<td>.4731</td>
</tr>
</tbody>
</table>

Table 3: Compliance after heart valve replacement in experimental and control groups (10th day, 1 month, 3 months)

<table>
<thead>
<tr>
<th>Compliance</th>
<th>Frequency (%)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O1 (10th day)</td>
<td>30 (100)</td>
<td></td>
</tr>
<tr>
<td>O2 (1 month)</td>
<td>28 (93.33)</td>
<td></td>
</tr>
<tr>
<td>O3 (3 months)</td>
<td>29 (96.67)</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=30</td>
<td>26 (86.67)</td>
<td>.112</td>
</tr>
<tr>
<td>24 (80)</td>
<td>.254</td>
<td></td>
</tr>
<tr>
<td>24 (80)</td>
<td>.103</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 depicts group differences in problems at 3 months follow up. 3.33% of patients in the control group and none of them in the experimental group developed pericardial effusion. 3.33% in the experimental group and 6.67% in the control group developed wound infection. In the control
group 3.33 % had thromboembolic episode and prosthetic valve thrombosis while none of them in the experimental group (Table 4)

**Table 4:** Problems after heart valve replacement in experimental and control groups  

<table>
<thead>
<tr>
<th>Problems</th>
<th>Frequency %</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental group N=30</td>
<td>Control group N=30</td>
</tr>
<tr>
<td>Pericardial effusion</td>
<td>No: 30(100) 29(96.67)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Yes: 0 1(3.33)</td>
<td></td>
</tr>
<tr>
<td>Wound infection</td>
<td>No: 29(96.67) 28(93.33)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Yes: 1(3.33) 2(6.67)</td>
<td></td>
</tr>
<tr>
<td>Thromboembolic episode</td>
<td>No: 30(100) 29(96.67)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Yes: 0 1(3.33)</td>
<td></td>
</tr>
<tr>
<td>Prosthetic valve thrombosis</td>
<td>No: 30(100) 29(96.67)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Yes: 0 1(3.33)</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

Both experimental and control group were homogenous with regard to demographic and clinical variables in terms of their age gender education marital status income and duration of illness. Analysis revealed that patient targeted one to one discharge delivered at the time of discharge improved the compliance and decreased the problems when compared to routine care, of patients who had undergone mechanical heart valve replacement although it was not statistically significant, perhaps because of the small sample size of patients followed up. Marshall J et al (1986) studied the effectiveness of a structured teaching guide used by nurses in educating the patient and his family about normal postoperative recovery in patients who had coronary artery bypass surgery. Patients who had structured postoperative teaching walked more blocks after surgery and had higher total compliance scores than those patients who received routine teaching. A reduction in the incidence of problems was found in the subjects randomized to the experimental group when compared to controls (p > .05).

**Conclusion**

Delivering information following cardiac surgery is an essential task, not only to achieve a behavioral change and the development of patients’ self-care attitudes but also to reduce their anxiety, minimize complications. It is also essential to educate family members as they are the most important source of physical and emotional support following surgery. Since discharge counseling is effective a protocol can be developed regarding discharge counseling and training of the nursing personnel working in the cardiothoracic surgery unit need to be done to provide discharge counseling to patients undergoing heart valve replacement.

**References**

A Quasi-Experimental Study to assess the Effectiveness of Structured Teaching Programme on Prevention and Management of Pneumonia in Children among Mothers in Child Care Area of a Selected Hospital, Ludhiana, Punjab

Rimple Ericson
Associate Professor, Institute of Nursing Education, Guru Teg Bahadur Hospital, Model Town, Ludhiana

Abstract

The study was conducted to assess the effectiveness of structured teaching programme on prevention and management of pneumonia in children among mothers. The research approach adopted for this study is quantitative. Research Design used is Quasi experimental Non-Equivalent control group design. Study was done on mothers whose children were admitted in child care area of Christian Medical College and Hospital, Ludhiana, Punjab. A self structured questionnaire was prepared to assess knowledge of mothers regarding prevention and management of pneumonia in children. Pilot study was done on eight mothers to ensure reliability of the tool and feasibility of study. For final study purposive sampling was done to obtain a sample of 60 mothers- 30 in experimental and 30 in control group. To prevent contamination experimental group was taken from Paediatric Ward and Private Ward and control group was taken from Pediatric Surgical I.C.U and Postnatal Ward of the hospital. Before data collection, consent was taken from mothers regarding their participation in study. The purpose of study was explained to them and confidentiality was assured. Pre test was taken from both control and experimental group. Then self structured teaching was given to experimental group with the help of lesson plan and Audio-Visual aids. After 72 hours of teaching post test was taken from both experimental and control group. The data gathered were analyzed by calculating mean, mean percentage, SD and ‘t’ test. Chi square was calculated to match the variables. Results of the study proved that teaching programme was highly effective in enhancing the knowledge of mothers on prevention and management of pneumonia in children which will help them in child rearing, thereby reducing child mortality and morbidity.

Key Words
Structured teaching programme, pneumonia

Background of Study

"Most Widespread and Fatal of all Acute Diseases, Pneumonia is now Captain of Death of man"
(Sir William Osler 1901)

These words quoted by Sir William Osler in 1901 still hold true in the twenty first century, among the children of the developing World.

Children are certainly an asset for any country as the progress and all round development of a country fully depends on its children. It is unacceptable that 11 million children under the age of 5 I die each year in the world. Children are dying of measles and tetanus both of which can be prevented by simple vaccination. They are dying of pneumonia and malaria due to inaccessibility to medications that could have saved their lives. Acute respiratory infections (ARI), primarily pneumonia is the major cause of morbidity and mortality among children throughout the world. Pneumonia kills more children than any other illness, more then AIDS, malaria and measles combined. Approximately 2 million children under age of five in developing countries die each year from pneumonia accounting for about 1 in every 5 under five deaths. If deaths of neonates are also included then pneumonia would account for up to 29% or as many as 3 million under five deaths each year. Host and environmental factors such as age, sex, low birth weight, poor nutritional status, faulty feeding practices, air pollution from fuel burning and smoking can affect the risk for pneumonia in children. Furthermore socio-economic status, family factors, housing conditions may also influence the occurrence of these infections. Maternal smoking, inadequate breast feeding, upper respiratory infections in siblings or mother, severe malnutrition, cooking fuel other than LPG, inappropriate immunization for age and history of lower respiratory tract infection in family are known to increase the risk of Lower Respiratory Tract Infection in children. Modification of these factors can help significantly in reducing the incidence of pneumonia. Also early identification and appropriate treatment with antibiotics is of utmost importance in reducing deaths related to pneumonia.

Objectives

1. To assess pre test knowledge regarding prevention and management of pneumonia in children among mothers in control and experimental group.
2. To assess post test knowledge regarding prevention and management of pneumonia in children among mothers in control and experimental group.
3. To compare pre and post test knowledge regarding prevention and management of pneumonia in children among mothers in control and experimental group.
4. To find out the relationship of pre-test and post-test knowledge regarding prevention and management of pneumonia in children among mothers in control and experimental group.

Material and Methods

Conceptual framework for this study was developed on the basis of general systems theory given by Ludwig Von Bertalanffy (1968). The research approach adopted is quantitative. Research Design used is Quasi- experimental Non-Equivalent control group design:-

| Experimental Group | O1, X O2 |
| Control Group      | O1 - O2 |

The independent variables included in study are: Structured...
teaching programme, Age, Education of mother, Number of children, Occupation, Family income, Type of family, Mass Media Exposure. The dependent variable is knowledge score of mothers on prevention and management of pneumonia in children. After extensive review of literature a self-instructional questionnaire was prepared to assess the knowledge of mothers regarding prevention and management of pneumonia in children. The tool was given for validity to experts of pediatric nursing, psychiatric nursing, obstetric nursing, medical surgical nursing and community health nursing. As per their guidance amendments were made. The lesson plan was prepared for giving teaching to mothers on prevention and management of pneumonia in children.

The tool consisted of following 3 parts:

Part I: - Sample Characteristics- This part consists of 7 items for obtaining personal information about subjects such as age, education of mother, number of children, occupation, family income, type of family and mass media exposure.

Part II: - This part consists of structured multiple choice questions, to assess the knowledge of mothers related to prevention and management of pneumonia among children. Total numbers of items were 48.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Number of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Incidence</td>
<td>2</td>
</tr>
<tr>
<td>Risk factors</td>
<td>7</td>
</tr>
<tr>
<td>Causes</td>
<td>2</td>
</tr>
<tr>
<td>Mode of transmission</td>
<td>4</td>
</tr>
<tr>
<td>Sign &amp; Symptoms</td>
<td>6</td>
</tr>
<tr>
<td>Prevention</td>
<td>9</td>
</tr>
<tr>
<td>Management</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

Part III: This part consists of structured teaching programme on prevention and management of pneumonia.

The criterion measure used in the study was knowledge score of mothers on prevention and management of pneumonia in children. Total questions in tool were 48. One mark was given for correct answer and 0 for incorrect answer. Criterion measurement for assessment of knowledge is as follows:

- **Excellent** = ≥ 76 % (≥ 37)
- **Good** = 66-75 % (32-36)
- **Average** = 56-65 % (27-31)
- **Below Average** = ≤ 55 % (≤ 26)

Pilot study was done and reliability of structured questionnaire was computed by applying split half method using Karl Pearson’s coefficient of co-relation and Spearman’s Brown Prophecy formula. The reliability of the tool was found to be 84, hence the tool was reliable. Hypothesis in the study are as follows:

**H₁**: The post test knowledge score of mothers in experimental group regarding prevention and management of pneumonia among children will be significantly higher than knowledge score of mothers in control group as measured by self instructional questionnaire at p < 0.05 level.

**H₂**: There will be no difference between the post test knowledge score of mothers in experimental and control group regarding prevention and management of pneumonia in children as measured by self instructional questionnaire at p < 0.05 level.

The study was conducted in Child care area of Christian Medical College & Hospital Ludhiana, Punjab. The population comprised of mothers whose children (0-5 years of age) were admitted in child care area of the Hospital. Purposive sampling was done to include presumably typical group who is representative of the population under study. 60 mothers from child care area were selected. 30 mothers were kept in experimental group and 30 in control group. To prevent contamination experimental group was taken from Pediatric Ward and Gynecology Private Ward and control group was taken from Pediatric Surgical ICU and Postnatal Ward of Christian Medical College & Hospital Ludhiana, Punjab. Consent was taken from all the mothers for their participation in the study. Pre test was taken from both control and experimental group and thereafter structured teaching was given to only experimental group with the help of lesson plan and Audio Visual aids. The investigator spent 45 minutes to complete the teaching. After 72 hours of teaching Post test was taken from both the groups.

**Findings of Study**

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

**Section I: Demographic characteristics of sample.**

**Section II: Findings related to mean pre & post test knowledge score of mothers on prevention and management of pneumonia among children in control and experimental group.**

**Section III: To find out the relationship of mean pre and post test knowledge scores of mothers in control and experimental group with selected variables.**

**Table 1. Mean Pre and Post Test Knowledge Score regarding Prevention and Management of Pneumonia in Children among mothers in Control and Experimental group N=60**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre Test Mean</th>
<th>Pre Test Mean%</th>
<th>Post Test Mean</th>
<th>Post Test Mean%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>30</td>
<td>21.63</td>
<td>45.07</td>
<td>21.8</td>
<td>45.42</td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>22.5</td>
<td>46.88</td>
<td>34.33</td>
<td>71.53</td>
</tr>
</tbody>
</table>

Maximum Score = 48
Minimum Score = 0

Table 1 reveals that in control group, the mean pre test knowledge score was 21.63 and mean percentage was 45.07. Mean post test knowledge score was 21.8 and mean percentage was 45.42. In experimental group, the mean pre test knowledge score was 22.5 and mean percentage was 46.88; mean post test knowledge score was 34.33 and mean percentage was 71.53.

Table 2(A) reveals that in control group maximum mothers (66.67%) had below average knowledge score, their mean percent was 35.83. In experimental group the maximum mothers (60%) had below average knowledge score, their mean percentage was 35.53. None of the mothers in both control and experimental group had excellent knowledge.

Table 2 (B) shows that in control group maximum mothers (66.67%) had below average post test knowledge score (< 55%), their mean percentage was 36.15. In experimental group maximum mothers (43.33%) had excellent knowledge score (≥ 76%), their mean percentage was 85.09. Thus,
Structured teaching was effective in improving the knowledge of mothers on Prevention and Management of Pneumonia in Children.

### Table 2 (A)
Frequency and Percentage Distribution of Mothers According to Level of Pre Test Knowledge Regarding Prevention and Management of Pneumonia among Children in Control and Experimental Group.

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Control Group n = 30</th>
<th>Experimental Group n = 30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Score n</td>
<td>% Score n</td>
</tr>
<tr>
<td>Excellent (&gt;76)</td>
<td>37 ≥</td>
<td>13 ≥</td>
</tr>
<tr>
<td>Good (66-75)</td>
<td>32-36 4</td>
<td>31-36</td>
</tr>
<tr>
<td>Average (56-65)</td>
<td>27-31 6</td>
<td>30-31</td>
</tr>
<tr>
<td>Below Average (&lt;55)</td>
<td>20 26</td>
<td>20 26</td>
</tr>
</tbody>
</table>

Maximum Score = 48  
Minimum Score = 0

### Table 2 (B) Frequency and Percentage Distribution of Mothers According to Level of Post Test Knowledge Regarding Prevention and Management of Pneumonia among Children in Control and Experimental Group.

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Control Group n = 30</th>
<th>Experimental Group n = 30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Score n</td>
<td>% Score n</td>
</tr>
<tr>
<td>Excellent (&gt;76)</td>
<td>37 ≥</td>
<td>13 ≥</td>
</tr>
<tr>
<td>Good (66-75)</td>
<td>32-36 4</td>
<td>31-36</td>
</tr>
<tr>
<td>Average (56-65)</td>
<td>27-31 6</td>
<td>30-31</td>
</tr>
<tr>
<td>Below Average (&lt;55)</td>
<td>20 26</td>
<td>20 26</td>
</tr>
</tbody>
</table>

Maximum Score = 48  
Minimum Score = 0

### Table 3. Comparison of Mean Pre and Post Test Knowledge Score of Mothers Regarding Prevention and Management of Pneumonia among Children in Control and Experimental Group.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>n</th>
<th>PRE TEST</th>
<th>POST TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean %</td>
<td>S.D</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>22.13</td>
<td>45.07</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>30</td>
<td>22.5</td>
<td>71.53</td>
</tr>
<tr>
<td>Group</td>
<td>30</td>
<td>22.5</td>
<td>46.88</td>
</tr>
<tr>
<td>a+b</td>
<td>58</td>
<td>0.40 NS</td>
<td>6.05 NS</td>
</tr>
</tbody>
</table>

Table 3 shows that in control group mean pre test knowledge score was 21.63, mean percentage was 45.07 and mean post test knowledge score was 21.8, mean percentage was 45.42. The difference between mean pre and post test knowledge score of control group was statistically non significant at p<0.05 level. In experimental group, the mean pre test knowledge score was 22.5, mean percentage was 46.88 and mean post test knowledge score was 34.33, mean percentage was 71.53. The difference between mean pre and post test knowledge score of experimental group was statistically highly significant at p<0.001 level. Hence null hypothesis was rejected and research hypothesis was accepted.

There was statistically significant effect of Age, Level of Education, Occupation, Family Income and Mass Media Exposure on mother’s knowledge regarding prevention and management of pneumonia among children. There was no statistically significant effect of Number of children and Type of Family on mother’s knowledge regarding prevention and management of pneumonia among children.
management of pneumonia among children.

**Conclusion**

Findings of this study reveal that mothers lack knowledge related to prevention and management of pneumonia in children. The strategy for dealing with Acute Respiratory Infection is effective case management and getting community informed about respiratory infections through health education. Health education can play crucial role in reducing enormous morbidity and mortality due to Acute Respiratory Infection in children. There should be nationwide network of health education programmes on prevention and management of common childhood illnesses like pneumonia so that people become aware of the causes, early identification, prevention and management of these illnesses. Also curriculum for all levels of nursing students should lay stress on common childhood illnesses, their prevention and management. The community health nursing curriculum should provide opportunities to students for conducting formal and informal teaching sessions for people so that awareness can be created among them regarding illnesses which are preventable, but due to ignorance result in high mortality and morbidity in children.

**References**

Effectiveness of Skin Tap Technique in Reducing Pain Response

Rose Mary Jose¹, Sulochana B², Sheela Shetty³
¹MSc(N)2nd Year student, Child, ²MSc (N),Assistant Professor, Department of Medical Surgical, ³Lecturer, Department of Child Health Nursing, Manipal College of Nursing, Manipal University, Manipal

Abstract

Skin tapping is an effective technique for reduction of pain response during injection. The present study used this technique during DPT injection. A post test only control group design was adopted for the study. The sampling design was purposive sampling with random allocation of treatment using chit method with non replacement technique. The sample size was sixty; thirty each in experimental and control group. The study revealed that the pain response was less in experimental group. Majority, i.e. 24 (80%) of the infants in experimental group had mild pain whereas only 5(16.66%) of the infants in control group experienced mild pain. Independent t test was done to establish the effectiveness of skin tap technique. The t value was found to be 7.401 at p<0.001. It also revealed the association between the pain scores and selected variables like gender and weight of the child. The +2 value for gender was 0.033 and weight was 3.032 in experimental group while it was 1.356 for gender and 9.710 for weight in control group. The study concluded that the pain scores in experimental group was independent of the selected variables such as gender and weight, while gender was independent and weight was dependent in control group.

Keywords

Skin tapping, pain response, infants, DPT injection

Introduction

Immunization is an important part of health promotion and disease prevention strategy for all children. One of the most dramatic advances in pediatrics has been the decline of infectious diseases during the twentieth century because of the widespread use of immunization for preventable diseases. Despite recent advances in the assessment and management of acute pediatric pain, outlined in the clinical practice guidelines of the Agency for Healthcare Policy and Research (AHCPR), children continue to be subjected to pain and distress during immunization. The children who attended the immunization clinics showed behavioral responses to pain during immunization. Many children receive immunization with little or no formal attempt at reducing the fear and pain associated with the procedure. The reasons given for this by healthcare professionals are that immunizations are not painful and any intervention would be time consuming to be practical in busy settings. So the investigator felt the need that skin tapping should be cheap, effective in a number of settings requires little training, less time consuming so that it can be used in a busy setting and has a number of theoretical sound reasons for why it should work.

Statement of the problem

“A study to assess the effectiveness of skin tap technique on pain response during Diphtheria Pertussis Tetanus (DPT) injection among infants in various Rural Maternal and Child Welfare Centres of Kasturba Medical College, Manipal”

Conceptual Framework

The conceptual framework for the study was based on Gate Control Theory of Pain by Melzack & Wall.

Skin tap technique

Skin tap technique means tapping the skin with the finger pads of the dominant hand to relax the muscle. The immunization site i.e. left vastus lateralis; was tapped for a duration of two minutes before immunization, and during and after immunization, the area above the site was tapped for a duration of one minute. To maintain synchrony, the investigator counts one, two and on the count of three, the needle will be inserted.

Research Methodology

An evaluative approach was adopted to find the effectiveness of skin tap technique during DPT injection. The research design adopted for the study was quasi experimental post-test only control group design. The research hypothesis under the study was the following:

H₀: There will be significant difference between the pain experienced by infants in experimental and control group.

H₁: There will be a significant association of pain response experienced by infants in experimental and control group with selected variables such as weight and gender.

The sampling design was purposive sampling with random allocation of treatment using chit method with non replacement technique. The sample size was sixty; thirty each in experimental and control group. Researcher developed demographic proforma and Behavioral observation pain scale for the purpose of data collection. The pain scale had ten items and each had a score 0, 1 and 2. The scores were interpreted as mild (0 to 7), moderate (8 to 14) and severe (15 to 20) pain.

