Effectiveness of Structured teaching programme on early identification of Obstetrical Emergencies among antenatal mothers

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Abstract
Background & Objectives: Obstetrical emergencies are most unpredictable complication that can be prevented by early identification, Pregnancy is arguably the magical time of a woman’s life and has its unique joys and challenges. The process is very noteworthy. The present study aimed to effectiveness of Structured teaching programme on early identification of obstetrical emergencies among antenatal mother’s in selected hospital.

Materials & methods: Quantitative Research with Pre-Experimental Research Design using a one-group pre-test post-test design among antenatal mothers. Data was collected from June 1st to June 8th, 2022 with sample size of 30, the sampling technique used was non-probability, purposive sampling. A structured questionnaire with multiple-choice questions was adapted. Data has been processed by SPSS 20 version then analyzed descriptive and inferential statistics.

Results: Pretest knowledge regarding early identification of Obstetrical Emergencies among antenatal women before administration of Structured teaching programme. 63.3% (19) of the antenatal mothers had inadequate knowledge, 36.7% (11) of them had moderate knowledge score, and none of them are having adequate level of knowledge score. The pre-test and post-test level of knowledge score regarding on early identification of Obstetrical Emergencies among antenatal women, before and after administration of Structured teaching programme are highly statistically significant at P≤0.05.

Conclusion: A remarkable proportion of antenatal mothers have lack of knowledge on identification of Obstetrical Emergencies. Hence, early detection and quality of Multidimensional teaching approach of antenatal mothers needs to be awareness about early identification of Obstetrical Emergencies to improve the maternal, obstetric, and neonatal outcomes.

Keywords
Obstetrical Emergencies, Structured teaching programme, Antenatal mothers, Pregnancy, primi gravida, multi gravida

Imprint

Introduction:

Pregnancy is arguably the magical time of a woman's life and has its unique joys and challenges. The process is very noteworthy. A mixture of excitement and fear, joy and anxiety, and the feeling that nothing is needed to prepare. It can be as peaceful as she wants, but at the same time a stressful time full of fear for her baby's health and herself. All pregnant women are at risk of unexpected complications that can harm her or her unborn baby. Therefore, the healthcare system needs to be coordinated to control complications and effectively prepare for the mother's childbirth, which requires the support of a broad community. It is becoming increasingly important to characterize the extent of pregnancy-related emergencies in order to minimize maternal and infant mortality.1,2,3] Prenatal care is the care that pregnant women receive during pregnancy through a series of consultations with trained medical professionals such as midwives, nurses, and sometimes doctors who specialize in pregnancy and childbirth [4].

Prenatal care (ANC) is one of the strategies for combating maternal mortality to facilitate the detection and mitigation of early pregnancy risk factors. Timely and frequent use of the ANC package can be used to detect and treat obstetric complications such as prenatal disease, sexually transmitted infection immu-
nization, and intermittent preventive treatment (IPTp) of malaria during pregnancy, and infections including HIV, syphilis and other sexually transmitted diseases (STI) [5,6]. The World Health Organization (WHO) recommends at least four prenatal visits, including interventions such as tetanus toxoid (TT) vaccination, infection screening and treatment, and recognition of warning signs during pregnancy. [7] Obstetric emergencies are life-threatening medical conditions that occur during pregnancy, during or after childbirth.[8] Pregnancy and obstetric emergencies include ectopic pregnancy, placenta previa, sudden placenta, preeclampsia, eclampsia, and premature rupture of water. Obstetric emergencies during labour include amniotic fluid embolism, acute uterine varus and uterine rupture, placental attachment, umbilical cord prolapse, and shoulder dystocia. Obstetric Emergency Postpartum bleeding and shock are included. Approximately 15% of all pregnant women develop potentially life-threatening complications that require skilled care, and some require extensive obstetric surgery to survive. Approximately 830 women die daily from pregnancy and childbirth-related complications worldwide, 99% of which occur in developing countries. The majority (80%) of these deaths are preventable. [9]

Most maternal mortality results from complications during pregnancy and after childbirth. Most of these complications occur during pregnancy and can be prevented or treated with early and appropriate treatment.[10]. Every year nearly 600,000 women die between the age group of 15 and 49 due to problems arise from pregnancy and childbirth. This implies that a maternal death occurs virtually every minute of every year.[11]

Poor knowledge of signs of danger delays obstetric seeking behavior and increases maternal mortality and morbidity worldwide. Childbirth preparation is a strategy that promotes timely access to the care of qualified mothers, especially during childbirth, based on the theory that childbirth preparation reduces delays in access to that care. [12].

Childbirth preparation is a strategy to encourage the timely use of the care of skilled mothers. Pregnant women and their families are often not well informed about the main signs of danger and often ignore the signs of early warning, thus delaying them seek medical care. Therefore, this study tested the effectiveness of Structured teaching programme to improve the level of early identification of obstetrical emergencies among antenatal mothers.

