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A STUDY TO ASSESS BIRTH PREPAREDNESS AND COMPLICATION READINESS AMONG PRIMI GRAVIDA MOTHERS ATTENDING AN ANTENATAL CLINIC

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Abstract

Pregnancy is an exciting time and a great opportunity to learn about the child development. Each week of pregnancy includes a description of baby's development as well as an explanation of the changes taking place in the body. Preparing for the childbirth is one of the most exciting times for a woman; however, it may also be a time of fear and anxiety for a mom-to-be. During this transitional period as a woman, they may start preparing for the special new addition to her family; she may also have to come to terms with the many adjustments that will have to be made. Staying organized, positive, relaxed and planning properly can help make the childbirth process easier. World Health Organization estimates that 5,00,000-6,00,000 women die from pregnancy and childbirth related complications each year, with 99% of these deaths occurring in developing countries. In India the maternal mortality ratio is 300 per 1,00,000 live births. Hence the investigator felt the need to conduct a study to assess the knowledge on birth preparedness among primigravida women attending antenatal clinic.

OBJECTIVES

1. To assess the status of birth preparedness and complication readiness among primigravida mothers.
2. To develop self-instructional module on birth preparedness and complication readiness among primigravida mothers.

3. To find out the association between the status of birth preparedness and complication readiness among primigravida mothers with their selected socio demographic variables.

4. To determine the correlation between birth preparedness and complication readiness among primigravida mothers.

Method: A descriptive study was conducted among 100 primigravida mothers, selected through convenient sampling technique. Descriptive cross-sectional design was used. The data was collected by structured interview schedule. Data was analyzed by using descriptive and inferential statistics in terms of mean percentage by distribution; Data analysis was done using SPSS 19 software. Logistic regression, chi square test and ANOVA were used to test association between status of birth preparedness and complication readiness of primigravida mothers. Result: Findings related to status of birth preparedness, out of 100 subjects, highest percentage (69%) of primigravida mothers had Moderate preparedness, (16%) of had Adequate preparedness, and (15%) of had Inadequate preparedness. Findings related to the status of complication readiness of primigravida mothers scores reveals that out of 100 primigravida mothers, highest percentage (69%) of had Adequate readiness, 31% of primigravida mothers had Moderate readiness, None of the found in inadequate readiness. H1 –Hypothesis: There is a significant association was found between the birth



preparedness and complication readiness is accepted. There was statistical significant association between status of birth preparedness and socio demographic characteristic such as age, occupation, educational status, marital duration, type of family, place of residence, education status of husband there is no significant found in other variables. There was statistical significant association between status of complication readiness and socio demographic characteristics such as age, marital duration, type of family, place of residence there is no significant found in other variables. There was a significant correlation between birth preparedness and complication readiness ($p < 0.0001$) with Karl persons $r = 0.58$ and t - value 7.09. Interpretation: The study proved that structured interview schedule to assess the status of birth preparedness and complication readiness among primigravida mother attending antenatal clinic was scientific, logical and cost-effective strategy. Conclusion: The overall study findings revealed that there was a correlation found between birth preparedness and complication readiness. The study emphasizes the responsibility of policy makers, family health care providers take their responsibility work together to improve the health education services and increase knowledge on birth preparedness and complication readiness through easily accessible health education strategy which helps to reduce the maternal and neonatal mortality.

Keywords: Assess, Status, Birth Preparedness, Complication Readiness, and Primigravida Mothers with Third Trimester, Self Instructional Module, And Antenatal Clinic.

INTRODUCTION

Pregnancy and childbirth are important physiological events in a woman's life. Although pregnancy usually progresses normally, complications may occur unexpectedly during pregnancy, labour, childbirth, or the postpartum period. Such complications may adversely affect the health and survival of both the mother and the newborn. Early recognition of danger signs, timely decision-making, appropriate planning, and prompt access to skilled healthcare services are essential for preventing avoidable maternal and neonatal morbidity and mortality.

Birth preparedness and complication readiness is an important strategy for promoting safe motherhood. Birth preparedness involves planning for a safe delivery before the onset of labour. It includes identifying an appropriate healthcare facility, selecting a skilled birth attendant, arranging transportation, saving money for childbirth-related expenses and emergencies, identifying a potential blood donor when required, and making necessary preparations for the mother and newborn. Complication readiness includes awareness of danger signs during

pregnancy, labour, childbirth, the postpartum period, and the neonatal period, along with preparedness to seek appropriate care without delay.

The BPCR approach helps reduce delays that may occur during obstetric emergencies. These delays may include failure to recognize a complication, delay in deciding to seek healthcare, delay in reaching an appropriate health facility, and delay in receiving adequate treatment. Advance planning enables pregnant women and their families to make informed decisions and access skilled care promptly when complications arise.