The samples were selected based on the inclusion criteria. The subjects were randomly assigned to the experimental and control group. In the experimental group, all the mothers were explained regarding the skin tapping procedure. Skin tapping was a technique where the immunization site was tapped for duration of two minutes before immunization, and during and after immunization, the area above the site was tapped for duration of one minute. To maintain synchrony, the investigator counted one, two and on the count of three, the needle was inserted.

The control group was not given any intervention and the response of the child was checked with the pain scale.
Findings

1. Sample characteristics of the infant. Among the infants participated in the study, all were 14 weeks old and had previous exposure to injection. With regard to the gender, majority 16 (53.33% in experimental group) were females and 19 (63.33% in control group) were males. All children 30 (100%) in both the experimental and the control group had a previous exposure to injections; whilst infants with any exposure to injection other than routine immunization was 1 (3.34%) in the experimental and 2 (6.67%) in the control group. The child’s response to recent past injection was minimal cry which accounted for maximum of 26 (86.67%) in experimental group and 25 (83.33%) in the control. With regard to the weight, 24 (80%) in experimental group and 17 (56.7%) in control group and were within the birth weight of 5.00 - 5.49 kg.

2. Effectiveness of skin tapping on pain response of infants. It was found that skin tapping was effective in reducing the pain response to DPT injection in infants. Majority 24 (80%) of the infants in experimental group had mild pain whereas only 5 (16.66%) of the infants in control group experienced mild pain. The mean difference between the pain scores in the experimental and control groups was 4.63. The t value was found to be 7.401 at p<0.001. The data is represented in table 1.

1. Association between the pain scores and selected variablesThe researcher concluded that the pain scores in experimental group were independent of weight and gender. The pain scores in control group were dependent on weight while independent on gender. The data is presented in table 2.

Table 1: Mean, standard deviation, mean difference, t value and p value of Behavioral Observation Pain Scale in the experimental and the control group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean difference</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>7.50</td>
<td>2.097</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control group</td>
<td>12.13</td>
<td>2.713</td>
<td>4.63</td>
<td>7.401</td>
<td>&lt;0.001*</td>
</tr>
</tbody>
</table>

Significant at 0.05 level

Table 2. Chi-square values computed between pain scores and selected variables in the experimental group n=60(30+30)

<table>
<thead>
<tr>
<th>Selected variables</th>
<th>Severity of pain</th>
<th>Moderate and severe pain</th>
<th>Chi–square value</th>
<th>df</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>EG</td>
<td>CG</td>
<td>EG</td>
<td>CG</td>
<td>EG</td>
</tr>
<tr>
<td>Male</td>
<td>1113</td>
<td>23</td>
<td>33</td>
<td>1708</td>
<td>0.033</td>
</tr>
<tr>
<td>Female</td>
<td>186</td>
<td>05</td>
<td>60</td>
<td>1708</td>
<td>3.032</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

Discussion

The analysis of the data suggested that, skin tapping significantly reduced the pain response to DPT injection. The study is giving an encouraging result which shows that training and education of non pharmacologic methods for pain management can effectively be undertaken to help nurses work effectively.

Studies by various researchers showed that the skin tapping has decreased the pain response during injection.6,7. There should be policies developed to assess the pain experienced by the infants during immunization injections and an effective measure has to be used to minimize the pain and its consequences. The student should also be provided opportunity to develop and validate the various tools for pain assessment.

Studies have shown that there is no association of pain response with variables such as gender and weight; however the present study reveals that there is a statistically significant relationship between pain response and weight in control group.

Conclusion

The study concludes that the skin tapping was effective in improving pain response during DPT injection among infants. The study recommends application of this technique to nursing practice to minimize the pain experienced by the child whom they are taking care of.

References

The Teaching Learning Process and Its Requisites

Rozina Somani
Student, Masters of Science in Nursing Student, The Aga Khan University School of Nursing, Karachi, Pakistan

Abstract

My philosophy regarding teaching learning process revolves around the profound belief that education is a process of artful doing where teaching learning practice is viewed as design and knowledge is viewed as colors. Teaching learning process must have flexibility. It provides an opportunity to the learners to learn things according to their own interest and requirement. In my view, teaching learning process must encourage students to think critically, search and explore things by themselves instead of being passive recipient of knowledge in class and regurgitate knowledge in the exams. Crucial responsibility of teachers is to inculcate knowledge, wisdom of learning, and prepare students for their actual professional life. I believe that, virtual teaching learning environment enables students to meet the challenges of highly competitive and technological world. Based on my teaching learning philosophy, I can recommend the required change in my immediate surrounding but I believe that without power, authority, and administrative position, it is very challenging to bring about change at a larger level.

Key Words
Teaching learning process, Academic Environment, Self directed learning, Experiential learning, Effective facilitation

Introduction

When I was a child, I loved playing teacher-teacher; I always fought to become a teacher in the game. It was an exciting exercise to play this game; my friends and I always waited for the time to meet and enjoy this game. We loved classroom, school and the teaching and learning process. We grew up, began formal schooling, and met teachers who used to worry for the completion of the text and the curriculum. Our major learning process involved memorization of facts and regurgitation of the same in the assessment. Learning wasn’t a fun anymore, the reality was so different from the childhood game; gradually I began hating the classrooms, teaching and learning, exams, and the role of a teacher.

Time passed on, I graduated from school and college with the experiences nothing different than described above. Surprisingly, I became highly sensitive, reflective and critical for those approaches; somewhere in the corner of my heart I wanted to work against those practices but I was aware that it is not very easy to change the system. I found myself in a very critical situation; on one hand I had the zeal to work towards the underlying teaching philosophy growing in my heart whereas, on the other hand there was a big challenge of bringing about change in the education system.

Today, I am in a position to work towards practicing my teaching philosophy which came out from the assertion of John Dewey (1929) who decisively articulates that the social context of the child greatly affects child’s reflective ability and thus his or her education. As a nurse educator, I have had an opportunity to educate a wider group of students and to enable them to critically reflect on what they are doing and why they are doing. I consciously integrate theories with real practical situations. I motivate them to learn instead of memorizing facts. This conscious effort is a step towards my teaching philosophy. Below I share my beliefs and underlying principles of the key terms.

Teaching and Learning Process

My philosophy regarding teaching learning process revolves around the profound belief of Duke (1990). Education is a process of artful doing where teaching learning practice is viewed as a design and knowledge is viewed as colors. Unless and until both the knowledge and the teaching skills do not combine, we cannot achieve our goal. I believe that, there are certain responsibilities of educators for making teaching learning process effective for learners. First of all, we as educators have distinct responsibility to create the difference between information versus knowledge, and education versus training. Education with knowledge is a lifelong process; effective teaching learning process enables learners to achieve this goal. In my view, teaching learning process must encourage students to think critically, search and explore things by themselves instead of being passive recipient of knowledge in the class and regurgitating knowledge in the exams.

I strongly believe that, teaching learning is a meaning making process where theories are converted into practical experiences instead of memorizing facts which are understood only for the immediate context.

My second philosophical assertion regarding teaching learning process is based on the assertion given by Santrock (2008). Teaching learning process must have flexibility; it provides an opportunity for the learners to learn things according to their own interest and requirement. I have not experienced this kind of freedom throughout my professional life. We all are running after the curriculum and assessments. Though, we emphasize a lot on how student’s learning can be enhanced but we hardly assess what students want to learn. We have set curricula and subjects; however, students’ involvement in planning curricula or during its implementation is usually ignored. I am acquainted with the challenges of students’ involvement in curriculum planning or implementation; however, I believe that following an already planned curriculum without any input from them is the biggest challenge that the students are facing at almost every academic setting.

Teachers

Teacher facilitates the transformation of learning. I strongly believe that this is the fundamental responsibility of the teachers by virtue of their role. A crucial responsibility of
teachers is to inculcate knowledge, wisdom of learning, and to prepare students for their professional life. They must enhance students’ learning by their own personal and professional experience. My belief about teachers totally changed when I joined diploma nursing. Before that, my assumption about teachers was that they have “the power of authority.” I still remember my primary classes where we used to shiver in front of our teachers. I still can sense the pin drop silence of my class in the presence of teachers. At that time, the only role of the teachers was to provide tons of information in the class and the role of students was to blindly accept all the information given by the teachers. It was believed that the more information the teacher provides to the students the better teacher he or she is; and the students who accepted all the information meekly were considered as good students. However, during my nursing education, I experienced that teachers are more like facilitators; they have reciprocal relationship with students. Here students’ competencies are built through exposing them to the academic controversies, debates, inquiry and critical dialogues to work towards achieving the overall goal of education. I really liked the inquiry based approach of the faculty such as encouraging search of information, engaging students in the process of analysis, synthesizing and evaluating the information, and preparing students to apply the knowledge in their immediate and larger surrounding.

This is also my philosophical belief that the overall aim of the teachers is to facilitate the learning of students instead of creating undue competitions among students. Teachers must understand that, each student has his or her own individual personality, they live in different environments, they encounter different circumstances. Therefore, the critical role of the teachers in academia is to promote students’ concentration, in order for them to move towards excellence and lifelong learning instead of momentary success.

Curriculum and Assessment

I deem that a curriculum needs to be culturally appropriate, contextually suitable and should meet the needs of the society. I am highly influenced with Tyler’s Rationale linear approach for curriculum planning. According to Tyler, the four big decisions that have to be made by the curriculum makers are in relation to the educational purposes, selection of learning experiences, organization of learning experiences, and evaluation of learning.² I strongly believe that each educator should think about the issues raised by Tyler for planning curriculum in any academic setting.

Moreover, I believe that assessment needs to be a learning exercise rather than a gate keeping practice. It has to be strongly linked with the aims of the curriculum, meeting the needs of individual intelligence and guiding the instructional practices of the educators.

Adult Learners

I believe that, students must be responsible for their own learning. I completely endorse with the three important assertions about students as an adult learner given by Knowles. The first assertion is that adult learners prefer self-direction in learning.³ My philosophy regarding students also revolves around this assertion that, student as adult learners need facilitation instead of spoon feeding. Being facilitator, it is our responsibility to create an environment which can foster students’ learning by sharing ideas and participating in self directed activities. According to second assertion given by Knowles, Adults bring personal experiences with them to the learning environment.³ I believe that the facilitator must value the experiences shared by the students in class and must encourage students to continue the sharing of such precious experiences. Experiential learning theories also articulate that learning based on experiences is more effective for learners.³ According to third assertion of Knowles, when adults enter the learning environment, they are ready to learn.³ My own philosophical assertion also supports this statement. Students enter in the learning environment with zeal and motivation, being facilitators it is our responsibility to provide them an opportunity for self growth and learning. Meanwhile, it is also students’ responsibility to take accountability of their own learning. They must have internal drive to learn and utilize learned experiences in real life.

Learning Environment

I believe that learning environment must be conducive for learners. Learning environment should enable students to promote self-directed learning. My philosophy regarding learning environment completely changed when I entered in Masters of Science in Nursing (MScN) program. Previously, I believed that the more knowledge of content is provided to the students, the more they learn; but in MScN program I have experienced that students’ learning enhances significantly with effective facilitation by the faculty. Continuous encouragement by the faculty really acts as an energizer for the students; it not only promotes students’ learning but it also guides them to apply learned concepts in real world.

In addition, with advancement in technology, education system is moving towards virtual learning environment. I believe that each education system must adopt certain level of advanced technology in teaching learning process. Virtual teaching learning environment enables the students to meet the challenges of highly competitive and technological world.

Conclusion

To conclude, I must assert that, my philosophy regarding teaching learning process, teachers, learners and learning environment have completely changed with the passage of time and especially when I joined MScN program. However, even after 25 years of struggle, still I do not feel myself capable enough to be the catalyst for change in the system at a larger level. Based on my teaching learning philosophy, I can emphasize for the required change in my immediate surrounding but I believe that without power, authority, and administrative position, anticipated change at a larger level seems very challenging. But I am extremely delighted that the imagination about school, teachers, and learning environment that I had in my distinct past, now I am experiencing the same pleasure in my present learning environment.

References

Abstract

Ethical and moral dilemmas are faced by nurses and other health care professionals very frequently. Nurses need to be adequately prepared for effective resolution of these dilemmas. Nurse educators need to focus more on the process of resolution, than stressing upon the right decision. Patricia Crisham’s MORAL model presents an organized way of resolving ethical dilemmas; MORAL model begins with ‘massaging the dilemma’, followed by ‘outlining options’ and ‘reviewing the ethical criteria’. The final stages of the model include ‘affirming a position and ACT’ and an opportunity to ‘look back’ at the entire process and its outcomes. The paper presents an ethical dilemma and its resolution through the MORAL model as an exemplar for nurse educators and nursing students. It is recommended that this model should be used in nursing education for teaching systematic resolution of ethical dilemmas, to the nurses.

Key Words
Ethical and moral dilemmas, MORAL model, Nursing education

Introduction

Health care professionals encounter ethical dilemmas in their day to practice. The challenge for them is to effectively resolve these dilemmas. In order for the practicing nurses to be competent in moral and ethical decision making, their preparation is important as part of basic nursing education. Unfortunately, some of the nursing educators stress more on finding the right solution, and miss onto the “process” of reaching to the right decision. Patricia Crisham has explored the subject in quite a depth and has proposed a model for the resolution of ethical dilemmas. The MORAL model by Crisham (1985) provides a systematic step by step process of exploring, analyzing and then resolving the ethical dilemmas; therefore this model is the most useful for teaching resolution of ethical dilemmas to nursing and medical students. This paper presents an ethical dilemma and its resolution through MORAL model, as an exemplar for the nursing educators and nursing students. MORAL model has been used in the paper for the analysis of the issue, whereby the author will massage the dilemma (M), outline Options (O), review criteria and resolve (R), affirm position and ACT (A), and look back (L).

Case Scenario

A 20 year old male, admitted to the Coronary Care Unit with the diagnosis of congenital cardiomyopathy. Patient had an ejection fraction of 5%, and used to have recurrent ventricular tachycardia, and ventricular fibrillation. For this purpose, an Implantable Cardioverter Defibrillator (ICD) was implanted in order to defibrillate the patient and to revert the cardiac rhythm to the normal, whenever needed. Patient used to get frequently hospitalized; his prognosis was poor. On one admission he requested the consultant to switch off his ICD as he was fed up with the immense pain that he had to bear 5-6 times each day, as a result of the ICD shocks. The physician discussed this with the family, but the family was not at all accepting this option, as they had already lost their elder son two years back, due to sudden cardiac death, and this was the precious child for the family.

Massaging the Dilemma

While massaging the dilemma, the persons involved in the scenario were identified. In this scenario, the decision maker was the family. Although the patient was an autonomous adult; however, due to cultural influence, family had taken up the role of paternalistic decision making. Both the patient’s and the family’s interest was invested in the scenario. Other people involved were doctors and nurses. There was an underlying conflict in patient’s and family’s wishes. The patient wanted to avoid suffering and pain from the ICD shocks and wanted a peaceful death, while the family wanted to save the life of their precious child at any cost. The ethical questions that arise out of this scenario are, whether we should consider the patient’s wish or the family’s wish? Whether we, as health care professionals, should switch off this patient’s ICD on his request, in order to give him a peaceful death or we should keep his ICD on, resulting in somewhat prolongation of his life, with pain and suffering? The ethical principles that are central to this situation are the principles of autonomy, paternalism, theory of consequentialism and deontology. The principles of autonomy and paternalism are in conflict with each other. Also, consequentialism is in disagreement with deontology. This particular scenario is an ethical dilemma because in this situation, two ethical principles are in conflict with each other and each suggests an equally considerable choice of decision. End of life issues whereby a decision has to be made regarding withdrawal of a specific life sustaining support, are not new to us. However, with the growing advances in medical technology several life sustaining treatments have emerged. ICD is one of those technical devices that have further increased our perplexity.

Outlining Options

Based on the conflict in patient’s and family’s wishes, two positions have been identified in order to resolve this issue. Position A states that “let the ICD remain on with all its resultant pain and suffering, but prolonging patient’s life”. While position B states that “switch the ICD off and let the patient die peacefully”.

An Approach to Teaching Resolution of Ethical Dilemmas
Saleema Allana
Student of Masters of Science Nursing (MScN) program, Aga Khan University School of Nursing, Karachi, Pakistan
Review the Criteria and Resolve

Support for Position A

Deontology. Deontology is referred to as responsibility based ethics that assumes an action to be right based on the observance of moral norms. Deontology supports position A i.e. keeping the ICD on, as switching it off will cause patient’s immediate death, and according to deontology it is against moral norms to take somebody’s life.

Paternalism

Paternalism is the deliberate superseding of a person’s decision by another individual, so as to benefit or to avoid harm for the person whose choices are superseded. In this case, patient’s wish of switching off the ICD and dying a peaceful death was overridden by his family. The family had overridden patient’s wish, because they wanted to benefit the patient by preserving his life. It is argued that family members are considered as morally appropriate substitute decision makers, who can make most accurate decisions for the patient, reflecting the patient’s own wishes.

Clinical Perspective

One of the traditional clinical perspectives asserts that the treatment that produces direct clinical effects such as reversal of normal heart beat is effective and should be continued. Since, ICD shocks produce direct clinical effects such as restoration of heartbeat, therefore this perspective supports that ICD should be kept on.

Support for Position B

Autonomy

The principle of autonomy supports position B i.e. to switch the ICD off and let the patient die peacefully because, in this case the patient is an autonomous individual who can act freely in accordance with a self-chosen plan. Also, he had attained the legal age for medical decision making i.e. 18 years. Since the patient was above 18, legally adult and autonomous individual with the capacity of rational decision making, therefore he had the right to decide for himself, and his decision that he had made for himself should be respected. Literature indicates that the patient’s family is often charged with emotions of impending loss and anticipatory grief, so they might not take the same decisions for the patient, reflecting the patient’s own wishes.

Consequentialism

The theory of consequentialism supposes that actions are right or wrong according to their good or bad consequences. Therefore, consequentialism will support position B i.e. switching the ICD off as it leads the patient towards a peaceful and pain free death, which is a relatively good consequence than a painful life with deteriorated quality.

Clinical perspective

The clinical perspective in support of position B indicates that the treatment which produces direct clinical effects but does not lead to meaningful quality of life should not be continued. In this case, the ICD shock produces direct clinical effect i.e. due to the ICD shock, patient’s heartbeat gets restored; however, it does not lead to meaningful quality of life. The ICD shocks do not improve patient’s ejection fraction (EF), the patient keeps on living with an EF of 5% only, experiencing severe shortness of breath on even mild activities, bearing immense pain of ICD shocks, and not being able to participate in activities of daily living. Therefore, this perspective supports position B i.e. switching the ICD off.

Affirm Position & ACT

Although position A is well supported by paternalism and deontology, and position B is well supported by autonomy and consequentialism; however, with respect to cultural considerations, in this scenario family’s paternalism outweighs patient’s autonomy; however, it is also unethical to keep patient in immense pain. Therefore, a third position i.e. position C needs to be sorted out in this case that balances the two positions. Therefore, the position C that was decided in the real scenario, in consultation with the family was to “keep the ICD on and to start narcotic therapy to relieve pain”, with the possibility of respiratory depression kept in mind. This way patient will not die hastily and the family will get more time to spend with their precious child, as well as he will also get pain relief. While addressing to the ACT part of MORAL model, the first ‘anticipated’ objection that could arise against position C could be, that by keeping the ICD on and not switching it off, we were trying to prevent patient’s death, but by initiating narcotic therapy with the possibility of resulting respiratory depression, we are again leading the patient towards death. The ‘clarification’ for this objection comes from the notion of ‘double effect’ of narcotic therapy. It is believed that by initiating narcotic therapy, we are not ourselves leading the patient towards death, rather it’s the double effect of narcotic therapy that is playing its part; however the use of narcotic is justified in this case because respiratory depression is a foreseen adverse effect of narcotic therapy, but the use of narcotics was based on purely good intention i.e. to relieve patient’s pain. The last part of ACT is to ‘test’ the choice by acting on it. The position that has been taken i.e. position C was actually implemented in the real scenario. In the real life situation, after 48 hrs of the initiation of narcotic therapy, patient suffered through respiratory depression, and due to poor prognosis family decided not to ventilate him and the patient expired.

