

Pregnancy Preparedness and Complication Preparedness of Pregnant Women in Prenatal Clinics of Tertiary Hospitals

Sudhir Makkar¹, Mohammed A. Al-Sati²

¹MBBS, MS OBG (PG)

²MBBS, MS OBG, Professor, Rajarajeswari Medical College, Bengaluru

Abstract: This study assesses the level of Birth Preparedness and Complication Readiness (BPACR) among pregnant women attending antenatal clinics at a tertiary care center. Conducted through an analytical cross-sectional approach from August to October 2023 at Rajarajeswari Medical College Hospital, Bengaluru, it involved 194 participants who were 32 weeks gestation or more. The research utilized a questionnaire covering sociodemographic characteristics, knowledge of birth preparedness, and complication readiness, with data analyzed using descriptive statistics. Results indicated a low BPACR index with significant gaps in awareness and preparedness for childbirth and emergency situations. Only a fraction of participants had initiated antenatal care in the first trimester, and a majority were unaware of severe preeclampsia signs. The study underscores the need for enhanced education and awareness programs at both community and health center levels to improve birth preparedness and complication readiness among pregnant women.

Keywords: birth preparedness, complication readiness, antenatal care, maternal health, developing countries

1. Introduction

- Maternal death related to obstetric complications remains a great challenge in developing countries.
- Birth preparedness and complication readiness (BPACR) is a safe motherhood strategy which promotes timely use of skilled maternal and neonatal care during childbirth and anticipating the actions needed in case of an emergency.
- BPACR is one of the key interventions to reduce the maternal mortality.

2. Objective

- To assess Birth Preparedness and Complication Readiness (BPACR) among pregnant women attending antenatal clinic in tertiary care centre.

3. Materials and Methods

- Study Design:** Analytical cross-sectional study.
- Study Period:** From August to October 2023.
- Place Of Study:** Rajarajeswari Medical College & Hospital, Bengaluru.
- Sample Size:** 194
- Pregnant women who were 32 weeks gestation or more and had at least 2 prior antenatal clinic visits in any hospital were included in the study.
- Simple random sampling technique was used to choose study subjects.
- The questionnaire covered socio-demographic characteristics, knowledge about birth preparedness, danger signs in pregnancy and complication readiness.
- The data obtained was analyzed using analytical and descriptive statistics.

Type of study: Analytical cross-sectional study

Sampling technique: Simple random sampling

Sample size

Limenh MA et al. (2019) estimated the proportion of women implementing complication readiness plan and practicing birth preparedness to be 34.0%. Using this information, considering the type 1 error (alpha error) to be 7.0%, type 2 error (beta error) to be 20.0% (or 80.0% power), and 10.0% non-response rate the minimum estimated sample size was 194 with 95% confidence. The

$$n = \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2}$$

formula used was,

4. Results

Socio Demographic Characteristic	Number (n=194)	Percentage
AGE (IN YEARS)		(%)
<20	17	8.76
20 - 25	108	55.67
26 - 30	44	22.68
31 - 35	22	11.34
>35	3	1.54
EDUCATION		(%)
Illiterate	40	20.61
Primary school	59	35.97
Secondary school	47	24.22
College	36	18.55
University	12	6.18

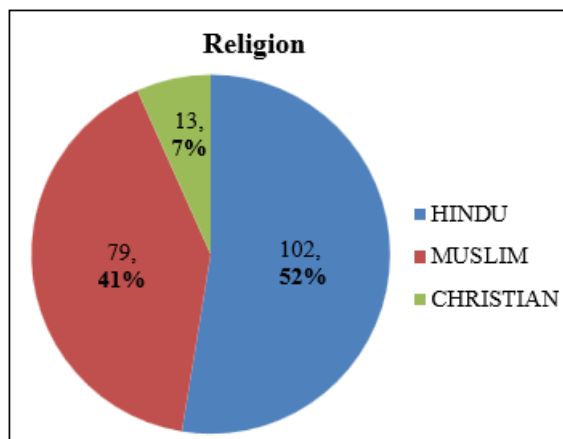
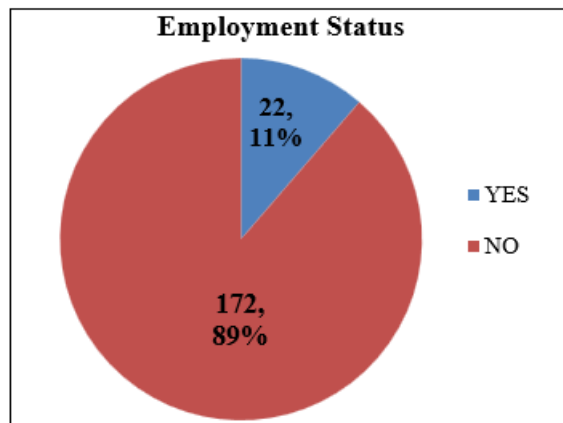
Figure 1: Socio-demographic profile of women under study

