

A Study to Assess the Effectiveness of Structured Teaching Programme on Antenatal Care among Antenatal Mothers in Selected Areas of Raichur

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Abstract: *Maternal health continues to be a major public health concern in many parts of India, particularly in districts where limited awareness, economic constraints, and inadequate access to antenatal services contribute to preventable maternal and neonatal complications. A large proportion of maternal deaths often associated with conditions such as hypertension, anemia, and infections can be reduced when pregnant women receive timely and structured antenatal education. This study focuses on antenatal mothers in Raichur, where gaps in knowledge about recommended antenatal practices persist despite the availability of healthcare services. Using a pre-experimental one-group pre-test post-test design, the research evaluates whether a Structured Teaching Programme can meaningfully improve understanding of antenatal care. The findings demonstrate a considerable increase in post-test knowledge scores, (11.33) was higher than the mean pre-test knowledge score (5.71). The calculated "T" value (15.23) was greater than the table value (2.00) at $p < 0.05$ level of significance, suggesting that systematic educational interventions can support safer pregnancies, promote better health seeking behavior, and enhance maternal outcomes in underserved communities.*

Keywords: Effectiveness, Antenatal care, Structured Teaching Programme, Maternal Education

1. Introduction

"It is believed that giving birth to an off spring is one of the most beautiful experiences for a woman."

Maternal health remains a priority area in India, especially in regions with high maternal and neonatal mortality rates. According to World Health Organization nearly 295,000 women die globally every year from pregnancy related complications. Many of these deaths are preventable through early identification of risks and improved antenatal knowledge.

If countries are able to ensure three essential conditions adequate access to antenatal care, skilled medical attendance during delivery, and an efficient health referral system that provides timely emergency treatment in well equipped facilities maternal deaths during childbirth can be greatly reduced or even eliminated. Unfortunately, the maternal mortality rate in some regions remains among the highest in the world, reaching 2000 maternal deaths per 1,00,000 live births.

Maternal mortality is considered an important indicator of social inequity and discrimination against women. It is a neglected tragedy because the majority of these deaths nearly 50% to 80% are preventable. Among the various causes of maternal deaths, hypertension is one of the most common medical conditions as well as a major complication encountered during pregnancy. It contributes significantly to maternal and perinatal morbidity and mortality.

Maternal health is a key indicator of the overall health of a community. Antenatal care helps in early detection of complications, health promotion, and prevention of maternal and neonatal risks. In many rural and semi-urban areas, antenatal mothers have limited awareness about recommended antenatal care practices. Structured Teaching

Programmes can effectively improve knowledge and guide mothers toward safe motherhood practices. Hence, this study was undertaken to assess the effectiveness of a Structured Teaching Programme on antenatal care among antenatal mothers in selected areas of Raichur.

2. Need for the Study

Developing countries contribute to 65% of maternal deaths worldwide. Among these countries, India has the highest estimated number of maternal deaths about 110,000 per year which means more than one lakh women die annually due to pregnancy related causes. Indian women are nearly one hundred times more likely to die during pregnancy compared to women in developed countries (Dept. of Family Welfare, Govt. of India, 1998).

According to the 2003 census, India's population reached 1.069 billion, accounting for nearly one-fourth of the world's population of 4.51 billion. Approximately half of India's population comprises women, which is around 490.5 million.

Pregnancy and childbirth are natural physiological functions in a woman's life. Each pregnancy is unique and is a celebration not only for the woman and her partner but for the entire family. Everyone expects the mother to sail smoothly through the nine months of pregnancy and deliver a healthy baby.

Maternal mortality and morbidity remain major public health challenges in India, especially in rural districts like Raichur. Lack of knowledge regarding antenatal care practices leads to preventable complications such as anemia, hypertension, infections, and birth related risks. The World Health Organization recommends a minimum of eight Antenatal care visits, knowledge regarding the components of antenatal care is inadequate in many communities.

