



A CROSSECTIONAL STUDY TO ASSESS KNOWLEDGE OF OBSTETRICS DANGER SIGNS AMONG PREGNANT WOMENS IN TERTIARY CENTRE

Dr Sneha MH*

Post Graduate MBBS MS Obstetrics And Gynecology Bangalore Medical college and Research Institute Krishna Rajendra Road, Kalasipalya Bangalore 560002.

*Corresponding Author

Dr Jyothi Mallappa Megeri

Post Graduate, MBBS MD Department Of Paediatrics, Karnataka Institute Of Medical Sciences Hubballi 580021.

Dr Kiran Kumar M

Assistant Professor, Department Of Radiodiagnosis, Karnataka Institute Of Medical Sciences Hubballi 580021.

Dr Sarojini

Associate Professor, Department Of Obstetrics And Gynecology, Bangalore Medical College And Research Institute Krishna Rajendra Road Kalasipalya Bangalore 560002.

ABSTRACT

INTRODUCTION: High-risk pregnancy are preceded by Obstetrics danger signs , Knowledge regarding the same helps us improving maternal, and fetal health outcomes. This Study aims Assessing the knowledge and determinants of danger signs among pregnant women seeking obstetric care in a teaching hospital. **MATERIALS AND METHOD:** Hospital based cross sectional study in OBG Department of Vanivilas for a 1 YEAR 4MONTHS **RESULTS:** A total of 200 pregnant women fulfilling the inclusion criteria were included. Mean age of the study participants was found to be 26.40 ± 4.14 years. Nearly 67.10% were aware of bleeding per vagina being a danger sign, 50.0% stated excessive vomiting as a danger sign, 23.50% knew that blurring of vision was a danger, while a mere 20.0% reported that convulsions were a danger sign. Overall, adequate knowledge (total knowledge score of 5 and above) was observed in 54.70% of the participants. **CONCLUSION:** Majority of the study participants had adequate knowledge of danger signs in pregnancy. However assessing Knowledge regarding danger signs helps seeking medical attention

KEYWORDS : PREGNANCY,DANGER SIGNS,BLEEDING PER VAGINA,CONVULSIONS

INTRODUCTION:

A high-risk pregnancy is defined as one that is complicated by one or multiple factors that adversely affect the pregnancy outcome in maternal, perinatal, or both1..Globally, around 15% of pregnancies develop a potentially life-threatening complication that calls for skilled care and some will require a major obstetrical intervention to survive2.Worldwide, around 80% of maternal deaths are due to complications of pregnancy and childbirth and the average maternal mortality rate is 216 and 12 per 100 000 live births in developing countries and developed countries, respectively3.

Obstetric danger signs of pregnancy include severe vaginal bleeding, swollen hands/face, blurred vision, severe headache, loss of foetal movement, abnormal body movement, high-grade fever, severe abdominal pain, epigastric pain, excessive vomiting, the difficulty of breathing, loss of consciousness and abnormal vaginal discharge4. The presence of at least one obstetric danger sign of pregnancy indicates the need for immediate care for the woman5. Having antenatal care (ANC) visits is one of the entry points to offer health information and inform women about the danger signs and symptoms for which immediate assistance should be sought from a healthcare provider6.

However, little is known about the current knowledge and influencing factors in the study area. Therefore, this study aims to fill this gap by assessing the knowledge and determinants of danger signs among pregnant women seeking obstetric care in a teaching hospital.

OBJECTIVES OF THE STUDY :

- 1.Assessing the knowledge and determinants of danger signs among pregnant women seeking obstetric care in a teaching hospital.
- 2.To analyse the factors associated with danger signs in pregnancy

MATERIALS AND METHODS:

SOURCE OF DATA:

All pregnant patients reporting to OBG department of hospitals attached to Bangalore Medical College And Research Institute.

METHODS OF COLLECTION OF DATA:

A. STUDY DESIGN:

Hospital based cross sectional study.

B. STUDY PERIOD:

JULY 2023 to OCTOBER 2024 (1 YEAR 4MONTHS)

C. PLACE OF STUDY:

Hospitals attached to BMCRI.

