RGUHS Journal of Nursing Sciences

(An Official Publication of RGUHS)

RGUHS

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Contents

The RGUHS Journal for Nursing Sciences (RJNS) is the official publication of Rajiv Gandhi University of Health Sciences. The journal considers for publication original articles (research) dealing with different fields such as Medical-Surgical, Mental Health, Community Health, Maternal and Child Health Nursing, as well as Nursing Education and Administration; case reports related to any of these fields; review articles and columns (short communications pertaining to any discipline in nursing practice, education and administration).

Only papers that are likely to make a significant contribution to the existing state of knowledge in nursing practice, education and administration will be published.

The opinions and views expressed in the manuscripts are of the authors only and will be their sole responsibility.

Submission of Articles

Manuscripts must be sent to the:

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RGUHS Journal of Nursing Sciences

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Manuscript should be submitted

- In the format recommended below.
- In a compact disk (CD) or as an attachment through email using Microsoft word (MS) along with two hard copies.
- **With an undertaking** that it is **not** under consideration for publication elsewhere and have not been reported earlier partly or totally (see format given in the end of the article).
- With an indication that **all authors** have made significant contributions to the study and have read as well as approved the content of the final approved manuscript.

Manuscripts that are received will be

- Acknowledged upon receipt (Number will be assigned by the publication officer of the RGNS).
- Screened for adherence to format recommended, failing which it will be returned to authors for revision before its review.
- Reviewed critically by the Editorial Board and then peer reviewed by at least two referees.
- Accepted for publication based on significance; originality and validity of material; acceptable design and ethical approval; appropriate statistical analysis of data; clarity of presentation. All accepted manuscripts will be subjected to manuscript editing.

Any clarifications and inquiry about a manuscript could be directed to the Editor in Chief and must include the number assigned to it.

Preparation of Manuscript

Manuscripts should conform with requirements for manuscript submitted to biomedical journals.

General

- Type each component on a separate paper.
- See that Tables and Illustrations are in separate paper. Reference of Table or Illustration must be indicated in the text.
- Use double space type written throughout, on only one side of the paper with 1-inch margin.
- Ensure use of UK English, Arial font, size 12 on A4 size good quality bond paper.
- See that Abbreviations are expanded when used at the first instance unless it appears in the title. In such a case ensure it is expanded in the text at the first instance.
- Use simple and short sentences.
- Spell check and edit manuscript for grammar and style of writing.
- Ensure that manuscript is not more than 10 pages (roughly 3000 words).

***Format*:**

1. First / Title Page:

- **Title**: Remember the title must be concise and convey meaning as it may be used by electronic search engines to identify and categorise the article. Type write using Arial, 12 font size, upper case, right and left justified.

➢ **Authors:** Type write

- Initials followed by last name of authors first;
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2. Second Page - Abstract and Key Words

➢ **Abstract:**

- Structure abstract for original articles (introduction and objectives, design, setting, patients, interventions, results, conclusions).
- For Review articles, case reports (introduction, purpose of paper, text and conclusion).
- Type write in Arial 10 font size, single spaced and justified with maximum word limit 300.

➢ **Key words:**

Maximum up to 10 words ranging between 3-8 words.

3. Third Page onwards

The format for main text is as follows

I. For Original Articles: IMRAD

➢ **Introduction**

It should be 3-4 paragraphs and consist of brief background of the problem studied. Provide a critique of at least eight relevant research articles that are referenced as per Vancouver style. Clearly state the purpose / objectives and hypothesis tested.

➢ **Materials and Methods**

It should highlight the setting where the study was done, sample size and method of selection. A brief description of the demographic variables of the sample could be provided in 2-3 sentences. It should also have a description of the design, tools or instruments used for collecting data; ethical approval and ways by which privacy and confidentiality of subjects were maintained; how data was collected; pilot study (if done) with any modifications made thereof and any methodological limitations.

➢ **Results**

It must be presented in a logical sequence ideally in concordance with listed objectives and or hypothesis. It will be more economical in terms of space and colour to use the narrative form than a table or illustration to describe significant findings. However this does not override the importance of tables or illustrations.

➢ **Discussion**

It should emphasise the new and important aspects of the study, implications of the results and the conclusions that follow. Relate the main findings with relevant studies; implications of findings for nursing; recommendations for further research; and limitations of the study. The discussion must end with a conclusion.

➢ **Acknowledgments**

It is important to acknowledge those persons who have made some contributions to the study for example the person who typed the manuscript; someone who helped with some of the data collection; etc.

➢ **References**

Please avoid the use of only internet sources or text books for references in all types of manuscripts but more so in an original article. It is essential that you have adequate research article references. Follow the Vancouver system (refer to for more details http://www.icmje.org/). This means that the text that has a particular reference must have the appropriate superscript number. References must appear in the list sequentially according to the number allocated in the text of the manuscript.

a. Journal

Type all Authors name (s). Title. *Journal name.* Year; volume (issue): pages

Smithline HA, Mader TJ, Ali FM, Cocchi MN. Determining pretest probability of DVT: clinical intuition vs. validated scoring systems. *N Engl J Med.* 2003Apr 4; 21(2):161-2.

More than 6 authors

Gao SR, McGarry M, Ferrier TL, Pallante B, Gasparrini B, Fletcher JR, et al. Effect of cell confluence on production of cloned mice using an inbred embryonic stem cell line. *Biol Reprod.* 2003; 68(2):595-603.

b. Book

Authors name (s). Text book title. Edition (if not first), Place of publication, Publishers. Year: pages.

Personal Authors

Carlson BM. *Human embryology and developmental biology*. 3rd ed. St. Louis: Mosby; 2004: p12-15

Edited Books

Brown AM, Stubbs DW, editors. *Medical physiology*. New York: Wiley; 1983.p25-39

Chapter in Book

Blaxter PS, Farnsworth TP. Social health and class inequalities. In: Carter C, Peel JR, editors. *Equalities and inequalities in health.* 2nd ed. London: Academic Press; 1976. p. 165-78.

c. Internet Sources

Aylin P, Bottle A, Jarman B, Elliott, P. Paediatric cardiac surgical mortality in England after Bristol: descriptive analysis of hospital episode statistics 1991-2002. *BMJ* [serial on the Internet]. 2004 Oct 9;[cited 2004 October 15]; 329:[about 10 screens]. Available from: http://bmj.bmjjournals.com/cgi/content/full/329/7470/825

Book/monograph from internet

Donaldson MS, editor. Measuring the quality of health care [monograph on the internet]. Washington: National Academy Press; 1999 [cited 2004 Oct 8]. Available from: http://legacy.netlibrary.com/.

II. For Review Articles:

Systematic reviews would be preferred over narrative reviews. However if only narrative reviews are received for publication they will be reviewed based on topics of interest, content, adequate references. Use the following format for review articles – introduction, body, conclusion, references.

III. For Case Reports/Critical Incidents:

Case reports /critical incidents must be in the narrative form. Use the following format for case reports/critical incidents -introduction, description of the case/critical incident, discussion, acknowledgment and references

Illustrations:

Should be as minimal and only when needed to clarify the text. They should be of good resolution and must be planned to fit the resolutions of the page. Each illustration must be accompanied with a legend (in capitals only) and numbered using Roman numbers. The illustrations must be in JPEG / TIFF format and should be included in the soft copy along with the word document. An additional hard copy must be sent along with the hard copy of the manuscript.

Tables:

Should be labelled consecutively in Arabic numerals. It is preferable that they do not duplicate information in the text or in an illustration.

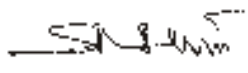
Abbreviations and symbols:

Use only standard abbreviations and symbols.

It is really amazing to state that from May 2011 onwards the readers of our University scientific journals in Medical and Dental Disciplines will add one more journal to the list to be published by RGUHS, to be specific in Nursing Discipline. The First ever publication of Nursing Journal is in your hands. Prasaranga section has taken you to thought provoking scientific papers, research article.

Nursing faculty, the students and colleges surpass all other disciplines in their strength, in the past 15 consecutive academic years. Though they conducted lectures, workshops, continuing education programmes, enriched the minds academically, the way they care to the patients and their magical touch to a patient remained unpublished in the form of journal. Publication of Journal is a means of spreading standard knowledge, a powerful tool for effective dissemination. Both active contributors, readers will enrich, in my opinion academically and professionally too.

Now they have joined us in this Endeavor. I call this a jubilant 'Year 2011" one more forward step in the achievements of this University. I invoke the entire nursing faculty and say them over and over again to inculcate a habit of contributing scientific and research papers to the journal, howsoever the articles are small, after all small things make a big difference in long run.



Dr. S. Ramananda Shetty
Vice-Chancellor

Dear professionals,

It is with a great sense of honour, satisfaction and pleasure to present the inaugural issue of RGUHS journal of nursing sciences. The journal will be published once in six months as a central forum for information about research being undertaken by the nursing staffs, original concept based articles and studies based on meta analysis which will be food for thought for the nursing and the other fraternity.

The vision of the RGUHS Journal of Nursing Sciences is dedication to serving its members through identifying, developing, and promoting the profession of nursing as an art and science with a view to upgrade and maintain safe practice. So I call upon each subscriber of the journal and every member of the nursing profession to commit to the profession and keep the practice of nursing vibrant, recognized and professional.

When the journal was to be launched, quality was the main issue. It was quite an arduous task selecting out standard papers. In order to maintain a balance between academic and practice we have tried our level best to ensure that our journal is readable and relevant to practice.

Further we had built up a peer review team at national and international level to ensure that a good standard of articles and research papers are published in the journal in the coming years.

The first issue of the journal is dedicated to the International Nurses Day which is observed on 12th May 2011.

On the International Nurses Day (IND) this year, the International Council of Nurses (ICN) focuses on the theme "Closing the gap: Increasing access and equity".

This 2011 IND kit strengthens our understanding of access and equity and the effect of inequality on health. It outlines the barrier that exist and how we can increase access and equity. It also shines a light on the importance of the social determinants of health, demonstrating how nurses can ensure equity in the care provided.

The ability to access health services is key to improving the health, well being and life expectancy of all. Yet, achieving this fundamental requirement remains limited by cost, language, proximity, policies and practices, as well as many other factors.

The ICN believes nurses and other health professionals have an important role to play in achieving health equity and developing a strong understanding of how the health sector can act to reduce health inequities is vital. Nurses also need to understand their own role in the provision of equitable, accessible health care.

Good access exists when the patient can get right service at the right time in the right place. (Chalman et al., 2004). Key elements of access include – availability, utilization, relevance, effectiveness and equity. Barriers include – lack of capacity and availability, cost, language and culture, lack of knowledge and information, mobility and migration, employment, staff sensitivity and preparedness and discrimination. Restrictions in access can also impact directly on quality of care.

Despite major achievements in the realization of the millennium development goals, there are still major gaps in the health status and life expectancy between high, middle and low income countries, between men and women and between rural and urban residents. Educated and empowered nurses can contribute more effectively to the achievement of health objectives.

My special thanks are due to our honorable Vice Chancellor and all those who promptly supported and encouraged us to bring out the journal of nursing sciences. The current issue publishes original articles, review articles and case studies of different nursing specialties.

Now, the challenge is to keep pushing and developing the journal into one that would revolutionize nursing. To achieve this I appeal to one and all to support the nursing journal by way of submitting articles and constructive feedback.

The RGUHS Journal of Nursing Sciences wishes its readers a very Happy International Nurses Day.

Editor in Chief
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Dean Faculty of Nursing
Principal, The Oxford College of Nursing
Bangalore

Maternal Position and Outcome of Labor

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Abstract

Emerging research evidence suggests potential benefits in being upright during labor.

Objective: To compare outcome of labor among primigravidae in supported sitting versus supine-lithotomy position during the second and third stages of labor.

Methods: Randomized two group post interventional study conducted at the Municipal Maternity Corporation Hospital Labor room , Bangalore from April-2008- September 2009. A total of 200 normal low risk term primigravidae with single vertex fetus in anterior position, adequate pelvis , in active labor were included. Primigravidae with medical/ obstetrical risk factors excluded. After informed consent they were randomly assigned to supported sitting n=100- group A, and supine-lithotomy position n=100- group B. Both the groups were mobile during the first stage of labor. In the second stage, group A assumed supported sitting posture while group B remained in routine supine-lithotomy position. The third stage of labor was conducted in their allotted positions. . Data were analyzed by SPSS version -15 and relevant descriptive, inferential statistics computed for presentation.

Results: Supported sitting position compared with supine- lithotomy position was associated with reduced duration of second , third stages of labor, reduction in instrumental deliveries, reduced reporting of severe labor pain, fewer abnormal fetal heart rate patterns, higher Apgar scores of the newborns, and insignificant difference in the amount of blood loss and application of episiotomies .

Conclusion: A simple elevation of the back of the parturient results in clinical advantages without any risks to the mother and fetus

Keywords: Maternal birthing position, Supported sitting, Supine- Lithotomy, Outcome of labor.

INTRODUCTION

There has long been controversy regarding, which maternal position is more appropriate during the second and third stages of labor**.** From the physiological stand point the supine-lithotomy position has been observed to be associated with the compression of major abdominal vessels, weaker uterine contractions, poor bearing down efforts, increased instrumental, operative deliveries, increased perception of labor pain, prolonged duration of labor, irregular fetal heart rate patterns and intrauterine hypoxia.[1,2,3,4] Throughout the ages and across human cultures women have preferred to give birth with their bodies vertical in sitting or squatting positions by grasping a tree, ropes or knotted piece of cloth. Today's standards of confining laboring women to "stranded beetle" supine-lithotomy positions, is questionable. Lithotomy position is presumably not based on evidence. It causes the birthing process to be needlessly complicated, medicalised as well as expensive; seems illogical; thus possibly converting the laboring woman to a body on the delivery table to be relieved of their contents. Number of trials[5,6] suggest that upright postures during labor is associated with shorter duration of labor; reduced report of labor pain; fewer instrumental or deliveries; fewer abnormal fetal heart rate patterns and less postpartum depression.

