Effectiveness of structured teaching programme on knowledge regarding selected obstetrical emergencies among nurses working in labour room, antenatal & postnatal wards

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Abstract
Obstetric crises are medical conditions that put the lives of pregnant mothers and their newborns in jeopardy. From conception until birth, a severe problem affects around 15% of all pregnant women. Nurses must be able to combine competence, compassion, and critical thinking in order to be successful. Essential traits for caring for a woman with an obstetric crisis must be had by midwives, and they must be developed.

Objectives of the study: 1 to assess the pretest level of knowledge regarding selected Obstetrical Emergencies among nurses working in labour room, antenatal & postnatal wards. 2. To assess the posttest level of knowledge regarding selected Obstetrical Emergencies among nurses working in labour room, antenatal & postnatal wards. 3. To assess the effectiveness of structured teaching programme regarding knowledge of selected Obstetrical Emergencies among nurses working in labour room, antenatal & postnatal wards. 4. To find association between knowledge regarding selected Obstetrical Emergencies among nurses working in labour room, antenatal & postnatal wards with their selected demographic variables.

Methods: The study was Quasi-experimental in nature. The research approach adopted for the study was Quantitative research approach. Sample consisted of 60 staff nurses working in labour room, antenatal & postnatal wards. Non probability convenient sampling technique was used for the collection of data.

Results: In the present study during the pre-test, the maximum mean percentage obtained by the sample is found in the aspect of Cord prolapse (46.57%), followed by Pregnancy Induced Hypertension (40.72%) and least mean percentage (26.63%) obtained in the aspect of Postpartum Haemorrhage. The overall mean percentage obtained in the pre-test was 22.55%. In the present study during the post-test, the maximum mean percentage obtained by the sample is found in the aspect of Pregnancy Induced Hypertension (54.61%), followed by Cord Prolapse (50.14%), and least mean percentage obtained in the aspect of Postpartum Haemorrhage (30.45%). The overall mean percentage obtained in the post-test was 27.91%.

Conclusion: The conclusion drawn on the basis of the findings of the study shows that the structured teaching programme was effective in improving the level of knowledge of the staff nurses working in labour room, antenatal & postnatal wards. Furthermore, it is recommended that though there was improvement in the knowledge of staff nurses, more training programmes, in service education on obstetrical emergencies, specifically on postpartum hemorrhage, would be beneficial for the nurses as the mean knowledge score in the present study was the lowest in pretest as well as posttest.

Keywords: Effectiveness, knowledge, obstetric emergencies, nurses, postnatal & labour room

Introduction
Upper-respiratory-tract infection occurs commonly in children, on an average a healthy three years old child suffers from 6-10 colds per year. Upper respiratory tract infection is usually mild, viral and self-limiting however the symptoms can cause fever and make children irritable, lethargic and uncomfortable. The treatment strategy is to minimize the symptoms and discomfort. Although widely used nonprescription cough and cold preparations may not be effective for symptom control the illness. They may cause a wide variety of adverse effects for inducing paradoxical reactions and toxicity with unintentional over dosage particularly in children less than three years old.
Upper respiratory tract infection is the commonest reason for consultation in hospital care Obstetric emergencies are health problems that are life-threatening for pregnant women and their babies.
An obstetric emergency may arise at any time 3 during pregnancy, labour and birth. Hospital care is needed for all obstetric emergencies, as the woman may need specialist care and an extended hospital stay. This may be because of the risk of a premature birth, the loss of a baby or increased risk to the woman’s health. It is common that approximately 15% of all pregnant women develop serious complication from conception to delivery. Among all the emergency situations which may arise across the field of obstetrics, there are small numbers which call urgent practical steps to be taken in order to safeguard the life of the mother or the baby or both.

In the developing countries, it varies from 100–700 with India having about 254 per 100,000 live births. 9 Globally it occurs about 8.7 million times and results in 44,000 to 86,000 deaths per year making it the leading cause of death during pregnancy. About 0.4 women per 100,000 deliveries die from PPH in the United Kingdom while about 150 women per 100,000 deliveries die in sub-Saharan Africa. Rates of death have decreased substantially since at least the late 1800s in the United Kingdom. 14 Most life threatening obstetric complications require hospital treatment to avert maternal mortality. Some assume that in developing countries, hospital services for the poor must be in government hospitals and health centers and a large proportion of deliveries need to be in these hospitals to provide timely access to emergency care. This presents a major problem in countries like India where almost all deliveries occur at home, government hospitals and health centers, generally where care lacks in emergency situations. Nurses must be able to combine competence with caring and critical thinking. Midwife need to have and develop essential qualities in caring of a woman with obstetric emergencies.

