ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 04 | April - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

DESCRIPTIVE STUDY TO ASSESS LEVEL OF AWARENESS ABOUT PREGANACY DANGER SIGNS AMONG PREGNANT WOMEN ATTENDING SELECTED TERTIARY HOSPITAL, MUMBAI, MAHARASHTRA

Community Medicine

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ABSTRACT

Delay in seeking health care is one of the key factors leading to maternal death, which can be associated with lack of awareness about obstetric danger signs. Raising awareness among Pregnant women and their families about danger signs of pregnancy would contribute to early detection of complications and reduce delay in seeking care. This study aimed to assess level of awareness about pregnancy danger signs among pregnant women attending selected tertiary hospital, Mumbai, Maharashtra **Methods and Material:** Descriptive cross-sectional study was conducted in Obstetrics/Gynecology OPD of selected tertiary Hospital, Mumbai, Maharashtra among 200 pregnant women. Data was collected through semi-structured interviews where participants awareness was categorized into good, fair and poor based on scores obtained in the interview. Pearson chi-square test and fishers exact test was applied to study the association between demographic, obstetric characters and level of awareness about danger signs **Results:** 7% of pregnant women had good awareness about dangers signs. Level of awareness was significantly associated with Participants education, Socio-economic status, Gravity, Parity, and information given during ANC visits. **Conclusions:** Level of awareness about danger signs among pregnant women was poor. There is need for improved / revamped content and quality of health education materials to create better awareness among the pregnant women.

KEYWORDS

Antenatal care, Awareness, Danger signs.

INTRODUCTION

Maternal health is a crucial component of any nation's growth in terms of boosting fairness & lowering poverty. Mothers' survival and well-being are crucial for addressing major issues in the economy, society, and child development in addition to being significant in and of themselves.[1]

Complications during, after, and after pregnancy and childbirth claim the lives of women. The majority of these issues occur during pregnancy and can usually be avoided or treated. Countries have come together in support of the Sustainable Development Goal (SDG) aim to hasten the fall in maternal mortality by 2030. SDG 3 has the lofty goal of lowering the global MMR to less than 70 per 100,000 live births. In 2020, there were 223 maternal deaths per 100,000 live births worldwide [2], with 97 of the fatalities reported in India [3]. The increase in institutional deliveries over the past few years has not resulted in the anticipated reductions in maternal mortality, which is evidence that Maharashtra still struggles to maintain consistently good performance in pregnancy care. This is because better service access and coverage are insufficient; instead, better service quality is needed to improve the outcome. Maharashtra has achieved the SDG-3 target of 70 by lowering the MMR to 46 per 100 000 live births.

Delays in deciding to seek care, delays in getting to care, and delays in receiving care are the three delays that cause maternal deaths.[4] Pregnant women and their families need to be made more aware of the danger signs of pregnancy in order to improve the quality of the services provided. Doing so will help with early detection of complications, shorten the time it takes to decide to seek care, make it easier to get there, and ultimately help to lower maternal morbidity and mortality.

This study was designed to investigate the level of awareness and association between demographic and obstetric characters among pregnant women attending selected Obstetrics/Gynecology OPD in Mumbai. Although the majority of earlier studies have found that pregnant women are aware of the danger signs of pregnancy, no prior documentation of this association between demographic, obstetric characters, and level of awareness is available.

OBJECTIVES

1. To assess the level of awareness about danger signs of pregnancy among pregnant women attending a tertiary hospital
2. To find association between demographic characters and Level of awareness about danger signs among pregnant women.
3. To find association between obstetric characters and Level of awareness about danger signs among pregnant women

METHODOLOGY

Institutional ethical clearance was obtained before commencing the study. It was a cross-sectional study conducted in Obstetrics/Gynecology OPD of tertiary Hospital. Non-probability Convenient sampling method was used taking prevalence of 52.1%[5] which gave us samples size of 155.9----200. Data was collected after obtaining informed consent from participating pregnant women. Participants were asked to categories list of pregnancy signs into major or minor or not a danger sign of pregnancy. Each correct response was given 1 mark. According to the scores obtained, participants were considered to have:

1. Poor awareness: for those scored 0-12, 2.Fair awareness: for those scored 13-19 and 3.Good awareness: for those scored 20-25.[6]

The data was analyzed with the help of Microsoft excel version 365 chi-square test was applied to study the association between demographic, obstetric characters and level of awareness about danger signs ,where a p value of<0.05 was considered statistically significant. If expected number in the cell was below 5 in a table , Fishers's exact test was used.

RESULTS

Socio-demographic Characteristics Of Participants

A total of 200 pregnant women participated in the study. Table1shows the socio-demographic characteristics of the study participants. 138(69%) were in the age group 0f 21- 30yrs, 114(57%) had joint families, More than half 123(62%) were Muslims. Concerning educational status, 79 (40%) , 72(36%)participants and their husbands were educated up to High school. Majority of the participants were from upper lower socio-economic class.

