Global Journal of Medicine & Public Health

A community-based study on obstetric danger signs among pregnant women of Sivagangai district

A. Mithun Kumar [1], J.Aravindan [1], N.C.Indira [1], Arbind Kumar Choudhary [2]*

GJMEDPH 2020; Vol. 9, issue 6

[1]Assistant Professor, Department of Community Medicine, Government Sivagangai Medical College, Sivagangai

[2]Assistant Professor, Department of Pharmacology, Government Erode Medical College and Hospital, Perundurai, Erode, Tamilnadu – 638053

*Corresponding Author
Arbind Kumar Choudhary
Assistant Professor
Department of Pharmacology, Government Erode Medical College and Hospital, Perundurai, Erode, Tamilnadu – 638053
arbindkch@gmail.com
Phone No: 7871797278

Conflict of Interest—none

Funding—none

ABSTRACT

Background

Every pregnant woman faces the risk of pregnancy related morbidities. It Is better that pregnant women are aware of the pregnancy related symptoms and warning signs. Early intervention or referral to obstetric care facility can be made only if the pregnant woman has adequate knowledge in identifying danger signs. This study aimed to assess the knowledge of obstetric danger signs among pregnant women.

Methods

Community based cross sectional study was conducted from March 2019 to august 2019. 280 pregnant women were interviewed face to face using semi structured questionnaire.

Results

Only 86(30.7%) respondents were aware of at least more than four danger signs during antenatal period. Only 7.1% of the study participants were aware of the danger signs during post-partum. Maternal age, socioeconomic scale and parity had significant association with knowledge of obstetric danger signs.

Conclusion

Mother's awareness on danger signs of pregnancy was poor during both antenatal and postpartum period. There is probably a need to enhance the health education sessions to all pregnant women irrespective of their demographic characteristics.

Keywords: Obstetric Danger Signs, Antenatal, Post-Partum

INTRODUCTION

Pregnancy is a delicate period where sudden dangerous difficulties may emerge at any period from conception to the postpartum period. Maternal and neonatal mortality is a prevailing health problem in developing countries.[1] Developing countries records 15 times higher (240 /lakh live births) maternal mortality than developed countries (16 per 1 lakh live births).[2] From previous studies it is evident that about 75% of maternal deaths are due to direct obstetric complications like hemorrhage, sepsis, hypertensive disorders of pregnancy, obstructed and prolonged labour and unsafe abortion.[3-5] Maternal mortality in developing countries is attributed mainly to three factors; delay in deciding to seek medical case, delay in reaching medical facility on time and delay in receiving adequate treatment. The major cause of the above delay is lack of awareness about obstetric danger signs to decide when and where to seek medical care.[6]

These danger signs can be easily identified by the mother herself. Women's awareness about symptoms like vaginal bleeding, severe headache, blurring of vision, severe abdominal pain, foul smelling vaginal discharge, high grade fever, convulsions will help in identifying danger signs

which enhances timely referral to obstetric care facility.[7,8]

There is minimal study in the knowledge of obstetric danger signs among pregnant women. Inspite of repeated emphasis by the national health mission to improve the knowledge of obstetric danger signs among the pregnant women, minimal is known about the prevailing level of knowledge and the factors influencing the knowledge level. Hence, this study was aimed to assess the knowledge of obstetric danger signs among pregnant women and the association between the level of knowledge and various sociodemographic characteristics.

METHOD AND MATERIALS

A multistage sampling technique was employed. Sivagangai district comprises of 12 blocks. From the twelve blocks, Thirupuvanam block was selected by simple random sampling technique using lottery methods. The catchment area of Thirupuvanam block includes eight villages namely Ambalathadi (3526), Kilathari (5902), Manaloor (7560), Piramanoor (3713), Theli (8173), T.Pudur (6570), T.Palaiyur (8875), T.Kottai (8285) respectively covering a total population of 52604. Every households with antenatal woman were selected from the eight villages and given an identification number which was later used for preparing sampling frame. Systematic sampling technique was applied and every 2nd interval from the sampling frame were included in the study. In total, 280 households with antenatal women who consented for the study were selected. Each antenatal woman was interviewed at their house using a pretested, semi structured questionnaire within the stipulated period of six months (march 2019 to August 2019). The Informed verbal consent was obtained from all the study population. Information about sociodemographic characters and knowledge on obstetric danger signs were obtained. Each questionnaire was checked for completeness of details daily by the primary investigator and data entered in Microsoft excel windows. Statistical package for social science windows version 21.0 was used for analysis. Univariate using descriptive techniques and bivariate analysis using chi square were done. If the participant answered "yes" it was taken as correct response, while "no" and "don't know" were taken as incorrect response. Thus, pregnant women who at least mentioned four out of the eleven obstetric danger signs were considered as having adequate knowledge. Variables with p value <0.005 were considered statistically significant.