D. Sample size :The sample size was estimated by using the formula $n = Z^2 * p * q / e^2$. Systematic random sampling was used to select the study participants

$$n = \frac{Z^2 * p * q}{e^2}$$

The required sample size as per the above-mentioned calculation was 200.

INCLUSION CRITERIA:

1. All pregnant women attending Vanivilas hospital attached to BMCRI.
2. Pregnant women willing to give informed consent

EXCLUSION CRITERIA:

1. Patients not willing to give informed consent.

METHODOLOGY:

After obtaining institutional ethical committee's clearance , pregnant women recruited for the study after applying inclusion and exclusion criteria.

This cross-sectional study will be conducted in VANIVILAS hospital. Data will be collected over a period of 6 months. The patients will be asked to fill the questionnaire (annexure 2) validated in study with good to excellent reliability(a Cronbach's alpha value of 0.837) to address knowledge, attitude and practice.

The questionnaire consists of demographic/clinical characteristics like sociodemographic details like age, body mass index (BMI), education level, occupation, gravidity, parity,socioeconomic status,last menstrual period,expected date of delivery,gestational age in weeks and number of pregnancies were enquired Total of 200 patients are included, pre-designed and pre-tested interview schedule was used to collect the appropriate information.

The knowledge dimension consists of 13 questions (K1-K13), each of which will be scored either 1 point for a correct answer (for multiple response questions, 1 point was awarded only if all the correct

responses were selected) or 0 points for an incorrect answer or selecting “unclear.” The total score for the knowledge dimension range from 0 to 13 points.

STATISTICAL ANALYSIS

SPSS 26.0 software was used for statistical analysis. Continuous variables were tested for a normal distribution. Normally distributed continuous variables are presented as the mean $\pm$ standard deviation (SD) and were compared. Non-normally distributed continuous variables are described as median (range). Correlations between continuous variables were evaluated using Spearman correlation analysis. Categorical variables are expressed as n (%). Practices were categorized according to the 87.5% scores, with a score of 5 points or above considered to indicate “good practice.” Factors associated with good practice were identified using univariate and multivariate logistic regression analyses. Variables with $P < 0.05$ in the univariate analysis were included in the multivariate analysis. P-value of less than 0.05 was considered statistically significant.

RESULTS:

The mean age of the study participants was found to be 26.40 ± 4.14 years. Majority of the participants (74.50%) were educated up to School 10. Socio-demographic and obstetric profile details of the study participants are presented in Table 1.

Table 1: Socio-demographic characteristics and obstetric profile of the study participants (n=200)

Variable	Numbers (n=200)	Percentage
Age in years		
≤30 years	175	87.5%
>30 years	25	12.5%
Education		
Upto grade 10	149	91.5
Beyond grade 10	51	8.5
Occupation		
Housewife	183	91.5
Others	17	8.5
Socio-economic Status		
Class I + Class II	34	17
Class III	39	19.5
Class IV + Class V	127	63.5
Trimester		
First	22	11
Second	29	14.5
Third	149	74.5
Gravidity		
Primigravidae	48	29
Multigravidae	152	71
Complications in pregnancy		
Present	19	9.5
Absent	181	91.5
Tayi Card		
Yes	145	77.5
No	55	22.5

More than half of the study participants had knowledge about vaginal bleeding (67.10%) and anaemia (51.20%) as danger signs. There were merely 20.0% of the study participants who reported convulsions as a danger sign in pregnancy.

Table 2: Knowledge of danger signs in pregnancy among the study participants (n=200)

Danger sign	Numbers (200)	Percentage
1. Convulsions		
Aware	40	80
Not aware	160	
2. Headache		
Aware	63	31.5
Not aware	137	68.5
3. Blurring of vision		
Aware	183	91.5
Not aware	17	8.5
4. Excessive vomiting		
Aware	47	23.5
Not aware	153	76.5