Socio Demographic Characteristic	Number (n=194)	Percentage
Marital Status		(%)
Married	193	99.48

separated/divorced	1	0.51
widowed	0	0
unmarried	0	0
Residence		(%)
Urban	144	74.22
Rural	50	25.77

Socio Demographic Characteristic	Number (n=194)	Percentage
Employment Status		
Yes	22	11.34
No	172	88.65
Religion		(%)
Hindu	102	52.57
Muslim	79	40.72
Christian	13	6.70

Figure 2: Socio - demographic profile of women under study



Socio Demographic Characteristic	Number (n=194)	Percentage
GRAVIDA		(%)
Primi	93	47.93
Multi	101	52.06
Trimester At First Visit		(%)
First trimester	98	50.51
Second trimester	74	38.14
Third trimester	22	11.34

Figure 3: Socio - demographic profile of women under study

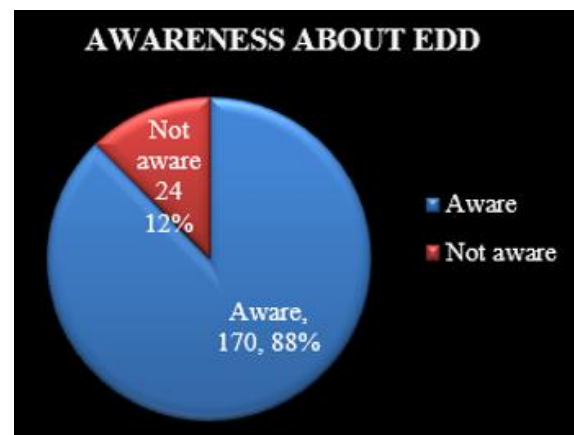
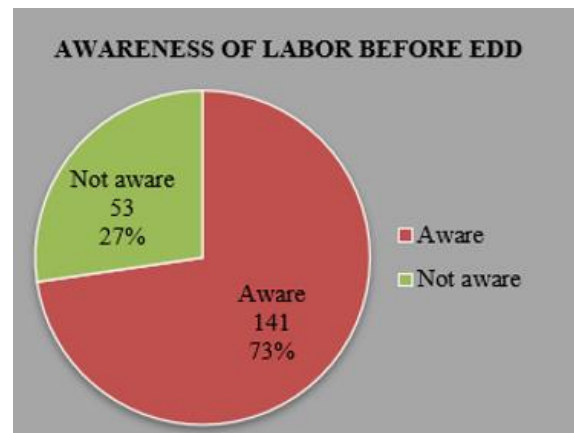
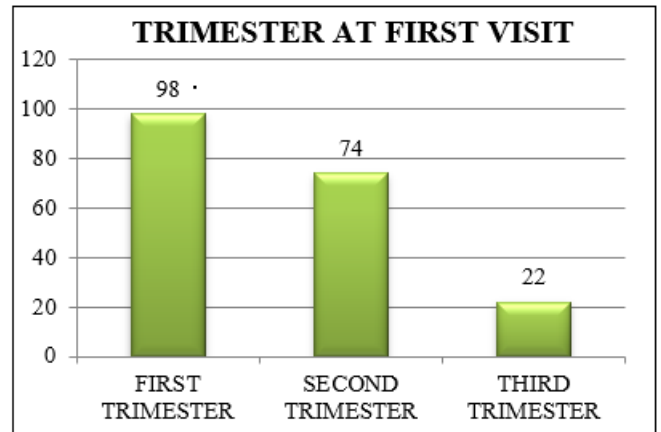
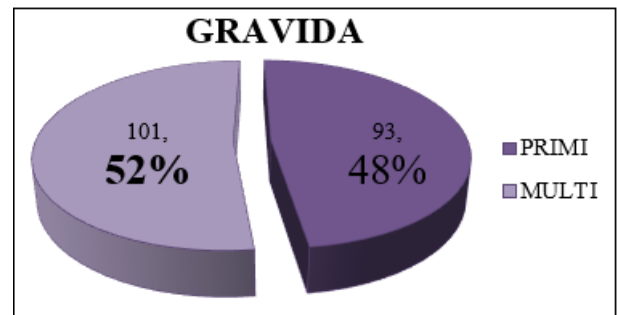