Table1: Socio-demographic characteristics of the participants

Variable	Number (200)	Percentage
Age group (Years)		
<20	23	11%
21-30	138	69%

>30	39	20%
Type of family		
Nuclear	75	37%
Joint	114	57%
Extended	11	6%
Religion		
Hindu	71	36%
Muslim	123	61%
Christian	2	1%
Any Other	4	2%
Participants Education		
Illiterate	24	12%
Primary school	8	4%
Middle school	45	22%
High school	79	40%
Graduate/Post graduate	44	22%
Husbands Education		
Illiterate	19	10%
Primary school	14	7%
Middle school	45	22%
High school	72	36%
Graduate/Post Graduate	50	25%
Socioeconomic Class		
Upper	7	4%
Upper middle	18	9%
Lower middle	39	19%
Upper lower	130	65%
Lower	6	3%

Obstetric details of Participants

About 123(62%), 122(61%) and 108(54%)were multigravida, multipara and in the 3rd trimester of pregnancy. Nearly half 99 (50%) of them had more than 4 ANC visits. About 67(34%) of pregnant women were informed about danger signs of pregnancy during their ANC visits and 30(15%) of them had experienced danger signs of pregnancy(Table 2)

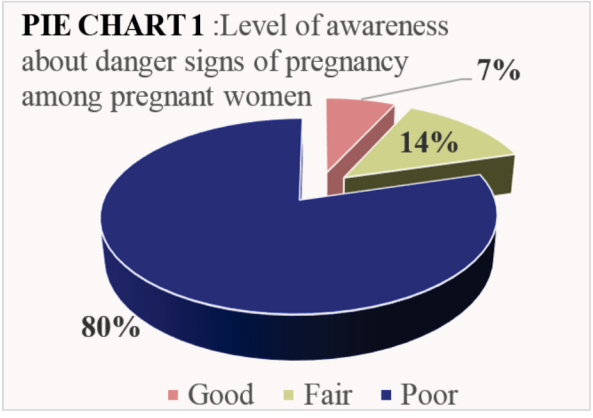

Figure 1: Awareness about danger signs

Table 2: Obstetric Details Of Participants

Variable	Number (200)	Percentage
Gravity		
Primigravida	77	38%
Multigravida	123	62%
Parity		
Primipara	78	39%
Multipara	122	61%
Gestational age		
1st trimester	16	8%
2nd trimester	76	38%
3rd trimester	108	54%
No.of ANC visits		
1	40	20%
2	36	18%
3	25	13%
>4	99	49%
Information Given During ANC Visits		
Yes	67	33%
No	133	67%
Experienced Pregnancy Danger Signs		
Yes	30	15%
No	170	85%

Awareness About Danger Signs

Of the participants, 14 (7%) of the pregnant women had good awareness, 27(14%) had fair awareness and 159 (80%) had poor awareness about danger signs of pregnancy (Figure 1).

Factors Associated With Awareness About Danger Signs

On applying chi-square and fischers exact test Participants education, Socio-economic status, Gravity, Parity and information given during ANC visits was significantly associated with awareness about danger signs (Table 3 and 4)

Table 3: Comparison of Socio-demographic factors with level of awareness about pregnancy danger signs among study participants

Socio-Demographic details		Level of awareness			Total N (%)	p value
		Good N (%)	Fair N (%)	Poor N (%)		
Age (Years)	<20	0 (0)	2 (9)	21 (91)	23 (100)	.166**
	21-30	12 (9)	16 (12)	110 (80)	138 (100)	
	>30	2 (5)	9 (23)	28 (72)	39 (100)	
Type of family	Nuclear	3 (4)	12 (16)	60 (80)	75 (100)	.251**
	Joint	11 (10)	15 (13)	88 (77)	114 (100)	
	Extended	0 (0)	0 (0)	11 (100)	11 (100)	
Religion	Hindu	7 (10)	9 (13)	55 (77)	71 (100)	.825**
	Muslim	7 (6)	18 (15)	98 (80)	123 (100)	
	Christian	0 (0)	0 (0)	2 (100)	2 (100)	
	Any Other	0 (0)	0 (0)	4 (100)	4 (100)	
Participants' education	Illiterate	1 (4)	2 (8)	21(88)	24 (100)	.015**
	Primary school	0(0)	0(0)	8(100)	8(100)	
	Middle school	1(2)	6(13)	38(84)	45(100)	
	High school	3(4)	12(15)	64(81)	79(100)	
	Graduate/ Post graduate	9(20)	7(16)	28(64)	44(100)	
Husbands' education	Illiterate	1(5)	1(5)	17(89)	19(100)	.079**
	Primary school	0(0)	1(7)	13(93)	14(100)	
	Middle school	0(0)	6(13)	39(87)	45(100)	
	High school	5(7)	10(14)	57(79)	72(100)	
	Graduate/ Post graduate	8(16)	9(18)	33(66)	50(100)	
Socio economic status†	Upper	1(14)	0(0)	6(86)	7(100)	.022**
	Upper Middle	5(28)	3(17)	10(56)	18(100)	
	Lower Middle	2(5)	6(15)	31(79)	39(100)	
	Upper Lower	5(4)	18(14)	107(82)	130(100)	
	Lower	1(17)	0(0)	5(83)	6(100)	