Labor and childbirth are functions of the autonomic nervous system and an expulsive function of the body and therefore out of conscience control. To have a bowel movement human's sit upright on a toilet or squat and it never occurs to them, to lie down and if someone suggested to lie down, he/she would not be taken seriously. This unfolds the truth of nature about the infeasibility of giving birth in a supine/lithotomy position which hampers the normal physiological process by going against the

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gravity. WHO[7] has categorized the upright position during labor and birth as demonstrably effective.

In certain parts of the world women who deliver at home with the help of birth attendants use upright birthing positions of their choice in contrast to lying flat on the back position routinely followed in the hospitals. In spite of increasing emphasis on use of upright postures by WHO, UNICEF, Better Birth Initiative, an evidence based research[7] the use of supine-lithotomy postures remain common and even considered as inevitable without any due considerations of its values to laboring women and to their newborns.

Using birthing position based on subjective decision of the woman can effectively reduce or even eliminate the need for most common interventions or complications in labor and childbirth. Therefore, an identification of an optimal position for women during labour and child birth needs to be empirical. A simple elevation of the back of the laboring women with the easily available resources of backrest, pillows is presumed to be to maximize the benefits of gravity. The objective of this study was thus to assess the effects of adopting the supported sitting position during the second and third stages of labor on selected obstetrical and perinatal outcomes.

MATERIALS AND METHODS

A randomized two groups post interventional study was carried out in the labor room of the Municipal Maternity Corporation Hospital , Yediur, Bangalore, Karnataka from April-2008- September 2009. Totally, 200 normal low risk primigravidae between 38 - 42 weeks of gestation with single vertex fetus in anterior position, adequate pelvis, presenting in active labor, without any obstetrical or medical risk factors were selected. Informed consent was obtained and women were randomly assigned to experimental group-the upright supported sitting (n=100) and control group- routine supine-lithotomy position (n=100) by coin toss method.

In the experimental group, during the second stage of labor, the woman's back was elevated to 60 degree angles to assume upright supported sitting by the simple backrest attached standard delivery cot. While in the control group, the woman assumed the routine lying flat on the back-supine-lithotomy position.

Intensive monitoring of their progress and constant physical, emotional support were given by the researcher. Fetal heart rate was monitored by Doppler fetal heart rate monitoring device. Once the birth was imminent, right mediolateral episiotomy was given and delivery was conducted in their allotted position. The woman continued to remain in the same position during the third stage of labor. The backrest was lowered to horizontal position and the women were placed in the supine position for the repair of episiotomy after placental delivery. The main outcome variables measured were the duration of second and third stages of labor, rate of instrumental delivery, occurrence of supine hypotension- (drop in baseline blood pressure by 5%) and intensity of labor pain by 100 mm Visual analogue pain scale (VAS), quality of fetal heart rate pattern by Doppler device, use of uterine stimulants, analgesics, amount of blood loss and the apgar scores of the newborns at 1 and 5 minutes of birth.

RESULTS

The two groups were homogenous with regard to all demographic and obstetrical variables as analyzed by Chi-square and Fishers exact test. The Student "t" test was used to compare the mean differences between the two groups on the intensity of labor pain, quality of FHR patterns, duration of second as well as third stages of labor, amount of blood loss and the APGAR scores of newborns at 1 and 5 minutes of birth.

The most important finding of the present study was that the duration of the second

stage of labor was significantly shorter (Table 1) in the experimental group with 56 ± 5.78 minutes as compared to 67 ±4.99 minutes in the control group. A similar statistically significant difference was noted in the duration of third stage of labor (Table 1) among the women who delivered in the experimental group with 12± 3.0 minutes as compared to 22 ±2.28 minutes in the supine- lithotomy position with the mean difference of 10 minutes.

Fewer participants in the experimental group (16%) reported severe pain during the second stage of labor as compared to the control group (58%). The mean intensity of labor pain scores for experimental groups

was 80 (±8.55) mm compared to 92 (± 4.81) mm of the control group on the Visual Analogue Pain Scale (Table-2). Medical analgesics were used by fewer (16%) of those from the experimental group compared to those of control group (58%). Requirements of uterine stimulants like Inj. Oxytocin was minimal among participants in the experimental group (8%) as compared to the control group (27%).

A proportionally higher incidence of supine hypotension were observed among (17%) of women in the control group as compared to none in the experimental. Among a significantly fewer women (Table 3) in experimental group (7%) irregular fetal heart rate patterns were observed compared to those in the control group (13%). Instrumental vaginal deliveries were fewer among the women of experimental group (8%) as compared to (42%) in the control group. There was no incidence of lower segment cesarean sections - operative delivery among both the groups. All the participants were given right medio-lateral episiotomy and there were no significant occurrence of perineal lacerations, para-urethral cervical or anal sphincter tears.

There was no significant difference in the estimated average amount of blood loss between the two groups and none of the participants in both the groups had a blood loss more than 500ml. There were no occurrence of retained placenta, and postpartum hemorrhage among the participants in both the groups (Table-4).

The APGAR scores of the newborns at 1 minute and 5 minutes were significantly higher in the experimental than control group (Table-5)

Almost all (98%) in the experimental group provided positive feedback in terms of comfort, satisfaction and ability to maintain the position without any difficulties, inconvenience as measured by the post partum opinnionaire.

DISCUSSION

The participants maintained the supported sitting position throughout the second and third stages of labor without any adverse effect on maternal and neonatal outcome. Consistent findings were found in studies[8, 9] comparing women's preferences for supine versus upright positions for delivery showed without exception, more positive responses from women using the upright position. These women tended to experience more ease in pushing, fewer backaches, shorter second stages, fewer forceps deliveries and fewer episiotomy rates. Their results showed that all women were able to maintain upright position throughout second stage of labor following epidural analgesic administration with no adverse neonatal and maternal outcomes.

The present study also demonstrated a significant decrease of 11 minutes in the duration of second stage of labor among women with supported sitting posture as compared to supine-lithotomic group consistent with Cochrane Pregnancy Childbirth Group systematic review of randomized trials by Gupta JK[6]. The shorter duration of labor is presumed to be beneficial in that it would contribute to increased turnover in the labor ward and lesser time spent by the nurses with each laboring woman.

The placental delivery time was also significantly reduced in the supported sitting position by 10 minutes than the supine-lithotomy position. Similar findings were reported by Bomfim Hyppolito's[10] randomized clinical trial.

All the participants in the supported sitting group (100%) had maintained normal baseline blood pressure throughout and where as 17 {17%} of the participants in the supine- lithotomy position had a drop in their baseline blood pressure similar to findings by Ariel J [11]. This could be possibly because the mothers lying in supine position could have the pressure of a gravid uterus compressing major abdominal blood vessels resulting in supine hypotension due to aortocaval occlusion.

In the present study, a significant reduction in the labor pain scores by 12 mm in VAS and the need for medical analgesics were observed in the supported sitting posture as compared to conventional lithotomy group which was consistent with the study findings of Adachi K [12]. Although this study has not measured the cost effectiveness of such a posture, one could postulate that supported sitting posture could be more cost effective in terms of decreased time of labour, increased turnover in labour room, decreased time

Table 1: Comparison of Supported Sitting Versus Supine - lithotomy Positions on the Duration of Second & Third stages of labor.				
Duration of labor in minutes	**Supported Sitting mean (SE) {N=100}**	**Supine-lithotomy mean (SE) {N=100}**	**" t " (df198)**	**p**
Second stage	56 {0.57}	67{0.49}	14.403	p<0.001
Third stage	12 {0.3}	22{0.23}	23.872	p<0.001

Table 2: Comparison of Supported sitting Versus Supine - Lithotomy Positions on the Intensity of Labor Pain on Visual Analogue Pain Scale{VAS}.				
Intensity of pain in VAS-100mm	**Supported Sitting mean (SE) (N=100)**	**Supine-Lithotomy mean (SE) (N=100)**	**" t " {198}**	**p**
Intensity of Labor Pain in VAS -100 mm Scale	80 {0.84}	92{0.48) 1	0.390	p<0.001

Table 3: Comparison of Quality of Fetal Heart Rate Pattern in Supported Sitting Versus Supine-Lithotomy Positions		
Quality	**Supported Sitting (N=100)**	**Supine -Lithotomy (N=100)**
Regular FHR pattern	93%	87%
Irregular FHR pattern	7%	13%

Table 4: Comparison of Supported Sitting Versus Supine-Lithotomy Positions on the Amount of Blood Loss			
Supported Sitting Mean (SE)(N=100)	**Supine-Lithotomy Mean (SE) (N=100)**	**" t " (df 198)**	**p**
340 ml (4.31)	330ml (4.27)	1.649	NS

Table:5. Comparison of Supported Sitting Versus Supine - Lithotomy Positions on the APGAR Scores of the Newborns at 1 & 5 minutes of birth				
APGAR	**Supported Sitting Mean (SE)(N=100)**	**Supine-Lithotomy Mean (SE) (N=100)**	**" t " (df 198)**	**p**
1 minute	8.68 (0.058)	8.36(0.073)	3.441	p<0.001
5 minutes	9.87(.034)	9.71(0.046)	3.241	p<0.01

spent by nurses on a laboring woman and lesser use of analgesics.

The present study revealed a fewer irregular fetal heart rate patterns among (7%) of the primigravidae in the supported sitting group as compared to (13%) of those in the supine-lithotomy group indicating that adopting a sitting position during labor could possibly improve fetal oxygenation, maintain the baseline fetal heart rate by preventing aortocaval compression. Supine position was reported to be associated with greatest number of variable decelerations than the upright postures by Cito G[13] et al.

The rate of instrumental vaginal deliveries were fewer among the participants in the supported sitting group (8%) as compared to (42%) in the lithotomy position. The results of the present study were consistent with findings of Dejonge PR[14] in relation to lesser pain and instrumental deliveries.

The estimated average amount of blood loss in the supported sitting group was 10 ml more than that of supine-lithotomy position, the difference did not reach significance, similar to findings of Bodner Adler[15] showed that there was no significant difference in the average amount of blood loss between the two groups. The findings support the presumption that the upright supported sitting position during child birth is a safe alternative maternal position.

The APGAR scores of the newborns at 1 minute and 5

minutes were significantly higher in the supported sitting group than the lithotomy position consistent with those findings by Terry RR[16]. This study has shown considerable benefits of the supported sitting position such as shorter second stage, lesser use of instrumental deliveries, no significant increase in blood loss and better APGAR scores amongst newborns over the supine-lithotomy position.

CONCLUSION

There is generally no medical reason why women should be encouraged to lie flat on their backs for the delivery of their babies. It appears that the routine use of supine –lithotomy position may have undesired effects on the maternal-fetal circulatory systems, uterine contractility, progress in labor, cord compression, perception of maternal pain and could possibly result in more instrumental deliveries. A good understanding of mother's pelvic structure, the physiological process of labor and allowing the mother to assume a comfortable position during childbirth, providing support and suggestions can result in positive and dramatic improvements in maternal and fetal well being.

A simple elevation of the back of the laboring women with the easily available, low cost resources of backrest that maximizes the benefits of the gravity offers greater advantages to the low risk mothers in terms of enhanced comfort, shorter duration of second and third stages of labor, insignificant amount of blood loss and safe birthing experiences. Although this study has not determined the cost effectiveness of this intervention, it can be presumed amongst all other benefits the greatest advantage of supported sitting position is it integrates the public health principles of acceptability, affordability, feasibility and availability to all people. Obstetricians, midwives have an important responsibility to promote comfort during labor and birth and should strive to bring a paradigm shift from the routine supine-lithotomy position to women centered, gravity oriented supported sitting upright position better maternal and perinatal outcome of labor. The study is limited in that it was conducted on low risk primigravidae and hence its applicability to high risk women is questionable. Further studies would be required to confirm these findings on a larger population.

ACKNOWLEDGEMENTS

I thank my guide Dr. Kasthuri G, all the mothers who participated, all health professionals of municipal maternity corporation hospital, Clinical authorities of Bangalore Bhruat Maha Nagarae Pallikae, and the Biostatistics department who helped me complete this study successfully.

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Reputation is what other people know about you.
Honor is what you know about yourself.

Comparison of Children's Self Report and Nurses' Assessment of Pain

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Abstract

Background: Adequate pain management should comprise both a thorough pain assessment and a highly effective and safe treatment strategy. Difficulty in assessing pain is cited as one of the reasons for the inadequate assessment of pain in young children. This study is aimed at a comparison of children's self report of pain and nurses' assessment of pain in selected hospitals of Bangalore with a view to develop pediatric pain assessment guidelines for staff nurses.

Methods: The sample comprised of 30 children having any medical, procedural or surgical pain admitted in the pediatric units and 30 staff nurses working in those units. The nurses independently observed and rated the pain of the children using the FLACC scale during a painful procedure and the children rated their pain using the FACES scale immediately following the painful procedure.

Results: There was significant correlation between the self reports of pain by children and the nurses assessment of pain (p=0.771). There was significant association between children self report of pain and presence of parents. There was significant association between nurses rating of children's pain and the age of the nurses.

Conclusion: The study concluded that nurses rating of children's pain using FLACC scale can be used across population and the scores are comparable to the self report FACES scale.

Keyword: Pain, Assessment, Self Report, Faces Scale, FLACC Scale, children.

INTRODUCTION:

Frequent and routine pain assessment improves pain management for both adults and children and is considered essential for optimal care. Additionally, clinical practice guidelines highlight the importance of systematically and consistently assessing, documenting response to therapy by using scales appropriate for the children population. These guidelines suggest that pain assessment for patients who cannot communicate their pain should include subjective observation of pain-related behaviors (e.g. movement, facial expression, posturing). Despite such recommendations considerable gaps exist in pain assessment practices in pediatric nursing care because of the limited research in this area[1]. The child's age and developmental stage are important factors to be considered in the assessment of pain. A study reported that the nurses' assessment of pain was influenced by the child's ability to communicate his or her pain – the more verbal the child, the sooner he or she was given medication. This supports other research indicating that pain is often underestimated and under-treated in children who lack the verbal skills[2]. Nurses in clinical settings need valid and reliable tools to quantify pain in all patients. These tools should supplement pediatric nurses' clinical judgment and provide a standardized method to communicate and document pain. These tools should be easy to use and require minimal nursing time in order to encourage consistent utilization. Several pain scales have been developed for research purposes that assess and quantify acute pain experiences from surgery and painful procedures in preverbal children. The feasibility and clinical usefulness of these scales need to be further explored[3].