Look Back

Looking back at the scenario, I realize that one of the most positive and satisfactory consequences of taking and implementing position C was the balance attained between fulfilling patient’s and family’s wishes. This resulted in a sense of immense satisfaction for all the health care professionals involved in the scenario. On the other hand, the consequence for the patient’s family was that initially they were anxious that the child had become drowsy after initiation of narcotics and he does not communicate well. Finally, after two days when they lost their precious child, it was really difficult for them to accept their son’s death, as they wanted to preserve his life at any cost. However, they were satisfied that their son got relief from all the pain and suffering that he went through and that they didn’t let their child die a sudden death by switching off the ICD, rather he died a gradual and less painful
Conclusion

In conclusion, balancing all the both possible options and collectively finding a mid way out is the key to resolve most ethical dilemmas, which is a real tough task and which requires a systematic approach for analysis; the MORAL model serves very well for this purpose. Application of the model to a real clinical scenario further clarifies the concepts related to the components of the model. Identifying and outlining the possible options is undoubtedly the most difficult step; however, after completely massaging the dilemma, it becomes easier to outline the options. The review of ethical, religious, and clinical perspectives in support of both the positions broadens the nurses’ horizon and helps them to choose the best option for the patient. The best part of the MORAL model is that it not only ends on selecting the best option rather it also urges to anticipate some of the possible objections against the selected position and to clarify those. Finally, it provides the opportunity to look back or reflect on the entire process of resolving the ethical dilemmas. Its success in teaching the resolution of ethical dilemmas has been proven; hence, nursing educators must use the MORAL model in their teaching practice.

References

Need for Faculty Development Programs for Nurse Educators

V.R.Selvaambigai¹, Sumathi Kumaraswami²
¹M.A., (Psy) M.Sc. (Nursing). PhD(Tutor) College of Nursing, JIPMER, Pondicherry, ²Dean. Vinayaka Missions Univeristy, Salem

Abstract

“The mind’s natural activity on the part of the learner and the intellectual guidance on the part of the nurse educator are both dynamic factors in education”. Teaching is laden with many educational challenges requiring a breadth of skills, to convey the knowledge. The task of teaching in general is complex and difficult. Fortunately a variety of faculty development programs have been developed to help the nurse educator play this difficult role. The goals for Faculty Development Programmes are twofold: to help prepare teachers in diverse settings to work with an effective and collaborative manner; and to enhance learning and practice. Several potential barriers can impede participation in teaching-improvement programs. Research has shown that faculty may underestimate both their own potential for improvement and the potential usefulness of programs. Empirical studies in evaluating many faculty-development programs proved that teachers rate the experience as useful, and they recommend their experience to colleagues that such programs can improve teachers’ knowledge, skills, and attitudes. Although this rationale for using faculty-development is fruitful, most faculties still have not participated in programs to improve teaching skills. Thus, even the best teacher can benefit from training. Some teachers are excellent without training; however, that fact should not diminish attempts to help all teachers be as effective as possible. The difficulty of teaching coupled with the evidence that educators can improve their role indicates the value of faculty-development programs.

Key Words

Teaching, Faculty Development Programmes, challenges

Introduction

“Education in an International Context “To be a teacher is to be a prophet: we are preparing students for a world that doesn’t yet exist. We have to look at features of today to predict tomorrow” - Peter Senge, 2002

Teaching is a demanding and complex task. George Miller observed, “It is curious that so many of our most important responsibilities are undertaken without significant preparation, Marriage, parenthood and teaching are probably most ubiquitous illustrations”. It is necessary for the present day teacher to be aware of and become part of far reaching changes that are taking place in education. The changes are shift from conventional role of teacher, changes in learning styles, innovative curriculum models and changes in Philosophy, methods and tools. Even with advanced education, exceptional experience, and reading the faculty handbook, a new layer of skill is needed to prepare fully for the faculty role.

Faculty development (FD) is a planned program to improve an individual’s Knowledge and skills in teaching, educational research and educational administration and to prepare institution and faculty members for their various roles in nursing education.

The goal of faculty development programs are

1. Change in individuals’ knowledge, understanding, behaviors, and skills - and in values and beliefs.
2. Keeping in touch with the recent trends in nursing education.
3. Launching new innovations in the field of nursing education.
4. Encourage them to develop both professional and personal skills as well as knowledge appropriate to their role.

Essential Faculty Development Concepts

1. Faculty development: focus is on improving the skills of nursing faculty
2. Traditional areas of faculty development: teaching, research, administration, written communication, computers and academic socialization
3. Different faculty may have different faculty development needs
4. Faculty development is not curriculm, instructional or organizational development
5. Our primary focus: improving the teaching skills of faculty who teach in community-based settings

Several potential barriers can impede participation in teaching-improvement programs.

1. Insufficient support from institutions,
2. Scarcity of research on teaching-improvement
3. Not allotting Time for faculty development-programs.
4. Work load of the nurse educator due to shortage of faculty
5. A tendency to underestimate the need for or potential benefits from a program,
6. A lack of belief in the utility of teaching skills
7. Belief that faculty development programme is unrelated to teaching excellence
8. Lack of knowledge about resources
9. Fully not aware of their teaching problems
10. Overestimate their teaching strengths
11. Knowledge alone is sufficient for teaching
12. Attitude as Existing skills are sufficient for excellent teaching.
13. Thinking that Training is unrelated to excellence

Faculty development process

It begins from the training of student teacher during their nursing course and selection of person for faculty role, Faculty development is an ongoing process.
Top Ten List of Lessons in Implementing Faculty Development Programs

10. A qualified, motivated faculty development project leader is the key.
9. Faculty development programs are developed with input from and approved by the faculty.
8. Expectations for participation in faculty development programs should be clear as well as consequences for non-participation.
7. Don’t re-invent the wheel: use the faculty development and literature consultants.
6. Faculty development is about time-on-task.
5. Start small and build upon success.
4. Conduct faculty development programs in a pleasant setting.
3. Don’t make faculty development a punishing experience.
2. Reward participation in faculty development activities.
1. Evaluate and publish the faculty development program results.

There is a strong link between the continuing development of the institute’s staff and the development of the institution. One of the undoubted strengths of the Institute is the skill and knowledge of the staff. Knowledge alone, however, does not ensure effective teaching, and students have experienced knowledgeable teachers who were not able to convey information effectively. It’s not only the responsibility of the faculty also the institution has to support for the development of faculty in multiple dimensions. Organization is intended to assist faculty in understanding and overcoming these barriers. The slogan for faculty development programmes is Team.

T – Together
E- Everyone
A -Achieve
M- More

Teacher is the second mother and mother is the first teacher, as a teacher have got vast responsibilities to perform the difficult role of teaching. Not only as an individual but as a team, the faculty role makes a meaning for teaching through faculty development programme.

Clearly, there is a relationship between the quality of the knowledge base and the ability to teach that knowledge base. The pressure of being observed as the teacher, the feeling that one “ought to know,” or the challenge of facing the more knowledgeable student can make teachers uncomfortable. However, teachers can use gaps in their knowledge as opportunities for stimulating others to learn. The practice of teaching is never finally mastered. New content, new learners, and new settings all challenge teachers to new growth. Individual faculty and institutions need to decide what type of faculty development program might be most useful. One teaching-improvement approach is unlikely to meet the needs of all teachers.

Effective faculty-development programs have the following characteristics.

- A systematic approach to specific faculty and specific faculty skills.
- A program that takes into account the workplace of the teachers.
- An integrated curriculum that emphasizes theory and practice.
- The opportunity for practice and feedback.
- A program that builds relationships between program faculty and participants and among participants.
- Knowledgeable and committed program faculty.
- Participants who are committed to the goals of the programs.
- A program to train more than one person from a setting.

Faculty may participate solely because of their interest but environmental support can enhance their dedication to teaching improvement. Faculty can examine whether the goals of the program are consistent with the goals of their organizations. Programs that conduct and respond to needs assessments of their participants will be more likely to succeed. Successful programs may have to create a need to learn by assisting faculty to identify unrecognized needs or opportunities to improve.

Thus, potential participants should examine a program not only to determine whether it addresses a perceived need, but also to see whether it has the potential of providing insight into yet unidentified areas for improvement. Teachers have extensive previous experience as students, and faculty that provides the basis for further learning about teaching. Successful programs use these characteristics constructively, building on participants’ experience.

References

2. Med India [Internet]. India to invest Rs 3 billion for nursing education; 2007 Sep 13 [cited 2009 Sep 15]. Available from: http://www.medindia.net/news/India-to-Invest-Rs3-Bn-for-Nursing-Education-26325-1.htm
A Descriptive Study to assess the awareness of the Women regarding Cervical Cancer

Sharanjit Kaur¹, Bhupinder Kaur²
¹Lecturer, ²Associate Professor, University College of Nursing, Faridkot, Punjab

Abstract

In most of the developing countries including India, carcinoma of the cervix is the most common malignancy in the females. But, it is the easiest female cancer to prevent through screening using pap smear if people are aware of its early prevention. Therefore, a study was conducted to assess the awareness of women regarding cervical cancer and its association with selected variables. In view of the nature of the problem a descriptive approach and non-experimental research design was chosen for the study. The conceptual framework of the study was based on Betty Newman’s Health system model. The study was conducted on a group of 300 women visiting Gynecology OPD of Guru Gobind Singh Medical College Hospital, Faridkot, Punjab. A self-structured interview schedule was used to assess the awareness of the women.

The findings of the study showed that 37.7% of the women had adequate awareness while 62.3% were inadequately aware of cervical cancer. By using pearson’s chi square as method of statistical analysis a significant association was found between awareness level of the women and their educational status, age at marriage, occupation, monthly family income, H/O menstrual disorder at p<0.05. This concluded that inspite of being the most common malignancy in the females, they are inadequately aware of it. Therefore awareness campaigns should be arranged to make the people aware of this dreadly but preventable disease.

Key Words

Cervical cancer, Incidence, Pap smear, Awareness.

Introduction

Cervical cancer is an important public health problem for adult women in developing countries, where it is the most or second most common cancer among women.¹ Developing countries accounted for 370,000 out of a total of 466,000 cases of cervical cancer that were estimated to occur in the world in the year 2000.² India, which accounts for one sixth of the world’s population, also bears one fifth of the world’s burden of cervical cancer.³ Its prevalence in India ranges between 20-50% of all genital tract malignancies⁴. Cervical cancer is reported to be responsible for almost 20 percent of all female deaths annually in India.⁴ In Punjab, Malwa region is cancer prone area and in Faridkot area cervical cancer accounts for about 20% of all female cancers⁵. It is the easiest female cancer to prevent through screening if people are aware of its early prevention. So far no such study to assess the awareness of the women regarding cervical cancer has been conducted in this cancer belt. Moreover the rising count of patients being diagnosed with cervical cancer made the investigator to take up this problem.

Therefore a descriptive study was undertaken in Gynaecology OPD of G.G.S. Medical College and Hospital, Faridkot (Punjab) to assess the awareness of the women regarding cervical cancer and to seek the association of cervical cancer and women’s awareness level with selected variables.

Material and methods

Keeping in view the nature of problem, Betty Neuman’s health care systems model was adopted for the study. This study was conducted on 300 women those who visited gynae OPD of GGS medical college hospital from December 2009 - Feb 2010. The women within the age group of 18-70 years, can understand Punjabi, Hindi or English and willing to participate were included in the study while those women who were too sick to respond were excluded.

Study approval was taken from Ethical committee of University college of Nursing, Faridkot. A written permission from medical superintendent and head of Obstetric and Gynaecology department of Guru Gobind Singh Medical College and Hospital, Faridkot was taken before launching the study.

Informed written consent had been taken from the study subjects. Self Structured interview schedule was used to collect necessary demographic data and information concerning cervical cancer. The tool was divided into two parts.

Part 1 (a): This part included demographic data of women about Age, Marital status, Age at marriage, Education, Parity, occupation, Socio Economic status, Religion, place of living, H/O menstrual disorders, H/O post coital bleeding and H/O STIs or HIV/AIDS.

Part 1 (b): This part consisted of 20 items to assess the awareness of women regarding cervical cancer. Each question had three responses yes, no and do not know. For correct response, the score was 1 and for incorrect response or do not know score was 0. So the maximum possible score was 20 and minimum possible score was 0.

Findings

Descriptive and inferential statistics mean, standard deviation, mean% and ÷² were calculated. The statistical analysis was done with the help of SPSS software version 14.0. The level of significance, <0.05 was selected for the study.

1. Findings related to awareness of women regarding cervical cancer.

Mean score of the study subjects was 8.09 (40.45%). Only 37.7% of the study subjects had adequate awareness regarding cervical cancer while 62.3% were inadequately aware. [Table 2(a), 2(b)]
Table 2 (a). Mean, SD and Mean percentage of the women's awareness regarding cervical cancer

<table>
<thead>
<tr>
<th>Awareness of cervical cancer</th>
<th>Mean score</th>
<th>SD</th>
<th>Mean percentage</th>
<th>Maximum obtained score</th>
<th>Minimum obtained score</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=300</td>
<td>8.09</td>
<td>3.68</td>
<td>40.45</td>
<td>16</td>
<td>1</td>
</tr>
</tbody>
</table>

Maximum possible score = 20
Minimum possible score = 0

2. Findings related to association of awareness of cervical cancer among women with selected variables

A statistically significant association was found between awareness level of the women with their educational status, occupation, age at marriage, monthly family income and H/O menstrual disorders.

Table 2 (b). Frequency, Range and Percentage distribution of level of awareness of women regarding cervical cancer

<table>
<thead>
<tr>
<th>Level of awareness</th>
<th>Range</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>50% and above, of maximum possible score (score ≥ 10)</td>
<td>113</td>
<td>37.7</td>
</tr>
<tr>
<td>Inadequate</td>
<td>&lt;50% of maximum possible score (score &lt; 10)</td>
<td>187</td>
<td>62.3</td>
</tr>
</tbody>
</table>

Maximum possible score = 20
Minimum possible score = 0

O menstrual disorders (Table 3) at p<0.05 but a statistically insignificant relationship was observed with age, religion, place of living, marital status, parity, any H/O Postcoital bleeding and Any H/O HIV/AIDS or STD.

Discussion

The present study showed that majority of the women 62.3% had inadequate awareness and 37.7% had adequate awareness regarding cervical cancer. The findings are consistent with other studies. Tebeu P M et al (2007) found 28% belonged to the “aware group” compared with 72% women who were in “unaware group” (U/G). Nwankwo K.C (2010) found 49.8% and Tricia S Tang (2008) 84% had inadequate awareness. In present study a significant association was found between awareness level of the women and their educational status, age at marriage, occupation, monthly family income, H/O menstrual disorder at p<0.05, The findings are consistent with Tebeu P M et al (2007) where The Unaware Group of women were illiterate, housewives, and had their first child before the age of 20 (P < 0.005), Nwankwo K.C (2010) The awareness significantly varied with the level of educational attainment (P < 0.0001). Obiechina NJ et al (2009) and Donders GG et al. (2008) There was significant association between the educational status and the knowledge of cervical cancer.

Conclusion

Here, this is to conclude that women are inadequately aware of cervical cancer and their awareness level is affected by their education, age at marriage and occupation. However the association with socio-economic status and H/O menstrual disorders needs to be further explored.

Acknowledgement

We thank head of the department and Medical superintendent G.G.S medical college hospital who allowed us to collect data. Statistician G.G.S Medical college, for his help in data analysis.

References

A Study to assess the Change in Attitude and Perceived Stress of Nursing Students during their First Mental Health Clinical Placement

Shiji Thomas¹, Chanu Bhattacharya²
¹Lecturer, ²HOD, Department of Psychiatric Nursing, Father Muller College of Nursing Kankanady P.O Mangalore

Abstract

Introduction

Initiation to the nursing world poses a major challenge to the fresh candidates like the quick transition from adolescence to adulthood and from being a laity to a professional. This is all the more true about students with no previous exposure to the mentally ill patients, especially as their worldview of the mentally sick is shaped by the misleading information or idea from the media, superstitious belief-systems and the existing social stigma about the mentally ill patients. Exposure to any concrete context will help change the attitude and reduce the stress. The aim of the present study is to assess the change in attitude and perceived stress of students during their first mental health clinical placement.

Objectives of the Study

• To Assess the Attitude and Perceived Stress of Student Nurses’ Towards the First Mental Health Clinical Placement
• To Assess the Change in Attitude and Perceived Stress of Student Nurses’ at the End of Their Clinical Placement.
• To Find the Relationship Between Attitude and the Perceived Stress of Student Nurses.

Results

The findings of the study revealed that the nursing students had neutral attitude and extreme stress before the clinical placement. There was significant difference in the attitude and perceived stress of nursing students before and after the mental health clinical placement (t₁₉⁹ = 1.66, P <0.05). The mean post placement attitude score (141.84) was greater than the mean pre-placement attitude score (107.68). The mean pre-placement perceived score (83.26) was higher than the mean post placement perceived stress score (50.75). There was a negative correlation between the attitude and perceived stress of nursing students. There was no association between the pre-placement attitude and selected demographic variables. The result showed that mental health clinical exposure had a positive effect in changing the attitude of nursing students and in alleviating the perceived stress.

Background of the Study

Nurses are the largest single group of healthcare providers. Over the years, professional nurses have shed their handmaiden role to become caregivers on the frontlines of health care. Nursing students have identified the first clinical experience as one of the most stress–producing components of their nursing program. When stress is too high, an individual is immobilized, perceptions are narrowed and learning is impeded. When nursing students are exposed to the psychiatric ward for the first time, they are faced with an ambivalent scenario as they are unequipped to deal with the mentally ill patients. Stress is a serious obstacle to successful mental health clinical functioning for nursing students.

Nursing as a profession is associated with high levels of occupational stress. The main causes of stress are related to relationships in the clinical environment, matching competence and responsibility, workload, and simultaneous clinical and academic demands.¹ The practice element of nursing has been enshrined as a central component of all nursing. Mental illness strikes with a double–edged sword. The superstitious beliefs regarding mental illness, the experiences shared by others, stigma towards mentally ill people, etc., are some of the factors which may produce stress in student nurses. As the study findings revealed health care professionals such as general nurses and general practitioners are not immune to these myths and stereotypical beliefs.²

Compared to other branches of nursing mental health nursing has its own merits and demerits. The attitude of the public towards the mentally ill patients, influence of media, stigma existing in the community, experiences shared by others, perceptions about mental illness, etc., will formulate a negative attitude in nursing students towards their first mental health clinical placement. If the students are entering the new situation without proper orientation and supportive supervisor, it will be stressful for them and build a negative attitude as well.

Sometimes students may be exposed to mentally ill patients without adequate knowledge on mental illness, or without experienced supervisor or without much knowledge on how to communicate with a mentally ill patient. These factors too cause stress to the student nurses. Clinical experience for nursing students is stressful. Concern about making an error and harming the patient, limited knowledge and skills for practice and difficulties in interacting with the patient, teacher, and others in the clinical setting are some of the stressors reported by the students.³

It is said that experience, or exposure will change the attitude. The attitude will affect the stress of a person. The mental health clinical exposure will change the attitude and reduce the stress of nursing students. A descriptive survey conducted in Australia about the clinical experience in mental health nursing for determining satisfaction and the influential factors identified clinical exposure to the mental health environment as a major factor in promoting a more favorable attitude towards mental health nursing.³

Another study on undergraduate nursing students’ attitude to mental health nursing found that following mental health clinical exposure the attitude of student nurses took a positive turn. These studies do confirm that the initial clinical exposure has a vital role in changing the attitude of the student nurse. The aim of the present study is to assess the change in

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attitude and perceived stress of students during their first mental health clinical placement.