### Need of study

The sensitive index of the quality of the health care delivery system of a country as a whole or in part, is reflected by its maternal and perinatal mortality rates. With 16% of world’s population, India accounts for over 20% of world’s maternal deaths. Maintenance of accurate vital statistics (record keeping of the vital events such as births and deaths), their critical analysis and formulation of the preventive measures contributed to a great extent in the reduction of deaths in advanced countries. Unregulated fertility, unsafe abortion, inadequate antenatal care and lack of trained birth attendants are mainly recognized as the factors responsible for high maternal and perinatal deaths in the developing countries. 2

From 327 in 1996 to 675 in 1999 more than 76% of the women spent 48hrs or less from time of admission to the death and majority of them were low parity, nulliparity was 37.5%. In the developing world about 1.2% of deliveries are associated with PPH and when PPH occurred about 3% of women died. Globally it occurs about 8.7 million times and results in 44,000 to 86,000 deaths per year making it the leading cause of death during pregnancy. 3

Researcher has assess from review of literature that one of the most critical issues in India is maternal and child mortality. Many skill-based training programmes for prenatal and child care nurses are being created in order to improve their abilities and lessen mother and child morbidity. To increase public awareness about the importance of preventative health care because the author works in a clinical setting, he thought the problem was appropriate for the study.

### Aim of the study

To assess the effectiveness of structured teaching programme on knowledge regarding selected Obstetrical Emergencies among nurses working in labour room, antenatal & postnatal wards of selected hospitals.

### Methodology

The study was Quasi-experimental in nature. The research approach adopted for the study was Quantitative research approach. Sample consisted of 60 staff nurses working in labour room, antenatal & postnatal wards. Non probability convenient sampling technique was used for the collection of data. The tool consisted of 2 parts- 1. Demographic data, & 2. Self-structured questionnaires on knowledge regarding the obstetrical care.

### Reliability

Reliability is calculated with the help of test re-test method and correlation coefficient is calculated by Karl Pearson’s formula. Estimated value suggests that tool is highly reliable.

### Pilot study

After conducting the pilot study, it was found that the study was feasible and practical to conduct the main study. The concerned authority and the samples were found to be cooperative, the questionnaire was relevant and the time and cost for the study was within the limit

### Result

The outcome for demographic factors is as follows: According to age, 33.33 percent of samples were between the ages of 20 and 25, 26.66 percent were between the ages of 26 and 30, and 31.66 percent were between the ages of 31 and 35, and 8.33 percent were over the age of 35. According to their marital status, 50 percent of the nurses in the sample are married, 46.66 percent are single, and the remaining 3.33 percent are divorced. Professional qualifications show that 33.33 percent of respondents have an ANM, 38.33 percent have a GNM, and 28.33 percent have a B.Sc. (N) as their professional qualification. Currently, the bulk of the work area displays this. Currently, 36.66 percent of respondents work in the labour room, 16.66 percent work in the postnatal ward, and 31.66 percent work in prenatal. The majority of respondents have 1-5 years of experience in the labour room and labour OT, 25% have 5-10 years, and only 8.33 percent and 6.66 percent have 10-15 and above 15 years of experience in the labour room and labour OT ward, and 15% of them in ANC & PNC OPD. The majority of respondents have 1-5 years of experience in a maternity ward, 25% have 5-10 years, and just 6.66 percent and 3.33 percent have 10-15 and over 15 years of experience in a maternity department. According to previous obstetrical emergency knowledge, 23.33 percent of nurses can describe obstetrical emergencies, 28.33 percent of nurses can describe obstetrical emergency investigations, 26.66 percent of nurses can manage obstetrical emergencies, and 21.66 percent of nurses can describe overall knowledge of obstetrical emergencies. According to the number of Obstetrical Emergencies training programmes attended in the previous 5 years, the majority of nurses attended just 1-3 training programmes, 30% attended 4-6 training...
programmes, and 5% attended 7-10 training programmes. According to the data collected, 86.66 percent of nurses work in private hospitals, with just 13.33 percent working in semi-government hospitals. Obstetrical Emergencies is a series of programmes that focuses on obstetrical emergencies.

Percentage wise distribution of nurses according to their knowledge level depicts that majority 53.33% of the respondents had poor knowledge and 40% average knowledge & 6.66% had good knowledge regarding selected Obstetrical Emergencies in the pre-test. After administration of structured teaching programme 61.66% of respondents had average knowledge and 13.33% of them had good knowledge regarding selected Obstetrical Emergencies.

Table 1: Comparison of Mean, SD & Mean % of Pretest and Post Test Knowledge of nurses working in labour room, antenatal & postnatal wards regarding selected Obstetrical Emergencies.