Objectives
1. To assess the level knowledge on early identification of obstetrical emergencies among antenatal mothers.
2. To evaluate the effectiveness of Structured teaching programme on early identification of obstetrical emergencies among antenatal mothers.
3. To compare the pretest and post test knowledge scores among antenatal mothers.
4. To associate the pretest knowledge with selected demographic variables among antenatal mothers.

Methodology
Approach to Quantitative Research with Pre-Experimental Research Design was carried out using a one-group pre-test post-test design among antenatal mothers visiting the Antenatal OPD at the Government General Hospital in Kakinada, Andhra Pradesh. Data was collected from June 1st to June 8th, 2022. The sample size was based on a review of the literature, the calculated sample size was 30. The sampling technique used was non-probability, purposive sampling. This study included all antenatal women who visited the Antenatal OPD for a prenatal check-up and were willing to participate. Pregnant mothers who were severely ill during data collection, were unable to hear, or worked in a health-related field were excluded. A structured questionnaire was used to collect data based on the research objectives. The tools included socio-demographic information and obstetrical variables, as well as a semi-structured questionnaire on knowledge of obstetric emergencies. The researcher created the socio demographic characteristics in order to collect demographic data from the sample. The Semi-structured knowledge questionnaire had 30 items, all of which were multiple choice questions. For multiple-choice questions, each option received a one, while don’t know and no response received a zero. Respondent knowledge was classified as inadequate 50 percent, moderate 51-75 percent, and adequate 76-100 percent.

Prior to the study, an ethical clearance was obtained from the Government hospital. The study’s purpose was explained to the participants. Each individual provided informed written consent. The respondents’ privacy and confidentiality were pro-
tected. Respondent information was only used for research purposes. Face-to-face interaction were used to collect data. The researcher administered a Semi-structured questionnaire to each participant during the pre-test to assess their knowledge of obstetric emergencies. The interaction was 20-30 minutes for each women to complete the questionnaire. Following the pre-test, the researcher taught the class on obstetrical emergencies using the structured teaching programme. Then researcher clarified many of the participants’ questions about study and, in general, according to the needs of each participant. The mothers were thanked and told to return one week after the structured teaching programme was implemented. The researcher had sent a phone reminder the day before. The same questionnaire was used for a post-test one week later to determine the effectiveness of the Structured Teaching Programme. After collecting the post-test questionnaire and ensuring that the data was complete, the data was coded, tallied, and calculated scientifically. There was descriptive and inferential analysis. Tables, graphs, figures, and numerical summary measures were used to present the results.

Results and Discussion:

Section-A: Sample Characteristics

The sample characteristics of the Antenatal Mothers in terms of frequency and percentage, 20 (66.6%) were aged between 21 – 25 years, 18 (60%) were Hindu, 18 (60%) were living as Joint family, 18 (60%) were Graduates and have higher degree, 20 (66.7%) were Homemakers and 24 (80%) have monthly income of < Rs.10000, 11(55%) have 21-25 years of Age at marriage. 14 (46.7%) were primi gravida and 13 (43.3%) were Multi gravida.

Section-B:

Assess the pre-test knowledge level regarding early identification of Obstetrical Emergencies among antenatal mothers.

Table 1 represents the percentage of pre-test knowledge score each domain wise. Mothers are having high score in Postpartum hemorrhage (25%), and moderate score of 21% in Ectopic Pregnancy and 19% in Abruptio of the placenta & Shoulder Dys-tocia, (14%) in Cord Prolapse and minimum score in Rupture of Uterus (2%).

Table 2 shows the level of pre-test knowledge regarding early identification of Obstetrical Emergencies among antenatal women before administration of Structured teaching programme 63.3% (19) of the antenatal mothers had inadequate knowledge, 36.7% (11) of them had moderate knowledge score, and none of them are having adequate level of knowledge score.

Section-C

Assess the post-test knowledge level regarding early identification of Obstetrical Emergencies among antenatal mother’s.

Table 3 represents the percentage of pretest knowledge score each domain wise. Mothers are having high score in Postpartum hemorrhage (30%), and mod-
erate score of 20% in Ectopic Pregnancy and Abruptio of the placenta, 15% in Shoulder Dystocia, (10%) in Cord Prolapse and minimum score in Rupture of Uterus (5%).

Table 4 shows the level of post - test knowledge regarding early identification of Obstetrical Emergencies among antenatal women after administration of Structured teaching programme 56.7% (17) of the antenatal mothers had moderate knowledge, 43.3% (13) of them had adequate knowledge score, and none of them are having inadequate level of knowledge.

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>No. of antenatal women</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Moderate</td>
<td>17</td>
<td>56.7%</td>
</tr>
<tr>
<td>Adequate</td>
<td>13</td>
<td>43.3%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Section-D

Evaluating the effectiveness of Structured teaching programme on early identification of obstetrical emergencies among antenatal mothers.

Table 5 shows in view of all the aspects of obstetrical emergencies like Postpartum hemorrhage, Ectopic Pregnancy, Abruptio of the placenta, Shoulder Dystocia, Cord Prolapse & Rupture of Uterus in pretest and posttest they are highly statistically significant at P≤0.001.