Primigravida mothers require special attention because they experience pregnancy and childbirth for the first time. They may have limited knowledge and practical experience regarding labour, delivery, emergency planning, and obstetric danger signs. Their level of preparedness may be influenced by age, educational status, occupation, family structure, place of residence, socioeconomic condition, access to healthcare services, and availability of health information.

Antenatal care provides an important opportunity to assess the preparedness of pregnant women and provide individualized health education. Healthcare professionals, particularly nurses and midwives, play an important role in educating mothers and their families regarding birth planning, institutional delivery, emergency transportation, financial preparation, danger signs, and the importance of seeking timely healthcare.

Assessment of birth preparedness and complication readiness among primigravida mothers helps identify gaps in knowledge and preparedness. The findings can be used to develop appropriate educational interventions and self-instructional materials. Therefore, the present study was undertaken to assess the status of birth preparedness and complication readiness among primigravida mothers attending the antenatal clinic at HSK Hospital and Research Centre, Bagalkot, Karnataka, with a view to developing a self-instructional module.

MATERIALS AND METHODS

Study Design

A quantitative research approach with a descriptive cross-sectional research design was adopted for the study. The design was considered appropriate because the study aimed to assess the existing status of birth preparedness and complication readiness among primigravida mothers without introducing any intervention.

Study Setting

The study was conducted at the antenatal clinic of HSK Hospital and Research Centre, Navanagar, Bagalkot, Karnataka. The hospital provides comprehensive maternal healthcare services, including antenatal, intranatal, postnatal, and newborn care services.



Study Population

The target population consisted of primigravida mothers attending the antenatal clinic at HSK Hospital and Research Centre, Bagalkot.

Sample Size and Sampling Technique

A total of 100 primigravida mothers were included in the study. The sample size was estimated using Epi Info software based on the findings of a previous similar study. The calculated sample size was 93; however, considering possible attrition and incomplete data, 100 participants were enrolled. A convenient sampling technique was used to select the participants.

Eligibility Criteria

Primigravida mothers who were in the third trimester of pregnancy, attended the antenatal clinic during the data-collection period, and were willing to participate were included in the study. Primigravida mothers in the first or second trimester, those with medical problems, those who were unable to cooperate during data collection, and those who had previously attended childbirth-preparation or complication-readiness programmes were excluded.

Data Collection Instrument

Data were collected using a structured interview schedule developed by the investigator after an extensive review of the literature and consultation with experts. The instrument consisted of three sections. The first section included socio-demographic information. The second section consisted of 14 items related to birth preparedness, and the third section consisted of 16 items related to complication readiness.

Each correct response was assigned a score of one, whereas an incorrect response was assigned a score of zero. The maximum possible score was 30. Birth preparedness was categorized as inadequate (0–4), moderate (5–9), or adequate (10–14). Complication readiness was categorized as inadequate (0–5), moderate (6–9), or adequate (10–16).

Validity and Reliability

The content validity of the instrument was established through expert review by specialists in Obstetric and Gynaecological Nursing. The tool was revised according to the suggestions provided by the experts. Reliability was determined using the test-retest method and Karl Pearson's correlation coefficient. The obtained reliability coefficient was $r = 0.54$, indicating acceptable reliability of the instrument.

Pilot Study

A pilot study was conducted among 10 primigravida mothers at Srujan Specialty Hospital,

Navanagar, Bagalkot, from 11 February 2020 to 20 February 2020. The pilot study established the feasibility and practicability of the research design and data-collection procedure. No major modifications were required before conducting the main study.

Data Collection Procedure

Administrative permission and ethical clearance were obtained before data collection. Written informed consent was obtained from all participants. The main study was conducted from 1 July 2020 to 30 July 2020. Data were collected through face-to-face interviews using the structured interview schedule. Approximately 10–12 participants were recruited per day, and each interview required approximately 15–20 minutes.

Statistical Analysis

The collected data were coded, organized, and analyzed using descriptive and inferential statistics. Frequency, percentage, mean, mean percentage, and standard deviation were used to summarize the findings. Chi-square test, Fisher's exact probability test, and linear regression analysis were used to determine associations between birth preparedness, complication readiness, and selected socio-demographic variables. Karl Pearson's correlation coefficient was used to assess the relationship between birth preparedness and complication readiness.

RESULTS

A total of 100 primigravida mothers attending the antenatal clinic at HSK Hospital and Research Centre, Bagalkot, participated in the study.

Status of Birth Preparedness and Complication Readiness

The findings showed that 69% of primigravida mothers had a moderate level of birth preparedness, while 16% had adequate preparedness and 15% had inadequate preparedness. Regarding complication readiness, 69% of mothers had adequate readiness, 31% had moderate readiness, and none had inadequate readiness.