A study was conducted to test the validity of the faces, legs, activity, cry and consol ability (FLACC) behavioral pain assessment scale for use with children. Thirty children aged 3 to 7 years who had undergone a variety of surgical procedures were observed and assessed for pain intensity at 20+2 hrs after surgery. FLACC score were assessed by one of the nurse

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investigators and a self report of pain using the FACES scale was obtained from the child. There was a significant and positive correlation between the FLACC and FACES scores for overall sample and for the score of children 5 to 7 years of age but not for children less than 5 years of age. While self report of pain should be obtained whenever possible, behavioral observation remains the primary methods for pain assessment in children with limited verbal and cognitive skills[4].

To be clinically useful, the pain assessment scales should be adaptable in different population and settings. Many factors contribute to the difficulty in obtaining an adequate assessment of pain in the children and providing optimal treatment to the patient. Among these factors are barriers to conducting a sufficient pain assessment interview, problems deciding which assessment tool to use based on a patient's degree of cognitive function, adequacy in comprehending the important differences among tools, and choosing an inappropriate treatment strategy. This study is devised to compare the nurses rating of children's pain and the self report of pain in children with a view to develop pediatric pain assessment guidelines[5].

The conceptual framework for this study is based on the Middle Range Lenz Theory of Unpleasant Symptoms. The **concepts** include *symptoms* such as pain, factors influencing pain such as medical illness, surgical or therapeutic interventions, previous experience of pain and *performance* includes the outcome of pain. The dimensions included in the symptom are quality, intensity, timing, distress, consolability. Three categories of variables had been identified which were related to one another and could interact to influence the symptom experience. The influencing factors are physiological factors, psychological factors and situational factors. The final component of the theory of unpleasant symptoms is the performance, the "outcome" or "effect" of the symptom experience. Performance is conceptualized to include functional and cognitive activities. Functional performance in the theory is conceptualized broadly to include physical activity, activities of daily living, social activities and interaction, and role performance including work and other role related tasks that is affected by the pain experience[6]. This study was performed to assess the feasibility of use of selected pain scales on children with pain in the Indian setting.

MATERIALS AND METHODS

This study was approved by the institutional review board of the college and the selected pediatric units. Written consent was obtained from the parents of the children and the nurses selected for the study. The study samples included 30 children between the age group of 5 to 14 years admitted in general pediatric units experiencing any medical, procedural or surgical pain and 30 nurses caring for these children in the pediatric units. Children who were critically ill and could not report their pain were excluded.

The nurses participating in the study were reviewed about the use of FLACC scale and any doubts were clarified. A structured interview schedule was used to collect demographic data and the pain assessment scales were used to assess the pain in children. For the self report of pain. FACES pain rating scale was administered immediately after any medical or surgical or procedural pain and it took 8-10 minutes. Independent observations of pain using the FLACC scale were made by the nurses during any therapeutic procedure or routine care of the child for a period of 1-2 minutes. Three to four samples were observed each day; after pain assessment, pharmacological or non pharmacological pain management was given to the child.

RESULTS

The sample consisted of 30 children between the age group of 5-14 years having any medical, surgical or procedural pain and 30 nurses working in general pediatric units.

Description of the Subjects: A description of the samples is made in Table 1

Table 1 show that 53.3% of children were between the age group of 5-13 years, 56% were females, 80% belonged to the rural area and 86.6% of the children were accompanied by their parents. Among nurses selected for the study 46% were above 29 years, 27% had a diploma in nursing qualification, 80% worked in the surgical areas and 36% had 4-5 years of clinical experience.

Table 1: Description of the subjects:					
Characteristics of Children	**Number n=30**	**Percentage**	**Characteristics of the Nurses**	**Number n=30**	**Percent**
Age of the Child			**Age of the Nurses**		
5-8 years	16	53.3	22 - 25 yrs	08	26.5
9-13 years	12	40	26 - 28 yrs	08	26.5
>13 years	02	6.7	29 & above yrs	14	46.0
Gender			**Gender**		
Male	13	43.3	Male	03	10
Female	17	56.7	Female	27	90
Place of Residence		**Religion**			
Rural	24	80	Hindu	20	66.6
Semi Urban	06	20	Muslim	05	16.7
			Christian	05	16.7
Accompanying relative			**Professional**		
			Qualification		
Parents	26	86.6	Diploma	27	90
Grandparents	02	6.7	BSc	Nursing	03 10
Other relatives	02	6.7			
Type of illness			**Area of Work**		
Medical	16	53	Medical ward	06	20
Surgical	14	47	Surgical ward	24	80
Duration of illness			**Experience in years**		
1 week	21	70	1-3 yrs	06	20
2 weeks	05	17	4-5 yrs	11	36
>3 weeks	04	13	6-9 yrs	08	26.7
			10 & above yrs	05	16.7

Pain Rating of Children using Faces Pain Self Report

Figure 1 show 10% reported that it hurt little bit, 7% it hurt little more, 13% it hurt even more, 27% it hurt a lot and 43% it hurt worst.

Nurses Rating of Children's Pain using FLACC scale

Figure 2 show 3% of children were relaxed, 27% had mild discomfort, 33% had moderate pain and 37% of children had severe discomfort based on nurses assessment.

Fig. 1: Pain Rating of Children using self report

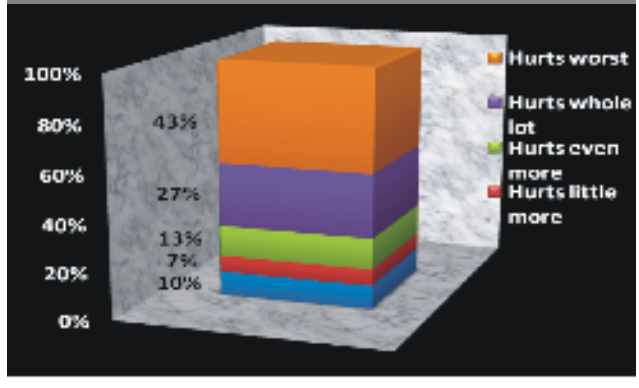
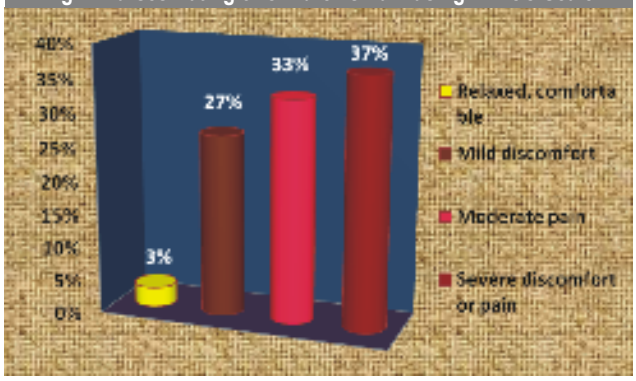


Fig.2: Nurses Rating of Children's Pain using FLACC Scale



Comparison of Nurses' assessment of Pain and Children's Self Report

Kendall's tau-b was computed between nurses rating of pain and self report of pain by children revealed a significant correlation (0.7701, p=0.0001

DISCUSSION

Systematic and frequent pain assessment has been shown to improve the pain management in adults and children. However difficulties in assessing pain in children can lead to suboptimal management. Despite introduction of several valid and reliable pain assessment tools, their use in clinical practice was hampered due to the complexity and practicality of their usage. This study compared the self report of pain by children using Faces scale and the nurses assessment of pain using FLACC scale with a view to develop pediatric pain assessment guidelines. Compatibility in the measurement of these tools facilitates optimal pain management in the children. Evidence from this study suggest a significant relationship between the self report of pain by children and the nurses' assessment of pain consistent with findings of a previous study[7]. But another study[8] that compared the Faces pain scale with three other alternating self report measures as well as observation of child's behaviour reported that there was moderate to poor correlation and the nurses who although were confident in their observations had only moderate agreement with the children's self report scores.

The incorporation of pain scales into routine pain assessment and documentation can be a difficult process. Hester and associates have described several attributes that contribute to the successful integration of a pain assessment tool into daily practice. These include: the tool's relative advantage over other tools, its compatibility with current practice, its complexity, trial ability, and observability. To be clinically useful, pain assessment tools need to be short, simple, easy to memorize, and should also be generalizable to a variety of settings. The FLACC may have an advantage over other behavior tools for integration into routine care because of its simplicity and relative ease of use. Further study in a variety of settings involving diverse cultures and races would provide data for further validation and generalization of this scale.[9]

Findings from the study may be limited in that sample size was only 30 children and 30 nurses and the age group of children was restricted to 5-14 years of age. Additionally the number of observations made by the nurses was limited to only one. A variety of medical and surgical patients were included in the sample but due to small sample size they could not be analyzed separately.

CONCLUSION

The clinical usefulness of a tool depends not only on the reliability and validity but also on its practicality and feasibility. This study concluded that the pain assessment done by self report using faces scale and nurses assessment using FLACC scale were significantly correlated. Developing clear cut pain assessment guidelines and training and education of the nursing staff on appropriate pain assessment can play a pivotal role in effective pain management.

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Knowledge and Practice Regarding self Insulin Administration among Diabetic Patients

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Abstract

Introduction: Diabetes mellitus is recognized as one of the leading cause of death and disability world wide[1]. The physical, social and economic factors involved in the management of diabetes are a continuous strain for the health sector and government agencies. It is expected that approximately 366 million people will be affected by Diabetes mellitus by the year 2030[2]. Knowledge about diabetes mellitus is a prerequisite for individuals and communities to take action to control diabetes[3]. The present study was carried out with the objectives to assess the knowledge and practice level regarding self insulin administration among diabetic patients, to find out the relationship between knowledge and practice, and to find out the association of knowledge and practice with selected socio demographic variables.

Materials & Methods: The research design selected for the study was non experimental descriptive design. Sixty diabetic patients under self insulin administration were considered as a sample for the study**.** Study was conducted at Dhanvantri Diabetic Centre Namakkal, Tamilnadu. Convenient sampling technique was used to collect the sample. The instrument used for the study was semi structured interview schedule.

Results: The results of the study revealed that, patients on self insulin did not have adequate knowledge and hence the practice skill on self insulin administration was poor. The study also revealed that there was a positive correlation between knowledge and practice of self insulin administration (**r=0.62).**

Conclusion: Education is likely to be effective if we know the characteristics of the patients in terms of knowledge, their attitude and practices about self care management. Patient outcomes are largely based on the decision they make on self-management. Hence, it is of paramount importance, that people with diabetes receive ongoing, high quality diabetic education that is tailored to their needs and delivered by skilled health care provider.

Keywords: Diabetes Mellitus; Insulin; Self Insulin Administration;

INTRODUCTION

"INSULIN IS A WONDER DRUG

DO NOT DENY IT TO THOSE WHO NEED IT"

[Joslin] 2002

Diabetes is a global public health problem, a chronic disease and is now growing as an epidemic in both developed and developing countries. Around 150 million people suffer from diabetes in the world out of which above 35 millions are Indians; India leads the world today, with the largest number of diabetics in any given country. The World Health Organization (WHO) estimated that 19.4 million individuals were affected by their deadly diseases in India in 1995; it is likely to go up to 57.2 million by the year of 2025[4].

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Patients with diabetes have higher rates of coronary artery disease, retinopathy, neuropathy and nephropathy. Many of these complications can be prevented with appropriate medical care [5, 6]. This care, however, in addition to medications taken by the patient, often requires significant alterations in lifestyle, (increasing exercise and changing the type of food one eats) and strict adherence to self-care tasks, such as checking urine/blood sugars, to obtain good control of the disease[7].

An insulin treatment programme requires effort by both the individual with diabetes and those responsible for diabetic care. There is no insulin dose that works well for every one, insulin doses changes as per the requirements of the patient's need, based on their blood glucose level and also it depends upon the type of insulin used. Therefore, insulin treatment must be individualized to fit the lifestyle of metabolism of each and every person with diabetes .The changes and modifications are made as needed throughout the life of each person[8].

Education, with consequent improvements in knowledge, attitudes and skills, will lead to better control of the disease, and is widely accepted to be an integral part of comprehensive diabetes care[3]. Patient education has been proven to be an important method of management of such a community health problem[9]. Much emphasis is now being paid to educate the diabetic individual. Among the various aspects of education of the diabetic client, administration of the insulin by patient themselves, is gaining momentum as there is a great awakening, concern and felt need amidst the public. Since the treatment of diabetes continues for lifetime there is a need to monitor the knowledge, understanding and competency level of clients in relation to their disease process and its management[10].

Studies conducted in different parts of the world showed the evidence of inadequate knowledge and poor practice level on self insulin administration among diabetic patients[11-13]. There is an increasing amount of evidence that the patient education is the most effective way to lessen the complications of diabetes and its management[13]. Also from the personal experience of the investigator it was perceived that knowledge of diabetics on self care management needed to be strengthened. Hence, the study was carried out to assess the knowledge level of diabetic patients on diabetes, self insulin administration; their practice skill on self insulin administration; and determine the association of knowledge and practice with selected demographic variables. It was assumed that diabetics knowledge could determine their practice regarding self insulin. This was assumed to be dependent of sociodemograhic variables and that self insulin administration would be cost effective for the patient.

MATERIALS AND METHODS

The study was based on the modified Rosenstocks Health Belief Model. The research approach used was quantitative with the non experimental descriptive design. The study was conducted in Dhanvantri Diabetic Center, Namakkal district, Tamilnadu. Diabetic patients on self insulin administration were considered as a sample for the study. Sixty subjects were selected through convenient sampling. Data collection was done using semi structured interview schedule, which consisted of three parts. These included

1. Section A:

Socio demographic variables which comprises of age, sex, religion, education, occupation income, type of family, family history of diabetes mellitus, duration of illness, and duration of insulin therapy.