Percentages were calculated row-wise.
** Fisher's Exact Test was applied (Used when in > 20% of the cells have expected count less than 5).
P value of < 0.05 is considered statistically significant.
†socio-economic class was calculated using modified kuppuswamy socio- economic scale-2021

Table 4: Comparison of obstetric details with level of awareness about pregnancy danger signs among study participants

Obstetrics Details		Level of Awareness			Total N (%)	p value
		Good N (%)	Fair N (%)	Poor N (%)		
Gravity	Primigravida	1(1)	10(13)	66(86)	77(100)	.040*
	Multigravida	13(11)	17(14)	93(76)	123(100)	
Parity	Primipara	1(1)	10(13)	67(86)	78(100)	.036*
	Multipara	13(11)	17(14)	92(75)	122(100)	
Gestat- ional Age	1st trimester	0(0)	3(19)	13(81)	16(100)	.376**
	2nd trimester	4(5)	13(17)	59(78)	76(100)	
	3rd trimester	10(9)	11(10)	87(81)	108(100)	
No.of ANC Visits	1	0(0)	9(23)	31(78)	40(100)	.158**
	2	2(6)	5(14)	29(81)	36(100)	
	3	1(4)	2(8)	22(88)	25(100%)	
	>4	11(11)	11(11)	77(78)	99(100)	

Informa- Tion Given During ANC Visits	Yes	11(16)	9(13)	47(70)	67(100)	.001*
	No	3(2)	18(6)	112(84)	133(100)	
Experien- Ced Pregnancy Danger Signs	Yes	2(7)	2(7)	26(87)	30(100)	.483**
	No	12(7)	25(15)	133(78)	170(100)	

Percentages were calculated row-wise.
*Pearson's Chi square test was applied.
** Fisher's Exact Test was applied (Used when in > 20% of the cells have expected count less than 5).
P value of < 0.05 is considered statistically significant.

DISCUSSION:

Every pregnancy carries some degree of risk and complication; which can occur anytime from conception to the postpartum period. Fortunately, many obstetric complication can be effectively managed if warning signs are detected early and acted upon promptly[7].

Applying a cross-sectional study design ,This study explored the level of awareness about danger signs and demographic ,obstetric characters associated with it among women attending selected tertiary hospital.

About the danger sign of pregnancy out of total 200 pregnant women interviewed, 7% had good awareness,14%,80% had fair and poor whereas study conducted by John William Felix et al.[6] 29% had good awareness,68 %, 3 % had Fair and poor awareness; which was higher when compared to our study. Study conducted by Nithya R et al[8] showed similar results only 7% had good knowledge about obstetric danger signs.

Study conducted by Bililign et al[9] reported majority 35.5%,32% and 32.5% were in the age group of 26-30yrs , hindu and had completed primary education and when level of awareness was compared with socio-demographic characters significant association was found with mothers education, occupation and no.of ANC visits whereas in our study majority 69%,62% and 40% were in the age group of 26-30yrs,muslim and were educated up to high school. and significant association was found between participants education and socio-economic status This difference in findings could be attributed to distinct study settings and manner in which data were collected . In a study done in Rural Tanzania [10], it was found that maternal age was significantly associated with knowledge of obstetric danger signs. However, in this study, there was no statistically significant association found between mothers age and awareness.

In a Community based cross-sectional study conducted in Ethiopia[9] more than half 55.4%,55% and 69% of participants were multigravida, had >4 ANC visits and were in the 2nd trimester of pregnancy and significant association was found with no.of ANC visits. Whereas in our study 62%,49% and 54% participants were multigravida, had >4 ANC visits and were in the 3rd trimester of pregnancy and no association was found between no.of ANC visits and awareness. This could be an indication for intervention to generate awareness among pregnant women about danger signs along with providing routine ANC care. Coincidental findings were observed from Andrea B Pembe[10] which reflected significant association between gravity, parity and information given during ANC visits clearly indicating with increased experience and more contact of women with health care personnel increased their awareness about risk factors.

Limitations

The current study was conducted in a single tertiary Hospital To obtain better understanding about level of awareness of danger signs of pregnancy and associated factors among pregnant women, it is necessary to expand data collecting to other health care institutions. Barriers in health education of pregnant women about danger signs were not explored. Further study is planned to overcome the limitations.

CONCLUSION

In this study only 7% of pregnant women had good awareness about dangers signs of pregnancy indicating lack of awareness among pregnant women about danger signs**.**

Participants education, Socio-economic status, Gravity, Parity and information given during ANC visits was significantly associated with awareness about danger signs.

Recommendations

1. The Display of danger signs of pregnancy on MCP card can be used effectively to brief expectant mothers & their families.
2. Standard protocol for the Health care providers to counsel pregnant women about danger signs can be created and actively implemented.
3. Research needs to be done to find better ways to enhance awareness of pregnant women their families as well as community health workers regarding danger signs of pregnancy

Declarations:
Conflict of Interest: None

Financial Support & Sponsorship: None

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