Raichur district is known for limited literacy, low socio-economic status, and inadequate maternal health awareness in some areas. Despite the availability of health services, many mothers remain unaware of danger signs, nutritional requirements, and hygienic practices.

Providing structured education can empower mothers, improve health seeking behaviors, and reduce maternal complications. Hence, the present study is needed to evaluate whether Structured Teaching Programme can enhance knowledge among antenatal mothers.

Statement of the Problem

“A Study to Assess the Effectiveness of Structured Teaching Programme on Antenatal Care among Antenatal Mothers in Selected Areas of Raichur.”

Objectives of the Study

- 1) To assess the existing knowledge and practice of antenatal mothers regarding antenatal care.
- 2) To administer a Structured Teaching Programme on antenatal care.
- 3) To analyze the effectiveness of Structural Teaching Programme in the improvement of knowledge and practices of antenatal mothers with regard to antenatal care
- 4) To find the association between the knowledge and practice of antenatal mothers and selected factors before and after the implementation of structural teaching programme

Operational Definitions

Effectiveness

Effectiveness refers to the measurable improvement in the knowledge of antenatal mothers regarding antenatal care, as determined by the difference between pre-test and post-test scores after administering the Structured Teaching Programme.

Structured Teaching Programme

Structured Teaching Programme refers to a systematically developed and organized set of educational instructions designed to enhance knowledge of antenatal mothers on antenatal care. It includes planned content, teaching aids, and a standardized method of delivery.

Antenatal Care

Antenatal care refers to the care and services provided to pregnant women during pregnancy, including health education, nutrition advice, regular check-ups, screening for complications, and preparation for childbirth.

Antenatal Mothers

Antenatal mothers refer to women who are confirmed pregnant residing in the selected areas of Raichur during the period of the study.

Knowledge

Knowledge refers to the correct responses given by antenatal mothers to the items in the structured knowledge questionnaire on antenatal care.

Selected Variables

Dependent Variable: Knowledge level of Antenatal mothers regarding Antenatal care

Independent Variable: Structured Teaching Programme on Antenatal care

Extraneous Variables

- 1) **Age:** Refers to the chronological age of antenatal mothers. For the present study, age is categorized as:
 - Less than 20 years
 - 21–25 years
 - 26-30 years
 - 31-35 years
 - Above 35 years
- 2) **Education:** Refers to the level of formal education that helps in developing the mental abilities of antenatal mothers. For the present study, education is categorized as:
 - Illiterate
 - Knows to read and write
 - 1st to 7th class
 - 8th to 10th class
 - 10th to 12th class
 - Graduation
 - Post-graduation and above
- 3) **Gravida:** Refers to the number of pregnancies a woman has had. For the present study, gravida was categorized as:
 - Young primi gravida
 - Elderly primi gravida
 - Multi gravida
- 4) **Exposure to Mass Media:** Refers to the large-scale information sources that influence the knowledge of antenatal mothers. For the present study, exposure to mass media is categorized as:
 - Newspapers
 - Health magazines
 - Television
 - Radio
 - Health personnel
 - Elders in the family
 - Relatives
- 5) **Income:** Refers to the monthly earnings of the family of antenatal mothers. For the present study, income is categorized as:
 - Less than ₹1000 per month
 - ₹1001–3000 per month
 - ₹3001–5000 per month
 - ₹5001–7000 per month
 - ₹7001–9000 per month
 - ₹9001 and above
- 6) **Working Status:** Refers to the employment status of the antenatal mother. For the present study working status is categorized as:
 - Working woman
 - Housewife
 - Parity

7) **Refers to the number of times the mother has delivered a live baby. For the present study, parity is categorized as:**

- Primi para
- Para 2
- Para 3
- Para 4 and above

8) **Religion** Refers to the system of faith or worship followed by the antenatal mother.

