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Impact of a Structured Teaching Programme on Knowledge and Practice regarding management of minor disorders of pregnancy among primigravida mothers in rural India: A Pre-Experimental study

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Background: Minor disorders of pregnancy such as nausea, vomiting, heartburn, constipation, backache and cramps in legs are common and can significantly affect maternal comfort, sleep and nutrition. Many primigravida women, especially in rural India, have limited knowledge about self-care for these conditions and rely on inaccurate or incomplete information.

Aim: To evaluate the effectiveness of a structured teaching programme (STP) on knowledge and practice regarding management of minor disorders of pregnancy among primigravida mothers in selected rural villages of Sagar, Madhya Pradesh, India.

Methods: A pre-experimental one-group pretest–posttest design was used. Sixty primigravida mothers from selected rural villages were recruited using purposive sampling. Data were collected using a structured questionnaire comprising socio-demographic variables and 24 items assessing knowledge and practice regarding management of minor disorders of pregnancy. Pretest was followed by an STP delivered using lecture-cum-discussion and audiovisual aids. Posttest was administered seven days later using the same questionnaire. Data were analysed using descriptive statistics, paired t-tests and chi-square tests.

Results: Before the intervention, most participants had inadequate knowledge and practice regarding management of minor disorders of pregnancy. After the STP, the proportion of mothers with adequate knowledge and practice increased markedly, and mean pretest and posttest scores differed significantly ($p < 0.001$).

Conclusion: The STP was effective in improving knowledge and practice regarding management of minor disorders of pregnancy among primigravida mothers in rural villages. Incorporating such nurse-led education into routine antenatal services could help women manage discomforts more effectively and potentially prevent progression to complications.

Keywords: primigravida mothers; minor disorders of pregnancy; structured teaching programme; knowledge; practice; antenatal education; rural India.

INTRODUCTION

Minor disorders of pregnancy, including nausea and vomiting, heartburn, constipation, backache, leg cramps, haemorrhoids, leucorrhoea and urinary frequency, are common consequences of the physiological and anatomical changes of gestation. Although usually benign, these symptoms can cause significant discomfort, disturb sleep and impair nutritional intake.

When minor disorders are not recognised and managed, they may contribute to anxiety, reduced quality of life and, in some cases, progression to more serious conditions such as hyperemesis gravidarum. Primigravida women are particularly vulnerable because many pregnancy-related sensations are unfamiliar and may be misinterpreted as pathology.

In rural India, women often face additional challenges such as illiteracy, poverty and limited access to accurate health information. Misconceptions and traditional beliefs about pregnancy remain common, and routine antenatal visits may not provide sufficient time for detailed counselling on the management of minor discomforts.

Nurses and midwives are in a key position to deliver focused, evidence-based education on self-care strategies for common pregnancy discomforts. Structured teaching programmes may help to standardise the content and ensure that essential information is provided to all women.

This study was done with the aim to evaluate the impact of STP on knowledge and practice regarding management of minor disorders of pregnancy among primigravida mothers living in rural villages of Sagar district, Madhya Pradesh, India.

NEED OF THE STUDY.

Pregnancy is accompanied by numerous physical and hormonal changes that commonly give rise to minor ailments such as nausea, vomiting, heartburn, constipation, backache, leg cramps, haemorrhoids, leucorrhoea and increased frequency of urination. Although these conditions are usually considered normal, they can create considerable discomfort and interfere with a woman's daily routine, rest, and dietary intake. When these problems are not properly understood or managed, they may lead to unnecessary stress, poor self-care, and in some cases, worsening of symptoms. First-time mothers are more likely to experience confusion and anxiety during pregnancy because they have no prior experience to guide them. Many of the changes that occur during pregnancy may appear unfamiliar or alarming, leading them to misinterpret normal symptoms as serious complications. This lack of understanding can result in inappropriate responses, including neglect of symptoms or reliance on unsafe practices.

In rural settings, additional challenges further increase the risk of inadequate knowledge. Limited educational opportunities, financial constraints, and strong cultural beliefs often influence how women perceive and manage pregnancy-related conditions. Access to accurate and reliable health information may also be restricted. Even though antenatal services are available, the time available for counselling is often insufficient to address all aspects of minor discomforts in detail.

Nurses and midwives are in a unique position to provide appropriate guidance and education to pregnant women. By delivering clear, simple, and evidence-based information, they can help women understand normal pregnancy changes and adopt safe methods to manage discomfort. A structured teaching programme offers a systematic way to ensure that important information is communicated effectively and consistently to all mothers.

Considering these factors, it is important to assess the existing knowledge and practices of primigravida mothers regarding the management of minor disorders of pregnancy. Evaluating the effectiveness of a structured teaching programme can help determine whether such educational interventions improve awareness and self-care practices. The results of this study may contribute to better maternal comfort, reduced anxiety, and improved quality of antenatal care, especially in rural communities.

Study design and setting

A pre-experimental one-group pretest–posttest design was adopted as an evaluation approach to assess the effect of the structured teaching programme. The study was conducted in selected rural villages under the study area of Sagar district, Madhya Pradesh, India.

Population and sample

The target population comprised all primigravida mothers residing in the selected rural villages. The sample consisted of 60 primigravida mothers who met the inclusion criteria and were available during the data collection period. Inclusion criteria were: primigravida women residing in the selected villages, willing to participate and able to understand the local language. Exclusion criteria were multigravida women and primigravida women with serious obstetric complications requiring emergency care. A non-probability purposive sampling technique was used.