Table 6 shows the pre-test and post-test level of knowledge score regarding on early identification of Obstetrical Emergencies among antenatal women, before and after administration of Structured teaching programme are highly statistically significant at P≤0.05. (Figure:1)

Section - E

Association of findings with selected demographic and obstetric variables.

Table 5

Comparison of Pre-test and post-test knowledge score on early identification of Obstetrical Emergencies

<table>
<thead>
<tr>
<th>Knowledge Score</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Mean Difference</th>
<th>Student's paired t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Postpartum hemorrhage</td>
<td>3.15</td>
<td>1.71</td>
<td>6.78</td>
<td>1.01</td>
</tr>
<tr>
<td>Ectopic Pregnancy</td>
<td>3.33</td>
<td>1.59</td>
<td>6.52</td>
<td>.97</td>
</tr>
<tr>
<td>Abruptio of the placenta</td>
<td>2.54</td>
<td>1.62</td>
<td>5.93</td>
<td>.86</td>
</tr>
<tr>
<td>Shoulder Dystocia</td>
<td>2.35</td>
<td>1.69</td>
<td>5.80</td>
<td>.88</td>
</tr>
<tr>
<td>Cord Prolapse</td>
<td>2.10</td>
<td>1.02</td>
<td>5.62</td>
<td>.74</td>
</tr>
<tr>
<td>Rupture of Uterus</td>
<td>1.01</td>
<td>0.20</td>
<td>4.81</td>
<td>.63</td>
</tr>
</tbody>
</table>

***very highly significant at P≤0.001.

Table 6

Comparison of Pre-test and post-test level of knowledge score

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Extended Mc Nemar’s test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Inadequate</td>
<td>19</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
</tr>
<tr>
<td>Adequate</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

*Significant at P≤0.05
The association between pretest level of knowledge score with antenatal women demographic variables. None of the demographic variables are significantly associated with their pretest level of knowledge.

The association between post test level of knowledge score with antenatal women demographic variables like Gravida, 3.59% of knowledge gain score in primigravida, and 4.20% of knowledge gain score in multigravida mothers. P value is 0.05. This is also statistically significant. None of the other demographic variables are significantly associated with their post test level of knowledge.

The present study finding is supported by Lal Monica Nancy (2020) reported that Effectiveness of structured teaching programme on knowledge regarding identification of high-risk pregnancies. The results found that the findings of the study revealed that there was a significant difference between the mean Pre-test (20.40) and Post-Test (29.08) knowledge scores, it denotes that level of knowledge is increased after intervention [13].

The effectiveness of structured teaching programmes on knowledge regarding early detection of high-risk pregnancies among antenatal moms is evaluated in a different study by Dhanalakshmi J (2019). With a paired t-test P value of 0.001, the study’s findings showed that the Structured Teaching Program had increased women’s understanding of early identification. [14]

In another study by Marie Gilbert Majella Gokul Sarveswaran (2019) conducted a study of A longitudinal study on high risk pregnancy and its outcome among antenatal women attending rural primary health centre among 569 antenatal case record reviewed, 315 (55.3%) were in the age group of 20-25 years and majority (463, 81.4%) belonged to below poverty line families; 410 (74.3%) registered their current pregnancy within the first trimester. The prevalence of high-risk pregnancy among study participants was 18.3% (95% confidence interval: 15.3%-21.7%). Majority (81.9%) had term delivery. Regarding obstetric and neonatal outcomes, majority had spontaneous vaginal delivery (73.9%); about 10.4% gave birth to low-birth weight baby, and only 1.7% had stillbirth. Parity, socioeconomic status, and unfavorable outcomes such as low-birth weight, preterm, and post term delivery were associated with high-risk pregnancy. Hence, early detection of high-risk pregnancy needs to be done at primary health-care level to improve the maternal, obstetric, and neonatal outcomes [15].

CONCLUSIONS

Pregnant women must have holistic knowledge on early identification of Obstetrical Emergencies, they play a vital role in pregnancy and labour the present study had been supported by a series of other studies which confirmed that the knowledge on early identification of Obstetrical Emergencies is important to get a healthy child, for the prevention of maternal mortality and morbidity. Data analysis and result was found that Multidimensional teaching approach has to improve by providing health information, booklets during follow up on anticipation of Obstetrical Emergencies to avoid maternal death. Hence, early detection of antenatal mothers needs to be awareness about early identification of Obstetrical Emergencies to improve the maternal, obstetric, and neonatal outcomes.

Author’s Contribution

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

Conflicts Of Interest

The authors declare no conflicts of interest.

References:


13. Ms. Lal Monica Nancy., & Mrs. Siddiqui Misbah (2020) Effectiveness of structured teaching programme on knowledge regarding identification of high risk pregnancies among auxiliary nurse midwives (ANMs') in Community Health Centre, Sarojini Nagar at Lucknow, International Journal of Nursing Education and Research, 8(4), 454-462