It is classified as:

- Hindu
- Christian
- Muslim

Hypotheses

- **H1:** There will be a significant difference between pre-test and post-test knowledge scores among antenatal mothers after the Structured Teaching Programme.
- **H2:** There will be a significant association between post-test knowledge scores and selected demographic variables.

Limitations

The Study includes antenatal mothers who are

- With less than 32 weeks of gestation
- Residing in Mangalwarpet & Zaheerabad areas of Raichur
- Willing to participate in the study
- Available at the time of data collection
- Who are able to understand and read/write Kannada or Telugu

3. Research Methodology

- **Research Approach:** Quantitative research approach.
- **Research Design:** Pre-experimental one-group pre-test post-test design.
- **Setting of the Study:** Residing in Mangalwarpet & Zaheerabad areas of Raichur.
- **Population:** Antenatal mothers Residing in Mangalwarpet & Zaheerabad areas of Raichur.
- **Sample size and Sampling Technique:** 60 Sample consists of antenatal mothers' selected using non-probability sampling technique.

Criteria for Sample Selection

Inclusion Criteria: The Study includes antenatal mothers who are

- With less than 32 weeks of gestation
- Residing in Mangalwarpet & Zaheerabad areas of Raichur
- Willing to participate in the study
- Available at the time of data collection
- Who are able to understand and read/write Kannada or Telugu

Exclusion Criteria: The Study excludes antenatal mothers who are

- Above 32 weeks of gestation

- Residing in Raichur other than Mangalwarpet & Zaheerabad areas of Raichur
- Not willing to participate in the study
- Not available at the time of data collection

4. Methods of Data Collection

Data Collection Instrument

A structured interview schedule will be developed and used for collecting the data. The interview schedule consists of two sections Part I and Part II.

Part I includes demographic information, while **Part II** contains questions related to knowledge regarding Antenatal care

Data Collection Method

Prior permission will be obtained from the concerned authorities and the study participants. Face-to-face interviews will then be conducted by the investigator using the structured interview schedule, both before and after the implementation of structured teaching programme

Plan for Data Analysis

The following statistical methods will be used to analyze the data:

1. Frequency and percentages will be used to summarize the sample characteristics and to perform item-wise analysis.

Does the Study Require Any Investigation or Intervention to Be Conducted on Patients or Other Human Beings? If So, Please Describe Briefly

The study requires an intervention in the form of imparting knowledge to antenatal mothers on Antenatal care by using a Structured Teaching Programme.

Has Ethical Clearance Been Obtained from Your Institution?

Yes, ethical clearance has been obtained from the concerned Institutional Ethical Committee prior to the initiation of the study.

5. Results

In this study overall the highest percentage in the demographic data including the Age group 33% (31-40 years), Educational status 65% (Secondary), Occupation 73% (House wife), Monthly income of family 55% (5000-9000rs), Type of family 65 % (Joint family), No. Antenatal visit 55%, Ante natal care 67% (1st trimester), Source of information 56 % (Health Personnel). The post- test means core (11.33) was higher than the mean pre-test knowledge score (5.71). The calculated "T" value (15.23) was greater than the table value (2.00) at 0.05 level of significance. The Structured Teaching Programme was effective in increasing the Knowledge regarding Antenatal care among Antenatal mothers. Chi-square test to associate with the level of knowledge and selected demographic variable.

6. Conclusion

The study highlights that Antenatal care knowledge among Antenatal mother is inadequate and demonstrates the effectiveness of The Structured Teaching Programme in improving maternal awareness. Strengthening Antenatal education through structured interventions can contribute to healthier pregnancies, safer deliveries, and better maternal and neonatal health outcomes.

7. Review of Literature

Review of literature is the reading and organization of previously written materials relevant to the specific problems to be investigated, frame work and methods appropriate to perform the study

(Polit D. F and B. P. Hungler)

Indra Bishnoi et al. (1992) conducted a study to explore traditional beliefs regarding dietary habits and understand their adverse effects on the health of mothers and children. The study was carried out in Aswari, Varanasi district, India, from July to August 1992. A total of 100 women with at least one living child were randomly selected. A pretest was administered using a structured questionnaire that included questions on household food prohibitions and recommended diets during pregnancy and their reasons.