RESULTS

A total of 280 pregnant women who fulfilled the inclusion criteria were included in the study. The mean age of study participants was found to be 24.18±3.35. Almost half of the study population belonged to lower middle class according to B.G. Prasad scale of socioeconomic classification. The study participants belong to various gestational age group, however 67.9% were in their third trimester presented in table 1.

Table 1 Socio Demographic Characteristics and Obstetric Profile of Study Participants

Characteristics	Frequency (n)	Percentage (%)
Age group (in years)		
<20	36	12.9
20-25	150	53.6
25-30	84	30.0
30-35	10	3.6
Socio economic scale		
Upper middle	50	17.9
Lower middle	126	45.0
Lower class	104	37.1
Religion		

Hindu	238	85
Christian	24	8.6
Muslim	18	6.4
Gestational age		
First trimester	14	5.0
Second trimester	76	27.1
Third trimester	190	67.9
Parity		
Primigravida	192	68.6
Multiparous	88	31.4
H/O still birth		
Present	42	15.0
Absent	238	85

Most of the respondents (68.6%) were primigravida. When asked regarding danger signs during antenatal period, most commonly mentioned answers were prevaginal bleeding (78.6%), severe abdominal pain (36.4%), severe weakness (30.7%), premature rupture of membranes (27.9%), accelerated/reduced fetal movements (25.7%) respectively. There was merely 10% of the respondents who reported convulsions and blurring vision as danger signs during pregnancy (table 2). Only 86 (30.7%) respondents were aware of at least more than four danger signs during antenatal period.

Table 2 Knowledge of Obstetric Danger Signs Among Study Population

Danger signs	Aware N (%)	Unaware N (%)
Per vaginal bleeding	220(78.6)	60(21.4)
Severe headache	72(25.7)	208(74.3)
Blurring of vision	30(10.7)	250(89.3)
Convulsions	28(10)	252(90)
Swollen hands/face	70(25)	210(75)
High temperature	66(23.6)	214(76.4)
Loss of consciousness	24(8.6	256(91.4)
Difficulty in breathing	34(12.1)	246(87.9)
Severe weakness	86(30.7)	192(68.6)
Severe abdominal pain	102(36.4)	178(63.6)
Accelerated/ reduced fetal movements	72(25.7)	208(74.3)
PROM	78(27.9	202(72.1)

On finding the knowledge on danger signs during postpartum period, participants who reported prevaginal bleeding, severe weakness, high temperature, severe headache were 63.6%, 40%, 23.6% and 17.9% respectively. Twenty respondents (7.1%) gave more than four danger signs during postpartum period as presented in table 3.

On assessing the factors associated with knowledge of obstetric danger signs, there was statistically significant association (p value <0.001) between knowledge level and maternal age. the results also revealed a statistically significant association between knowledge of pregnant women and their socioeconomic scale (p value <0.001), parity (p value <0.001). However, there was no association with other demographic variables (table 4).

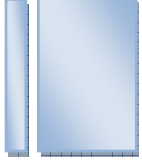


Table 3 Knowledge of Danger Signs During Postpartum Period Among Study Participants

Aware on Danger Signs	Frequency (N)	Percentage (%)
Severe per vaginal bleeding	178	63.6
Malodorous vaginal discharge	32	11.4
Severe headache	50	17.9
Blurring of vision	16	5.7
Convulsions	32	11.4
Swollen hands/feet	22	7.6
High temperature	66	23.6
Loss of consciousness	6	2.1
Difficulty in breathing	28	10
Severe weakness	114	40.7

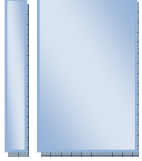
Table 4 Factors Associated with Knowledge of Obstetric Danger Signs of Study Participants

Independent Variable	Knowledge		Chi Square	P Value
	Adequate	Inadequate		
Age group (in years)				
<20	0	36	41.366	0.001**
20-25	38	112		
25-30	46	38		
30-35	2	8		
Socioeconomic scale				
Upper middle	30	20	35.104	0.001**
Lower middle	42	84		
Lower	14	90		
Gestational age				
First trimester	2	12	3.254	0.197
Second trimester	20	56		
Third trimester	64	126		
Parity				
Primiparous	36	156	41.093	0.001**
Multiparous	50	38		
H/O still birth				
Present	8	34	3.160	0.075
Absent	78	160		
Religion				
Hindu	72	166	1.987	0.370
Christian	10	14		
Muslim	4	14		

DISCUSSION

The most commonly mentioned danger during both antenatal and postpartum period was prevaginal bleeding which was similar to the findings of the studies by Kabakyenga et al, Hailu d et al and Urasse dd et al. This is quite convincing since hemorrhage is the cause of 27% of maternal deaths.[9-11]

In the current study the number of respondents who knew at least four danger signs reduces as it



approaches knowledge on postpartum danger signs (7.1%).[12] This trend is consistent with the studies conducted by PhaniceKOmanetal., but different from similar studies conducted by PembaAB et al., HilufMet al.[13, 14]

The present study showed maternal age as one of the factors having statistically significant association with knowledge on danger signs. This finding is in line with studies conducted by D. Hailu et al, Mengesha et al., and Rashad et al., There was a significant association between the socioeconomic scale and their knowledge level on danger signs.[10,17,18] This is similar to the studies conducted by H.V.Doctoret al.,[19] which revealed association between family income and knowledge level.