**Materials and methods used**

A descriptive survey research (pre-placement and post-placement) design was used for the present study. The sample consists of 100 3rd year B.Sc. nursing students selected by systematic random sampling method. Data were collected by administering a structured attitude and stress questionnaire and analyzed using paired t-test, Karl Pearson correlation co-efficiency, Chi-square test.

**Findings**

Of 100 students majority (77%) belonged to the age group of 17-20 and 20% belonged to the age group of 21-23 and 3% belongs to age group of 24-27, majority (82%) of the subjects were females and 18% were males. Table 1 show that while 34% of the subjects had neutral attitude, 65% had favourable attitude, and only 1% had highly favourable attitude before the placement and 35% of the subjects had favourable attitude and 65% had highly favourable attitude after the clinical placement. Figure 1 show that while 25% of the subjects were moderately stressful, 50% were severely stressful and 25% were extremely stressful before the placement, and 1% was not stressful, 52% were less stressful and 41% were moderately perceived stressful and 6% were severely perceived stressful after the placement

Table 1. Range, percentage, and category of pre and post placement attitude score

<table>
<thead>
<tr>
<th>Range of attitude score</th>
<th>Range of percentage</th>
<th>Category</th>
<th>Preplacement</th>
<th>Post placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>0-20%</td>
<td>Highly unfavorable</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35-68</td>
<td>21-40%</td>
<td>Unfavorable</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>69-102</td>
<td>41-60%</td>
<td>Neutral</td>
<td>34</td>
<td>34%</td>
</tr>
<tr>
<td>103-136</td>
<td>61-80%</td>
<td>Favorable</td>
<td>65</td>
<td>65%</td>
</tr>
<tr>
<td>137-170</td>
<td>81-100%</td>
<td>Highly favorable</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>

Maximum Score = 170

Table 2. Mean, SD, mean difference and ‘t’ value of pre and post placement attitude score.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre placement Mean± SD</th>
<th>Post placement Mean± SD</th>
<th>Mean difference</th>
<th>‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>107.68± 16.001</td>
<td>141.84± 11.023</td>
<td>34.16</td>
<td>19.31*</td>
</tr>
</tbody>
</table>

‘t’ (99)=1.66, *Significant

score (107.68). The computed ‘t’ value (19.31) is higher than the tabled value (‘t’ (99)=1.66, P<0.05).

Data in Table 3 show that mean post clinical placement perceived stress score (50.75) is lower than the mean pre-placement perceived stress score (83.26). The computed ‘t’ value (20.567) is higher than the tabled value (‘t’ (99)=1.66, P<0.05). This means that the mean difference between pre and post clinical placement perceived stress score was a true difference and not a chance difference. This indicates the significant effectiveness of mental health clinical placement in alleviating the perceived stress of student nurse

Figure 2 show that there is a negative correlation between attitude and perceived stress score.
Discussion and Conclusion
In the present study majority (77%) of the subjects belonged to 17-20 years of age, and most of them (82%) were females and 58% belonged to Christian religion.

A study conducted on nursing students’ stress during the initial clinical experience. The sample consisted of 46 freshman nursing students (42 women and four men). They ranged in age from 18-32 years. 36 had no previous experience, while 10 had some experience. In the present study majority (77%) of the subjects belonged to 17-20 years of age, and most of them (82%) were females and 58% belonged to Christian religion. A study conducted on nursing students’ stress during the initial clinical experience. The sample consisted of 46 freshman nursing students (42 women and four men). They ranged in age from 18-32 years. 36 had no previous experience, while 10 had some experience.

Another study on the nursing students’ perceptions of their first mental health clinical placement revealed that among 64 nursing students, 63 were females and 1 was male. Distress, stress and coping in first year student nurses were studied in Scotland. The result revealed that cohort 1 included 22 males and 87 female students, whereas cohort 2 included 18 males and 91 female students.

The present study findings are congruent with the following studies:

A descriptive study was conducted to assess the stressors and coping strategies of students in Accelerated Baccalaureate Nursing programs and the results revealed that 17.5% of students reported their stress level extreme at 5, whereas 43.8% rated their stress level extensive at 4, and 32.8% rated their stress level moderate at 3. Only 3.6% reported slight stress at 2, and none rated stress at 1 or none.

A descriptive study on clinical experience in mental health nursing identified that clinical exposure to the mental health environment was a major factor in promoting a more favorable attitude towards mental health nursing. Another study on “The importance of clinical experience for mental health nursing: Undergraduate nursing students’ attitudes, preparedness and satisfaction,” found that clinical experience in mental health nursing can positively influence attitudes, preparedness for practice, and the popularity of mental health nursing. Although the objective of the present study differs from the above study, it could be noted that both studies underscore the positive impact of clinical placement on nursing students at various levels.

Similarly, another descriptive study stated that 4-weeks clinical program was enabling students in various respects, especially by providing them not only with the knowledge and skills necessary to care for patients with mental illness, but also, with professional attitudes and perceptions that will enable them to do so throughout their career in different health care settings.

Another study conducted on the nursing students’ perceptions of their first mental health clinical placement revealed positive changes in students’ attitude towards mental health nursing after their clinical placement. This showed that there was a significant attitudinal swing to the favorable domain during the mental health clinical placement. It reinstated the impact of exposure in fostering favorable attitude.

The findings of the present study revealed that there was significant difference in the pre-placement perceived stress score and post placement perceived stress score ($t_{90} = 1.66, P<0.05$). The mean pre-placement perceived stress score (83.26) was higher than the mean post placement stress score (50.75). These findings are congruent with the following studies:

An exploratory longitudinal study was done with the objective of identifying nursing students’ stress in their initial clinical experiences in a hospital setting. Its results showed significant differences between the students’ pre-clinical expected stress and the actual level of stress in the clinical setting.

A study on Baccalaureate nursing students’ stress and their coping strategies in clinical setting showed that students perceived moderate level of stress ($M=2.10, SD=0.44$). The present study and the supportive studies showed that clinical placement should be an important part of nursing curriculum, which would help to change the attitude of the nursing students and alleviate the stress level in them.

The present study revealed that there was a relationship between attitude and perceived stress ($\rho=-0.705$). This finding was supported by the study conducted in America on attitude, stress and satisfaction of staff for who care residents with dementia. In this study the correlation between the attitudes and stress was ($r=-0.03$).

A descriptive correlational study was conducted on perceived stress and sense of belonging in doctor of nursing practice students. The result showed statistically significant inverse relationship ($r=-0.49, P<.01$) between perceived stress and sense of belonging. It is inferred that when there is negative attitude perceived stress will be more, and, when there is positive attitude the perceived stress will be less.

The present study has been supported by a series of other studies, which confirmed the importance of mental health clinical placement in the nursing curriculum. The findings of this study and other studies showed that mental health clinical
exposure had a vital role in effecting change in the attitude and perceived stress of student nurses.

Acknowledgment.

I would like to acknowledge Professor Mrs. Chanu Bhatacharya for her untiring guidance and constant encouragement in making this study a fruitful and rewarding learning experience. I am indeed thankful to all the 3rd year B.Sc. Nursing Students who participated in my study.

References

Dual Diagnosis Training: A Six Step Approach to Curriculum Development

Shobha Rani1, Hanora Byrne2

Abstract

Dual diagnosis is the term used to refer the co-existence of substance misuse and mental disorder in one person. The extent of dual diagnosis in India is mentioned in Indian studies since 1970’s. Educating service providers working within the addictions and mental health service were also recommended by several researchers in the past. Similar situation arose in Ireland in 2004 when for the first time the word dual diagnosis was mentioned in one of the national documents. Training and education of dual diagnosis service providers were highlighted in the document however little has been done in this regard. In 2008, the authors developed the first ever training on dual diagnosis. In this article we have made an attempt to explain the six stages adapted in preparation of the training course. It is envisaged that similar training course may be developed in India to meet the needs of dual diagnosis service providers.

Key Words

Dual Diagnosis, training, psycho-education programmes, curriculum development.

Introduction

Dual diagnosis is the term used to refer the co-existence of substance misuse and mental disorder in one person. The earliest population study related to dual diagnosis dates back to 1971 by Dube and Handa.(10) Since then several studies have reported the prevalence of substance misuse among mentally ill(12-17) and their quality of life.(18) However the strategies used for the management of dual diagnosis is not universal in all the states within India. Basu and Gupta (9) describes that the existence of de-addiction and mental health systems is either part of each other or placed separately though not distinct. Further, they suggest an integrated treatment service as the best strategy for the management of dual diagnosis. Basu and Gupta (9) also recognise a need to train paraprofessionals working with dual diagnosis service users. Similarly Phillips (10) reports, in two states in Northern India the nursing staff working within the mental health and substance misuse services had received the least training around dual diagnosis and mental health nursing. Likewise, in Ireland, the word dual diagnosis was first mentioned by MacGabhann et al in 2004.(11) They also recommended training and education on dual diagnosis however there was very little done in this regard until the authors developed the first dual diagnosis training in 2008. In this article we strive to describe the development of a multi professional training course on dual diagnosis in Ireland. It is envisaged that similar training may be developed and provided for service providers in India.

Training Programme

In preparing the 5-day training course on dual diagnosis the six steps: needs assessment, problem identification, goals/objectives, implementation, educational strategies and evaluation/feedback were followed as advocated in the ‘six step approach to medical education’ by Kern et al(12).

A Six-Step Approach to Curriculum Development

The six-step approach is a theoretical approach to curriculum development developed by physician educators at Johns Hopkins University Faculty Development Program for Clinical Educators. It is logical, systematic, dynamic, and interactive. Kern et al (12) explains the underlying assumptions of this approach as: “a) educational programmes have aims or goals, whether or not they are clearly articulated; b) medical educators have a professional obligation to meet the needs of their learners, patients, and society; c) medical educators should be held accountable for the outcomes of their intervention; and d) a logical, systematic approach to curriculum development will help achieve these ends”. The six steps of this approach include problem identification, needs assessment, goals and specific measurable objectives, educational strategies, implementation, evaluation and feedback.

Step 1: Problem Identification

The first step begins with the identification and critical analysis of the health care need.(12) A literature search revealed no academic courses available on dual diagnosis in Ireland. However few courses in addiction provided some information on dual diagnosis. Also, several talks and presentations were given by different professionals for the benefit of service providers, family and friends. Nonetheless a structured training course was lacking.

Dual diagnosis education and training is an important step in the long-term strategy for improving the quality of care for those with mental health and substance misuse problems.(13) In order to develop this training programme a curriculum development team involving a clinical nurse specialist in addictions, a lecturer in mental health nursing, a psychologist and a social worker was set up. The team held regular meetings and arrived at a general consensus on developing a new dual diagnosis training course.

Step 2: Needs Assessment of Targeted Learners

A needs analysis was carried out on 40 staff working within addictions and mental health settings. Questions focussed on participants’ brief demographics, their knowledge of the term ‘dual diagnosis’, previous dual diagnosis training, perceived deficiencies, learning needs, their opinion on developing such a training programme, the preferred methods of teaching and learning, time frame and learning aids. The questionnaire was piloted on 10 staff
working within the service. The questionnaire was tested for reliability and content validity. Ethical approval was sought from the local ethics committee.

A gate keeper was used to distribute the questionnaires to 60 participants (30 registered psychiatric nurses and 30 probation officers). Participants were informed to return the completed questionnaire in the attached self addressed stamped envelop. Returning the completed questionnaire was considered as their consent to participate in the survey. 40 questionnaires were returned to the authors within a 1-3 weeks period. Analysis was carried out using SPSS Version 12.0. The analysis showed that the majority (82%) of participants did not identify the term dual diagnosis as the co-existence of substance misuse and mental disorder. There was a 100% agreement for developing a training course on dual diagnosis. They preferred discussions and group work as the main methods of teaching and learning. These preferences were taken into consideration while planning the goals, content and the educational methods.

**Step 3: Goals and Objectives**

Kern et al. define “A goal or objective as an end toward which an effort is directed”. The main objective/aim of this training was to provide information on dual diagnosis and the psycho-education group programmes which will enhance participants’ delivery of treatment services for dual diagnosis service users. Several specific objectives were identified to help participants focus on different areas within the curriculum. These specific objectives are presented in Table 1 under four units that are later discussed in step 4-educational strategies.

**Table 1. Specific Objectives Specific Objectives**

**Unit 1: Introduction to Dual diagnosis**

After attending this training programme participants will be able to: Define mental health, substance use disorder and dual diagnosis-Discuss in detail the main diagnostic and treatment approaches for dual diagnosis-Discuss recent research and evidence-based therapies on treatment approaches.

**Unit 2: Psycho-Education Programmes for Dual Diagnosis**

After attending this training programme participants will be able to: Differentiate between the dual diagnosis psycho-education group programme and other group treatment programmes- Outline information and education programmes for dual diagnosis- Outline Relapse Prevention Group Treatment Programme

**Unit 3: Aftercare Programme for dual diagnosis**

After attending this training programme participants will be able to: Identify the need for an aftercare programme-Discuss comprehensive strategies to deal with relapses during treatment.

**Unit 4: Documentation and Inter Agency Working**

After attending this training programme participants will be able to: Discuss the legal and ethical importance of documentation in mental health-Identify the need for documentation in their own service-Discuss report writing templates-Discuss importance of inter-agency working in dealing with dual diagnosis.

**Step 4: Educational Strategies**

Educational strategies involve both the content and methods. Kern et al. informs that the content refers to the specific material to be included in the curriculum and the methods refer to the ways in which the content is presented. The curriculum development team held several meetings to agree a format for the training programme. The curriculum had four units- 1. introduction to dual diagnosis, 2. psycho education group programmes (information, education and relapse prevention), 3. after care programme, and 4. documentation and interagency working. It was planned that the fourth psycho-education programme, aftercare would be taught separately as the third unit. Brief content of each of the four units, hours of teaching required, method of teaching and evaluation is discussed below.

Since the target participants were any service provider within the addiction and mental health services, the first unit-introduction to dual diagnosis-had general information on mental disorder, substance abuse and dual diagnosis. It also focused on issues in relation to dual diagnosis and evidence based treatment approaches recommended by researchers worldwide. This first unit is taught over a seven hour period and allows for more independent learning. This unit was delivered through lectures, vignettes and group discussions. Questions and answers method and short written assignments were the evaluation strategies planned for assessing this unit.

The second unit was designed to provide information on the first three dual diagnosis psycho-education programmes. It was envisaged that this unit would help participants demonstrate an understanding of the psycho-educational group programmes for dual diagnosis and also its application in their own service provision. This second unit was delivered over 21 hours, which constitutes the majority of the course and it also allowed for independent learning. This unit was delivered through lectures, demonstration of role plays through video recording, return demonstrations by the participants, group work and discussion. The second unit provided in detail, information on the psycho-education group programmes such as the information programme, the education programme and the relapse prevention programme. Information programme lays the foundation for the other programmes. It includes information on the effects of substances on mental health, reasons for substance abuse and harm reduction. Whereas education programme comprise of information on the physical, mental and social impact of substance abuse on self and others, looking to the future and accessing support networks. The third psycho-education programme, the relapse prevention programme had its focus on strengthening motivation, high risk situations, coping with cues and cravings, coping with triggers, lifestyle changes and social skills training. The participants’ comprehension of the content was evaluated using a short written assignment and a self assessment of video recorded role play.

The third unit on the training addressed ‘the after care group programme’ and it provided information on maintaining the acquired skills and support, awareness of mental health and substance use issues, recovery plan formulation and the monitoring of early warning signs. This unit was delivered over three hours through lectures, group discussions and reflective learning. Questions and answers were used to evaluate the information provided.

The last unit was on documentation and interagency working. It was felt essential to include information on documentation on the curriculum. Best practice guidelines indicate the necessity to document and report outcome
Step 5: Implementation

In order to implement the training programme it is essential to gain managerial support. Therefore, the general manager of the hospital was consulted in relation to financial and administrative support. The training and development department of the authors’ service agreed to provide the venue for delivering the course. Five Wednesdays in the months of October and November 2008 were chosen with the assumption that Wednesdays are neither too early nor too late in the week for holding participants’ attention. The maximum number of participants on the programme was 25. Each participant was expected to pay a fee towards the training programme which was used in paying for the trainers, workbook, venue, refreshments and other expenses.

Primarily the course was delivered by the CNS. Other professionals who provided part of the training include the clinical director, the director of nursing, lecturer in nursing, a consultant psychiatrist, a principal social worker, a lecturer practitioner and two social workers. Three service users were also invited to share their experience of dual diagnosis and their participation in the psycho-education group programmes that they had completed as part of their treatment regime. The implementation of the curriculum took place as a pilot project in the first year in order to identify the viability of the course.

Step 6: Evaluation and Feedback

Formative evaluation of participant learning was carried out through questions and answers, short written assignments and demonstration of role plays. Participants were given feedback on their assignments. The first training was evaluated in three ways; A Pre and Post Test, Daily evaluation and a focus group interview conducted after eight weeks of course completion.

Conclusion

Training on dual diagnosis is essential for those working with dual diagnosis service users due to the complex nature of the disease condition and complications involved. It is hoped that similar to that of the course described here, a training course may be developed and delivered either as an in-service training or a short course within the health settings. The authors acknowledge that it requires a dedicated curriculum development team to plan and design such a course. Further, good managerial and financial support along with time needed in preparation and implementation, a team of committed course co-ordinators to advertise and to take charge, together with innovative facilitators are essential to make the training course a success.

Acknowledgements

The authors would like to acknowledge the above named for their kind support in the development of this training programme.

References


A Correlational Study on Depressive Symptoms and Social Support Among Widows in a Selected Women’s Organization of Pokhara, Nepal

Shrestha Sandhya¹, Jose Tessy Treesa², Nayak Asha³
¹Lecturer, Manipal College of Medical Sciences (Nursing Program)Pokhara, Nepal, ²Officitating Professor & H.O.D, ³Lecturer, Department of Mental Health Nursing, Manipal College of Nursing, Manipal University, Manipal, Karnataka, India

Abstract

Context

Periodic identification of depressive symptoms and social support of widows in developing countries is an established need as widowhood makes them vulnerable to disabling depression.

Aims

It was intended to assess the depressive symptoms, Social Support among widows at Pokhara, Nepal.

Settings and Design

correlational Survey study in “Women for human rights, single women group”, organization and Indian Pension Camp Pokhara, Nepal.

Materials and Methods

230 widows were evaluated for depressive symptoms and perceived social support using the Beck depression Inventory and Multidimensional scale of perceived social support.

Statistical analysis

Chi-square for association, Pearson for relationship.

Results

Finding shows that most of the participant 148(64) % were between the age group of 49-64 years. With regard to education, 132 ie57.4% were illiterate, Majority (89%) of subjects lived with their husbands for more than 11 years and 44.8% of subjects; duration after husbands’ death was 11 years.177 (77%) had depressive symptoms i.e.67 (30%) had severe depressive symptoms, 47 (20%) had moderate depressive and 63(27%) had Mild depressive symptoms.86% There was no association between depressive symptoms and selected variables except duration after marriage. Depressive symptoms has negative correlation between social support (p=0.001).

Conclusions

Widows were having severe depressive symptoms.

Key Words

Widows, depressive symptoms, social support

Introduction

The health survey revealed that around 15 million people suffer from one or other serious psychiatric illness which requires an active management. The prevalence of mental illness in India is as equal as that of the developed countries. About 800,000 men and women are widowed each year in the USA. Most of them are older female and experience different degrees of depressive symptoms. A third of widows/ widowers in the first month after the spouse’s death meet the criteria for major depression, and half of them continued to be depressed one year later.

In developed countries, widowhood is experienced primarily by elderly women, while in developing countries it also affects younger women; many of them still rearing children. Thousands of widows are disowned by their relatives and thrown out of their homes in the context of land and inheritance disputes. Due to lack of education and training their options are limited and they becoming exploited, unregulated, domestic labourers (often as house slaves within the husband’s family), or turning to begging or prostitution.