Interpretation: The majority of mothers demonstrated moderate birth preparedness, whereas the majority demonstrated adequate complication readiness.

The graph demonstrates that moderate birth preparedness was more common, whereas adequate complication readiness was more prevalent among the participants.

Association with Socio-Demographic Variables

Birth preparedness showed statistically significant associations with age, educational status, occupation, marital duration, type of family, place of residence, and the educational status of the husband. No significant association was observed with religion, monthly family income, source of information, duration of pregnancy, or the occupational status of the husband.



Complication readiness showed statistically significant associations with age, marital duration, type of family, and place of residence. No significant association was observed with educational status, occupation, religion, monthly income, source of information, duration of pregnancy, educational status of the husband, or occupational status of the husband.

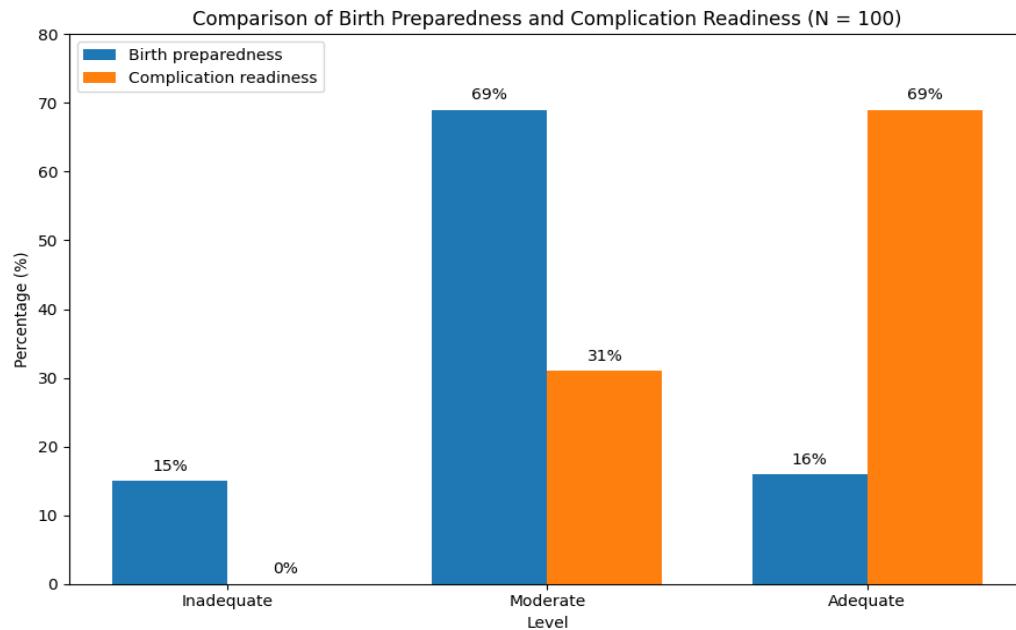
Correlation Between Birth Preparedness and Complication Readiness

A statistically significant positive correlation was observed between birth preparedness and complication readiness (Karl Pearson's $r = 0.58$, $t = 7.09$, $p < 0.0001$).

Table 1: Distribution of Primigravida Mothers According to Their Status of Birth Preparedness and Complication Readiness (N = 100)

Level	Birth Preparedness, n (%)	Complication Readiness, n (%)
Inadequate	15 (15%)	0 (0%)
Moderate	69 (69%)	31 (31%)
Adequate	16 (16%)	69 (69%)
Total	100 (100%)	100 (100%)

Figure 1: Comparison of Birth Preparedness and Complication Readiness Levels.



DISCUSSION

The present study assessed the status of birth preparedness and complication readiness among 100 primigravida mothers attending the antenatal clinic at HSK Hospital and Research Centre, Bagalkot, Karnataka. The findings showed that most mothers had a moderate level of birth preparedness, while the majority had adequate complication readiness.

Regarding birth preparedness, 69% of primigravida mothers had a moderate level of preparedness, 16% had adequate preparedness, and 15% had inadequate preparedness. The predominance of moderate preparedness indicates that most mothers had some awareness and had made certain preparations for childbirth; however, comprehensive preparation was still lacking. This finding suggests a need to strengthen antenatal education regarding

identification of a suitable health facility, skilled birth attendance, transportation arrangements, financial preparation, and other essential components of birth planning.

The findings are comparable with those of a cross-sectional study conducted among women in urban slums of Indore, India, which reported that maternal education and utilization of antenatal services were associated with improved birth preparedness. The study also found that skilled attendance during delivery was higher among well-prepared mothers. These findings emphasize the importance of effective antenatal counseling and maternal education in improving birth preparedness.