2. Section B:

Semi structured questionnaire to assess the knowledge on self insulin administration.

3. Section C:

Semi structured questionnaire to assess the practice on self insulin administration.

Knowledge and practice were arbitrarily classified as given below based on percentage of scores obtained:

* < 50% : Inadequate knowledge / Poor practice
* 51-75% : Moderately adequate knowledge / Fair practice.
* >75% : Adequate knowledge / Good practice.

The tools were translated in Tamil language since, most of the patients seeking care in the study setting spoke Tamil. Reliability of the tool was assessed by split half technique and the reliability obtained was (r=0.98). Validity of the tool was obtained from experts in the field of nursing and from diabetologists. After obtaining administrative permission, the study commenced. The purpose of the study was explained to the subjects by the researcher, and the interview was conducted among those willing to participate in the study. The collected data were analyzed and organized according to the objectives of the study using descriptive and inferential statistics.

RESULTS

Findings of knowledge regarding self insulin administration among diabetic patients

Knowledge assessment on self insulin administration revealed that 41(68%) of the subjects had inadequate

knowledge and remaining 19, (32%) of them had moderately adequate knowledge. None of them had adequate knowledge. The overall mean score percentage of the knowledge was 46.9(±3.98)%.

Findings of practice regarding self insulin administration among diabetic patients

Assessment of the practice regarding self insulin administration revealed that 43(72%) of the subjects had poor practice, 17(28%) of them had fair practice, and none of them had good practice. The overall mean score percentage of practice on self insulin administration was 46.8(±2.18)%.

Findings related to relationship between knowledge and practice regarding self insulin administration

There was a statistically significant positive correlation between knowledge and practice on self insulin administration ("r" = 0.62; $p<0.05$).

Chi-square analysis was used to find out the association between knowledge and practice on self insulin administration with socio demographic variables. Results showed that there was a significant association between knowledge and duration of insulin treatment at the level of ($p<0.05$). And practice of self insulin administration was significantly associated with age, type of family, duration of diabetes and duration of insulin treatment at the level of ($p<0.05$).

DISCUSSION

The study findings showed inadequate knowledge and poor practice level. Lack of knowledge regarding these may result in development of diabetic and insulin related complications. Knowledge level of patients on self insulin administration was influenced by the duration of self insulin administration ($p<0.05$). This shows that over time of self insulin administration, knowledge level of the patients could possibly be enhanced. It is possible that with time there could be more chance of exposure to information which help the patients to acquire knowledge and improve their practice skills.

Many studies[11-13] also had shown that diabetic patients had poor level of knowledge about the disease and self care management. Similarly most patients on self insulin were not aware of the complications of insulin and its management. Hence, there is a need to intensify knowledge on diabetes and influence practices to produce compliance to diabetes treatment regimen.

Knowledge regarding self care management is crucial in diabetes management. Knowledge could be enhanced through many ways. A booklet with pictorial illustrations could be given to the patient which contains information on types of insulin with their colour code, sites of insulin administration, techniques of insulin administration, storage of insulin, signs of hypoglycemia and hyperglycemia, complications of insulin and its management. This might help patients have better understanding about self insulin administration and also improve their practice skills.

Implications

As knowledge is a power resource for practice, nurses need to take an active role in designing instructional material for their clientele such that knowledge is linked practice and thus better diabetic control. This will enable the nurses in clinical setting to empower patients through increased knowledge and confidence in self management abilities. This study revealed that overall knowledge and practice of the subjects regarding self insulin administration and its management were poor. Hence, further studies need to be conducted to explore the needs of the diabetic patients on various self care aspects of the diabetes. Nurses need to recognize the unique role they could play in developing the capacities of patients on self care management.

Recommendations

1. The study can be replicated on a larger sample, there by findings can be generalized to a larger population.
2. A true experimental study can be conducted with structured teaching programme regarding knowledge and practice of self insulin administration.
3. Mass and individual education in regional language to educate patients can be organized.
4. Teaching programme can be conducted in diabetes clinics regarding insulin and its administration.

CONCLUSION

Diabetes imposes lifelong demands on people and their families. This study showed that there was inadequate knowledge and poor practice level among the patients regarding diabetes and self insulin therapy. In addition, study findings had revealed that there is an immense need for education on self-care management. Patient outcomes are largely based on the decisions they make on self-management. Hence, it is of paramount importance, that people with diabetes receive ongoing, quality diabetic education using innovative methods that is tailored to their needs and delivered by skilled health care provider.

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How do Nurses Working with Psychiatric Patients Cope with Stress? - *A Scientific Study*

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Abstract

Introduction and objectives: The terms 'stress' and 'coping' relate symmetrically to one another: stress being the conditions or circumstances with which an individual might have to cope and coping being at least one possible response to stress. Since many of the stressors that nurses' face cannot be avoided or prevented by them, in the long run, it would be healthier for them to conquer the problem that initially generated the threat. This study was intended to explore how nurses working with psychiatric patients cope with stress.

Methods: A descriptive, survey research design was adopted and data was collected from 53 randomly selected nurses who fulfilled the inclusion criteria.

Results: Analysis revealed that the subjects coped by adopting mainly techniques such as 'Self-regulation & Self-attitude' (Mean score of 21.53±4.44).

Conclusion: When effective, adaptive coping strategies are used, the stressful situation can be resolved. The use of effective coping strategies facilitates the return to a balanced state, which reduces the negative effects of stress. Hence, coping behaviors play a vital role in the process of stress resolution.

Key words: Coping strategies, nurses, psychiatric patients

INTRODUCTION

The terms 'stress' and 'coping' relate symmetrically to one another: stress being the conditions or circumstances with which an individual might have to cope and coping being at least one possible response to stress. Etymologically, the word cope (as in 'she coped with the problem') is derived from the Latin word *'colpus'* – a blow, via the French *couper* – to cut. Its primary meaning of hitting or cutting then produced secondary senses of *contending with* and finally *overcoming.*

The type of coping strategies adopted by 300 self-selected mental health nurses in Ulster were investigated[1] by administering the PsychNurse Methods of Coping Questionnaire[2]. Mean scores on the various domains were as follows: *Diverting one's attention away from work* was 35.54±5.64, *self-regulation and self-attitude* was 22.44±3.84, *social support at work* was 17.41±4.47, *positive attitude towards one's role at work* was 30.65±5.95, *emotional comfort* was 18.09±3.25 and the Mean total scores was 124.11±18.76, indicating that the nurses coped with the job induced stress mostly by diverting their attention away from work and less by social support at work.

One type of coping is direct action which is concerned with behavioral efforts by the nurse to prevent, consciously avoid, or conquer the problem that initially generated the threat[3]. Since many of the stressors that nurses' face cannot be avoided or prevented by them, in the long run, it would be healthier for them to conquer the problem that initially generated the threat. This could be done by various techniques (or a combination of techniques) such as effective problem solving, planned time management, taking time off when necessary, meaningful communication, assertiveness when required, negotiating, responding to criticism appropriately etc. Mastery of these skills is needed to cope with stressors in the working area[2].

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MATERIALS & METHOD

A descriptive, survey research design was adopted. Fifty three nurses in the psychiatric wards of a hospital in Bangalore were randomly selected using the Tippett's Random Number Table. Male and female registered nurses working in a psychiatric setting. Nurses with G.N.M. or B.Sc. nursing qualification and with or without additional qualifications like DPN and DNN, who were registered with more than one year experience of working in the psychiatric hospital were selected for the study. Registered nurses with grades above staff nurse level, nursing trainees, nurses who had undergone stress management courses within the past one year and nurses with chronic illness were excluded from the study. The PsychNurse Methods of Coping Questionnaire[2] was used to collect data on coping strategies adopted by nurses working with psychiatric patients. It is a 35 item 5-point Likert Scale consisting of five domains i.e. '*Diverting one's attention away from work, Self-regulation and self-attitude, Social support at work, Positive attitude towards one's role at work and Emotional comfort'* with a known high face and content validity. It also has high concurrent correlational validity with the Cooper Coping Skills Scale (r=0.53). The test-re-test reliability for this study was r=0.94. Data was analyzed using descriptive statistics such as frequencies, range, percentage coping index and parametric statistics such as Mean, Standard Deviation.

RESULT

Table 1 indicates the various coping strategies adopted by the study subjects. The subjects coped with occupational stressors more by adopting techniques such as Self-regulation & Self-attitude' (Mean score of 21.53±4.44) and occasionally by using coping techniques such as the 'Diverting one' attention away from work' (Mean score of 25.06±6.44), 'Social Support at Work' (Mean score of 17.32±4.56). 'Positive Attitude towards One's Role at Work' (Mean score of 30.40±6.32), and 'Emotional Comfort' (Mean score of 15.06±3.47). On the whole, the subjects used the various coping strategies only occasionally as indicated by a total Mean score of 109.36±18.35 on the PsychNurse Method of Coping Questionnaire[2].

Figure 1 displays the percentage coping index in the various domains of the PsychNurse Methods of

Fig. 1: Bar diagram presenting the percentage coping index on the various domains of the PsychNurse Methods of Coping Questionnaire

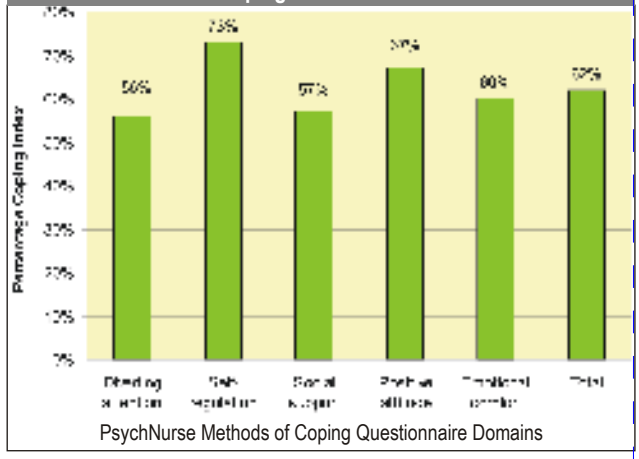

Table 1: Range, Mean and Standard Deviation of the PsychNurse Methods of Coping Questionnaire scores of the study sample (n=53).

PsychNurse Methods of Coping Questionnaire Domains	Max. score	Range	Mean	SD	Percentage Coping Index (%)
Diverting one's attention away from work	45	11–36	25.06	6.44	56
Self-regulation & self-attitude	30	8–28	21.53	4.44	73
Social support at work	30	6–27	17.32	4.56	57
Positive attitude towards one's role at work	45	9–41	30.40	6.32	67
Emotional comfort	25	7–21	15.06	3.47	60
Total score	175	42–144	109.36	18.35	62

SD: Standard Deviation

Coping Questionnaire. The percentage coping index was computed by finding the percentage of the Mean score divided by the highest possible score on that particular domain. It is seen that the subjects resorted to *'Self-regulation & Self attitude'* as a mode of coping the most (73%), and adopted occasionally *'Positive Attitude towards their Role at Work'* (67%), *'Emotional Comfort'* (60%), *'Social Support at Work'* (57%) and *'Diverted their Attention away from Work'* (56%).

DISCUSSION

The PsychNurse Methods of Coping Scale was found to be extremely reliable and valid when applied to mental health nurses. Females (Europeans) were significantly more likely to use social support and emotional comfort as a coping strategy. The total Mean score was 129.00±14.64 (i.e. coping strategies were often adopted)[2] which is much higher than the scores obtained in the present study (109.36±18.35) indicating that these coping strategies were used more by European nurses than Indian nurses. The Mean score (19.25±3.12) on *'emotional comfort'* was much higher than the present study. Indian culture does not permit public display/seeking of emotional comfort, hence this could be the reason why subjects in the present study did not use this coping strategy in the work place.

Two other studies[2,4] conducted on mental health nurses in the UK reported similar findings. Perhaps the reason for this may be that Indians are not encouraged to express their emotions and hence do not resort much to emotional comfort to deal with stress. The total Mean score (109.36±18.35) in the present study also was quite less in comparison to these three studies[1,2,4] (i.e. 129.00±14.64, 128.98±16.5, 124.11±18.76). Overall, the subjects in the present study adopted the various coping strategies listed in the PsychNurse Methods of Coping Questionnaire only occasionally, whereas the nurses in the U.K. often utilized these techniques of coping and hence dealt better with occupational stress in the psychiatric wards. Nursing is a caring profession, and nurses are trained to care for all the needs of their clientele. These include the emotional needs. It is imperative that in such a set up, nurses needs are suitably taken care off. Nurses form the backbone of health care in such a setting. It could help if some measures are taken to help them learn coping strategies, so that they could cope better in such situations Although the present study does show that nurses have employed some form of coping strategy; domains that probably could be strengthened include social support and emotional support. This is also an indication that there is a need for stress management interventions for the nurses in the present study.

CONCLUSION

When effective, adaptive coping strategies are used, the stressful situation can be resolved. In other words, the use of effective coping strategies facilitates the return to a balanced state, which reduces the negative effects of stress. On the other hand, improper coping behaviors increase the negative effects of stress. Therefore, coping behaviors play a vital role in the process of stress resolution. An evidence-based stress management program would definitely equip nurses with adaptive coping behaviors!

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Knowledge and attitude of Mothers with Disabled Children towards Community based Rehabilitation

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Abstract

Introduction and objectives: In India, one third of the disabled population comprise of children, which accounts for about 25 millions of our population. Though Community Based Rehabilitation (CBR) has been advocated for more than 30 years to improve the quality of life of persons with disabilities, it has been reported that only 2 percentage of disabled children utilize its services. This study was intended to assess the knowledge, attitude and utilization of mothers with disabled children towards Community Based Rehabilitation, and to determine associations between these as well as with selected demographic variables.

Methods : Descriptive survey approach was adopted and by using structured interview schedule, data was collected from 100 mothers of disabled children, who were selected by quota sampling technique at urban slums adopted by Mobility India.

Results: It was observed that 80% of the subjects had moderate knowledge, 85% had favourable attitude and 81% were using the services moderately. A positive correlation was seen between knowledge and attitude ($r=0.526$, $p<0.05$), between knowledge and utilization of services ($r=0.497$, $p<0.05$) and between attitude and utilization of services ($r=0.7$, $p<0.05$).