Tool development

A self structured questionnaire was used to collect data after review of literature and consultation with experts in obstetric and community health nursing. The tool had two parts: Part I covered demographic profile (age, religion, type of family, education, occupation, monthly family income); Part II comprised 24 multiple-choice items on knowledge and practice regarding management of minor disorders of pregnancy. Each correct answer was scored as 1 and incorrect as 0, with a total possible score of 24. Knowledge and practice levels were categorised as: less than 50% = inadequate, 51–75% = moderately adequate, and more than 75% = adequate. Content validity was established by a panel of experts, and reliability testing showed the instrument to be consistent.

Structured teaching programme (intervention)

The STP titled ‘Management of minor disorders of pregnancy among primigravida mothers’, was developed based on current recommendations for antenatal care and self-care for common pregnancy discomforts. The content included an introduction to pregnancy-related changes, definition and list of minor disorders, explanation of each disorder, and simple self-care and preventive measures for each condition. Key areas were management of nausea and vomiting, oral care, measures to relieve heartburn, prevention and relief of constipation, relief of leg cramps and backache, prevention and management of varicose veins and haemorrhoids, and understanding leucorrhoea and warning signs requiring medical attention. The programme was delivered using lecture-cum-discussion with charts, models, flash cards and

blackboard as audiovisual aids. Teaching was conducted in small groups in the local language to encourage questions and participation.

Data collection procedure

Data were collected over a six-week period. On day 1, after obtaining informed consent, the pretest was administered to primigravida mothers using the structured questionnaire. Immediately after the pretest, the structured teaching programme was implemented. The posttest was conducted seven days later using the same questionnaire to assess changes in knowledge and practice. The same participants were followed for posttest; those who were not available at follow-up were excluded from analysis.

Ethical considerations

Ethical approval has been taken from ethical committee and permission was obtained from local health authorities. Written informed consent was taken from all participants, and confidentiality and anonymity were assured.

Results

A total of 60 primigravida mothers participated in the study. Nearly half (46.67%) were below 25 years of age (Table no.1), 30% were 25–35 years and 23.33% were above 35 years. Most participants were Hindu (76.67%), belonged to nuclear families (75%), and were housewives (76.67%). More than half (58.33%) had education from primary to high school level, and 53.33% had a monthly family income between Rs. 4501 and 6500.

Table 1. Distribution of primigravida mothers by age (N = 60)

Age in years	Number of subjects	Percentage
Below 25	28	46.67
25–35	18	30.00
Above 35	14	23.33

Before the structured teaching programme, the majority of primigravida mothers had poor awareness of minor disorders of pregnancy and their management. In the pretest, most women fell in the inadequate category for both knowledge and practice. Mean pretest knowledge and practice scores are summarised in Table 2.

Table 2. Comparison of pretest and posttest knowledge and practice scores (N = 60)

Aspect	Maximum score	Pretest Mean \pm SD	Posttest Mean \pm SD	t-value	p-value
Knowledge	16	6.43 \pm 1.54	12.04 \pm 1.38	45.49	<0.001
Practice	8	4.34 \pm 1.77	8.88 \pm 1.26	20.77	<0.001
Overall score	24	10.77 \pm 2.51	20.92 \pm 1.89	43.15	<0.001

After the structured teaching programme, there was a marked improvement in both knowledge and practice scores (Table no.2). The mean posttest knowledge and practice scores were substantially higher than pretest scores, and paired t-tests demonstrated that these differences were statistically highly significant for all aspects ($p < 0.001$).

Discussion

This study showed that a structured teaching programme can significantly improve knowledge and self-reported practice related to the management of minor disorders of pregnancy among primigravida mothers in a rural Indian context. At baseline, almost all participants had inadequate knowledge and many reported inadequate practices, reflecting gaps in routine antenatal education.

Following a single, nurse-led educational session supported by simple visual aids, most women reached adequate levels of knowledge and practice. These findings are in line with studies from other settings that have reported improved

awareness and self-care behaviours among primigravida women after planned teaching programmes on minor discomforts of pregnancy.

The improvement observed in the present study suggests that even brief, structured interventions can empower women to manage common pregnancy discomforts more effectively. Such programmes may also facilitate more productive interactions between pregnant women and health-care providers, as women become better prepared to ask questions and report symptoms.

The absence of consistent associations between most socio-demographic variables and knowledge improvement indicates that the teaching programme was beneficial across different age groups, education levels and family types. However, economic and cultural factors may still influence health-seeking behaviours and should be considered when designing community-based antenatal education strategies.

Limitations

The study used a pre-experimental one-group pretest–posttest design without a control group, which limits causal inference. The sample size was relatively small and drawn from selected villages in one district, so the findings may not be generalisable to all rural populations. Knowledge and practice were assessed using a structured questionnaire, and actual behaviour was not observed. The follow-up period was short, and long-term retention of knowledge and changes in practice were not assessed.

Conclusion

The structured teaching programme significantly improved knowledge and self-reported practice regarding management of minor disorders of pregnancy among primigravida mothers in rural villages of Sagar district. Integrating nurse-led, structured educational sessions into routine antenatal care may help pregnant women to manage common discomforts more effectively and support a more positive pregnancy experience.

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