Widows, through poor nutrition, inadequate shelter, lack of access to health care and vulnerability to violence, are very likely to suffer not only physical ill health but also with stress and chronic depression as well.

Material and Methods

Demographic Proforma

Consisted of ten items which was developed to collect the background information of the widows. The items included were age, religion, ethnicity, education, occupation, type of family, monthly income in rupees per month, number of children, duration of marriage and duration after husband death.

Beck Depression Inventory

The original version of the BDI was introduced by Beck, Ward, Mendelson, Mock and Erbaugh in 1961. It is a 21 itemed rating inventory measuring characteristics attitudes and symptoms of depression. The total score is the sum of 0-3 points per item. Typical interpretation includes: normal (<10), mild depression (11 to 17), moderate depression (18 to 23) and severe depression (more than equal to 24)

Multidimensional Scale of Perceived Social Support

The original multidimensional scale of perceived social support was introduced by Zimet, Dahlem, and Farley in 1988. It consisted of 12 items related to emotional, informational and instrumental support from the family, friends and significant others as perceived by widows.

The responses for the items were very strongly agree, strongly agree, mildly agree, neutral mildly disagree, strongly disagree, very strongly disagree with the scoring of 7, 6, 5, 4, 3, 2 and one respectively. The maximum score was 84 and minimum was 12. The scores were classified as low perceived social support (12-35), moderate perceived social support (36-64), high perceived social support (65-84)
Interview was done among 230 widows in “Women for human rights, single women group” organization and Indian Pension camp from 21st February to March 4th 2010.

Descriptive (frequency, mean, median, standard deviation, Percentages) was used for demographic proforma and inferential statistics chi-square, Pearson.

The study was descriptive co relational survey design. The study was conducted among 230 samples in the “Women for human rights, single women group”, Organization and Indian Pension Camp of Pokhara, Kaski, Nepal. Non probability convenient sampling technique was used for the selection of the samples out of 230 samples. The method adopted was a survey using Standardized and structured instruments. Following hypotheses were tested on 0.05 level of significance

H$_1$- There will be significant association between depressive symptoms and selected variables such as age, religion, ethnicity, education, occupation, type of family, family income, number of children, duration of marriage and duration after husband’s death.

H$_2$- There will be significant relationship between depressive symptoms and Social Support.

Findings

Out of 230 samples, 64% were between the age group of 49-64 years. Majority of the samples (77.8%) belonged to Hindu religion. with regard to education, 132 ie 57.4% were illiterate, Most 40% of samples are unemployed. With regard to family type, 56.1% were from joint family. 50.9% of the samples had the income above 5000 rupees. Subjects with more than two children were 56.5%. Majority (89%) of subjects lived with their husbands for more than 11 years and 44.8% of subjects’ duration after husband’s death was 11 years.

Association between the Depressive symptoms and selected variables

There was no association between depressive symptoms and selected variables like age, religion, ethnicity, education, occupation, type of family, family income, no of children, duration after husband death. Hence the researcher accepts the null hypothesis with regard to these variables and rejects the research hypothesis. There was association between depressive symptoms and duration after marriage. Hence the researcher rejects the null hypothesis with regard to this variable and accepts the research hypothesis.

Table 1. Relationship Between depressive symptoms and Social Support.

<table>
<thead>
<tr>
<th>n=230</th>
<th>Key variable</th>
<th>Depressive Symptoms</th>
<th>Social Support</th>
<th>Test of significance</th>
<th>Pearson</th>
<th>p-value</th>
</tr>
</thead>
</table>

*Significant at p<0.05

Depressive symptoms has significance positive correlation with social support (p=0.0001).

Conclusion

Depressive symptoms were found among the widows of Pokhara, Kaski, Nepal which were not detected and focused for treatment. Among the total 230 population, 77% had depressive symptoms (scored above 10 in Beck Depression Inventory) and among them, majority had severe depression (score above 24). Majority of the widows (51%) had high perceived social support.

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Problems Faced by Foreign Students in a Selected University of Delhi

Smriti Arora¹, Fatemeh Talebi², Sujana Chakravarty³
¹Assistant Professor, ²MSc Nursing student, ³Principal, Rufaida College of Nursing. Faculty of Nursing, Jamia Hamdard, Hamdard Nagar-110062

Abstract

Aim
The aim of this exploratory study was to identify the problems of foreign students in a selected University in New Delhi with a view to propose some remedial measures to address their problems.

Objectives
1. To identify the problems of foreign students pursuing various educational programmes at Jamia Hamdard. 2. To propose the remedial measures to the administration to address the problems of foreign students.

Method
A descriptive survey approach with exploratory, cross sectional research design was used for the study. The study was conducted among conveniently selected, hundred foreign students studying in Jamia Hamdard. Data was collected using a predesigned, tested, valid and reliable structured questionnaire.

Results
It was found that foreign students had maximum problems related to academic area and accommodation. Least problem was found in the financial & family obligation areas. In order to solve their problems it is suggested that extra classes must be arranged for the foreign students, books must be available in their own language, library timings must be increased, internet facility must be available for students within the university and measures must be taken to make their stay comfortable in the university like provision of adequate number of toilets, maintenance of hygiene, availability of hot water in winter season and supply of culturally acceptable food.

Key Words
Foreign students, problems, remedial measures

Background of the Study
There are many students in the world who leave their own country for higher education. The most commonly observed impact on students who studied abroad are better foreign language proficiency, more knowledge about the culture, politics, and society of the host country. Kanekar, A et al assessed international students, upon relocation to a foreign country, and concluded that they undergo a major life event which can cause distress that can potentially affect their mental health. When foreign students come to India, they must learn to interact with Indians as part of the adjustment process. Since the students are subjected to varied learning situations, including academic, they need to quickly adapt to the constantly changing learning situations. Thasomimi, P mentioned in his study that foreign students simply lack the information they need. Some are unaware that they are entitled to the same free services offered to the host students, like psychological counseling, general welfare counseling, group offers, legal advice etc.

Very few studies have been conducted in this area of foreigner student’s problems in different parts of the country. But to the best of the knowledge of the investigator, no such study has been undertaken to probe into the problems of the foreigner students of any university in Delhi. In 2010 to 2011, 550 foreign students registered in Jamia Hamdard from 38 countries which equals to 15% of total students. Hence there is a need to study systematically the problems encountered by the students which enlightens the university members about the intensity of the problems in different problem areas which will help to know how much help is needed by the students for better adjustment.

Material and Methods
The objectives of the study were 1- To identify the problems of foreign students pursuing various educational programmes at Jamia Hamdard and 2-To propose the remedial measures to the administration to address the problems of foreign students. A descriptive, quantitative, survey approach with exploratory, cross sectional design was used in this study. The study was conducted in Hamdard university. It is located in Hamdard Nagar, New Delhi. Approximately more than five hundred foreign students are enrolled in this university pursuing various undergraduate and postgraduate courses. The study was conducted on 100 foreign students studying in Jamia Hamdard. Convenience sampling was used for the study as it was feasible for the investigator to collect data from the foreign students within the university. The students who were willing to participate in the study, enrolled in the educational programmes in various departments of Jamia Hamdard and were able to understand English language were included in the study. Data collection tools and techniques: In order to meet the objectives a Structured Questionnaire was prepared. It had 2 parts; Part 1 and Part 2. Part 1 to assess the demographic variables of the subjects and a checklist to identify the problems of foreign students in ten selected areas like academic, clinical, accommodation, food, visa, financial, family obligations commuting in the city, health and psychosocial. It consisted of 72 items with 2 response columns ‘Yes’ and ‘No’. Part 2 to assess the remedial measures for the problems as suggested by foreign students.

Content validity of the tool was done by giving the questionnaire to 5 experts in different faculties of the university. Appropriate modifications were made according to the suggestions given by the experts. The reliability of the tool was established through test-retest method and calculating Pearson’s coefficient (r=0.97). It was done on

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Procedural for data collection: 1. Clearance was taken from the institute authority to conduct the study. 2. Subjects were chosen based on the inclusion criteria. 3. Information sheet was given to subjects. 4. Written consent was taken from subjects on the consent form. 5. Data was collected using questionnaires with paper and pencil method. 6. The data was collected from 03.01.2011 to 16.01.2011. Data Analysis: The data were tabulated in a master data sheet in Microsoft excel, organized and analyzed in terms of objectives of the study. Descriptive statistics were used to describe the data.

Findings

1. Demographic characteristics

The mean age group of foreign students was 23.8 years. There were 32% female & 68% male students. As far as marital status is concerned, 88% of foreign students were single & 12% were married. Majority of the students (41%) belonged to Pharmacy, 39% belonged to Computer, 9% to Science, 5% to MBA, 3% to B.P.T, 2% to Nursing and 1% to Federal studies. 56% of the students were undergraduate, 39% were postgraduate and 5% were pursuing Ph.D. There were 29% of students from Iraq, 22% from Iran, 14% from Nigeria, 6% from Afghanistan, 4% from Bangladesh, 3% from Sudan and Eritrea, 2% from Nepal, Vietnam and Tanzania, 1% from Canada, Uganda, Kenya, Syria, Congo, Saudi Arabia, Yemen, South Korea, Kazakhstan, Oman and Lebanon. The mean stay of foreign students in India was 4 years.

Table 1. Distribution of demographic characteristics of foreign students.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Demographic characteristics</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hostel</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Outside</td>
<td>43</td>
</tr>
<tr>
<td>2</td>
<td>Experience of living in other country</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Living in India</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alone</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>With family</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Travelled to India previously</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Student status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self financed</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>On scholarship</td>
<td>17</td>
</tr>
</tbody>
</table>

As shown in table 1, 57% of foreign students were living in the hostel and 43% were living outside. Regarding experience of living in other country, 28% of foreign students had experience and 72% didn't have experience. 80% of foreign students lived alone in India & 20% were living with family. 70% of foreign students had travelled previously to India and 30% had not travelled to India previously. Regarding student status, 83% of foreign students were self financed & 17% were on scholarship.

2. Problems of foreign students in various areas

Table 2. Distribution of problems related to academics amongst foreign students

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Problems</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academic Area</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Not given orientation about the university</td>
<td>68</td>
</tr>
<tr>
<td>2</td>
<td>Not informed about syllabus</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Syllabus is too much</td>
<td>49</td>
</tr>
<tr>
<td>4</td>
<td>Lesson’s concepts are not clarified</td>
<td>53</td>
</tr>
<tr>
<td>5</td>
<td>Can’t understand the contents</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>Not participate in the class discussion</td>
<td>46</td>
</tr>
<tr>
<td>7</td>
<td>Teachers are not available</td>
<td>29</td>
</tr>
<tr>
<td>8</td>
<td>Time preparation for presentations is not enough</td>
<td>46</td>
</tr>
<tr>
<td>9</td>
<td>Teaching strategies are not adequate</td>
<td>50</td>
</tr>
<tr>
<td>10</td>
<td>Cannot write notes in the class</td>
<td>39</td>
</tr>
<tr>
<td>11</td>
<td>Books are not available in different languages</td>
<td>68</td>
</tr>
<tr>
<td>12</td>
<td>Internet facility not accessible in faculty</td>
<td>53</td>
</tr>
<tr>
<td>13</td>
<td>Teacher’s contact over the internet is not available</td>
<td>78</td>
</tr>
<tr>
<td>14</td>
<td>Cannot get updates about online services of university</td>
<td>78</td>
</tr>
<tr>
<td>15</td>
<td>Problem in obtaining bonafide certificate</td>
<td>46</td>
</tr>
<tr>
<td>16</td>
<td>Library time is not adequate for study</td>
<td>45</td>
</tr>
<tr>
<td>17</td>
<td>Number of library books are not adequate</td>
<td>29</td>
</tr>
<tr>
<td>18</td>
<td>Mother tongue dictionary is not available</td>
<td>64</td>
</tr>
<tr>
<td>19</td>
<td>Not familiar with examination system</td>
<td>35</td>
</tr>
<tr>
<td>20</td>
<td>Preparation time for examination is not enough</td>
<td>46</td>
</tr>
</tbody>
</table>

In the area of academics, (table 2) majority of foreign students (68%) mentioned that they were not given orientation about the university. More than half (53%) of foreign students mentioned that the concepts are not clarified appropriately by the teachers. 50% of students mentioned that the teaching strategies are not adequate. Majority of the students (68%) mentioned that books are not available in different languages for foreign students. 53% stated that internet facility not accessible for students in the faculty and 78% mentioned that teachers contact is not available over the internet. 78% of foreign students mentioned that they cannot get updates about online services of the university. 64% of students stated mother tongue dictionary should be available in the library.

Related to clinical area, majority of foreign students (84%) revealed that the teachers do not assist in understanding the cases, most of the students (79%) thought duration of posting is not enough and 78% of foreign students mentioned that no measures are taken by faculty to improve their communication skills.
Regarding accommodation, 71% of foreign students thought the hostel environment is not conducive to study, 75% of foreign students stated that they cannot use wireless internet in hostel. 70% of foreign students stated that warden is not available in case of need, and 71% of foreign students don’t have good relationship with warden.

 Majority of foreign students (81%) thought the hostel is not clean (especially the toilets). 84% of students mentioned that gymnasium facility is not available in the hostel and the machines were obsolete and nonfunctional. 64% of foreign students thought numbers of bathrooms are not enough. 64% of the foreign students thought the hostel doesn’t have facility for hot water and that separate accommodation is not available for married students.

 Majority of foreign students (79%) said that choice in menu is not given in the hostel mess, 61% said food provided in the hostel does not conform to religious practices. 50% of foreign students didn’t like hostel food. 82% of students mentioned that the foreign student advisor doesn’t guide them about visa issues during registration. 51% of foreign students said that course is causing an economic burden for them, 41% of foreign students had problem to open an account in university’s bank and said that their family faced problem to transfer money.

 Majority of foreign students (76%) thought auto/taxi drivers charge more from them. More than half of the foreign students (57%) had problem in hiring public transport like auto/taxi and explaining addresses to drivers (54%).

 Related to health problems, more than half (58%) of foreign students said that support system is not available to them in case of crisis and 73% of foreign students thought the university does not have adequate facilities to care for the students.

 Most of the foreign students (90%) mentioned counseling services are not available in the university and 52% of foreign students felt alone in India.

**Table 3. Mean and Rank Order of areas in which foreign students have problems**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Area</th>
<th>Mean</th>
<th>Modified Mean</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Academics</td>
<td>9.78</td>
<td>0.48</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Clinical</td>
<td>2.61</td>
<td>0.13</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Accommodation</td>
<td>8.4</td>
<td>0.42</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Food</td>
<td>3.18</td>
<td>0.15</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Visa</td>
<td>1.21</td>
<td>0.06</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Finances</td>
<td>1.58</td>
<td>0.07</td>
<td>7</td>
</tr>
<tr>
<td>7.</td>
<td>Family Obligation</td>
<td>1.43</td>
<td>0.07</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>Commuting in the city</td>
<td>3</td>
<td>0.13</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>Health</td>
<td>2</td>
<td>0.10</td>
<td>6</td>
</tr>
<tr>
<td>10.</td>
<td>Psychosocial</td>
<td>4</td>
<td>0.20</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Remedial measures</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Library timing should be increased</td>
<td>47</td>
</tr>
<tr>
<td>2.</td>
<td>More time permission for attempting the question paper.</td>
<td>60</td>
</tr>
<tr>
<td>3.</td>
<td>English and Hindi classes should be arranged</td>
<td>40</td>
</tr>
<tr>
<td>4.</td>
<td>Books in foreign language should be provided</td>
<td>41</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluation should be less strict (giving concession on language)</td>
<td>49</td>
</tr>
<tr>
<td>6.</td>
<td>Internal assessment should be made equal to external assessment</td>
<td>38</td>
</tr>
<tr>
<td>7.</td>
<td>Related to clinical area: Discuss with the concerned teacher</td>
<td>37</td>
</tr>
<tr>
<td>8.</td>
<td>Take help from Indian friends</td>
<td>37</td>
</tr>
<tr>
<td>9.</td>
<td>Refer literature in library/Internet</td>
<td>38</td>
</tr>
<tr>
<td>10.</td>
<td>Related to Hostel: Food provided in hostel should be improved</td>
<td>47</td>
</tr>
<tr>
<td>11.</td>
<td>Single rooms must be provided for each student</td>
<td>42</td>
</tr>
<tr>
<td>12.</td>
<td>More number of bathrooms &amp; toilets should be built in the hostel</td>
<td>54</td>
</tr>
<tr>
<td>13.</td>
<td>Related to Food: Special cooks should be arranged to prepare meals for foreign students</td>
<td>48</td>
</tr>
<tr>
<td>14.</td>
<td>The items on menu should be increased</td>
<td>59</td>
</tr>
<tr>
<td>15.</td>
<td>Cooking should be permitted within the rooms</td>
<td>34</td>
</tr>
<tr>
<td>16.</td>
<td>Related to visa: Foreign Student’s Advisor should establish link with FRRO</td>
<td>78</td>
</tr>
<tr>
<td>17.</td>
<td>FRRO should perform visa issues within the University</td>
<td>54</td>
</tr>
<tr>
<td>18.</td>
<td>Foreign Student’s Advisor should have a session with foreign students during registration time</td>
<td>40</td>
</tr>
<tr>
<td>19.</td>
<td>Brochures should be provided explaining visa related matters duration registration time</td>
<td>38</td>
</tr>
<tr>
<td>20.</td>
<td>Related to finances: Facilities must be made available for students to open an account in the University bank without delay</td>
<td>83</td>
</tr>
<tr>
<td>21.</td>
<td>Cupboards and lockers must be available for safe storage of money</td>
<td>38</td>
</tr>
<tr>
<td>22.</td>
<td>Related to family obligation: Talk &amp; discuss with family members on phone or internet</td>
<td>56</td>
</tr>
<tr>
<td>23.</td>
<td>Related to commuting in the city: Transport should be provided by the University to travel in city</td>
<td>66</td>
</tr>
<tr>
<td>24.</td>
<td>City map must be provided to all foreign students</td>
<td>66</td>
</tr>
<tr>
<td>25.</td>
<td>Related to health: Nutritious food must be supplied in mess</td>
<td>47</td>
</tr>
<tr>
<td>26.</td>
<td>Phone numbers of doctors must be</td>
<td></td>
</tr>
</tbody>
</table>
available in case of emergency
It must be ensured the students are
vaccinated before coming to India
First aid must be available in the hostel.
Monthly check up of students
should be done
Referral services must be adequate.
One health incharge can be
appointed for foreign students
within the university.

10. Related to Psychosocial issues
Foreign Student’s Advisor should
arrange a field trip.
Embassies should plan for
meets & visits at the embassy on
special days.
Facilities must be made available
by the administration to
participate in to Indian festivals
Foreign student’s cultural evening
can be planned
Watch movies with friends

and not the grammar. 38% of foreign students mentioned
that for solving clinical area problems they should refer
literature in library or internet or discuss with concerned
teacher.

Related to accommodation, 54% of foreign students
proposed more number of bathrooms & toilets should be
built in the hostel. 59% of foreign students proposed that the
items on menu in hostel mess should be increased. 78% of
foreign students mentioned that related to visa problem
Foreign Student’s Advisor should establish link with FRRO.

Majority (83%) of foreign students suggested that facilities
must be made available for students to open account in the
University bank without delay. For solution of family related
problem they proposed they should be regularly in touch
with family via e-mail or phone. Majority (66%) of foreign
students proposed that transport should be provided by the
university to travel in city & also said that city map must be
provided to all foreign students.

Foreign students (51%) proposed that monthly health
check up of students should be done. Sixty eight percent of
students suggested that embassies should plan for meetings
& visits at the embassy on special days.

Conclusion

Foreign students face maximum problem in the area of
academics followed by accommodation. The main reason
of their maladjustment is lack of knowledge of the language
being used by the host country.