Conclusion: Community Based Rehabilitation Programme for disabled people represents a simple cost-effective approach for the delivery of disability prevention and rehabilitation services, particularly in areas that have little access to such services.

Keywords: Knowledge; attitude; utilization of services; mothers; disabled children; Mobility India; urban slums

INTRODUCTION

Population increase is the bottleneck for development in most developing countries specially India. Disability related issues take back seat often. Recently both government and non government movement in the country are trying to address institution based rehabilitation through establishing special schools and special residential setting to empower people with disability. But it is estimated that these existing attempts reach only 3-5 percent of disabled population[1].

In 1976, World Health Organisation (WHO) introduced the community-based rehabilitation (CBR) strategy as part of its goal to accomplish "Health for all by the year 2000[2]." CBR is a community development programme, which is multidisciplinary and addresses all areas that are central for the improvement of quality of life of persons with disabilities[3,4]. Community-based rehabilitation (CBR) developed as a response to the need to reach people with disabilities at the community level[5]. CBR is implemented through the combined efforts of disabled people themselves, their families and communities, and with appropriate health, education, social and vocational services[3,4]. The participation and influence of disabled people and their families are seen as a precondition for the successful implementation of Community Based Rehabilitation programme.

According to United Nations International Children's Emergency Fund, there are about 600 million disabled people out of whom 150 million are children. It is estimated that 6 to 10% of children in India are born disabled[6]. Karnataka is home for one million disabled people[7]. Despite efforts by government and non government organizations, it has been reported that nearly only 2% of the total disabled children in Karnataka utilize the services of Community Based Rehabilitation[1].

Though community health rehabilitation for disabled people was initiated three decades ago, it still remains in its infancy with it being implemented in limited areas and lack of awareness amongst people of its approach

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and the services offered by it to the disabled people[1]. A study conducted to assess the unmet health, welfare and educational needs of disabled children in South Africa found that limited awareness about community based rehabilitation and the services offered was the cause for low utilization of available services and resources[8]. Another study conducted in Jamaica showed that parents generally felt positive about the community based rehabilitation programme and thus the utilization was better[9]. The statistics in rehabilitation centres, related literature review and my personal experience in the community with parents motivated the conduct of this study that aimed to assess the knowledge, attitudes and utilization of mothers of disabled children towards Community Based Rehabilitation. It also aimed to find out the relationship between these variables as well as with selected demographic variables.

MATERIALS AND METHOD

To accomplish the objectives of the study, a descriptive design was adopted. The population of the study included mothers of disabled children with specific disabilities such as locomotor, visual, intellectual, communication and multiple disabilities. Thus 100 mothers with such children (<18 yrs) residing at the urban slums adopted by Mobility India were selected using quota sampling technique. The study was conducted at Banshankari, Rajendranagar, B.G.halli, L.R.Nagar, Havelahalli urban slums adopted by Mobility India, Bangalore. Structured interview schedule was used to collect the data which consisted of 4 parts:

- **Part 1:** Dealt with demographic data such as age of the mother, educational status, mother's occupation, family income, religion, type of family, number of children, order of child birth, gender of the child, family history of disability, type of disability and source of information.
- **Part 2:** Dealt with knowledge questions on Community Based Rehabilitation using multiple-choice questions which consisted of 18 items. The knowledge levels were classified arbitrarily as inadequate (0-50%), moderate (50-75%) and adequate knowledge (75-100%).
- **Part – 3:** Consisted of attitude scale having 20 statements which were to be rated on Five Point Likert Scale. The attitude levels were classified as unfavorable (0-50%) and favorable attitude (50-100%).
- **Part 4:** Consisted of 12 items on utilization of Community Based Rehabilitation services. The level of utilization was classified as inadequate (0-50%), moderate (50-75%) and adequate utilization (75-100%).

The prepared tool was validated by experts from different faculty. The reliability of knowledge, attitude and utilization tool was $r^1 = 0.795$, $p<0.05$; $r^1 = 0.95$, $p<0.05$; $r^1 = 0.83$, $p<0.05$; respectively. Pilot study showed that the study was feasible.

RESULTS

Findings related to knowledge scores on CBR

It was found that 80% of mothers had moderate knowledge, 15% had inadequate knowledge and only 5% had adequate knowledge regarding Community Based Rehabilitation. The overall mean score was 10.34(±1.85); with a mean% of 57.44.

Findings related to attitude scores on CBR

It was found that 85% had a favourable attitude and only 15% had unfavourable attitude towards CBR. The overall mean % was found to be 66.87 (±6.34).

Findings related to utilization of CBR services

It was found that 81% had moderate utilization, 13% had inadequate utilization and only 6% utilized the services adequately. The overall mean score was 7.80 (±1.24); with a mean% of 65.06.

Relationship between knowledge, attitude and utilization of services of CBR

A positive significant correlation was seen between knowledge and attitude ($r=0.526$, $p<0.05$), between knowledge and utilization of services ($r= 0.497$, $p<0.05$) and between attitude and utilization of services ($r=0.7$, $p<0.05$).

DISCUSSION

The study confirmed moderate knowledge level among women despite high rates of illiteracy. The results contradict a previous study[10] that showed increased literacy rate was related to knowledge level.

This difference between the two studies may be because of the factors such as concern of the mothers towards their children, change in status of women, awareness programs conducted in the area and development in communication media.

Mothers had favourable attitude towards CBR and reported that they were happy with the concept of home based care which helped them to manage their children in their own home settings. Social counselling and advice on daily living skills and mobility by CBR workers were also important factors for favorable attitude.

A moderate level of utilization of services was seen which may be because of the regular awareness campaigns done in the area and also because their children's condition improved after utilizing the services. The results are similar to the study[11] in Bangkok which showed the utilization of services was good since there was improvement in the condition of the disabled people.

Though in this study, knowledge and utilization was found to be higher, there were some issues noticed. Parents had mixed feelings about the impact of inclusive education. Counseling and training are frequently limited to children who can communicate. Intellectually disabled and children having communication disability were mostly neglected. People with disability were still considered as beneficiaries and not as participants with a voice and a choice.

Implications of the study

Nursing Practice:

➢ Nurses can conduct community awareness campaigns and programmes regarding the concept of CBR, services available, ways and means to access these services.

➢ Nurse can help in establishment of self help groups in the community among the disabled people or among parents of disabled children.

Nursing Education:

➢ Since Community based rehabilitation is the newer concept, it can be included in the nursing curriculum.

➢ Many ongoing training programmes and in-service education programmes can be planned for the nursing personnel.

Nursing Administration:

➢ Policy makers should work out a comprehensive plan in implementation of CBR and also in allocating the resources effectively.

➢ Nurse administrators can work out policies and procedures for public private partnerships and involve the community effectively in formulating self help groups.

➢ Nurse administrators must support the process to develop a UN Convention on the Rights of People with Disabilities.

Nursing Research:

➢ Research on knowledge and attitude towards disability can be carried out.

Different educational and motivational strategies can be tried out for their effectiveness.

CONCLUSION

CBR conceptualizes a means by which the positive aspects of the culture of rehabilitation can be transmitted to the community level. CBR can be further exploited and enhanced as a comprehensive strategy for community development only when users of services and their families are involved in the implementation of CBR.

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Effectiveness of Educational Programme using Simulation on Preventing Blood Culture Contamination for Nursing Personnel in a Selected Hospital at Mangalore

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Abstract

Blood for culture is probably the most important specimen for the diagnosis and treatment of systemic infection. Currently it is not possible to eliminate blood-culture contamination, however many interventions have been shown to reduce contamination rates. This study attempts to evaluate the effect of simulation based educational intervention to improve the knowledge and skill of nurses, thereby minimize the incidence of contamination of blood culture. Data was collected from 20 nurses from KMC hospital, Mangalore using the knowledge questionnaire and their skill was observed using a observation checklist. The result showed that there is a significant difference between pretest and post test knowledge and skill. Thus the study has shown that simulation can be an effective teaching strategy to reduce the contamination during collection and transport of blood culture.

Key words: Blood culture contamination, Simulation based education

INTRODUCTION

Blood for culture is probably the most important specimen for the diagnosis and treatment of systemic infection[1]. Introduction of organisms from a site outside of the bloodstream into the sample of blood obtained for culture is referred to as contamination of the culture. Many interventions have been shown to reduce contamination rates. Retrospective data analysis through an initial audit with major departments at one hospital, including the intensive care unit and emergency department, showed that the blood-culture contamination rate was 4.8%, which is more than the set standard (less than 3%). Blood culture permits the prompt commencement of specific treatment against offending living micro-organism which may prove to be lifesaving. To detect blood stream infections, the patient's blood must be obtained by aseptic venipuncture and then incubated in culture media. Recent studies have reported that 0.6% to 6.25% of percutaneously drawn cultures are contaminated.[2,3] Coagulase-negative staphylococci and other skin flora are the most common contaminants

Nurses play an important role in collection of blood culture. Fawcett[4] focused on process improvement through staff education. Educating nursing personnel to bring awareness and improve adherence to strict aseptic techniques, is presumed to reduce false positive culture results, wrong diagnosis, improper treatment, unnecessary expenditure and prolonged hospitalization. A study by Shekar et al[5] showed that trained blood-culture teams can reduce contamination rates in individual institutions. Literature review shows that simulation based education is effective and helped to increase staff knowledge, competence, confidence, and teamwork skills to manage chest pain and anaphylaxis in real-life patient situations[6]. This study was planned to evaluate the effectiveness of simulation based educational programme on knowledge and skill of staff nurses.

MATERIALS AND METHODS

Pre experimental approach with one group pre test/post test design was used in this study. The study population comprised of 20 staff nurses working in different areas from the KMC hospital, Mangalore.

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Based on review of the literature, Demographic Performa of nurses, Knowledge questionnaire (r=0.826) on blood culture procedure and Observation checklist (r=0.92) on blood culture procedures were developed. Data collection was done after obtaining the permission from the management and verbal consent from participants. Therefore MTS (Manipal Thomas Sudhaker) IV trainer simulator was used. This simulator included human volunteers to provide tangible experience. The participants were provided with educational session'sInterval between pre and post test such as demonstration and encouragement to come up with their own strategies to minimize contamination during blood culture collection.

Major Findings of the study

Demographic Variables

Majority of nursing staff were in the age group of 25-35years (70%) and 30% of them are 36-45years age group. All the staff nurses were diploma holders and had 5-15 years of working experience in different areas.

Comparison between pretest and posttest knowledge and skill scores:

Post test knowledge score is apparently higher than that of pretest mean knowledge score (MD 14.52). The mean posttest skill score was apparently higher than mean pre-test skill scores (MD 4.24)

Student's "t" test was computed to find out the significance of differences between pre and post tests scores. There was a significant difference ($p<0.05$) between pretest and post test knowledge ($t = 69.80$) and skill ($t = 22.52$). Hence it was concluded that the simulation based education on blood culture is an effective method to improve the knowledge and skills regarding reduction of blood culture contamination.

Fig. 1: Mean Pretest and Post test Scores of Knowledge and Skill

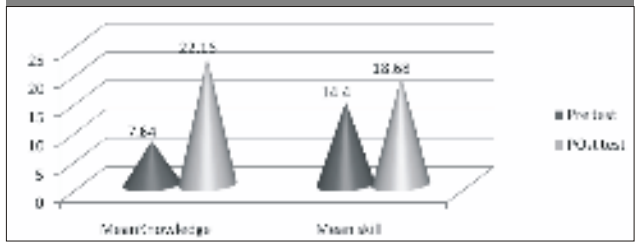

TABLE 1: Mean, Mean Difference and ' t ' value of Pre and Post Test Knowledge and Skill score

		Mean	MD	" t "	p value
Knowledge	pre	7.64			
post	22.16	14.52	69.80	p< 0.05	
Skill	pre	14.4			
post	18.68	4.28	22.52	p< 0.05	

DISCUSSION

Blood culture contamination leads to inappropriate or unnecessary antibiotic use. The rate of blood-culture contamination reduction should be regarded as an essential measure in improving nursing practice. Shekar et al[5] showed that trained blood-culture teams could reduce contamination rates in individual institutions. The use of the simulation based educational approach to train nurses on this simple procedure could prove to be beneficial not only in terms of knowledge and skill but in terms of other presumed costs that have been highlighted.

Simple innovative methods must be planned to facilitate continuing nursing education, improved clinical practice. The simulation based educational approach could be beneficial in terms of enhancing skills of venipuncture as well as infection control measures of nurses in an artificial setting rather than on patients. These aspects were not studied in this present study but extrapolating from Robert[1] there was a transient decrease in blood-culture contamination rates because of a supervised training and evaluation program through collaborative efforts of nursing and non-nursing departments.

This study is limited by its sample size and setting. Long term effects of the educational interventions are not considered in the present study. Further studies on the knowledge and skill retention after such an educational program will need to be conducted to determine the frequency with which such continuing nursing education programs will have to be planned and implemented. It is known that education, training, and evaluation of blood-drawing techniques should be regarded as an integral measure for improving clinical practice. Therefore, further research is recommended at other facilities and with different populations to obtain additional findings. Further studies are also recommended on ascertaining the effect of such a continuing education approach on rate of contamination of blood culture from nursing personnel, patient satisfaction, and overall health outcomes.

CONCLUSION

This study supports the concept that simulation based education for nurses are an effective strategy to improve knowledge and skills. Simulation based educational approaches could possibly help to reduce patients' length of stay and costs related to the repetition of blood cultures, other diagnostic studies, and unnecessary antibiotic therapy through quality nursing practice.

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Critical Analysis of Undergraduate Nursing Programs to Determine the need for Sexuality and Gender Sensitization of Student Nurses

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Introduction

The nursing curriculum in India undergoes revisions every 5-10 years. Syllabus revisions are formulated to help training undergraduate nurses' roles to evolve and enable them to meet the challenges of the changing health scenario. The nursing profession is increasingly facing questions such as

How can nursing services meet the health needs of the society most effectively?