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Area</th>
<th>Pretest Mean</th>
<th>SD</th>
<th>Posttest Mean</th>
<th>SD</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pregnancy Induced Hypertension</td>
<td>7.33</td>
<td>1.60</td>
<td>40.72</td>
<td>9.83</td>
<td>54.16</td>
</tr>
<tr>
<td>2</td>
<td>Cord Prolapse</td>
<td>3.26</td>
<td>1.26</td>
<td>46.57</td>
<td>3.51</td>
<td>50.14</td>
</tr>
<tr>
<td>3</td>
<td>Postpartum Haemorrhage</td>
<td>2.93</td>
<td>1.36</td>
<td>26.63</td>
<td>3.35</td>
<td>30.45</td>
</tr>
</tbody>
</table>

Areawise description of mean, SD and mean % of pretest knowledge scores depicts that mean of Pregnancy Induced Hypertension was 7.33, SD was 1.60 and the mean percentage score was 40.72%, mean of Cord Prolapse was 3.26, SD was 1.26 and the mean percentage score was 46.57%, mean of Postpartum Haemorrhage was 2.93, SD was 1.36 and the mean percentage score was 26.63%.

Association between pretest knowledge scores in relation to selected demographic variables the association between pretest knowledge scores and selected demographic variables was assessed using Chi square test. The result shows that there is no association between any demographic variable with knowledge regarding obstetric emergencies in nurses.

Table 2: Z value of pre and post-test knowledge of staff nurses regarding structured teaching programme

<table>
<thead>
<tr>
<th>Knowledge scores</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>Z Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest scores</td>
<td>13.53</td>
<td>5.67</td>
<td>1.029</td>
<td>3.12</td>
<td>Significant</td>
</tr>
<tr>
<td>Post test scores</td>
<td>16.75</td>
<td>5.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- It depicts that the mean knowledge scores about selected Obstetrical Emergencies obtained from staff nurses working in labour room, antenatal & postnatal wards in pretest was 13.53 & posttest score was 16.75.
- Z value was calculated to analyze the difference in pre-test and post-test knowledge score of nurses on selected Obstetrical Emergencies. Significant difference was found between the knowledge score of nurses. (z value = 3.12).
- The above data indicates staff nurses working in labour room, antenatal & postnatal wards who received structured teaching programme on selected Obstetrical Emergencies had higher mean knowledge scores in posttest than in pretest. It can be concluded that the structured teaching programme on selected Obstetrical Emergencies has proved to be effective in delivering knowledge.
- Hence the stated null hypothesis is rejected as it is interpreted that there was significant difference between pre-test and post-test knowledge score. Thus, the differences observed in mean knowledge score values in pre-test and post-test were true difference

Discussion
Galal A, Soad A. et al. (2017) [4] performed a study on the assessment of nurses' practical skills in preventing postpartum haemorrhage. The purpose of this study was to evaluate nurses' practical abilities in preventing postpartum haemorrhage. The descriptive research was done at Benha University hospital's obstetrics and gynaecology department.
A handy 50-nurse sample. The following instruments were used to gather data: a self-administered questionnaire sheet, a modified Likert scale, and an observation checklist for preventing postpartum haemorrhage. The current study revealed that two-thirds of nurses had average knowledge of postpartum haemorrhage and antenatal prevention of postpartum haemorrhage, three-quarters of nurses had inadequate knowledge of intra-partum care, more than half of nurses had adequate knowledge of postpartum care, more than two-thirds of nurses had an uncertain attitude, and more than three-quarters of nurses had incorrect practises. None of the nurses in this research do certain procedures such as wound care, enema, or urine catheter placement. The current study concluded that more than three quarters of nurses had an average of 43 knowledge points regarding postpartum haemorrhage avoidance, more than two thirds of nurses had an uncertain attitude toward postpartum haemorrhage avoidance, and less than three quarters of nurses had incorrect performance of postpartum haemorrhage avoidance practises [4].

Conclusion
Based on the study’s findings, the following conclusions have been drawn: It was found that there were differences in mean knowledge scores among staff nurses working in labour rooms, prenatal and postnatal wards in selected hospitals before and after the introduction of a structured education programme. A systematic education programme on certain obstetrical emergencies was shown to be helpful in enhancing the knowledge of staff nurses working in labour rooms, prenatal and postnatal wards in selected hospitals. Furthermore, while there was an improvement in the nurses’ knowledge, more training programmes, particularly in service education on obstetrical emergencies, particularly postpartum haemorrhage, would be beneficial for the nurses, as the mean knowledge score in the current study was the lowest in both the pretest and posttest. Based on the outcomes of the aforementioned study, additional research into postpartum haemorrhage and its management is required. There was no significant relationship between staff nurse knowledge and selected demographic factors prior to the pretest.

Conflict of Interest: The authors certify that they have no involvement in any entity with any financial/non-financial interest in the subject matter or materials discussed in this paper.

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