It is suggested that extra effort must be taken by the
administration to arrange English and Hindi classes for them.
Internet facility must be available in the faculty as well as
hostel, special cooks must be arranged to prepare meals and
items on menu should be increased. Transport should be
provided by the university to travel in city & city map must be
provided to all foreign students. Evaluation should be less
strict, the content must be evaluated and not the grammar.
Facilities must be made available for students to open account
in the University bank without delay. Monthly health check
up of students should be done. Embassies should plan for
meetings & visits at the embassy on special days.

Acknowledgement

I would like to thank Mrs. Madhavi Verma, tutor, Rufaida
college of nursing for guiding the conceptual design of the
study and the number of foreign students who consented to
be the part of this study.

Interest of conflict
none

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Effectiveness of a Simulation Based Teaching Program on Dysrhythmias: A Pre-Experimental Study.

Sunita Rani Talwar¹, Smriti Arora², Eke Lama Tamang³
¹Msc Nursing Student, ²Assistant Professor, ³Tutor, Rufaida College of Nursing. Faculty of Nursing, Jamia Hamdard, Hamdard Nagar, New Delhi-110062

Abstract

Aim

The aim of this study was to assess and evaluate the effectiveness of a simulation based teaching program (SBTP) in the interpretation and management of dysrhythmias in terms of knowledge and skills of staff nurses working in cardiac care areas of a selected hospital of New Delhi.

Objectives

The objectives of the study were to assess, evaluate and compare the knowledge and skill of the staff nurses regarding interpretation and management of dysrhythmias before and after the administration of a SBTP, and to determine the relationship between selected variables and knowledge and skill of staff nurses regarding interpretation and management of dysrhythmias.

Method

The study followed a pre experimental, one group, pre-test post-test design and was conducted in Max hospital, Saket, New Delhi. Convenience sampling technique was used to select 30 staff nurses working in different cardiac care units. A pretested, reliable and valid tool was used to assess the knowledge and skill of staff nurses.

Results

A significant difference was found in the pretest and posttest knowledge (p = .00**) and skill (p = .00**) of the staff nurses related to management of dysrhythmias before and after the administration of SBTP. There was no significant correlation between post test knowledge and skill scores (p = 0.87). There was a significant relationship between gender and post test skill scores of staff nurses. The post test skill scores were more in females as compared to male staff nurses (p = 0.04).

Conclusion

The SBTP was effective in increasing the knowledge and skill of staff nurses in the management of dysrhythmias.

Key Words

simulation based teaching program, dysrthymias, knowledge, skill, staff nurses.

Background of the Study

Traditionally the argument has been that physicians, through the diagnosis and treatment of conditions resulting from pathophysiological states, are more concerned with curing while nurses, through comfort measures. Relationship with the patient and attention to psychosocial issues, are more concerned with caring. With the advent of the CCU and the training of nurses in ECG interpretation, administration of short and long acting cardiac drugs, delivery of cardiopulmonary resuscitation and electrical defibrillation, the boundaries between curing and caring in the CCU have blurred. With the development of CCUs an extra dimension was added to the traditional role of the nurse, that of nursing in an area of high technology. The nurse not only had to be versed in the traditional skills of patient management but also had to be able to utilize the rapidly advancing technology that such units housed. Specialist training courses were developed to give nurses the technical knowledge to operate the equipment and to effectively nurse patients in this new environment. All these medical and technical developments have implications for nursing. It has been found that CCU nurses need to be multi-skilled. They need a high degree of technical skill, a high degree of technical knowledge and a critical care mentality. A critical care mentality is required even though the patients are not ventilated. The CCU nurse needs to take the approach that these patients have an unstable medical condition and can become acutely ill very suddenly and she has to be able to respond to rapid changes in patient conditions quickly and competently. Conducting structured education programs in the CCU reduces the fear experienced by junior staff. In order to recruit and retain CCU nurses clinical support and clinical education are required. This will enhance early skill development in junior nurses. There is awareness of learning more about dysrhythmias among staff nurses of different governmental and nongovernmental hospitals in India. Very few studies have been conducted to evaluate the effectiveness of a simulation based teaching program regarding interpretation and management of dysrhythmias. Thus, this study was undertaken by the investigator for staff nurses working in different cardiac areas.

Objectives

The objectives of the present study were:
1. To assess and compare the knowledge and skills of staff nurses regarding interpretation and management of dysrhythmias before and after the administration of SBTP.
2. To find out the relationship between knowledge and skill scores of staff nurses as measured by a structured knowledge questionnaire and an observation checklist after the administration of SBTP.
3. To find out the relationship between staff nurses’ knowledge regarding interpretation and management of dysrhythmias with selected variables like professional education, years of experience in a cardiac care unit, attended short term course and gender.
4. To find out the relationship between staff nurses’ skill regarding interpretation and management of dysrhythmias with selected variables like professional education, years of experience in a cardiac care unit, attended short term course and gender.

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Hypotheses
To achieve the objectives of the study following hypotheses were formulated:

H1. There will be a significant difference in the mean post-test knowledge and skill scores of the staff nurses as assessed by a structured questionnaire at 0.05 level of significance.

H2. There will be significant relationship between the knowledge and skill scores of staff nurses after the administration of simulation based teaching program at 0.05 level of significance.

H3. There will be significant relationship between knowledge scores of staff nurses regarding interpretation and management of dysrhythmias and selected variable like professional education, years of experience in a cardiac care unit, attended short term course and gender.

H4. There will be significant relationship between skill scores of staff nurses regarding interpretation and management of dysrhythmias and selected variables like professional education, years of experience in a cardiac care unit, attended short term course and gender.

Variables
The independent variable was simulation based teaching program to interpret and manage dysrhythmias and the dependent variables were knowledge and skill of staff nurses to interpret and manage dysrhythmias.

Material and Methods
Research design
To accomplish the objectives of the study, preexperimental, one group pre-test post-test design approach was adopted.

Setting
The study was conducted in a Max hospital, Saket, New Delhi.

Sampling and sample size
Convenience sampling technique was used to select 30 staff nurses working in cardiac units who were willing to participate in the study, able to understand English language and were a registered nurse and midwife.

Data collection tools and techniques
The following tools were developed to achieve the objectives:

1. SBTP on dysrhythmias: SBTP was structured for developing staff nurses’ knowledge regarding interpretation and management of dysrhythmias. It focused on areas such as anatomy and physiology of conduction system of the heart, calculation of heart rate, monitoring rhythm, and normal sinus tracing of wave forms related to depolarizing and repolarizing of atria and ventricles and description of different dysrhythmias arising from SA node, atria, ventricles and AV junction and drugs including their mode of action, indication, dosage, side effects and nursing responsibilities. More emphasis was given on the drugs used during emergency management of four fatal dysrhythmias such as bradycardia, VT, VF, and asystole. It also included demonstration of management of four fatal dysrhythmias on a simulator by means of basic life support and drugs.

2. A structured questionnaire to assess the knowledge of the staff nurses regarding interpretation and management of dysrhythmias. The structured knowledge questionnaire consisted of items seeking demographic informations of the subjects such as general education, professional education, gender, experience of working in a cardiac care unit, and any short term course attended in cardiovascular nursing. It also consisted of 50 objective knowledge items covering the areas like normal cardiac activities, definition and causes of dysrhythmias, identification and interpretation of dysrhythmias and management of dysrhythmias. 20 test items were objective type questions, 15 items were direct single statement answer type and 15 were true or false. Each item had a single correct answer. Every correct answer accorded a score of one point and every wrong answer assigned zero score. The maximum score was 50.

3. A structured skill check list to determine the skill of the staff nurses regarding interpretation and management of dysrhythmias. It consisted of 25 items. Four emergency dysrhythmias were institutied with a scenario based interpretation and management of dysrhythmias by the staff nurses. The areas covered in the check list to interpret and manage dysrhythmias included maintenance of airway, breathing and circulation, interpretation of dysrhythmias, initation of basic life support and medicines. Maximum score was 25.

Content Validity
A tool was developed by an extensive review of research and non-research literature, taking opinions of experts and the investigators professional experience into consideration and validated by experts from medical and nursing field. Reliability: The reliability coefficient for knowledge and practice items was calculated using Kudar Richardson-20 formula and found to be 0.8. Thus, the tool was found to be highly reliable. The study was piloted among 10 staff nurses and found to be feasible. Procedure for data collection

The permission was sought from the institution and hospital authorities. After explaining the purpose of the study written consent was taken from the subjects. On day one, pretest of knowledge and skill regarding management and interpretation of dysrhythmias was conducted followed by a teaching session on review of anatomy and physiology of conduction system of the heart, calculation of rate, observing rhythm, and normal sinus tracing of wave forms related to depolarizing and repolarizing of atria and ventricles. On day two, the management of different dysrhythmias arising from SA node, Atria, Ventricles and AV junction was demonstrated on simulator. Post-test on knowledge and skill was conducted on day eight with the help of structured questionnaires and return demonstration on simulator (table 1).

Data Analysis
The data were tabulated in a master data sheet in Microsoft excel, organized and analyzed in terms of objectives of the study. Descriptive and inferential statistics were used to analyse the data.
Table 1. Schematic representation of the study design

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest to assess knowledge and skill related to management of dysrhythmias.</td>
<td>Administration of SBTP on dysrhythmias</td>
<td>Posttest for evaluating knowledge and skill related to management of dysrhythmias.</td>
</tr>
<tr>
<td>Review of anatomy and physiology of conduction system, calculation of rate, and normal sinus tracing of wave forms related to depolarizing and repolarizing of atria and ventricles.</td>
<td>Interpretation and management of different dysrhythmias arising from SA node, Atria, Ventricles and AV junction using simulator.</td>
<td></td>
</tr>
<tr>
<td>Duration: 2 hours</td>
<td>Duration: 4 hours</td>
<td>Duration: 4 hours</td>
</tr>
</tbody>
</table>

Data Analysis

The data were tabulated in a master data sheet in Microsoft excel, organized and analyzed in terms of objectives of the study. Descriptive and inferential statistics were used to analyse the data.

Findings

1. Demographic characteristics: As shown in table 2, 24 (80%) nurses were qualified General Nurse Midwives whereas 6 (20%) nurses were B.Sc. Nurses. Only 2 (7%) of nurses had undergone a short term course in cardiovascular nursing. In relation to work experience in CCU more than half of the total sample i.e 16 (54%) possessed an experience of less than 2 years in the cardiac care area, whereas 14 (46%) nurses had a work experience in cardiac care units for more than 2 years. Majority of nurses 25 (83%) were females as compared to only 5 (17%) male nurses.

Table 2. Demographic Characteristics of Staff Nurses Working in Cardiac Care Areas n= 30

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Professional Education</td>
<td>24</td>
<td>80%</td>
</tr>
<tr>
<td>1.2</td>
<td>D.G.N.M.</td>
<td>24</td>
<td>80%</td>
</tr>
<tr>
<td>1.3</td>
<td>B.Sc. Nursing</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>2.1</td>
<td>Attended Short Term Course In Cardiovascular Nursing</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>2.2</td>
<td>No</td>
<td>28</td>
<td>93%</td>
</tr>
<tr>
<td>3.1</td>
<td>Work Experience in Cardiac Care units</td>
<td>16</td>
<td>54%</td>
</tr>
<tr>
<td>3.2</td>
<td>&gt;2yrs</td>
<td>14</td>
<td>46%</td>
</tr>
<tr>
<td>4.1</td>
<td>Gender of the subjects</td>
<td>25</td>
<td>83%</td>
</tr>
<tr>
<td>4.2</td>
<td>Males</td>
<td>5</td>
<td>17%</td>
</tr>
</tbody>
</table>

2. Knowledge and Skill

Comparison of pre-test and post-test knowledge scores was done using paired ‘t’ test. The mean post-test knowledge score (37.96) of nurses was higher than the mean pre-test knowledge score (21.86) with a mean difference of 16.1. This obtained mean difference was found to be statistically significant (p=0.00) as evident from obtained ‘t’ value of 13.11 (p=0.00) at 0.01 level (table 3). There was a significant difference between pretest and posttest skill scores of staff nurses in the management and interpretation of dysrhythmias ; p = 0.00.

Table 3. Comparison of pre-test and post-test knowledge and skill scores of staff nurses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre-test (knowledge)</th>
<th>Post-test (knowledge)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median (Range)</td>
<td>Z</td>
</tr>
<tr>
<td>Education</td>
<td>B.Sc. GNM</td>
<td>22 (18-30)</td>
</tr>
<tr>
<td>Yrs of experience in cardiac area</td>
<td></td>
<td>22 (12-32)</td>
</tr>
<tr>
<td>0-2yrs</td>
<td>19.5(12-32)</td>
<td>-0.95</td>
</tr>
<tr>
<td>&gt;2-7yrs</td>
<td>22.5(15-30)</td>
<td>0.54</td>
</tr>
<tr>
<td>Short Course attended</td>
<td>No</td>
<td>22 (12-32)</td>
</tr>
<tr>
<td>Yes</td>
<td>20 (18-22)</td>
<td>0.54</td>
</tr>
<tr>
<td>Gender</td>
<td>M</td>
<td>27 (13-32)</td>
</tr>
</tbody>
</table>

3. Correlation between Post-test Knowledge and Skill Scores

There was no significant correlation found between post-test knowledge and skill scores which tells that knowledge and skill are independent of each other (table 4).

Table 4: Correlation between Post-test Knowledge and Skill Scores

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre-test (knowledge)</th>
<th>Post-test (knowledge)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median (Range)</td>
<td>Z</td>
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<tr>
<td>Education</td>
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<td>19.5(12-32)</td>
<td>-0.95</td>
</tr>
<tr>
<td>&gt;2-7yrs</td>
<td>22.5(15-30)</td>
<td>0.54</td>
</tr>
<tr>
<td>Short Course attended</td>
<td>No</td>
<td>22 (12-32)</td>
</tr>
<tr>
<td>Yes</td>
<td>20 (18-22)</td>
<td>0.54</td>
</tr>
<tr>
<td>Gender</td>
<td>M</td>
<td>27 (13-32)</td>
</tr>
</tbody>
</table>

4. Correlation between pre-test and post-test knowledge scores with selected variables

The median difference between pairs of observations was calculated by Wilcoxon rank-sum (Mann-Whitney) test. As shown in table-5, there was no relationship between any of the variables like education, years of experience in cardiac area, short course attended and gender with pretest or posttest knowledge scores. Hence, null hypothesis HO4 is accepted and research hypothesis H_4 is rejected.
5. Correlation between pretest and posttest skill scores with selected variables

There was no relationship found between the pre-test skill scores and variables like education, years of experience, previous exposure to training and gender. But there was significant relation found between of post-test skill scores and gender. The females have median range of scores 24(22-25) which is little higher than the male nurses’ median range score 23(20-24) (table 6).

Table 6: Correlation between pretest and posttest skill scores with selected variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest skill score</th>
<th>Posttest skill score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median (Range)</td>
<td>Z</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.Sc.</td>
<td>10 (4-14)</td>
<td>-0.08</td>
</tr>
<tr>
<td>GNM</td>
<td>8 (4-18)</td>
<td></td>
</tr>
<tr>
<td>0-2yrs</td>
<td>6.5 (4-18)</td>
<td>-0.96</td>
</tr>
<tr>
<td>&gt;2-7yrs</td>
<td>9 (4-14)</td>
<td></td>
</tr>
<tr>
<td>Short course attended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7.5 (4-18)</td>
<td>1.33</td>
</tr>
<tr>
<td>Yes</td>
<td>12 (10-14)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>8 (4-18)</td>
<td>0.29</td>
</tr>
<tr>
<td>Male</td>
<td>12 (6-14)</td>
<td></td>
</tr>
</tbody>
</table>

*significant at 0.05 level

Discussion

Andreatta et al (2011); conducted same type of study where simulation-based mock code program was implemented which significantly benefited the nurses working in the pediatric areas. Pediatric patient cardiopulmonary arrest outcomes were better. Learners felt increased confidence and increased proficiency in their practice. A similar study was conducted by Janie Kane et al (2010); in which nursing staff reported that simulation based training program in resuscitation skills was helpful and positively impacted their knowledge, comfort, and skills. The findings of the present study are congruent with the study done by Hoadley TA (2009), who compared the results of two ACLS classes on measures of knowledge and resuscitation skills. The control group used low-fidelity simulation (LFS) and the experimental group was exposed to enhanced realism via high-fidelity simulation (HFS). The findings showed a positive correlation between enhanced practice and learning but no significant correlation between posttest and skills test scores for the LFS and HFS groups.

Conclusion

The SBTP on dysrhythmias was effective in increasing the knowledge and skill of staff nurses in the interpretation and management of dysrhythmias. The female staff nurses gained higher scores in the post test skill scores as compared to the male staff nurses. It is suggested that the study can be replicated on a large sample of staff nurses from cardiac care units of different hospitals for wider generalization of the findings. A randomized controlled trial can be done to assess the effectiveness of the SBTP on dysrhythmias.

Acknowledgement

We would like to thank Dr. Kalaivani, scientist, Biostatistics department, AIIMS, for the statistical help and the staff nurses who consented to be the part of this study. We feel immense gratitude for Dr. Vanita Mittal, Senior Manager Medical Training and Quality, American Heart Association International Training Organization Coordinator, Max Hospital, Saket, New Delhi; who dedicated her precious time altruistically as a sincere teacher for her inputs while developing the tools.

Interest of conflict

none

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A Study to Identify the Women at Risk for Cancer Cervix and their Compliance to a Screening Test After an Individual Awareness Programme in a Selected Village of Udupi District, Karnataka

Soumya C. Soans¹, Blessy P. Valsaraj², Daisy J. Lobo³
¹Lecturer, Department of Medical Surgical Nursing, ²Associate Professor, Department of Mental Health Nursing, ³Associate Professor, Department of Medical Surgical Nursing, Manipal College of Nursing, Manipal, Manipal University, India.

Abstract

A research study was carried to identify the women who are at risk for cancer cervix using a risk assessment tool and diagnose through Pap smear test, and also to assess their compliance rate to Pap smear test at Kukkundoor village, Karkala, Udupi district, Karnataka. The study consisted of 200 rural married women between the age group of 30-60 years. The survey research approach was used to collect the data. Risk was assessed through risk assessment tool. Risk assessment tool consisted of demographic data and other factors which are responsible for the development of cervical cancer. The data gathered were analyzed based on the objectives of the study. Descriptive statistics such as frequency, percentage, and pie diagram are used for analysis of the findings. Eighteen women (9%) were at high risk for cancer cervix. These women were provided with an awareness programme. Among 18, three were not willing to go for the examination and test. Fifteen high risk women were instructed to come to hospital for gynecological checkup with Pap smear testing which was free of cost. Among those only nine had come to the hospital for the checkup and investigation.

Key Words

Cancer, cervix, high risk.

Introduction

There has been a tremendous change in the demographic profile of the country. The birth and death rates have declined and the life expectancy of birth has also increased as a result of betterment in health services. The increase in the expectation of life has brought about the change in the disease pattern of the population. In the midst of already existing communicable diseases, non-communicable disease like cancer has become a major cause of morbidity. Realizing the threat of cancer in a developing country like India cancer activities got due attention. Cervical cancer is an important health problem in developing countries. Most women present with advanced disease, resulting in low cure rates. This is probably due to lack of knowledge and a low priority of women’s health in local communities. There is an obvious need to obtain more knowledge on communities’ perceptions and understanding of cervical cancer. Screening high risk women would be very much helpful in identifying cancer cervix in its early stage.