What changes are needed in nursing education?

How can the necessary changes be effected in the best possible manner?

The undergraduate diploma nursing program (referred to as the GNM in this paper) was revised in 20011 by the Indian Nursing Council. This was implemented by most of the State Nursing Boards by 2005. Similarly the undergraduate degree nursing program (referred to as the BSc program) underwent substantial revision in 2004[2]. One major change included in both curricula was the increase of duration of the GNM program from 3 to 3 ½ years and a decrease of the BSc program from 4 to 3 ½ years. It was presumed this change was needed to gradually phase out the GNM program by 2010 and have one common undergraduate nursing curriculum within the country. However political and socio-cultural pressures have prevented this from occurring.

Nurses are presumed to be educated to deal with and recognize the physical and psycho-socio-cultural dimensions of illness, but yet lack knowledge in sexual aspects of human beings[4].Experience has shown that several nurses who attended capacity building training on HIV / AIDS care and treatment, shied away from discussing topics of sexuality and gender. Could it be a cultural expectation that women need not discuss such issues in the open? This is paradoxical in a country that ranks second for its population size and inherited the book “Kamasuthra”. And if this were the case are we as nursing educationists, doing justice to equip our clientele (student nurses) with skills to function effectively in the real world? This arouse concerns such as 'would nurses be able to deal with the multitude of problems that could stem from human sexuality and gender during the care of their clientele or with dealing with their own life problems?' 'Would nurses be able to deal with the challenges of sexual harassment in the workplace?'.

India is faced with the growing challenge of the AIDS epidemic as more than 5 million HIV cases have been documented in 2006 by the National AIDS Control Organization (NACO)[3]. The evidence of sexual transmission of HIV infection in India and the relationship of sexually transmitted infections (STIs) has prompted the development of a large number of programs[4] focusing on the prevention of unprotected sex through the ABC approach for not only high risk groups but also the general population including adolescents. Another main focus included school based education for HIV infection prevention masked through the life skills approach. Nursing education focuses on equipping the undergraduate with skills to prevent diseases, promote and restore to optimal health the whole person. Sexuality and gender however has seldom been placed in context of the growing demand for a more comprehensive approach to people at risk for HIV infection, people living with HIV/AIDS (PLHIVs) in this HIV pandemic era or, increased challenges of sexual harassment that a nurse may face in the workplace.

The nursing education is modeled differently from all

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other professional health programs. The student nurse is expected to have clinical practice and thus have direct contact with patients in the hospital or with healthy individuals in the community setting right from the first few months of entry to the program. A nurse would need to develop skills for effective communication skills to be able to help patients develop health promotion or risk reduction strategies. Typically this profession in India is dominated by women, who work odd hours and who are likely to be subject to several occupational hazards both overt and covert. The overt occupational hazards have systems in place within the work area such as occupational health programs. It is the covert occupational hazards such as sexual harassment that are often unspoken of and neither reported. This is known to have a tremendous devastating effect on the psyche of the concerned individual. The Supreme court's definition of sexual harassment[5] includes 'such unwelcome sexually determined behavior (whether directly or by implication) as physical contact and advances; a demand for sexual favors; sexually colored remarks; showing pornography; any other unwelcome physical, verbal or non verbal conduct of sexual nature'.

Lack of reporting[6] sexual harassment within the work area by nurses has been reported due to fear of damage to their career prospects or is just plain ignorance that these could also entail occupational hazards. Given that student nurses are faced with pressures of performance and acceptance in an environment that is characteristically stressful it is important they learn how to deal with such hazards. However coverage of syllabus is of prime importance to nursing institutions that rarely consider sexuality, or even the expression of it, a worthwhile endeavor[6]. This paper the first amongst a series, is a critical analysis of the undergraduate GNM and BSc nursing program curriculum that aims at identifying the strengths or what is already available in the curricula that address sexuality and gender issues; determining the gaps there of on sexuality and gender issues and thus determining the key points that may be addressed in a comprehensive unit during the first year of the undergraduate so as to facilitate personal and professional competence in dealing with sexuality and gender problems that may ensue while training as nurses or when functioning as fully fledged nurses.

Methods

The present syllabus prescribed by the INC in 2001 for the GNM and 2004 for the BSc nursing program were reviewed in depth by each year to determine to what extent sexuality and gender were addressed. This was done through review of what the syllabus prescribed in the context of sexuality and gender; and determination of whether these were prescribed contextually or isolated by scrutiny of 3 methods prescribed to teach such topics.

Results

The results are present as strengths in and gaps of the curricula in addressing topics of sexuality and gender.

Table 1. Strengths and gaps of the curricula in the context of addressing topics of sexuality and gender.

a. What are the strengths – what is available in the curricula that address sexuality and gender issues?

GNM program

- The curriculum is comprehensive.

- Has prescribed on issues related to reproductive and sexual health in the first year and third year.

- Based on the biomedical model.

- Topics such as reproductive system and its normal physiology, health problems related to the reproductive system, family planning and welfare are prescribed through the three years of the course.

Other life skills topics such as communication skills, health education skills and media that could be used for health education both in the first year and during the internship period of the course.

B.Sc Program

- The curriculum does have topics related to sexuality, relationships, physiology of the reproductive system.

- Mention of family, relationships, marriage, women empowerment, child abuse, women abuse , female foeticide and other related topics on sexuality and gender issues

- Topics that could be linked to life skills and other abilities to communicate effectively to the clientele are

prescribed such as communication skills, health education and media are covered in the second year in a separate subject called 'communication and education technology'. The unit emphasizes on both acquiring knowledge as well as skills on communication and counseling.

- There is subtopic on counseling wherein both theory and practical skills are prescribed with the expectation that students would counsel as well as educate patients / individuals either in the hospital or community setting.

- There is a subtopic in community health in the final year that aims at empowerment of self and family as well as sensitizing and handling social issues on health and development.

b. What are the gaps of the curricula in addressing sexuality and gender issues?

GNM

- Although the syllabus has a mention of growth and development from infancy to adulthood, wherein development is addressed there is no mention on the psychosexual development.

- The fact that pre-marriage pregnancy is grouped under social problems and there is no mention of abortions even in supposedly relevant places of the curriculum such as either sociology or midwifery could be supportive of this presumption.

- The role of gender is not taken into consideration in social problems. In fact there is no address of gender or even the mention of the word 'gender' in the whole curriculum.

- Although emphasis of the curriculum is on promoting self care of people, no topic related to counseling figures within it, physical, emotional and moral.

- B.Sc: The biomedical focus of all related topics cannot be ignored in the present curriculum.

- Although topics such as family relationships, marriage, political control of relationships such as marriage Acts, Adoption Acts, etc are mentioned. The focus seems to be on heterosexual relationships alone. There is a succinct absence of any other form of relationships, this is imperative considering that homosexual relationships has been legalized in India.

- The context of sexual violence, abortions does not seem to figure in the curriculum although topics such as family welfare and contraceptive methods are addressed in detail in the final year of the curriculum.

- Human sexuality as a subtopic is included under the course “obstetrics and gynecological” nursing. One could infer that only the procreative function of sexuality is possibly considered in the curriculum.

Common gaps of the curriculum

- It could be presumed that focus of sexuality is from a biomedical model of reproduction and procreation or health related problems.

- The word 'sexuality' figures in the curricula under the course gynecology for GNM and in BSc under obstetrics and gynecological nursing. These courses focus on reproduction and with problems related to the reproductive tract. Could it give the students the feeling that sexuality is a problem? Or that it concerns only procreation/reproduction?.

- Main focus with regards to sexual relationships is on heterosexual relationships. This could be inferred from the fact that 'sexuality' as a topic is listed under gynecological and obstetrical nursing. There is no mention of other forms of sexual relationships. If there is a mention of it, in the curricula it comes as a deviant form of behavior under psychiatric nursing.

- The curriculum also aims at inculcating ethical values in the personal and professional lives of the students but topics such as gender issues, value identification, various sexual relationships and ones attitudes towards it, have not found its place in the curriculum.

- Although communication skills are prescribed in the syllabus of both the GNM and BSc nursing program, it is only related to the basics of communication and rarely made contextual to real life situations.

Discussion

Nursing students entering the program are usually in the last year of their adolescent period (17 years) or have just entered the adult period (18 years). They are more likely to be faced with unique challenges presumably different from their peers who study any

other professional or non professional program. The first difference arises from the fact nursing is a practical profession and skills in caring for patients/people mboth sick and healthy are expected to be developed from the first academic year of their professional program. No other professional program, expects the student to come in contact with their clientele for such long periods, as much as 8 hours per day, and in such close proximity just by the nature of some nursing procedures.

GNM students are prescribed around 800 clinical hours in the hospital and community combined while the BSc students are prescribed around 450 hours of clinical experience in the first year. During this time they are expected to carry out basic nursing procedures such as meeting the hygienic, nutritional, mobility and other basic needs of the patient. This may place young student nurses to have physical contact with patients that sometimes are often misconstrued as something more than professional help for an individual who is not able to meet this need. Student nurses are thus faced with several challenges when taking care of patient's right from the first year. It is important that they are empowered with life skills[8-9] to cope with these unique challenges. Aspects such as self awareness, decision making, self esteem, problem solving, assertiveness, critical thinking are not addressed in the curriculum and have been advocated as essential skills for managing challenging events. Secondly, most nursing students reside in the hostel during their professional training. The theoretical and practical demands of their training sometimes pose more challenges to them than their peers undergoing other professional programs, who have more opportunity for socialization despite their curriculum pressures. Residing in the hostel also entails abiding by the rules and regulations of the hostel, most of which are still based on conservative Nightingale times that limits opportunities for socialization of nursing students to the time when they are on vacation. Any venture of a nursing student having a social relationship with another is often misconstrued, sans the changing societal expectations of "having an intimate friend" being the norm. Despite the fact that the present curricula of the undergraduate nursing programs in India, has prescribed for teaching of human sexuality and gender, these concepts of prime concern in this era of changing psycho –social dimensions are restricted to just definitions with no practical implications. Of course one could postulate, the other end of the spectrum is an overload of concepts on students, much of which might be of little practical significance to a practicing nurse. Thirdly, considering that nursing is primarily dominated by women who work for several odd hours, the possibility of increased risk to sexual harassment in the work place is high[6]. Many women who choose the BSc nursing program might, if they had a free choice, have chosen medicine[10-11]. Hence these challenges that they are likely to face may be possibly perceived more negatively than if they had entered the profession with a full knowledge of what are the responsibilities of a nurse. The only article that could be accessed in the Indian context citing sexual harassment of nurses7 seemed to suggest very simple yet questionable methods of preventing sexual harassment as given below:

- Avoid walking alone in corridors, secluded areas, unlit or unknown places especially at odd times.

- Do not wear provocative jewelry, perfume on duty?.

- Ensure adequate privacy while engaged in personal calls and ensure the doors are bolted properly.

- Be vigilant if someone is keeping track of your duty shifts, off duty etc.

- Be careful of your body language while working especially in male wards and night duty.

There are no practical positive methods suggested that nurses could use to handle issues related to sexual harassment in the workplace[12-13]. In fact the assumption that all sexual harassment could be as a result of something from within the nurse, rather than the prevailing paternalistic norms of society and culture in which we live could be inferred from these measures suggested in the article, and could prove to be more harmful to the welfare of nurses as a whole. This article was found in Nursing Journal of India that has wide coverage of trained nurses. Although it is commendable that the topic was addressed in the journal, it seemed like its view was much too narrowed

in focus. This is typically how the curriculum of both GNM and BSc nursing undergraduate program seems to address sexuality and gender. The Right approach to sexuality is not addressed at all in its contention of sexual harassment. Sexuality is an important aspect of nursing care in all settings with clients of all ages. It has been reported that nurses who cared for patients with mastectomies, hysterectomies, and colostomies must encourage discussion of sexual concerns related to living with these changes in both patients and their partners. Unfortunately, research consistently demonstrates that nurses do not address sexuality and sexual functioning unless the patient initiates specific questions[14]. A number of variables related to the practice gap existing between the acknowledgment of appropriateness of including sexuality and the actual practice of addressing sexuality in nursing practice were identified.

These included:

- Personal values.
- Opinions about a nurse's responsibility to include sexuality in practice.
- Perceived knowledge level for confidence to address sexuality.
- Nurse's comfort level with discussion of their sexual concerns.
- Client reactions to a nurse addressing sexuality.
- Staff reactions to a nurse addressing sexuality and gender.
- Continuing education regarding sexuality related practice.

Nurse and other health care professionals are often required to help people overcome problems related to sexual matters. Maintenance of good health does not always protect people from sexual problems.

Professionals may be faced with questions about family planning, fertility, regulation methods and pregnancy. The WHO came out with teaching modules for basic education in human sexuality for nurses in 1995 for use by teachers[15-16]. The module deals with concepts of human sexuality and sexual health; human sexuality and its development; sexual activities, homosexuality and bisexuality; taking a sexual history. It uses participatory techniques. The intention of this module was to assist teachers to teach and address sexuality and gender which is still taboo in many cultures.

Sexuality and Gender can combine to make a huge difference in people's lives – between well being and ill being and sometimes between life and death[18]. Sexuality in its broadest sense encompasses the search for identity, roles as men and women, sexual attitudes, behaviors and feelings, relationships, affection, caring, the need to touch and be touched and the recognition and acceptance as sexual beings[19].

But it seems to be defined by the nursing curriculum as a problem rather than a normal process in the development of an individual, and as sexual intercourse between the male and the female with emphasis on the heterosexual relationships. Sexuality can either bring misery through sexual violence, HIV, maternal mortality or marginalization of those who break the norms such as non macho men, single women, sex workers, and people with same sex identities or joy, affirmation, intimacy and well being. A comprehensive unit addressing sexuality and gender that is contextual could possibly tip the balance to a more neutral view of sexuality and gender. Students may be helped to be aware of how their own ability to give help or care to others[20-21] could be affected by taboos on sexuality; to examine their attitudes and beliefs about sexuality and give an opportunity to talk aloud about different aspects of sexuality.