Similar to previous results showed by Hailu d et al., Rashad etal., Kabakyengaetal.,there is a statistically significant association between obstetric danger signs and parity in this study. This study also reveals that the knowledge level about obstetric danger signs is not affected by religion.[3,9,18]

The limitation of the current study was the sample size. Due to the small sample size the result cannot be generalized.

CONCLUSION AND RECOMMENDATIONS

The findings of the study reveal poor awareness on danger signs during both antenatal and postpartum period. There is probably a need to enhance the health education sessions to all pregnant women irrespective of their demographic characteristics.

REFERENCES

1. Teekhasaenee, T., &Kaewkiattikun, K. (2020). Birth Preparedness and Complication Readiness Practices Among Pregnant Adolescents in Bangkok, Thailand. Adolescent Health, Medicine and Therapeutics, Volume 11, 1-8. doi:10.2147/ahmt.s236703
2. Requejo, J., Victora, C., & Bryce, J. (2014). Data resource profile: countdown to 2015: maternal, newborn and child survival. International Journal of Epidemiology, 43(2), 586-596.
3. Hailu M, Gebremariam A, Alemseged F (2007) Knowledge about obstetric danger signs among pregnant women in Aleta Wondo district, Sidama zone, Southern Ethiopia. Ethiopian J Health Development 20: 25-32.
4. Central Statistical Authority [Ethiopia] and ORC Macro. Ethiopia Demographic and Health Survey 2011. Addis Ababa. Maryland: Ethiopia and Calverton; 2011. 7.
5. World Health Organization. The WHO application of ICD-10 to deaths during pregnancy, childbirth, and puerperium: ICD-MM. Geneva: World Health Organization; 201
6. M. T. Mbizvo and L. Say, "Global progress and potentially effective policy responses to reduce maternal mortality," International Journal of Gynecology& Obstetrics, vol. 119, no. 1, pp. S9–S12, 2012
7. JHPIEGO, "Monitoring birth preparedness and complication readiness. Tools and indicators for maternal and newborn health," 2004.
8. B. Nikiema, G. Beninguisse, and J. L. Haggerty, "Providing ′ information on pregnancy complications during antenatal visits: unmet educational needs in sub-Saharan Africa," Health Policy and Planning, vol. 24, no. 5, pp. 367–376, 2009.
9. Kabakyenga J, K., Östergren P-o, Turyakira E, Pettersson KO: Knowledge of obstetric danger signs and birth preparedness practices among women in rural Uganda. Reproductive Health 2011; 8(1).
10. Hailu D, Berhe H: Knowledge about obstetric danger signs and associated factors among mothers in Tsegedie district, Tigray region, Ethiopia 2013: community based cross-sectional study. PLoS One 2014; 9(2): e83459.
11. Urassa DP, Pembe AB, Mganga F: Birth preparedness and complication readiness among women in Mpwapwa district, Tanzania. Tanzan J Health Res 2012; 14(1): 42-7
12. Say L, Chou D, Gemmill A, et al.: Global causes of maternal death: a WHO systematic analysis. Lancet Glob Health 2014; 2(6): e323-33.
13. Pembe AB, Urassa DP, Carlstedt A, Lindmark G, Nystrom L, Darj E: Rural Tanzanian women's awareness of danger signs of obstetric complications. BMC Pregnancy Childbirth 2009; 9: 12
14. Okour, A., Alkhateeb, M., &Amarin, Z. (2012). Awareness of danger signs and symptoms of pregnancy complication among women in Jordan.

International Journal of Gynecology& Obstetrics, 118(1), 11-14. doi:10.1016/j.ijgo.2012.01.020
15. Hiluf M, Fantahum M: Birth preparedness and complication readiness among women in Adigrat town, north Ethiopia. Ethiopian Journal of Health Development 2008; 22(1): 1-7
16. Hailu, D., &Berhe, H. (2014). Knowledge about obstetric danger signs and associated factors among mothers in Tsegedie District, Tigray Region, Ethiopia 2013: community based crosssectional study. Plos One, 9(2), e83459.
17. Mengesha, E., & Taye, H. (2012). The level of awareness on danger signs of pregnancy and associated factors among ANC attendant pregnant women in Debark Town, North West Ethiopia, 2012. Placenta, 1, 6.
18. Rashad, W. A., & Essa, R. M. (2010). Women's awareness of danger signs of obstetrics complications. Journal of American Science, 6(10), 1299-1306.
19. H. V. Doctor, S. E. Findley, G. Cometto, and G. Y. Afenyadu, "Awareness of critical danger signs of pregnancy and delivery, preparations for delivery, and utilization of skilled birth attendants in Nigeria," Journal of Health Care for the Poor and Underserved, vol. 24, no. 1, pp. 152–170, 2013.