Materials and Methods

The present study was carried out at Kukkundoor village, Karkala, Udupi district, Karnataka during 2007-2008. Purposive sampling technique was used. Total 200 rural women aged 30-60 years, who were available during the time of data collection, were interviewed with the help of risk assessment tool, which was prepared by the investigators. To assess the socio-economic status of women, modified Udai-Pareek socio-economic scale was used. The cervical cancer risk assessment tool consisted of four parts. They are Demographic Characteristics, History, Lifestyle factors, and Personal factors. The risk factors were grouped according to Demographic Characteristics, History like Family Medical History, Past Medical History, Menstrual history, Obstetrical / Reproductive History, Lifestyle factors, Hygiene: menstrual and perineal hygiene, Personal factors like Sexual Practices and Husband related factors. There were total of 54 items. All the risk factors of cervical cancer were dichotomized into risk and non risk level. Each risk factor was scored as one and no risk was scored as zero. All the 54 factors were considered for estimating the cumulative scores for each. The risk status was further classified into high risk (above 50 percent), moderate risk (25-50 percent), and low risk (below 25 percent). Content validity of the tool and awareness programme was done and necessary modification was done based on suggestions. Pre-testing was done to determine the clarity of the items, the time required to the interview and to ensure the feasibility of the tool.

The data gathered were analyzed based on the objectives of the study using Statistical Package for Social Science (SPSS 11.5 version). Descriptive statistics such as frequency, percentage, and pie diagram are used for analysis of the findings.

Ethical clearance was obtained from Institutional Ethical Committee of Kasturba Hospital. Subject Information Sheet was given to each participants of the study with adequate explanation before starting to collect data and a written consent was obtained from each study participants. Assurance was given to the subjects that the anonymity of each individual will be maintained.

Results

The data presented in Fig 1 shows that majority (78%) of women was at moderate risk, remaining 13% were at low risk and 9% were at high risk.

Thirteen percent had a history of cancer in their family. Two percent presented with history of reproductive tract infection and one percent with history of warts on the private parts.

Majority of women (78.5%) had attained the menarche after age of 12 years. 16% of women had irregular and 5% had longer and heavier menstrual cycle. 17% had symptoms like dysmenorrhea, low back pain (30%). 8.5% of women had excessive vaginal discharge and foul smelling discharge (4.5%). No history of postcoital bleeding was reported. Majority of women married before the age of 21 years (76%), many had their first sexual intercourse before the age of 18 years (52%). Majority of women had their first pregnancy...
before 21 years (62%) and last child birth before 30 years (63.5%). Majority of women delivered in the hospital (68%) and delivery conducted by trained personnel (71.5%). Many women had conceived more than 3 times (46.5%) and number of live child birth (58.5%). In 30.5% of women history of abortion was found. 7% of women had developed complication during delivery. Majority of the women had attained the menopause before 40 years (70%). One percent of women reported to have bleeding after menopause. 26.5% of women had more than 25 years of married life.

Many (45.5%) of women were using tobacco related products which was evident from their habits like smoking, chewing tobacco, or using snuffs. Majority (84%) had used cloth and 80.95% of them reused the cloth. Majority (79.17%) had washed cloth with only soap and water and dried in shade (77.38%). Majority (88.5%) did not change the cloth after micturation and used only soap and water to clean the perineum (87%). Very few had (4%) pain during sexual intercourse. Majority of women had abstinence from sexual activity after delivery for more than 40 days (99%). None of them reported of having extra marital relationship. Majority (99.5%) had cleaned the perineum after intercourse.

Vast majority did not use contraceptives like IUD (99.5%), oral contraceptives (99.5%) and condoms (99%). Majority of men (86%) did not have circumcision done. Majority (99.5%) cleaned their penis after intercourse. Among the husbands, (3%) of had extramarital relationship. No men had the history of venereal disease or infections.

Eighteen women (9%) were at high risk for cancer cervix. Among 18, three were not willing to go for the examination and test. The reason for that was, as told by the women was that they are symptom free and do not want to enter hospital itself.

Fifteen high risk women were instructed to come to hospital for gynecological checkup with Pap smear testing. Among those only nine had come to the hospital for the checkup and investigation. Reason for the noncompliance of the rest of the women were related to work, fear of investigation and outcome, lack of willingness to go for the test and being not facing much problem with the present symptoms.

**Discussion**

**Demographic Variables**

Study population belonged to the rural area and 44% were illiterate, 38.5% had primary school. Vast majority 144 (72%) belonged to low socio-economic status. A hospital based study conducted in north India to determine the prevalence of high risk HPV DNA in women with benign cervical cytology found that high risk HPV was more common in rural than the urban women and the difference was statistically significant (P = 0.001). Women who were illiterate or had less than six years of education had a significantly higher rate of high risk HPV (P = 0.014). Women belonging to low socio-economic class had a higher rate of high-risk HPV infection, than those from medium or high socio-economic group.¹

**Specific Risk Factors**

Obstetrics and reproductive history: 46.5% women had more than three pregnancies and age at first child birth was less than 21 years in 62% of women. A similar finding supports the above study results. The International Collaboration of Epidemiological Studies of Cervical Cancer conducted study in 2006 found that number of full-term pregnancies was associated with a risk of invasive cervical carcinoma. Early age at full-term pregnancy was associated with risk of both invasive cervical carcinoma and CIN3/carcinoma in situ.² Early menarche (21.5%), increased frequency of sexual intercourse (0%). A study conducted by Patil S et al in 2002 gives the result revealing more cases of mild cervical dysplasia in women with early menarche and increased frequency of sexual intercourse per week.³

Vast majority (86%) male partners did not have circumcision done and 99.5% were cleaning the penis properly. Only 1% used condom during sex. A similar study

<table>
<thead>
<tr>
<th>Sample Characteristics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>Age 30 – 40 years</td>
<td>79</td>
<td>39.5</td>
</tr>
<tr>
<td>40 – 50 years</td>
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<tr>
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<td>22.5</td>
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<td>Religion</td>
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<tr>
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<tr>
<td>Caste</td>
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<td></td>
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<tr>
<td>Others (shetty, acharya, bovi, devadiga, poojaary, kotian, nayak)</td>
<td>173</td>
<td>86.5</td>
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<td>Backward Class</td>
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<tr>
<td>Education of women</td>
<td></td>
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<tr>
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<td>Primary school</td>
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<td>PUC and Graduation</td>
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<tr>
<td>Post graduation and above</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Education of husband</td>
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<tr>
<td>Socio-economic status</td>
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<tr>
<td>Middle class</td>
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<td>23.5</td>
</tr>
<tr>
<td>Low class</td>
<td>144</td>
<td>72.0</td>
</tr>
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</table>

Fig 1: Pie diagram showing distribution of sample based on their risk for cancer cervix

Table 1: Distribution of samples based on their Socio-Demographic characteristics (N = 200)
Finding supports the above study results. Case control study was conducted among 54 women in Pondichery between 25-50 years of age with histological confirmed cervical cancer along with their husbands to find out the male risk factors in the etiology of cervical cancer. Poor genital hygiene was significant risk factor in the case of husbands (OR= 16.4). Other risk factors were genital lesions (OR= 3.92), multiple sexual partners (OR=6.53) and non use of condoms (OR=10).

Compliance rate and reason for non-compliance

Eighteen women (9%) were at high risk for cancer cervix. Among 18, three were not willing to go for the examination and test. The reason for that was, as told by the women was that they are symptom free and do not want to enter hospital itself. Fifteen high risk women were instructed to come to hospital for gynecological checkup with Pap smear testing. Among those only nine had come to the hospital for the checkup and investigation. Reason for the noncompliance of the rest of the women were related to work, fear of investigation and outcome, lack of willingness to go for the test and being not facing much problem with the present symptoms.

A study has been conducted to determine the effectiveness of planned teaching programme to school teachers on prevention and early detection of cervical cancer from selected institutions of Udupi district. Study finding showed that there was significant increase in knowledge when compared pre-test (14.61) and post-test (40.82) scores. Number of teachers who underwent Pap smear test before and after the planned teaching programme was zero. Since none of the subjects underwent Pap smear test before and after the planned teaching programme was zero. Since none of the subjects underwent Pap smear test, a focus group interview was conducted with five teachers to find out the reasons of noncompliance with the Pap test. The teachers expressed the reasons like absence of any health problems, lack of time and fear of obtaining a positive result.6

Acknowledgements

Sincere gratitude and thanks to Dr. Ratna Prakash, for her support and timely help during the entire study. We also acknowledge the help, guidance, immense co-operation and support rendered by Dr. Manjunath, HOD, Obstetrics and Gynecology, Dr. T.M.A. Pai Rotary Hospital, Karkala and Dr. Avinash Shetty, CEO, Dr. T.M.A. Pai Rotary Hospital, Karkala.

Reference

Depression and Spirituality - A Qualitative Approach

R. Sreevani¹, K. Reddemma²
¹Professor, College of Nursing, Sri Devaraj Urs College of Nursing, ²HOD, Deptt of Nursing, Nimhans, Bangalore, Karnataka

Abstract

Aim

This study aimed to give an opportunity to those who have experienced spirituality and depression to voice their experiences of spirituality and depression.

Background

Depression has spiritual dimension, spirituality helps people to cope with depression. Qualitative grounded theory approach found that spirituality was linked to participant’s experiences of depression as both a cause and a cure. Survey of literature revealed that very little qualitative research was done in this area. It seems evident that there is a need for qualitative research that allows persons to voice their experiences of their spirituality and depression in Indian context.

Method

Qualitative research approach was used. Eight depressive patients were interviewed and data was analyzed using qualitative descriptive approach.

Findings

• All the participants stated that spiritual activities help them to control negative thoughts, tension and fear. Participants also hoped that surely God will help them to come out from this depression.
• Participants stated that because of depressive feelings they are unable to perform ritual activities.
• Commonly practiced spiritual activities are praying, reading religious books, attending bhajans, wearing charmulet and performing poojas.
• Common organizations which are helping participants are ashramas, temple, and church.
• All the participants stated that medicine and spirituality both should be incorporated to decrease depressive feelings.

Conclusion

Awareness of patient’s spiritual needs gives psychiatric nurses important information for planning spiritual intervention.

Introduction

Numerous epidemiological findings suggest that the era we live in can be described as the “age of melancholy”. Indeed, roughly 1 in 5 women and 1 in 10 men will experience a clinically significant depressive episode during their lifetime. The incidence of depression is steadily increasing; the episodes start at an even-earlier age. Depressive disorders have a severe special and economic impact.¹² Depression to be the fourth leading cause of disease burden, it provokes the largest amount of nonfatal burden, accounting for almost 12% of all total years living with disability worldwide.³ The Global Burden of Disease study states that depression is a leading cause of disability and will account for 15% of the disease burden worldwide by the year 2020.⁴⁵

Spirituality is a sense of connectedness to a divine other, to God. Spirituality is what connects us to other; it is a sense that we are not alone, and there is meaning beyond our own actions. It is a distinct construct acknowledging that the individual has faith in a divine being or force.⁶ Moreover, spirituality provides a personal sense of meaning and life purpose, which is not confined to the beliefs and practices of a particular religion. Spirituality is a way of life, normally informed by the moral norms of one or more religious traditions, through which the person relates to other persons, the universe and the transcendent in ways that promote human fulfillment and universal harmony.⁷

Several studies have shown a positive association between religious commitment and mental health. In a meta-analysis, Larson et al⁸ pooled all of the studies pertaining to spirituality and mental health over an 11-year period from 2 leading psychiatric journals. In the review, 84% of the studies showed a positive association between spiritual attitudes and mental health. Various aspects of spirituality have been associated with lower prevalence of depression.⁹ Depression has spiritual dimension. Spirituality helps people to cope with depression.¹⁰ Qualitative; grounded theory approach found that spirituality was linked to participant’s experiences of depression as both a cause and a cure.¹¹ Survey of literature revealed that very little qualitative research was done in this area. It seems evident that there is a need for qualitative research that allows persons to voice their experiences of spirituality and depression in Indian context

The aim of this study

• To give an opportunity to those who have experienced spirituality and depression to voice their experiences in their respective contexts and
• To find out detailed and complex description of people’s experience of spirituality and depression

Methods

Research Approach

Qualitative research

Participant recruitment

Subjects were recruited by referral from psychiatrist Purposive
sampling technique was used by the researchers on the basis of their potential for providing rich descriptions of their journeys with spirituality and depression. The researchers also made an attempt to include people of different faiths and culture.

Persons who had been diagnosed with depression and were able to give informed consent were eligible to participate in the study.

Inclusion criteria
The patients were recruited based on the following inclusion criteria:
- Age 18 to 65 years
- Diagnosed with mild to moderate depression based on ICD10 criteria
- Symptomatically stable condition
- Able to speak one of Kannada, Telugu or English languages
- Who meets FICA model spiritual assessment criteria
  FICA stands for Faith and belief, Importance and influence of faith and belief, Community, Address in care.
1. Do you have spiritual belief that helps you cope with stress?
2. Have your beliefs influenced how you care for yourself?
3. Are you part of a religious or spiritual community?
4. Would you like health care providers to be involved in spiritual aspects of your care?

Setting
The study was conducted in psychiatric OPD of R.L.Jalappa Hospital and Research Centre, Tamaka, Kolar, Karnataka

Method of data collection
Conducted semi-structured, in-depth, non-intrusive, non-directive, qualitative interviews lasting 30 to 60 minutes with 8 subjects currently undergoing treatment for depression. The interviews took place in the outpatient department from October 2010 to December 2010. Subjects were interviewed by 2 study members, with one acting as primary interviewer and the other focusing more on detailed note taking. Voice recorder was used for patients who gave consent for use of the same. Primary interviewer maintained eye contact with subjects and only rarely asking for brief pauses to catch up on note taking.

Notes were checked for consistency and merged after the interviews. Interviews were structured around a set of root questions covering subjects’ experience of depression and spirituality. Each root question was followed by a number of probe questions to flush out details in subjects’ responses.

The template for the root questions is as follows:
1. What is your understanding of depression?
2. What is spirituality?
3. How has spirituality helped you deal with depression?
4. How has depression impacted spirituality?
5. What spiritual activities are commonly used when you are depressed?
6. Which religious organizations helped you to come out from depression, explain?
7. How health care providers can help the patient deal with depression using spirituality?

Data Analysis
A qualitative descriptive approach was used based on interview template.
- Using notes from two researchers who participated in the interviewing process, independently classified statements, according to schema- first into major categories underlying interview template and then into subcategories as identified them in the data and searched for themes and concepts common to these interviews.
- The researchers then compared results through an interactive process of discussion, reflection
- The researchers focused on describing common themes

Ethical Consideration
- Oral and written information about the study was offered to the participants describing the purpose of the study, the ethical principals and voluntary nature of the study.
- Patient’s willingness and informed consent to participate in the study were ascertained.
- Data were treated in confidence

Results
- Eight participants ranged in age from their 20s to 40s, of which two were males and six females.
- While six participants belonged to Hindu religion one each was from Muslim and Christian religions.
- Two participants reported primary education; four higher secondary educations; one graduate degree and one postgraduate degree.

<table>
<thead>
<tr>
<th>Table 1. Participant’s statements about understanding of depression</th>
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• Depression is something I cannot explain, my mind will go off some times, I don’t know what is happening to me no concentration on work, I feel fear to do work, I feel tired.
• I am not able to do any work feeling of sadness, not able to talk to others, do not want to mingle with others, not experiencing sense of pleasure. It is very painful experience. Getting angry towards people.
• Feeling scared and stressed, lonely, no body is there to support me, all have isolated me, what ever I do becomes negative, always I get negative thought, the pain cannot be explained, I feel inferior won’t progress I will be the same.
• Sadness, feeling dull, no meaning in life. For the sake of eating I eat and prepare, not motivated to eat or sleep. Finally feels that no meaning, something is happening and don’t know what is happening.
• Can’t decide, no confidence. Always I’ll be thinking about something. My self-esteem decrease. Cannot communicate with others.
• We are not able to do even our daily activities such as bathing, cooking, doing things systematically. No interest to live and do any work.
• I feel like to runaway from home and leave the society.
I want to be alone; I don’t feel to talk to anyone. Suicidal thoughts also arise.

Table 2. Participant’s understanding of spirituality
- Spirituality means doing prayer, attending rituals of god.
- Worshiping the god, culture, doing pooja, our moral practices.
- Spirituality is inner power, source for relating to god.
- Should not do bad for others we should not harm others.
- Doing meditation.
- Lighting the lamp and doing prayer.
- Spirituality is a way to relate to God.

Table 3. Participant’s statements regarding how spirituality helps to deal with depression
- If I go masjid I will have peace of mind depressive feeling will be less for some time.
- After praying my mind use to be fresh and have a feeling that god will help.
- Negative feelings will go off after prayers.
- Prayer helped to reduce fear.
- Faith in god will reduce tension.
- Having hope that god definitely helps me to come out from depression.
- I have faith that god will help me surely.
- I feel god will solve my problems.
- When I feel depressed, I tell my problems to god and I am able to face the problems and move forward because god is there.
- Worshiping god reduces disturbance in mind and I feel that he will guide me through the proper path.

Table 4. Participants statements regarding depression impact on spirituality
- Because of depressive feeling no interest to go to church, some times I used to come out from the church.
- When I get extremely sad or irritated, I used to feel angry on god.
- I used to feel that god never exists when I was in extreme state of sadness.
- I used to feel that god is responsible for all my problems/ he made me like this.
- I used to question god for my sufferings.
- My disease hinders my prayers and my religious activities.
- My spirituality increased after my problems started.
- When I started having sad feelings I am not able to go to Darga for prayer or do daily prayers.
- My faith in god reduced due to depression.

Table 5. Participant’s statements about common spiritual activities followed during the episode
- Praying, Going to temple/ church /masjid.
- Reading and listening bible /religious texts/ namaz.
- Meeting religious people/ satsangha/ ashramas.

Table 6. Participant’s statements regarding help from religious organizations
- Going to temple/ church /masjid.
- Going to ashramas and getting advice from swamiji or poojari.
- Involving in bhajan groups or satsangas.

Table 7. Participant’s statements regarding view points on how health care providers can help the patient deal with depression using spirituality
- Medicine and spirituality, both should be incorporated to improve depression.
- Advice patients to pray, give religious books of their preference.
- Advice patients that belief in god will strengthen our mind and improve will power, thus helping to reduce stress.
- Teach meditation, yoga or deep breathing exercises.
- Talk about religious things/ higher power.
- Relating god’s stories with normal human life.
- Nurses can pray for their patients or join with them while praying.
- Spiritual needs if addressed by the nurses; it will make us feel more comfortable because it diverts our mind. Those activities have to be planned according to individual needs of the patient.

All the participants were diagnosed for depressive disorder and currently on antidepressant medication.

Summary of Main Findings
- Most of the participants felt depression is a terrible experience that can’t be explained. Most of the participants felt no meaning in life, no interest in daily activities, getting negative thoughts repeatedly, and not interested to mingle with others.
- All the participants expressed that spirituality is related to doing religious activities like prayer meditation and performing poojas. Some expressed that spirituality is some higher power.
- All the participants stated that spiritual activities help them to control negative thoughts, tension and fear. Participants also hoped that surely God will help them to come out from this depression.
- Participants stated that because of depressive feelings...
they are unable to perform ritual activities.

- Commonly practiced spiritual activities are praying, reading religious books, attending bhajans, wearing charmulet and performing poojas.
- Common organizations which are helping participants are ashramas, temple, and church.
- All the participants stated that medicine and spirituality both should be incorporated to decrease depressive feelings.

Discussion
- The dominant societal perspective today is that depression is an illness and an unpleasant one. The participants reflected this perspective to a degree. For example one participant said depression is very painful.
- In a quantitative study that there is a close relationship between anger and depression. Psychodynamic perspective argues that bottled-up anger is characteristic of depression. Anger as an aspect of depressive experience was a common theme in the statements of participants.
- De Shazer has argued that psychological health is linked to future story of hope. Robertson et al have suggested that narratives of depression are characterized by absence of a future story. Hopelessness was the common theme found in participants.
- Diverse perspective stresses that spirituality could include some sort of relationship with the transcendent. This aspect was strongly supported by the statements of the participants.
- A study highlighted prayer has central to a Christians relationship with God. Prayer is also one of the five pillars of Islam. Prayer is also an important practice in Hinduism and Buddhism. Prayer was an ingredient of spirituality that seemed to help all participants.