CONCLUSIONS

For these several reasons it is important that nursing students are given contextual information about sexuality and gender that could help them to be prepared to face the several challenges. They also need the opportunity to develop attitudes, values and decision making skills that will allow them to develop a healthy attitude about their own sexuality and other's sexual expressions. As reported[19], Sorenson's study showed that adolescents do not think of sex as being right or wrong, but rather judge sex in terms of the purpose for which it is used and the reaction of both partners to the sexual experience. 'Sexuality is a central aspect of being human throughout life and

encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. It is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles and relationships' (WHO, 2004). Today more than ever; nurses are faced with bewildering number of challenges and given their social family structure of protection etc could we postulate that they are likely to lack the experience to make decisions with regards to expression or dealing with issues stemming from their own sexuality or of their clientele's? Professional accountability directs nurse educators to periodically evaluate current theory and practice and to identify implications for change to foster or facilitate improved nursing practice.

Recommendations:

At present the curriculum with regards to addressing sexuality and gender is narrow in its scope and restricted to only the reproductive function or negative aspects such as violence and diseases.

A more holistic view can be considered when dealing with sexuality and gender as a unit so that various sexual relationships and identities are addressed a balance between the positive (pleasure) and the negative (violence, disease) aspects of sexual relationships is highlighted do impact of gender on sexual and reproductive health is perceived.

The curriculum presently is very theoretical in content in relation to addressing sexuality and gender issues. It does not focus on enhancing the skills of students to handle issues such sexual harassment although they could be vulnerable to it right from their first year of their nursing program. Hence it would be ideal that a more directed unit on sexuality and gender is taken in the first year of the course to help towards enhancing the skills of students to address and cope positively with sexual and gender issues in their personal as well as professional lives. This paper postulates the strengths and gaps of the present nursing curriculum with regards to sexuality and gender. Why should sexuality and gender be important for practitioners in the health care field? How could we expect young nursing students to understand the importance of consensual sex and negotiating skills if education is limited to prevention of pregnancy, STIs, and sex being a no go area in society? Sexual reproductive health activities need to concentrate beyond ABC and family planning to transform minds, just as much one needs to recognize that sexuality is more than health and violence issues that may challenge gender, race, class and other structures of power. To be effective, nursing students who start their clinical practice right from the first year of their professional program must understand their feelings and be comfortable to talk about sexual matters. It is important to be able to understand and help clients whose sexual preference, culture or life style differs differently from their own. They could be best able to help people with sexual problems if they are knowledgeable about, and comfortable with, the topic of human sexuality.

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We all have one thing in common, a twenty four hour day.
It is how we use our time that makes the difference.

Application of Orem's theory and Nursing Process to a patient with Myocardial Infarction

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Dorothea Elizabeth Orem began her nursing career in the early 1930s. During 1958-1959, as a consultant to the Office of Education, Department of Health, Education and Welfare, she participated in a project to improve practical nurse training. This work stimulated her to consider the question, 'What condition exists in a person when that person or others determine that that person should be under nursing care?, that evolved into her nursing concept of 'self care'. Orem's theory consists of *three interrelated theories*. They are the following:

1. Theory of self care: It describes and explains self care. It is based on four concepts. Self care- comprises of those activities performed independently by an individual. Self care agency – is the individual's ability to perform self care activities. Self care requisites – are the action measures used to provide self care. Therapeutic self care demand – are those self care activities required to meet the self care requisites.

***2. Self care deficit theory*:** Arises when self care agency cannot meet self care requisites. It necessitates nurses to meet through five methods of help: acting or doing for, guiding, teaching, supporting and providing an environment to promote patients ability to meet current or future demands.

3. Nursing systems theory: It is composed of three systems. Wholly compensatory system- when a patient's self care agency is so limited that patient is dependent on others well being. Partly compensatory system – is when a patient can meet some self care requisites but is dependent on nurse to help meet others. Supportive educative system – when a patient can meet self care requisites but need assistance with decision making, behavior control or knowledge acquisition, in this nurse promotes the self care agency.

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Orem's theory and four concepts of nursing metaparadigm:

1. Person: Is defined by Orem as the patient who functions biologically and symbolically and socially and who has the potential for learning and development. She also states person is an individual subject to forces of nature with a capacity for self care knowledge and who can learn to meet self care requisites.

2. Environment: It is not defined by Orem but interpreted by others as being outside the person. It can positively or negatively affect a person's ability to provide self care.

3. Health: Is described by Orem as a state characterized by soundness or wholeness of bodily structure and function and illness is its opposite. It includes promotion and maintenance of health, treatment of illness and prevention of complications.

4. Nursing: It is viewed by Orem as a service geared toward helping the self and others. It is required when therapeutic self care demands needed to meet self care requisites exceed a patient's self care agency. It ultimately promotes the patient as a self care agent.

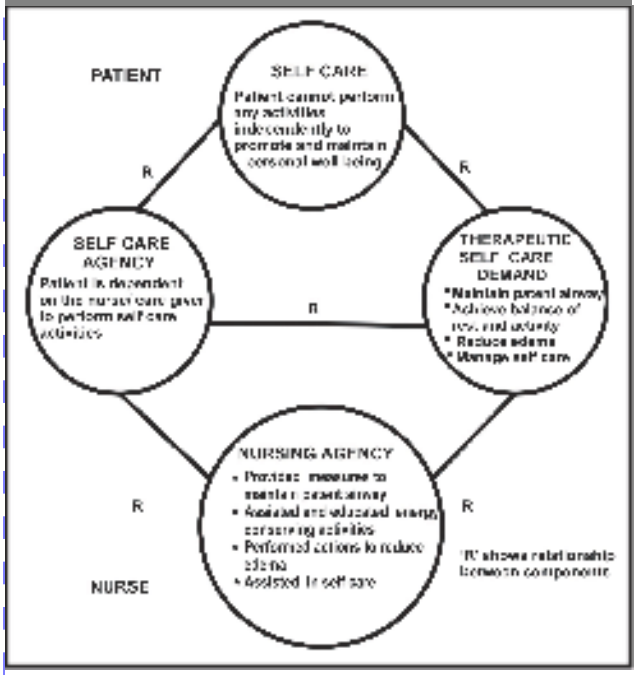
Case scenario:

Mr.X aged 58 years, a business man was admitted to the cardiac unit. He gave the history of shortness of breath, persistent cough, edema on both legs, could not lie supine and was dependent on his family members to meet his activities of daily living for the past five days. On physical examination, respiratory rate was 38 breaths/minute, BP 160/90mmHg, crackles were heard on both lungs. He was diaphoretic, fatigued, breathing through mouth and accessory muscles were

in use. Chest X- ray showed congestion of lung fields. Laboratory values of BUN, creatinine, serum potassium and sodium were in high normal range. Also, cholesterol and LDL levels were high.

His medical history revealed that he was diagnosed to have myocardial infarction three years ago. His compliance to medical treatment was poor. He stated that usually he works 10 hours/day but physical activity is less and a chronic smoker as well takes two packets of cigarettes per day. He also revealed family history of diabetes mellitus, hypertension and ischemic heart disease. He lives with his wife and two sons. Orem's self care deficit theory was applied for Mr. X as is shown in Figure: 1

Fig: 1: Application of Orem's Conceptual framework for the care of Mr.X



Orem's theory and nursing process:

According to Orem (1991) "Nursing process is a term used by nurses to refer to the professional – technologic operations of nursing practice and to associated planning and evaluative operations". Orem discusses a three-step nursing process which she labels the technologic process operations of nursing practice. The steps are given below:

Step 1: Nursing diagnosis and prescription. In this assessment phase, nurse collects data in six areas that are depicted in the table below.

Step 2: Designing the nursing system and planning for delivery of care that is wholly compensatory, partly compensatory or supportive educative. Goals are directed by the response statement of nursing diagnosis and are focused on health.

Step 3: The production and management of nursing systems also labeled as planning and controlling. In this step, the nurse performs and regulates the patient self care tasks. This also includes evaluation.

APPLICATION OF OREM ' S THEORY TO NURSING PROCESS					
ASSESSMENT					
Personal factor	**Universal self- care**	**Developmental self-care**	**Health deviations**	**Medical problem and plan**	**Self care deficits**
Age: 58 yrs **Gender:** Male **Health state:** Therapeutic self care demand **Family system:** Married, Business man **Patterns of living:** At home, with wife and sons **Resources:** Wife and sons	**Air:** Has shortness of breath, RR- 38 breaths/ minute **Water:** Edema present on both legs **Food:** Adequate intake **Elimination:** Voids and eliminates without difficulty **Activity / rest:** Frequent rest required due to decreased oxygenation in blood; Less activity due to fatigue and dyspnea **Prevention of hazards:** Smokes 2 packets of cigarettes / day; No exercise; Family history of hypertension, diabetes mellitus and ischemic heart disease; High Lipid profile; High normal values of BUN, creatinine, serum sodium and potassium; BP 160/98 mm of Hg; Works 10 hrs in a day usually	**Maintenance of developmental environment:** Assistance required to feed, bath, dress, toileting	**Adherence to medical regimen:** Complies to treatment but not regular **Awareness of potential problem associated with regimen:** He does not know the side effects of the drugs **Adjustment to lifestyle to accommodate changes**: Not willing to adopt lifestyle changes	**Diagnoses:** Ischemic heart disease and potential to heart failure	Unable to meet activities of daily living, requires assistance to meet self care

Nursing diagnosis	Plan	Implementation	Evaluation
Ineffective breathing pattern related to increased preload	**Goal:** Patient will maintain patent airway **Design of nursing system:** Partly compensatory system	- Monitored patient for respiratory rate, rhythm and effort of respiration - Auscultated patient for breath sounds - Placed the patient in high Fowler's position - Administered with supplemental O_2 as ordered	- Patient's O_2 saturation was > 98% - Patient verbalized ease of breathing
Activity intolerance related to fatigue secondary to cardiac insufficiency	**Goal:** Patient will achieve balance of physical activity with energy conserving activities **Design of nursing system:** Partly compensatory system	- Encouraged patient to alternate rest and physical activity periods - Engaged patient in diversionary activities to relax - Assisted patient to adopt techniques of energy conserving self care - Guided patient to choose activities consistent with physical, psychological and social capabilities	- Patient's pulse and respiratory rate was within normal range during activity - O_2 saturation was > 98% - Skin color was pink and warm - Patient reported ease of performing activities of daily living
Excess fluid volume related to increased preload and secondary to cardiac insufficiency	**Goal:** Patient will experience reduced or absence of edema **Design of nursing system:** Partly compensatory system	- Weighed patient daily - Monitored patient for abnormal serum electrolyte level - Monitored patient for respiratory pattern, hemodynamic status, renal function and intake and output chart - Evaluated patient for therapeutic effect of diuretics to assess response to treatment - Guided patient to restrict fluid and salt intake	- Patient ' s peripheral pulses was palpable - Serum electrolytes was within normal range - Skin turgor was normal - Patient maintained ideal body weight - Urine specific gravity was normal

Self care deficit related to fatigue and shortness of breath	**Goal:** Patient will meet self care **Design of nursing system:** Partly compensatory system	- Assessed patient's ability to carry out activities of daily living on regular basis - Assisted patient for necessary amount of dependence - Guided the patient to use consistent routines and allowed adequate time to complete tasks and carry out self-care skills - Provided patient with positive reinforcement for all activities attempted - Supervised patient for each activity till he performed skill competently and safe in independent care - Reevaluated patient regularly and was certain that he maintained skill level and remains safe in environment.	- ?Patient performed self care such as bathing and toileting - Patient took food by self
Potential for impaired skin integrity related to edema	**Goal:** Patient will maintain normal skin integrity **Design of nursing system:** Supportive – educative	- Assessed patient ' s skin regularly and taught to keep skin clean always - Guided patient to avoid stress or pressure over the areas of edema by providing extra cushions - Encouraged patient to use slippers while walking and not to wear tight fitting ones - Instructed patient to report to the health team if decreased output, palpitations, increased edema occurs - Monitored patient with the lab values for symptoms of renal failure	- Patient remained free from impaired skin integrity - Patient listed the measures to prevent loss of skin integrity - Patient identified measures to relieve edema

CONCLUSION

The theory of self care describes what a person requires and what actions need to be taken to meet those requirements. It also provides the structure for examining the actions and antecedent knowledge required to assist the person. This theory also described situations involving families and communities. The self care deficit theory of nursing is not an explanation of the individuality of a particular concrete nursing practice situation, but rather the expression of a singular combination of conceptualized properties or features common to all instances of nursing. As a general theory, it serves nurses engaged in nursing practice, in development and validation of nursing knowledge and in teaching and learning nursing.

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Improve, improve and improve every moment. Learn from mistakes. If we not, we lose the lesson which every mistake brings with it.

Forensic Nursing – An Emerging Trend

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Nursing has emerged to be a distinct profession in this era of modern science and technology. Like any other profession nursing also has carved a unique identity from merely being an assistant to the physician to an independent nurse practitioner. It also has broken the conventional thoughts of many who claimed that nurses always remained as paramedical personnel. Among many extended and expanded roles of a nurse, ***forensic nursing*** is a challenging field in the current age.

Nurses have many choices when it comes to a career path these days. While some may choose bedside nursing, others may want to expand their training to add forensic nursing to their credentials. This is a fascinating field within the nursing profession that allows the nurse to aid the criminal justice system by knowing how to collect and preserve evidence.