In the present study, 69% of primigravida mothers had adequate complication readiness, whereas 31% had a moderate level of readiness. None of the participants had an



inadequate level of complication readiness. The higher level of complication readiness may be attributed to the availability of antenatal services, exposure to health information, and counseling received during antenatal visits. However, the presence of moderate readiness among nearly one-third of the participants indicates that continued education is required to improve awareness of danger signs and promote timely healthcare-seeking behavior.

The present study demonstrated a statistically significant positive correlation between birth preparedness and complication readiness (Karl Pearson's $r = 0.58$, $p < 0.0001$). This finding indicates that mothers who were better prepared for childbirth also tended to have greater readiness to recognize and respond to pregnancy-related complications. Therefore, birth preparedness and complication readiness should be addressed together during antenatal education rather than as separate components.

Birth preparedness was significantly associated with age, educational status, occupation, marital duration, type of family, place of residence, and the educational status of the husband. These findings indicate that maternal and family characteristics may influence access to health information, decision-making, and preparation for childbirth. Educational status may improve the mother's ability to understand health information and recognize the importance of advance planning. Similarly, family support and the involvement of husbands may facilitate timely decision-making and the use of maternal healthcare services.

Complication readiness was significantly associated with age, marital duration, type of family, and place of residence. These factors may influence the availability of family support, access to healthcare facilities, exposure to health information, and the ability to seek care during emergencies. The findings highlight the importance of involving family members, particularly husbands and other key decision-makers, in antenatal education.

Overall, the findings indicate that although many primigravida mothers demonstrated moderate birth preparedness and adequate complication readiness, gaps remain in comprehensive preparation for childbirth. Antenatal healthcare providers should provide regular, structured, and individualized education regarding birth planning, obstetric danger signs, emergency transportation, financial preparation, institutional delivery, and timely utilization of healthcare services. The development and use of a self-instructional module may support consistent health education and improve the preparedness of primigravida mothers.

CONCLUSION

The present study assessed the status of birth preparedness and complication readiness among 100

primigravida mothers attending the antenatal clinic at HSK Hospital and Research Centre, Bagalkot, Karnataka. The findings revealed that the majority of primigravida mothers had a moderate level of birth preparedness, while most mothers demonstrated adequate complication readiness.

The study identified a statistically significant positive correlation between birth preparedness and complication readiness. This indicates that mothers who were better prepared for childbirth were also more likely to be ready to recognize and respond appropriately to pregnancy-related complications. The findings further showed that selected socio-demographic characteristics were significantly associated with the levels of birth preparedness and complication readiness.

Although the findings indicate a satisfactory level of complication readiness among many participants, the predominance of moderate birth preparedness highlights the need for improved antenatal education. Primigravida mothers require clear and comprehensive information regarding birth planning, identification of an appropriate healthcare facility, availability of skilled birth attendance, transportation arrangements, financial preparation, recognition of obstetric danger signs, and timely utilization of healthcare services.

Healthcare professionals, particularly nurses and midwives, play an important role in promoting birth preparedness and complication readiness through regular antenatal counseling. The use of structured educational programmes and self-instructional modules may help improve mothers' knowledge, encourage informed decision-making, and promote safe maternal and newborn outcomes.

Therefore, strengthening birth-preparedness and complication-readiness education during routine antenatal care may contribute to timely care-seeking, improved utilization of skilled maternal healthcare services, and the prevention of avoidable maternal and neonatal complications.

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are proposed:

1. Structured health education programmes should be conducted regularly during antenatal visits to improve knowledge regarding birth preparedness and complication readiness among primigravida mothers.
2. A self-instructional module on birth preparedness and complication readiness may be provided to primigravida mothers to promote awareness and encourage appropriate preparation for childbirth.
3. Antenatal education should include information regarding identification of a suitable healthcare facility, skilled birth attendance, transportation arrangements, financial preparation, availability of blood donors, and



- preparation for emergency situations.
4. Healthcare professionals should provide clear information regarding the danger signs of pregnancy, labour, childbirth, the postpartum period, and the newborn period to promote early recognition and timely care-seeking.
5. Husbands and other family members should be encouraged to participate in antenatal counseling because family support and timely decision-making are important during childbirth and obstetric emergencies.
6. Nurses and midwives should assess the level of birth preparedness and complication readiness during routine antenatal visits and provide individualized counseling according to the needs of each mother.
7. Similar studies may be conducted using a larger sample size and in different hospitals, rural communities, and geographical settings to improve the generalizability of the findings.
8. Future research may evaluate the effectiveness of structured teaching programmes, self-instructional modules, or other educational interventions in improving birth preparedness and complication readiness among pregnant women.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest related to the conduct, findings, or publication of this study.

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