Figure 4: Birth planning among respondents

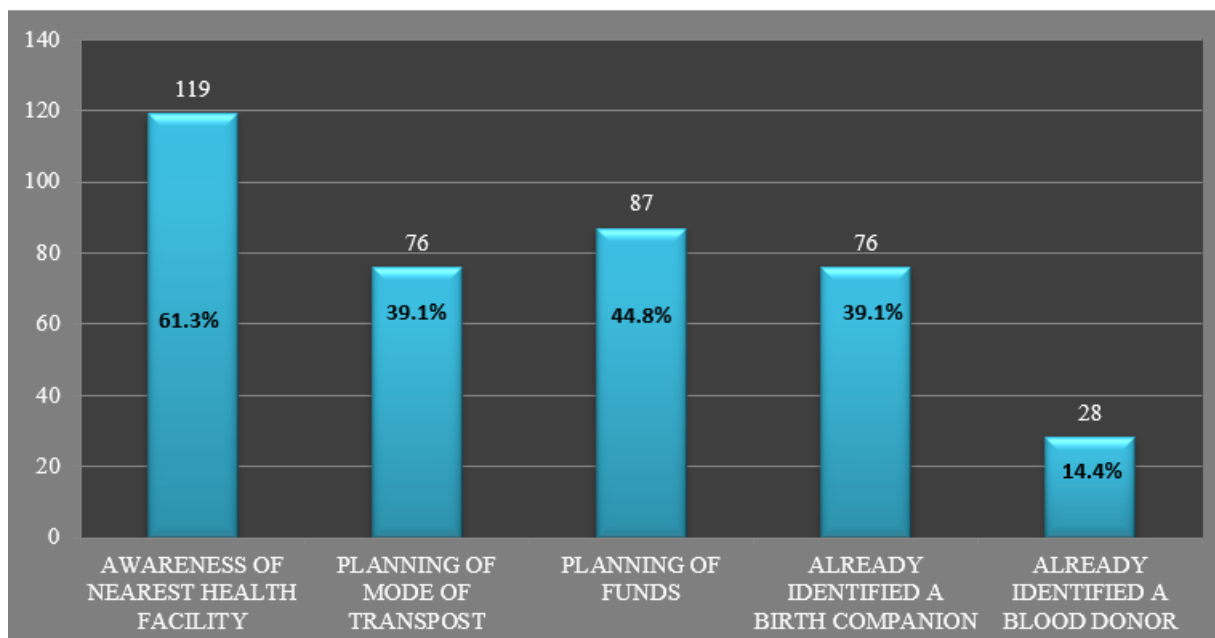


Figure 5: Birth planning among respondents:

Awareness	Number (n=194)	Percentage (%)
KNOWLEDGE ABOUT SIGNS OF LABOUR	176	90.72
NEED TO OBTAIN HIV TEST	129	66.49
IMPORTANCE OF EXCLUSIVE BREAST FEEDING	124	63.91
IMPORTANCE OF POST NATAL CARE	112	57.73
IMPORTANCE OF FAMILY PLANNING	61	31.44