Strengths of the Study
- Included people from different religion
- The uniqueness of the religiosity of the eight participants suggested that the avenue of further research in this area
- Feed back interviews were held with the eight participants ensuring trustworthiness (dependability and credibility)

Limitations of the Study
- Small sample size
- Limited number of interviews with participants (only two)
- Findings and conclusions are subject to potential bias from researcher’s perception and prejudices. However having two persons simultaneously take notes should have minimized effects of selective recording of information.

Implications for Nursing Practice
This study suggested strongly that nurses should be aware of the patients spiritual needs and supports a recommendation for the development of spiritual interventions appropriate for depression.

Conclusion
In the light of the results of the study there is close link between spirituality and depression. Awareness of patient’s spiritual needs gives psychiatric nurses important information for planning spiritual interventions. Providing holistic nursing care will improve patient’s outcomes.

References
Assessment of Functional Status in the Performance of Activities of Daily Living Amongst Elderly in Sub Urban Population of India

Shalika Sharma¹, Manjula Thakur², Sukhpal Kaur³
¹Nursing Sister Gr II Nehru Hospital, PGIMER Chandigarh, ²Clinical Instructor, ³Lecturer and corresponding author, National Institute of Nursing Education PGIMER, Chandigarh.

Abstract

The health status of elderly people can be very well evaluated through their functional assessment in the performance of Activities of Daily Living. A descriptive study was undertaken in a sub urban colony of Chandigarh with an objective to assess the dependency level in the performance of Activities of Daily Living in elderly people. Using Systematic Random Sampling technique 300 subjects were undertaken for the study. Katz Index of Independence in Activities of Daily Living was used to assess the dependency level in the performance of activities of daily living. Maximum subjects (72%) were in the age group of 60-69 years. About 60% were females and were married. 39% were widow/widower. Sixty five percent of subjects were illiterate and majority (83%) were not working. Around eighty two percent of the subjects were found to be fully functional in the performance of their activities such as bathing, dressing, toileting, transferring, continence and feeding. 16.3% were dependent for the activity of toileting followed by the activities of transferring, dressing, and bathing. Females were significantly more functional and had less impairment than men. (\( p < 0.001 \))

Key Words

Functional status, Activities of Daily Living, elderly population

Introduction

The improved life expectancy has led to an increasingly large number of people over the age of 60. As per the 1991 census, the population of the elderly in India was 57 million as compared with 20 million in 1951. It has been projected that by the year 2050, the number of elderly people would rise to about 324 million.¹

Life at any age can be rewarding, yet most of us resist the thought of growing older.² Ageing is an inevitable process of life, which involves gradual degeneration of the structure and function of organism.³ With the increase in age the level of dependence as well as the health related problems increases.²,⁴

One of the approaches towards studying the well being of the elderly is to study their competence in daily living. Such functional competence based approach helps to assess the ability to manage the tasks of daily living by the elderly, without dependence on others. Several instruments are available for functional assessment. Katz¹ Activity of Daily Living (ADL) Scale and the Lawton’s Instrumental Activity of Daily Living (IADL) Scale are the common reliable instruments which are used for measuring patients’ abilities to perform ADLs and IADLs. These scores help in determining what kind of assistance may be required for a particular individual. When the elderly persons begin to require help in performing these activities, their risk of becoming more dependent increases.⁵

ADLs are self-care activities that an individual must perform daily. These include eating, dressing, bathing, transferring between bed and chair, using the toilet, and controlling bladder and bowel. IADLs enable a person to live independently and include preparing meals, performing housework, taking medications appropriately, going on errands, managing finances, and using a telephone.⁶ As per Ruigomez et al functional capacity based on ADL strongly predicts subsequent mortality and provides relevant information on health status of community elderly.⁷

Thus assessment of Activities of Daily Living measures a composite index of individual abilities to perform some basic functions. It provides objective data that may indicate further decline or improvement in health status of elderly. This data can help the health care professionals to plan their interventions accordingly to prevent further decline in their functional status. The present study was undertaken in Daddumajra Colony, UT, Chandigarh to assess the functional status in the performance of ADL in elderly people.

Methodology

A descriptive approach was employed. The study was conducted at Daddumajra Colony, UT, Chandigarh. This is a semi urban colony, situated at a distance of 5 kms from PGIMER, Chandigarh. This is a resettled colony with more than 3000 houses. Colony has modern system of sanitation, underground drainage and tap water supply. Residents are migrants from different parts of the country, so have different social and cultural practices. Using Systematic Random Sampling technique 300 subjects were selected.

Sample consisted of all the elderly above 60 yrs of age and agreed to be interviewed. The tool used in the study consisted of two sections. Section A included the socio-demographic data and section B included data related to performance in Activities of Daily Living. A standardized tool named Katz Index of Independence in Activities of Daily Living (ADL) was used to assess the functional performance in ADL. It includes 6 activities i.e bathing, dressing, toileting, transferring, continence and feeding. For each activity score 1 was given for independence in ADL, i.e. without supervision, direction or personal assistance in performance of that particular activity. However, score 0 was given for partial or total dependence. Maximum attainable score was 6. Subjects scoring 6 marks were classified as fully functional, while those having a score of 3-5 were classified as having moderate impairment and with a score of 2 or less than 2 were considered as having severe impairment in the performance of their activities. Verbal consent from each subject was sought. Data was analyzed by using descriptive and inferential statistics.
Table 1. Socio-demographic Profile of the Subjects

<table>
<thead>
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<th>Socio-demographic characteristics</th>
<th>n (%)</th>
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<tr>
<td>Age (yrs)</td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>215 (71.7)</td>
</tr>
<tr>
<td>70-79</td>
<td>063 (21.0)</td>
</tr>
<tr>
<td>80-89</td>
<td>019 (06.3)</td>
</tr>
<tr>
<td>&gt;90</td>
<td>003 (01.0)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>122 (40.7)</td>
</tr>
<tr>
<td>Female</td>
<td>178 (59.3)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>004(01.3)</td>
</tr>
<tr>
<td>Married</td>
<td>179 (59.7)</td>
</tr>
<tr>
<td>Widow/widower</td>
<td>117 (39.0)</td>
</tr>
<tr>
<td>Educational Status</td>
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</tr>
<tr>
<td>Illiterate</td>
<td>026 (08.7)</td>
</tr>
<tr>
<td>Just literate</td>
<td>046 (15.3)</td>
</tr>
<tr>
<td>Primary</td>
<td>034 (11.3)</td>
</tr>
<tr>
<td>Matric and above</td>
<td>250 (83.3)</td>
</tr>
<tr>
<td>Occupation</td>
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<tr>
<td>Unemployed/retired</td>
<td>020 (06.7)</td>
</tr>
<tr>
<td>Labourer/maid servant</td>
<td>024 (08.0)</td>
</tr>
<tr>
<td>Own business</td>
<td>003 (01.0)</td>
</tr>
<tr>
<td>Professional (Govt/private)</td>
<td>003 (01.0)</td>
</tr>
<tr>
<td>Social work</td>
<td>247 (82.3)</td>
</tr>
<tr>
<td>Religion</td>
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</tr>
<tr>
<td>Hindu</td>
<td>042 (14.0)</td>
</tr>
<tr>
<td>Sikh</td>
<td>009 (03.0)</td>
</tr>
<tr>
<td>Muslim</td>
<td>002 (00.7)</td>
</tr>
<tr>
<td>Christian</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Functional impairment as per the scores of the subjects

| Functional Malen Femalen Total n impairment (%) (%) (%) ÷2, df, p-value |
|-----------------|-----------------|-----------------|----------------|
| Fully Functional| 87 (29)         | 158 (52.7)      | 245 (81.7)     | 15.09, 2, p<0.001 |
| Moderate Impairment| 18 (06)   | 12 (04)      | 30 (10)      |               |
| Severe Impairment| 17 (5.7)    | 08 (2.6)     | 25 (8.3)     |               |

Discussion

During past twenty years or so, research on the ageing process has contributed to the realization that ageing need not to be equated with inevitable decline and disease, instead the later years of life can be healthy, fulfilling and productive provided the person is healthy. Assessment of functional impairment among the elderly is of great importance to have an overview of the common physical impairments among the elderly population, so that timely actions may be taken to reduce further complications.

Present study was carried out to assess the functional status of elderly people in a semi urban area. Majority of the subjects were in the age range of 60-79 yrs. More than half were females. The longevity of the female has been reported in other studies also. Showing the poor state of education in the community, it was found that almost 65% of the population was illiterate and almost same number (67%) was also found to be illiterate in another study done in Wardha. The percentage of non working population in the present study was quite high (83%). The corresponding figure in other study was 24.3%. This difference can be due to difference in socio economic and cultural practices of different communities. More over the current study was in semi urban...
Elderly usually consider themselves to be limited to their houses and consider looking after the grandchildren as their only occupation. Very few were found to be involved in some job and social work, leaving a large proportion of the subjects as non working.

As per the dependence in various activities of daily living in the present study, it was found that 11.3%, 15%, and 16.3% of the subjects were dependent on others for bathing, transferring, and toileting respectively. While the study in California revealed the percentage as 5% each for bathing and transferring and 2% for toileting. But both the studies have reported similar findings in case of activity of dressing and feeding. The more dependence in case of bathing, transferring and toileting can be explained by the fact that locomotive disorders are more common in the elderly population. With aging there is a loss of bone mass. Ligaments become weak. There is decrease in range of motion of the joints. Thus the elderly face difficulty in moving around.

While assessing the functional impairment in the subjects it was found that 18% of the population was suffering from moderate to severe impairment. It does not differ from the worldwide prevalence of 10%-30%. Loh et al has reported the overall prevalence of functional impairment as 33.5%. In the current study functional impairment was found to be more in the males. It is otherwise also seen in the Indian scenario that the males are more dependent than the females. Though the illness has been reported to be higher in females, then also they are more functional.

Conclusion

As the life expectancy of our population is increasing at a faster pace, assessment of the functional impairment in the elderly is very important to prevent further morbidity. The needs and priority of each elderly is different, thus it is important to identify which particular problem is crucial for a particular individual when assessing the functional impairment.

References

Assessment of Knowledge, Attitude and Practice of Prenatal Diagnostic Techniques Act Among Antenatal Mothers at Maternity Centre, Coimbatore

Vidhya Sivaram¹, Vidya Seshan², Shanthi Ramasubramaniam³
¹Assistant Professor, P.S.G. College of Nursing, Coimbatore, Tamilnadu, India, ²Lecturer, College of Nursing, Sultan Qaboos University, Muscat, Sultanate of Oman, ³Lecturer, College of Nursing, Sultan Qaboos University, Muscat, Sultanate of Oman.

Abstract
The preference for a son continues to be a prevalent norm in the traditional Indian household. This is evident from the declining sex ratio which has dropped to alarming levels according to Census 2001 reports. In this context, we attempted to assess the knowledge of Antenatal mothers on Prenatal Diagnostic Techniques Act, and it is necessary to gear efforts against the cultural, economic and religious roots of this social malady by woman empowerment and intensive Information, Education and Communication campaigns. A descriptive study was conducted among 50 antenatal mothers of selected maternity centre in Coimbatore District, Tamilnadu. The result of the study shows that Antenatal Mothers had poor knowledge on PNDT Act. The total Mean Knowledge Score was 7.42 ± 3.04 with mean percentage was 37%. No significant association was found between Knowledge and Practice scores with Demographic variables. Positive Co-relation was found between Knowledge and Practice regarding PNDT Act (r=0.56, p<0.05). Analyzing education and attitude in our study group showed that increase in education is accompanied with an improvement in the attitude in these ante-natal women. None of the variables was significantly associated with attitude except knowledge (p<0.05). The study concluded that Antenatal Mothers had poor knowledge on PNDT Act. India has yet a long way to go in her fight against pre-birth elimination of females. The antenatal mothers will gain adequate knowledge and attitude through education and reinforcement towards PNDT Act. A concerted effort by the medical fraternity, the law, political leaders, NGOs, media, teachers and the community itself is the need of the hour.

Key Words
Female feticide, sex ratio, sex determination, Prenatal Diagnostic Techniques (PNDT), Communication campaigns.

Introduction
Universally, people are curious to know the sex of their unborn child. In many cases, this curiosity is linked with the desire to have male child. In India, this bias occurs because sons bring income, honor, continue the family tree, provide security for their parents in old age and perform religious rites at the time of death. In India, prenatal sex determination is a traditional practice that existed before the introduction of ultrasound and other reproductive technologies. However, sex selective abortion of female fetuses (female feticide) increased as a result of greater confidence in the accuracy of the new technology and the privacy that such clinics offered. Ultrasound has been freely used to determine the sex of the unborn child based on an accuracy of 90% for male and 100% for female fetuses. The Prenatal Diagnostic Techniques (PNDT) Act was passed in 1994 prohibiting any ‘unregistered genetic counseling center or clinic from conducting any prenatal sex determination procedure’.

Objectives
1. To assess the Knowledge, Attitude and Practice of sex determination of Prenatal Diagnostic Techniques Act among the antenatal women.
2. To compare the attitude and Practice of sex determination in relation to Knowledge of the Antenatal Mothers regarding PNDT Act.
3. To compare the Knowledge, Attitude and Practice of Prenatal Diagnostic Techniques Act with their selected Demographic variables.

Methodology
Design : Descriptive Survey Design
Setting : Selected Maternity Centre, Coimbatore
Population : Both Primi and Multi gravid Mothers
Sample Size : 50
Sampling Technique : Purposive Sampling technique (Non random sampling)

Objectives
1. To assess the Knowledge, Attitude and Practice of sex determination of Prenatal Diagnostic Techniques Act among the antenatal women.
2. To compare the attitude and Practice of sex determination in relation to Knowledge of the Antenatal Mothers regarding PNDT Act.
3. To compare the Knowledge, Attitude and Practice of Prenatal Diagnostic Techniques Act with their selected Demographic variables.

Material & Methods
The study was conducted in the selected maternity centre at Coimbatore from Jan 2010 To Mar 2010. During this study period the antenatal women visiting the clinic were explained regarding the nature of the study while awaiting consultation with the doctor. First fifty antenatal women who gave their consent to participate in the study were interviewed using a pretest questionnaire. The questionnaire, a structured and partly open-ended one was administered without any prompting. The variables included to evaluate knowledge on PNDT and practice of sex determination were awareness about declining sex ratio, possibility of intra uterine sex determination and methods, punishment associated with misuse of PNDT act and its extent. We tried to quantify knowledge by giving a score of one to each right answer and then grading the scores of one, two and three as poor, average and good knowledge respectively.

The attitude of women were assessed by questions like whether they would like to determine the sex of the fetus, if sex of the fetus were opposite what they would like to do and if their friend wants to do in- utero sex determination what they would advise . The answer to the question “is intra-uterine sex determination right?” was taken as a proxy variable for the attitude, ‘Yes’ being the wrong and ‘No’ being the right attitude. At the end of the session Self Instructional Module about Prenatal Diagnostic Techniques Act was given to the mothers.

Plan for Data Analysis
Descriptive Statistics - Percentage, Mean and Standard Deviation
Inferential Statistics - Chi-Square and Correlation Co-efficient
Findings

The 50 pregnant women constituting our study population were aged 18 to 32 years. Majority of them were primipara (52%), from urban area (61%) and Hindu (60%). Of all these women, Most of the mothers (42%) had middle school education. Most of the women (82%) from lower class of socio-economic strata and 76% of the study population was housewives.

Regarding the knowledge of these women on PNDT Act, 76% were aware of the availability of a method for intra-uterine sex determination, but a lesser number (36%) knew that doing so is punishable under the law and even fewer (32%) were aware of the declining sex ratio in the country.

The above figure shows the distribution of the level of knowledge of antenatal mother’s regarding punishment if they violate the PNDT Act. A total of 58% of the antenatal mothers felt that along with the doctor, the patient and family members involved should also be punished for violating the PNDT Act. Another 22% of antenatal mothers felt that both the doctor and the patient should be punished, 16% felt only the mother should be punished, and 4% felt that only the family member should be punished.

Knowledge was cross-tabulated with the socio-demographic variables to find out if any association existed between these variables and the knowledge about PNDT among these pregnant women. Majority of the study subjects had inadequate knowledge (68%) followed by 28% having moderately adequate knowledge and only 4% having adequate knowledge. The knowledge of PNDT was significantly increased with education. Parity had no influence, but women from urban setting had better knowledge than their rural counterparts (not significant).

Table 1. Assessment of Knowledge on Prenatal Diagnostic Techniques Act

<table>
<thead>
<tr>
<th>S.No</th>
<th>Areas</th>
<th>Max. Score</th>
<th>Mean</th>
<th>SD</th>
<th>Mean %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Information on PNDT act</td>
<td>3</td>
<td>1.32</td>
<td>0.74</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>Awareness About Declining Sex Ratio</td>
<td>2</td>
<td>0.5</td>
<td>0.505</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Possibility of intra uterine sex determination and methods</td>
<td>7</td>
<td>2.8</td>
<td>0.728</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>Awareness about the availability of Ultrasound machines</td>
<td>4</td>
<td>1.54</td>
<td>0.579</td>
<td>39</td>
</tr>
<tr>
<td>5</td>
<td>Punishment associated with misuse of PNDT act and its extent</td>
<td>4</td>
<td>1.26</td>
<td>0.487</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20</td>
<td>7.42</td>
<td>3.04</td>
<td>37</td>
</tr>
</tbody>
</table>

Table 1 reveals the area wise assessment of knowledge score of the mothers on Prenatal Diagnostic Techniques Act shows that out of 20 Maximum obtainable score, the mean score was 7.42 ± 3.04, which is around 37% of the total score, it reveals mothers had inadequate knowledge on Prenatal Diagnostic Techniques Act.

Table 2. Area wise Assessment of practice of sex determination

<table>
<thead>
<tr>
<th>S. No</th>
<th>Areas</th>
<th>Max. Score</th>
<th>Mean</th>
<th>SD</th>
<th>Mean %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you know of any modern methods to predict the sex of the fetus in pregnant women?</td>
<td>14</td>
<td>19.48</td>
<td>2.658</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>If yes, what are the methods? (answered as ultrasound)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Are you aware where this service is available?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Did you know the sex of your child During pregnancy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Do pregnant women try to know the sex of their fetus?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Do you think such a practice is wrong?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Do women abort if a particular sex is not wanted?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows that the area-wise assessment of Practice of sex determination score shows that out of 14 maximum obtainable score, the mean score was 19.48 ± 2.66, which is around 50% of the total score, it shows partially adoptive practice.

Chi-Square association revealed that there was no significant association between mothers’ knowledge and practice scores when compared with their demographic variables. The Coefficient of correlation between the knowledge and practice score indicates a positive relationship (r=0.56, p<0.05), which reveals that when knowledge increases the practice also increases.

Table 3 shows the distribution of the socio demographic variables in relation to the attitude among these women. Irrespective of the age, the proportion of women with wrong attitude has increased within each group. Similarly, a greater proportion (74.3%) of the multipara had the wrong attitude as compared to the primipara (54.54%). Analyzing education and attitude in our study group showed an increase in education is accompanied with an improvement in the attitude in these ante-natal women. Urban women (62.5%) had right attitude compare to the rural women. None of the variables was significantly associated with attitude excepting knowledge. Increase in knowledge of PNDT Act, has influenced the attitude to sex determination in the positive direction in this study.

**Conclusion**

The study concluded that Antenatal Mothers had poor knowledge on PNDT Act. The total Mean Knowledge Score was 7.42 ± 3.04 with mean percentage was 37%. India has yet a long way to go in her fight against pre-birth elimination of females. A shortage of girls would lead to a shortage of eligible brides thus making the girl a “scarce commodity”. The antenatal mothers will gain adequate knowledge and attitude through education and reinforcement towards PNDT Act. A concerted effort by the medical fraternity, the law, political leaders, NGOs, media, teachers and the community itself is the need of the hour.

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**Interest of Conflict**

NONE

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- Material and Methods
- Findings
- Conclusion
- Acknowledgements
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