The sample consisted of 87% Hindus and 13% Muslims. The findings revealed that the majority of mothers (61%) did not support any form of food restriction during pregnancy, while 39% agreed to avoid certain food items such as spices.

Formal education for women in India has increased from 8% in 1951 to 54% in 2001. Although half of the female population is educated, the remaining half still lives in ignorance and illiteracy, which prevents them from accessing health education, nutritional awareness, and information regarding various maternal and child health services available to them.

According to the Economic Survey of 2000–2001 published by the Ministry of Finance, Government of India, 26.1% of Indian families live below the poverty line, which is much lower than the 54.9% recorded in 1973. Although the economic status of Indian families is improving, problems such as under nutrition and anaemia continue to persist among adolescent girls and women, requiring serious attention.

Indian girls often get married at an early age because many parents believe that marrying their daughters early reduces their financial and social burden. This is supported by the National Family Health Survey data, which shows that more than 55% of girls in India are married before the age of 18. Early marriage poses serious risks to the health of adolescent girls. A teenage girl is still in her growth phase and has high nutritional requirements for her own development. When she becomes pregnant, she must share these nutrients with the growing fetus, which results in further under nutrition and may lead to the birth of low-birth-weight babies.

Early marriage also leads to an extended reproductive span, often resulting in multiple pregnancies. This places an additional burden on the mother's health and increases her risk of developing numerous complications during pregnancy and childbirth.

Mohan Chandran Nair P. et al. (2000) conducted a National Family Health Survey across 17 states of India from 1996 to 1998 to determine the correlation among states regarding family health profiles. The study reported that a sizable portion of births (37%) occurred among mothers who did not receive any antenatal care, indicating that many mothers were unaware of the importance of safe motherhood. The findings also revealed that the most significant barrier to utilizing antenatal services was a lack of awareness regarding the necessity of antenatal checkups. Other major barriers included insufficient knowledge of available services and prevailing social customs that discourage antenatal care utilization.

The study suggested that improving nutritional status along with better antenatal care can help reduce the incidence of low-birth-weight babies and thereby decrease neonatal and perinatal mortality rates.

Anandalakshmi P. N. et al. (1993) conducted a case-control study to identify the association between demographic, socioeconomic, and medical factors influencing pregnancy outcomes. They studied 33,053 postnatal mothers who delivered in Safdarjung Hospital, New Delhi, between 1983 and 1992. The study revealed that 52.7% of the 33,053 deliveries during this period were registered for antenatal care. Out of 252 maternal deaths, 241 were from un booked cases, indicating the strong association between the non-use of antenatal services and maternal mortality.

A study was conducted on Socio-economic characteristics showed a negative association between maternal mortality and the mother's educational status. Illiterate mothers experienced the highest mortality. Poorer sections of society displayed the least survival conditions, and maternal mortality was higher among rural mothers compared to urban mothers. Regarding medical factors, maternal mortality was found to be 21 times higher among un booked cases, emphasizing the importance of antenatal services in reducing maternal mortality overall.

A study was conducted on "to assess the effectiveness of the structured teaching programme regarding selected antenatal care among antenatal mothers working in selected garment factories at Anekal taluk, Bangalore." This study revealed that most of the antenatal mothers 32 (53.4%) had inadequate knowledge regarding selected prenatal hygiene in the pre-test and the equal number of antenatal mothers 60 (100%) had adequate level of knowledge regarding selected prenatal hygiene in the post-test. The pre-test mean knowledge scores obtained from the antenatal mothers was 14.61. After administering the structured teaching programme, post-test mean knowledge scores increased to 27.35 with the table value 1.96 and found to be significant at the level of $P < 0.05$ which indicates that the developed The structured teaching programme helped in increasing the knowledge of the antenatal mothers.

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