Figure 6: Complication Readiness

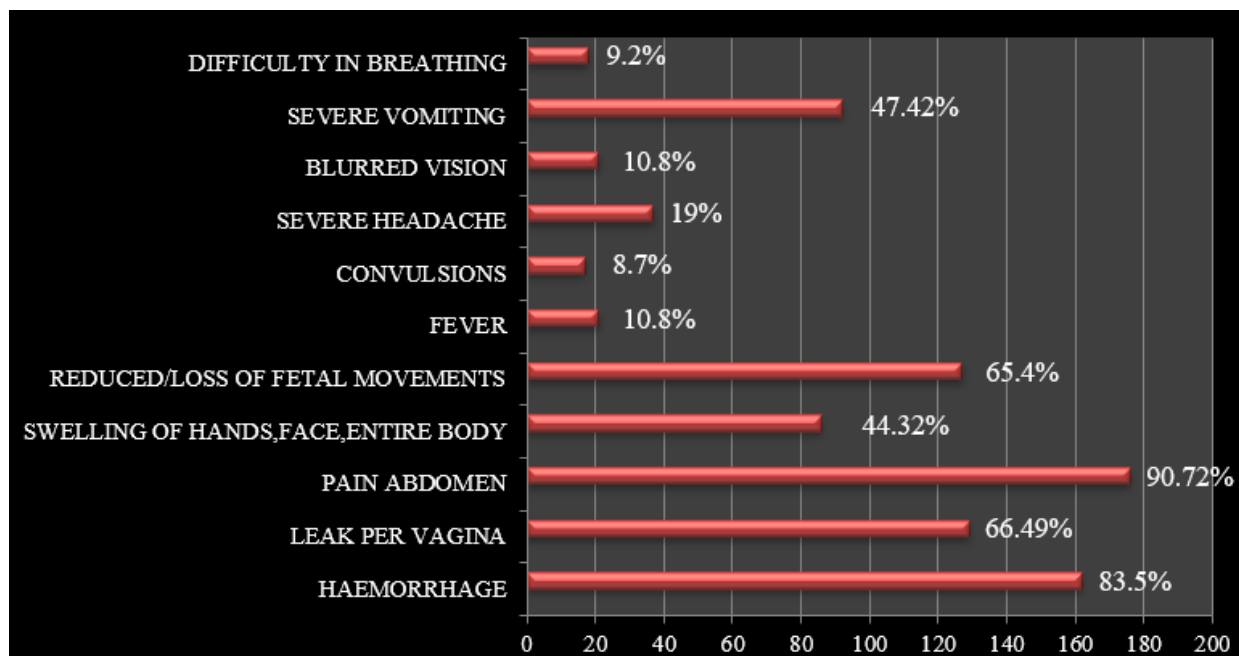


Figure 7: Knowledge of Danger Signs

S. NO	BPACR Indicators	Frequency (n=194)	Percentage
1	Knowledge of >8 danger signs	21	10.82%
2	Knowledge about financial assistance through JSY	112	57.73%
3	Knowledge of transportation provided by government through JSSK	128	65.97%
4	ANC availed in first trimester from skilled provider	98	50.51%
5	Identified skilled birth attendant for delivery	76	39.17%
6	Identified mode of transport	76	39.17%
7	Saved money for expenses	87	44.84%
	BPACR INDEX		44.03

Figure 8: BPACR Index

5. Results

- Only **50.51%** of the respondents had commenced **antenatal care** during the **first trimester**. This figure is lower than the national figure of 70%.
- **BPACR INDEX** is only **44.03**.
- **66%** of our study population were **aware** of at least **3 signs of labour**
- **80%** of respondents are **unaware of imminent signs** of severe pre - eclampsia
- In this study only **61%** were aware of **the nearest health facility**, **39%** had planned about the **mode of transport**, **42%** had set aside **funds** while only **14%** had identified a **blood donor** which shows a lack in birth planning

6. Conclusion

- Overall BPACR knowledge among the respondents was low.
- Health workers at ground level should be encouraged to increase the awareness regarding components of BPACR among pregnant women and their families at the Primary Health Center (PHC) as well as at the community level.
- Educating women, encouraging pregnant women to utilize antenatal care, creating awareness on danger signs during pregnancy and childbirth might increase women's birth preparation and complication readiness plan.

References

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