A Study to assess Knowledge and Attitude of Nurse Educators Regarding Simulation and to Develop an Informational CD about Simulation in Midwifery in Selected Colleges and Schools of Nursing in Delhi

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ABSTRACT

Objectives:

1) to assess the knowledge of nurse educators regarding simulation in midwifery education, 2) assessing the attitude of nurse educators regarding simulation in midwifery education,
3) correlating the knowledge with selected variables like, age, qualification, experience and designation,
4) correlating the attitude with selected variables like, age, qualification, experience and designation
5) determining the relationship between knowledge and attitude of nurse educators regarding simulation in midwifery education,
6) preparing and disseminating the informational CD about simulation in midwifery education.

Material and Method: A descriptive survey approach with exploratory research design was used for the study. The study was conducted among purposively selected, thirty nurse educators teaching midwifery in various colleges and schools of nursing in Delhi. Data was collected using a pre tested, valid and reliable structured knowledge questionnaire and attitude scale.

Results: It was found that mean and median of knowledge score of nurse educators was 21 and standard deviation (S.D.) was 3.939, which showed that there was less variation among knowledge of nurse educators. Only 30% of the nurse educators have adequate knowledge whereas 70% have inadequate knowledge about simulation in midwifery education. 57% of the nurse educators shows favourable attitude whereas 43% shows unfavourable attitude towards simulation in midwifery. No Significant relationship was found between knowledge and selected variables such as age, professional education, designation and years of experience at 0.05 level of significance. No significant relationship was found between attitude and selected variables such as age, professional education, designation and years of experience at 0.05 level of significance. The computed Pearson "r" value between knowledge and attitude is found to be statistically significant at 0.001 level of significance. Thus the result indicated that the knowledge of nurse educators had significant relationship with the attitude of nurse educators.

Conclusion: Only 8% of the nurse educators have adequate knowledge whereas 22% have inadequate knowledge about simulation in midwifery education. 57% of the nurse educators show favourable attitude whereas 43% show unfavourable attitude towards simulation in midwifery. There was a significant relationship between the knowledge and attitude of nurse educators.

Keywords: Nurse educators, Simulation, Midwifery

INTRODUCTION

The challenges nursing education is facing in the twenty-first century are numerous. Universities and colleges that offer nursing and midwifery courses are faced with increased intakes, decreased clinical placements and a shortage of patient availability. Student nurses and midwives are competing with other learners in the workplace (e.g., medical students and anaesthetic practitioners) to gain the essential

knowledge and skills to become a registered practitioner. The Nursing and Midwifery Council (NMC, 2005)[1], United Kingdom, conducted a review if students are fit for practice at the point of registration. Concerns have been raised regarding the variation in competence in areas such as communication, medicine administration and decision making. Following this review and acting on the feedback received from students, practitioners and lecturers, support for the use of simulation to assist pre-registration nursing students to consolidate their learning.

Simulation is the reproduction of the essential features of a real-life situation. Although nurse educators strive to mimic reality in their practice laboratories, they find that nursing students often do not make the imaginative leap required to visualize a dummy model as a real patient. Consequently, students frequently experience difficulty making the transition from the learning laboratory to the real patient setting. To better facilitate this transition, nursing learning centres have recently begun moving from static, plastic models to costly, interactive, computerized models. Several aspects of simulation technology suggest this move to be ideal for nursing education, especially for undergraduates.

The increasing demands of working in complex health care situations means that nurse educators are struggling to find adequate clinical placements for their students (Rhodes and Curran,(2005)[2]). Time restraints and the number and quality of mentorship is further suggested as impacting on student ability to link theoretical knowledge to practical skills.

According to Ahmed (2008)[3], the primary role of the clinical skills centre is that it offers an innovative learning method that efficiently fills the gap between theoretical knowledge and clinical practice. Harden et al. (1999)[4] revealed that simulation laboratory provides students with a supportive environment. In this environment, appropriate professional attitudes are displayed; feedback and student welfare is recognized as an important ingredient to student success. Furthermore, the simulation laboratory affords students and provides opportunity to study at different times and pace and is able to cater for the learning needs of different students.