Definition of Forensic Nursing

According to Lynch (1993), forensic nursing is the application of the nursing process to public or legal proceedings; the application of the forensic aspects of health care to the scientific investigation of trauma, and/or death related medico legal issues.[1]

Importance of Forensic Nursing

According to Lynch (1995), violence and its associated trauma are widely recognized as a critical health problem in North America and throughout the world. Forensic nursing represents a new era of nursing practice that is evolving in direct response to the sequelae of criminal and interpersonal violence. The application of the principles and standards of the forensic specialist in nursing has been recognized as a vital new role in trauma care. Daily, nurses encounter the results of human behavior extremes: abused children, victims of neglect, self-inflicted injury, firearm injuries, knife wounds and other assaults.[2]

Statistics from the United States Department of Justice help to substantiate the need for forensic nursing. Each year, women are the victims of more than 4.5 million violent crimes, including approximately 500,000 rapes or other sexual assaults. Men, however, were more likely than women to experience violent crimes. In fact, men were about twice as likely as women to experience acts of violence by strangers.[3]

Forensic Nursing is the Bridge between the Criminal Justice System and the Health Care System. The forensic nurse is trained in evidence collection, criminal procedures and legal testimony. For example, a woman comes into the casualty claiming that she has been assaulted. The forensic nurse will be trained in how to collect important evidence from the victim's body. This evidence is critical because it can affect the outcome of a trial. Forensic nursing identifies the need to treat victims with the utmost care, while also obtaining legally sound evidence. . Rebecca Campbell, associate professor of psychology at Michigan State University, studied the effectiveness of sexual assault nurse examiners in collecting evidence in comparison to other health care professionals not trained in forensic evidence. It was found in the study that the intervention of a forensic nurse not only significantly increased the prosecution rate of the offenders but also helped the victims to return to normal life earlier and also achieve psychological stability.[4]

History of forensic nursing

Caregivers or health providers have been around for a long time now and many have already practiced forensic-type of services even before forensic nursing was recognized. In fact, during the 13th century, there were nurses who played the role of forensic practitioners as they examined young women who were arranged to marry royalty. These women were required to be virgins before they could proceed with the marriage. The nurses of that time were the ones

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who confirmed the women's virginity to the monarchs. Nurses have also already worked with sexual assault and abuse cases during this period.[5] Prior to forensic nursing, sexual assault nurses were the key people who handled rape or sexual abuse cases. The nurse as a victim advocate provides counseling to the victim and prepares her for the long process ahead. The police take charge of the investigation of facts. The examiners gather the evidence, document them properly, and assess them.[5]

Medical professionals like nurses, counselors, and advocates who worked with rape victims in various hospitals and clinics first established a training program for sexual assault examiners in Memphis, Tennessee in 1976. Another program was launched in Minneapolis, Minnesota in 1977. These were necessary to improve the services so that sensitive cases like rape could be handled properly.[5]

It was in 1992 when the term forensic nursing was born. About 70 sexual assault nurses and examiners gathered at a conference in St. Paul, Minneapolis to convene about their roles and how they could promote this service better as an organization. Shortly, the International Association of Forensic Nurses (IAFN) was formed which now serves as the central unit to develop and promote forensic nursing internationally. From the year 1995, forensic nursing became an official specialization in the nursing practice when the American Nurses Association (ANA) recognized it. In 2002, the Forensic Nursing Certification Board started the certification exam for Sexual Assault Nurse Examiners.[6]

In a short period of time, forensic nursing has become part of judicial system which is considered important for its usefulness in the society especially now that the world is becoming more and more exposed to acts of delinquency.[6]

Scope of forensic nursing

Forensic nurses possess a body of knowledge related to the identification, assessment, and analysis of forensic patient data. They all apply a unique combination of processes rooted in nursing science, forensic science, and public health to care for patients.[7]

Most forensic nurses work in the Emergency Department because most victims of domestic violence or rape are found here. It is the forensic nurse's duty to collect the evidence and pass it on to the proper authorities. The nurse may also be called to testify before the court. At times, victims of domestic violence will refuse to testify against their abuser. The evidence collected by the forensic nurse, along with her testimony, can put an abuser behind bars for a very long time.[8]

Forensic nursing can also expand outside the world of criminal investigation. Forensic nurses played an important role after the devastation of hurricane Katrina, where identification of some of the remains could only be determined through the use of forensic evidence collection by nurses as Medico legal Death Investigators.[8]

Apart from the above, Forensic nurses have a wide variety of roles in this forensic field. Some of these are: Sexual Assault nurse examiner, medical legal consultant, expert medical witness, evidence collection trainer or also work for the medical examiner's office or as a part of a law enforcement team[8]

Application of nursing process in forensic nursing

The forensic nursing process is an organizational tool that is used to care of individual suffering illness, injury or death as a result of violence, abuse or trauma. Collaboration with other nurses, physician, law enforcement, and those within the judicial system is vital in developing an effective nursing process. Forensic nursing combines the traditional nursing process with the principles of forensic science and criminal justice when caring for the most vulnerable--victims of violence; investigating legal matters; evaluating product tampering and liability; leading death investigations; and investigating child and elder abuse, custody matters, and domestic violence and trauma. Through these findings, a focused assessment can evolve into a comprehensive assessment.[9]

Nursing assessment not only considers clues given by what is not being said, marks on the body, and a partner who answers questions for the client. To illustrate this, let us see a case of a woman complaining of menstrual

cramping with severe pain. During the interview process, while collecting subjective data, the nurse notices that the client' s partner answers the questions for her and that he does not leave her side. Objective data revealed unusual bruising along the client's inner thighs and upper arms. When called for a pelvic examination, the client refused. This may be due to the shy nature of client or protective nature of the partner or she may be a victim of abuse. It is part of the skills gained through learning the nursing process, enhanced by the forensic ability through years of experience which will guide the nurse to give her client optimal care.[9]

Forensic nursing in India.

Forensic nursing is very new entity in India. A study conducted by Gorea RK, on development and future of forensic nursing in India revealed that it is in the stage of infancy.[10] In December 2002 Virginia Lynch visited India. Introductory seminar was held in the Govt. Medical College, Patiala where doctors, nurses, Judges, advocates and police officials gathered together and they were introduced to the concept of forensic nursing and its utility to the investigating officers and the judiciary. It was followed with similar lectures in the various parts of the Punjab. Many nursing schools and meetings of police officials were covered by Virginia Lynch and Gorea R K. [11]

Due to all these efforts forensic nursing was accepted in India. The nursing students of the local nursing school were taught forensic nursing at Govt. Medical College, Patiala. They started attending theory classes and were also demonstrated postmortem examination, examination of injured persons, those who were sexually assaulted and cases of poisoning. In all these cases special stress was laid on collection of samples, their preservation, packing and dispatch to the forensic science laboratory.[11]

In 2003 an attempt was made at national level at Patna at the time of International Congress of Forensic Medicine and Toxicology (ICFMT) and XXIV Annual Conference of Forensic Medicine to popularize it. An attempt was made during the ICFMT-2003 conference, New Delhi where lectures were delivered on forensic nursing to make the forensic fraternity aware about the movement of forensic nursing in India. This aroused a great interest throughout India. As a result of this forensic nursing also started in AIIMS, New Delhi and some other places in India. During this time, the Journal of Punjab Academy of Forensic Medicine and Toxicology also incorporated forensic nursing as one of the thrust areas. Two articles on forensic nursing were published in them. Later on these articles were available online also. Progress of forensic nursing was appreciated internationally by the publication of one article on forensic nursing "Bringing Hope to India" in the official publication of International Association of Forensic Nursess.[11]

Now India is on the world map of forensic nursing. Dr.T.D. Dogra, Dr. Anil Agarwal and Goreas R K are the members of the global advisory panel of Journal of Forensic Nursing being published from USA along with people from different parts of the world. An attempt was made to get forensic nursing included in the syllabus of undergraduate nursing students. For this a project report was submitted to Baba Farid University of Health Sciences. It was analyzed that the slow progress with the nursing students was because there was no awareness being given to nursing faculty and hence an awareness program for nursing faculty of local nursing college was carried out and was found that there was greater acceptance of forensic nursing by students and teachers.[11]

Also, visiting scholars Jamie Ferrell, Instructor of Clinical Nursing, National Forensic Nursing Institute, University of Rochester and Renae Diegel, Forensic Nurse Examiner/Program Director conducted the workshop on Rape victim Examination in the year 2006 and this also motivated people to accept the growing influence of forensic nursing in India[11] Currently, India is in the phase of orientation of medical professionals, nursing professionals, investigating officials, judiciary, administrative and political leadership to the concept and benefits of forensic nursing. A lot of efforts are still required to introduce forensic nursing in the educational curriculum of nurses and employ and deploy the forensic nurses where they will be useful to the society.[10]

Career in forensic nursing

1. A registered nurse can start a career in forensic nursing by enrolling in continuing education courses in forensic nursing. There are online certificate programs available that have specific content focused on forensic nursing for duration of twelve months or less.

2. A nurse with a baccalaureate degree can receive a master's degree in forensic nursing which lead to new areas of employment within nursing careers such as research consultant.

3. An advanced course in forensic nursing includes forensic law which enables the nurse to understand the legal issues that surround the expert testimony.

4. Other areas for nurses in forensic science include interpretation of DNA lab reports, forensic chemistry, toxicity, cause of death, manner and mechanisms of injury.[12]

CONCLUSION

Forensic nursing qualifies a nurse to undertake medico-legal work which can be a significant advantage for a quality management professional. Forensic nurses work with clients who are survivors of violence or other forms of trauma, neglect or injury. Forensic nursing education teaches skills to navigate through the legal system and helps in rehabilitation of such clients. Forensic nurses represent the future of nursing profession. India being a secular country has good scope for forensic nursing in the coming years.

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Closing the Gap: Increasing Access and Equity

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The health care system has seen various phases, which has been dynamic since it's inception. We have passed through the era of Health for All and passing through Millennium Development Goals, with due chievements from both the initiatives. The MDG has remained focused roughout the world to reduce poverty and hunger and to tackle ill ealth, gender inequality, lack of education, access to clean water and nvironmental degradation[1]. MDG recognized that burden of illness nd disease was not equally distributed. As per reports ten years of MDG have made significant gains with regards to malaria and HIV control and measles immunization[2]. The wide gap existing between health and illness, distribution of health services among the rural and urban population, and so on was recognized by the MDG. It is in this background the International Council of Nurses has declared "Closing the Gap: Increasing Access and Equity "as the theme for International Nurses Day, year 2011.The theme highlights the role of nurse in closing the gap, that exists in various areas of health industry. The ICN believes that the nurses have an important role in achieving health equity and developing clear understanding of how the health sector can act to reduce inequities in health.

Understanding access and equity

The meaning of access in this context is bringing health closer in terms of services, time and place. By providing access one can ensure equity. Equity is nothing but being fair and impartial. Equity does not allocate health care facilities equally but fairly. In health care setting, inequality can result due to a number of factors such as unequal access to resources, capabilities and rights.[2] This can be removed by determining a basic level of services that has to be provided to consumers. Equity can be ensured by adapting a proper prioritizing system, allowing the urgent needs to be met first. There are developing countries whose budget cannot meet the basic health needs of its population. Rationing of health care services can solve such problems.

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Burden of inequity

This can be understood by looking at the MDG. At the midway MDG has remained successful, by attaining the targets . However the current trends suggest that many countries are far away from reaching the millennium development targets. The key constraints to achieve these targets include, lack of availability of trained health personnel, lack of concern by the governments and lack of intersectional co-ordination .Burning issues which make the burden of equity heavy are

- Gender inequality
- Varying culture and ethnicity
- Low socio economic status
- Disability
- Diet and nutrition

These existing gaps need to be closed, toattain global health.

Measuring access and equity

The indicators for measuring health inequalities include, life expectancy and mortality and data related to morbidity and disease. It is evident from research that use of different indicators can lead to different confusions. This is due to the limitations of the tools used for determining equity. According to Looper and Lafortune routine data updating and an ongoing monitoring can help remove this confusion.

An equity oriented tool kit developed at the Ottawa University provides tools to assess burden of illness, community effectiveness, economic evaluation and knowledge translation and implementation.2

Barriers to access and equity:

The hurdling blocks for access and equity are ,

- Health expenditure
- Human resources

Inequality exists in terms of health expenditure between rural and urban areas in most parts of the world. Majority of health facilities are situated in the urban areas. Factors like fees for health services, cost involved in reaching the health services determines compliance to treatment and follow up.

The flow of health expenditure to urban areassuggests an issue of inequality.

An unequal distribution of available heath personnel exists in most of the third world countries. Problems pertaining to opportunity for training and professional development of health personnel exists in rural areas. Further the difficult working conditions , living conditions , lack of educational facilities for children and sparse professional development activities pushes the health personnel to stay away from working in remote and rural areas. A series of recommendations are given by the WHO in its global policy recommendation to increase access to health workers in rural and remote areas through improved retention.

In Sweden district nurses are given additional training to have prescriptive authority. They are authorized to prescribe over 230 brands of medications under the Swedish medical products agency.[2] Evaluation of nurse prescribing showed positive results in terms of increasing accessibility to patients, elderly and disabled. Indian health policy makers should think in these lines to increase accessibility to essential health services by training and authorizing nurses to prescribe medications. Nurses taking innovative roles help to improve access to service. Considerable cost-effectiveness can be brought by widening the practice horizon for Nurses.

Increasing access and equity: Health to a larger extent is determined by living environment and this is the core message of nursing right from it's inception by Florence Nightingale.

The root for increasing morbidity and mortality from various diseases arises from poor living and working conditions in the society.

Nurses enhancing access and equity:Nursing is an unbiased profession ensuring human rights and equity. This is very much evident in the prescribed code of ethics by International Council of Nurses .Nursing is beyond age, cast, creed, color gender and social status.[2] This gives a calling for Nurses to render accessible and equitable services to their clientele.

An effective training and skills development will ensure indiscriminant care by nurses. Nurses need to be sensitized about the need for accessibility and equity in delivery of health services. On account of migration in nursing community,' transculturel nursing' takes an important role, and nurses need to be culturally sensitive. The employers need to take appropriate measures to make nurse competent to understand the needs and preferences of local community. [2] There is an intense need for nurses to carry out research activities oriented to equity issues. Lobbying, advocacy and policy development to enhance existing health care delivery is the need of the hour. Nurses need to form a representation at the national level and articulate professional needs.

Nursing is both an art and science. The scope of nursing has wide horizon and nurses have entered in to variety of fields like school, industry, homeless shelters etc. Nurses being largest in number in the health care industry, can make a considerable impact on the accessibility and equal distribution of health services. In this scenario let us commit ourselves to the theme of International Nurses Day -2011, and close the existing gaps and enhance access and equity.

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