5. High fever		
Aware	100	50
Not aware	100	50
6. Breathing difficulty		
Aware	55	27.5
Not aware	145	72.5
7. Epigastric pain		
Aware	85	42.5
Not aware	115	57.5
8. Anaemia		
Aware	103	51.5
Not aware	97	49.5
9. High Blood Pressure		
Aware	89	44.5
Not aware	111	55.5
10. Vaginal bleeding		
Aware	135	67.5
Not aware	65	32.5
11. Decreased fetal movements		
Aware	98	49
Not aware	102	51
12. Swelling of feet		
Aware	63	31.5
Not aware	137	68.5

Table 3: Factors Associated with knowledge of danger signs in pregnancy among study participants (n=200)

Study variables	Adequate knowledge (n=108) (%)	Inadequate knowledge (n=92) (%)	Total (n=200)	P
Age				0.819
<30 years	97(55)	79(45)	176	
≥30 years	23(52.4)	11(47.6)	24	
Education				0.113
Upto grade 10	77(51.5)	73(48.9)	150	
Beyond grade 10	31(65.8)	19(34.2)	50	
Occupation				0.712
Housewife	101(55.2)	83(44.8)	184	
Employed	8(50)	8(50)	16	
Gravidity				0.07
Primigravidae	26(44.5)	32(55.5)	58	
Multigravidae	85(60)	57(40)	142	
Trimester				0.227
First and second	30(60)	20(40)	50	
Third	78(52.3)	72(48.7)	150	

P=ChiSquare Test

DISCUSSION

Obstetric danger signs education is a key component of birth preparedness in our study. In the Indian primary health care counselling on obstetric danger signs is being routinely imparted by non-specialist health workers like Accredited Social Health Workers (ASHAs) at the community level. Therefore these danger signs may be easily identified by non-specialist health workers who form the backbone of primary health care, and may help to counter the lack of skilled birth attendants and emergency obstetric services. Thus, empowering women to identify danger signs and better pregnancy outcomes.

In our study, knowledge about vaginal bleeding was found to be highest, which was followed by anaemia, excessive vomiting and decreased fetal movements. It was found that majority of the study participants (54.70%) had adequate knowledge of danger signs in pregnancy in our study. In comparison, a study carried out by Teng et al. in Malaysia reported that 83.70% of pregnant women had adequate knowledge of obstetric danger signs⁸. On the contrary, studies carried out in countries like Ethiopia, Tanzania and Jordan reported the awareness of danger signs in pregnancy to be ranging from 15-30%⁹⁻¹¹. This finding was in concordance with the results of studies. This could be attributed to the fact that all the study participants in the present study were literates, with 74.70% being educated up to grade 10 and 25.30% being educated beyond grade^{10,12-13}.

In the present study, knowledge about vaginal bleeding was found to be

highest, which was followed by anaemia, excessive vomiting and decreased fetal movements. A similar finding was reported in a study conducted by Sangal et al. in Gorakhpur where 90.5% and 80% of study participants were aware of bleeding/leaking per vagina, decreased fetal movements respectively, as obstetric danger signs¹⁴. In few other studies, vaginal bleeding was found to be the most commonly cited danger sign¹⁵⁻¹⁶.

Adequate knowledge of danger signs was higher among those who were educated beyond grade (65.10%) when compared to those who are educated up to grade (51.20%). However, this association was not statistically significant ($P=0.113$). Adequate knowledge of danger signs in pregnancy was higher among multigravidae (59.20%), when compared to primigravidae (44.0%). However, a statistically significant association could not be established ($P=0.07$). However, in other studies, factors like educational status, place of delivery, age, socio-economic status, working status, and monthly household income of study participants were significantly associated with awareness of danger signs in pregnancy^{17,18,19}.

CONCLUSION:

There is evidence suggesting that improvement in knowledge about obstetric danger signs will facilitate early detection of problems and improve the decision making to access appropriate health Care²⁰. Majority of the study participants, (54.70%), had adequate knowledge of danger signs in pregnancy. When knowledge of specific obstetric danger signs were determined, a high proportion had very poor knowledge of the individual danger signs. Less than half of the study participants had knowledge about important danger signs like convulsions, headache, vaginal bleeding, high blood pressure, decreased fetal movements, and swelling of feet.

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CONFLICTS OF INTEREST

There are no conflicts of interest

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