MATERIAL AND METHOD

A descriptive survey approach with exploratory research design was used in the study, conducted in selected schools and colleges of nursing of Delhi. Nurse educators (N=30) teaching midwifery were covered. Purposive non- probability sampling was used.

Description of tool

In order to achieve the objectives of the study, two tools were prepared.

Tool 1: Structured knowledge questionnaire (SKQ) to assess knowledge of nurse educators about simulation. It comprises of two sections:

Section 1: It comprises items related to sample characteristics such as age, general education, professional qualification, present position and years of experience.

Section 2: It is divided into two parts: Part A and Part B.Part A consists of 13 multiple-choice questions and Part B consists of 17 true and false questions.

Scoring: Every question with correct answer is given 1 marks and wrong answer is awarded 0 marks. The maximum score is 30 and the minimum is 0.

Tool 2: Attitude scale to assess attitude of nurse educators about simulation This tool consists of 30 items. There are 15 positively worded and 15 negatively worded statements. Each positively worded statement is scored as follows (Table1):

Table 1

S. no.	Statements	Strongly Agree	Agree	Not	Disagree Sure	Strongly Disagree
1	I feel that it is feasib\le to set up these kinds of laboratories	5	4	3	2	1

Each negatively worded statement is scored as follows (Table 2):

Table 2

S. no.	Statements	SA	A	NS	DA	SDA
1	I feel that these laboratories will not cater to individual differences of students	1	2	3	4	5

INTERPRETATION OF THE TOOL

Highest score is 150 and the minimum score is 30. The attitude of nurse educators is categorized as follows (Table 3)

Table 3

Category of attitude	Score	Percentage
Favourable attitude	91—150	Above 60%
Unfavourable attitude	30—90	60%

Formal approval was obtained from the concerned authorities to conduct final study. The purpose of the study was explained to them. After obtaining permission from various institutes, tool was distributed to nurse educators.

FINDINGS

- About 27% of nurse educators were in the age group of 21—30 years, majority were in between 31 and 40 years which is 37% whereas 23% were in between 41 and 50 years and 13% were above 50 years.

- Regarding general education, 83% were graduates whereas 14% specified any other.

- Half of nurse educators, that is, 50% were professionally qualified as B.Sc. nurses whereas 17% were post-basic nurses and 33% were M.Sc. nurses.

- Less then half of nurse educators, that is, 43% were designated as clinical instructor, 31% were tutors and 13% were senior tutor whereas 10% were assistant professors and 3% were professors.

- About 23% of subjects were having experience of 1—5 years, 20% were having 6—10 years whereas 17% were having 11—15 years and majority 40% were having above 15 years.

- The mean knowledge score of nurse educators was 21. The calculated median and mode of the scores were 21 and 18, respectively. The standard deviation (SD) was 3.939, which showed that there was less variation among knowledge of nurse educators. Only 30% of the nurse educators have adequate knowledge whereas 70% have inadequate knowledge about simulation in midwifery education (Table4).

Table 4: Knowledge Scores Of Nurse Educators Regarding Simulation In Midwifery Education

n=30

| S. no.	Knowledge category	Frequency	Percentage (%)
1	Adequate	9	30
2	Inadequate	21	70

- Above 60% of the total score is considered as favourable attitude whereas below 60% is unfavourable attitude regarding the use of simulation in the area of midwifery. Fifty-seven per cent of the nurse educators shows favourable attitude whereas 43% shows unfavourable attitude regarding the use of simulation (Figure1).

Figure1: Bar Diagram Showing Attitude Scores Of Nurse Educators Regarding Simulation In Midwifery Education.
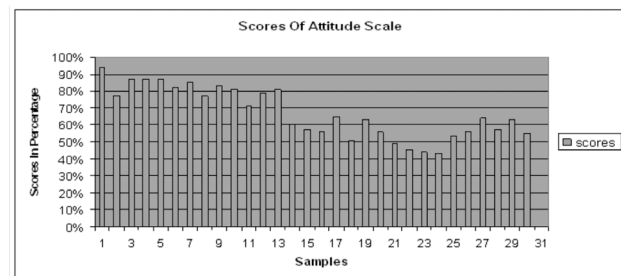
- No significant relationship was found between knowledge and selected variables such as age, professional education, designation and years of experience at 0.05 level of significance.

- No significant relationship was found between attitude and selected variables such as age, professional education, designation and years of experience at 0.05 level of significance.

- The computed Pearson's r-value between knowledge and attitude is found to be statistically significant at 0.001 level of significance. Thus, the result indicated that the knowledge of nurse educators had significant relationship with the attitude of nurse educators (Figure 2).

Figure 2: Scatter Plot Diagram Showing Relationship Between Attitude And Knowledge Of Nurse Educators
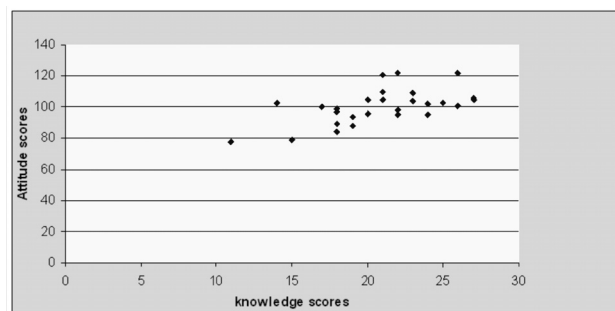
DISCUSSION

Simulation lab will play very important role in midwifery because of shortage of cases in hospital and increasing number of colleges and schools of nursing. Keeping this in mind it is very important that the nurse educators should be exposed to in-service education programmes regarding simulation in midwifery education so that their knowledge can be increased and they can be utilized in improving quality of midwifery education as it is been proved by this study that the nurse educators do not have adequate knowledge about simulation in midwifery but they show favourable attitude towards use of simulation which is been supported by the study conducted by Bogossian Fet al. (2011)[4] to describe the extent, nature and types of simulation used as a learning method in contemporary Australian midwifery curricula. An electronic survey was developed using Graduate e-Cohort Pro and administered to key midwifery academics that had responsibility for 38 curricula leading to initial midwifery registration in Australia. Engagement of midwifery academics in the survey was high with a response rate of 82%. There is a range of midwifery programs by type and level of award across Australia that vary in duration, enrolments, and by component theoretical and clinical hours. The proportion of simulation hours in curricula varied across programs accounting for up to 17% of clinical program hours. However simulation was used extensively to teach all identified generic technical skills (n=16) midwifery technical skills (n=51) and generic non-technical skills (n=6). Most commonly used simulation types were scenarios, peer-to-peer learning, partial task trainers and standardised patients. Simulation types were suited to the learning tasks Simulation is used extensively in midwifery education in Australia. Further research is required to understand the curriculum development imperatives of simulation and there is a need to adequately resource and support staff in the use of simulation to provide high quality simulation learning experiences for students. This study also supports the findings of the present study that educators teaching midwifery have favourable attitude towards simulation in midwifery education.

RECOMMENDATIONS

• The study can be replicated to large scale; thereby findings can be generalized for a large section to cover large population.

• An experimental study can be carried out to assess effectiveness of simulation over conventional teaching in conduction of normal delivery.

ACKNOWLEDGEMENT

CONFLICT OF INTEREST

The need for conducting this study is to provide knowledge on simulators in midwifery education to nurse educators because midwifery training is currently operating using a university-based model in which it is difficult to reinforce practical skills. During courses there are limited clinical placements to allow a student to gain practical experience. In the course of this experience students mostly gain exposure to normal cases, with little exposure to important abnormal cases. Studies indicate that only 3% of pregnancies are abnormal, leaving the student with very little chance of encountering these cases. Our aim on emphasizing simulator is to provide a skill development tool that can be easily used in an educational setting – giving students some idea of what the practical case may be like. This would permit a useful practical component to be integrated with the theory presented in the classroom.

SOURCE OF FUNDING

ETHICAL CLEARANCE

It is been given by the college (Rufaida College Of Nursing, Jamia Hamdard, New Delhi).

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