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Original Research Article

Awareness of danger signs during pregnancy, labour, child birth and during the first seven days of life attending antenatal care at KAMSRC

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ABSTRACT

Background: The main objective of this study was to assess the awareness of danger signs during pregnancy, labour, child birth and during the first seven days of life among the antenatal women attending the OPD of Kamineni Academy of Medical Sciences and Research Centre.

Methods: This was a cross sectional observational study. 200 antenatal women were assessed during the two months study period who attended the antenatal care.

Results: 73.5% of the respondents knew at least one danger sign during pregnancy, 67.5% respondents knew at least one danger sign during labour and 65% of the respondents knew at least one danger sign of New born.

Conclusions: Knowledge of signs of danger in pregnancy, during labour and delivery, and new born was low.

Keywords: Child birth, Danger signs, Labour, Newborn, Pregnancy

INTRODUCTION

Pregnancy is a very important event from both social and medical points of view. Therefore, pregnant women should receive special care and attention from the family, community and from the health care system. The major goal of focused antenatal care is to help women maintain normal pregnancies through: health promotion and disease prevention, early detection and treatment of complications and existing diseases and birth preparedness and complication readiness planning.¹

An important aspect of assessing birth preparedness and complication readiness is measuring spontaneous knowledge of essential danger signs of obstetric and newborn complications. Spontaneous knowledge refers to the respondent's naming a sign without being asked about that sign by name.

The danger signs specified below were selected as key because they are common, easy to recognize, and associated with a potentially severe problem.

Danger signs are not the actual obstetric complications, but symptoms that are easily identified by non-clinical personnel. Knowledge of the danger signs of obstetric complications is the essential first step in the appropriate and timely referral to essential obstetric care. Similarly, because most babies are born at home or are discharged from the hospital in the first 24 hours, increasing community awareness of the danger signs of newborn is of critical importance for improving their survival.

Key danger signs during the postpartum is defined as those beginning after the delivery of the placenta and continuing until 6 weeks after the birth.

The key danger signs in the newborn are focused on those signs that indicate problems most likely to occur during the first 7 days of the newborn's life since almost two-thirds of neonatal deaths occur during the first week after birth.²

Maternal morbidity and mortality could be prevented significantly if women and their families recognize obstetric danger signs and promptly seek health care. The commonest danger signs during pregnancy include severe vaginal bleeding, swollen hands/face and blurred vision. Key danger signs during labour and childbirth include severe vaginal bleeding, prolonged labour, convulsions, and retained placenta. Danger signs during the postpartum period include severe bleeding following childbirth, loss of consciousness after childbirth, and fever. Raising awareness of pregnant women on the danger signs would improve early detection of problems and reduces the delay in deciding to seek obstetric care.^{3,4} Thus one of the key strategies for reducing maternal mortality is increasing knowledge of the obstetric danger signs among women, family and community at large.⁵

This study aims to fill this gap by assessing the current level of women's knowledge and associated factors of obstetric danger signs among pregnant women attending the OPD of Kamineni Academy of Medical Sciences and Research Centre.

METHODS

Study design: This was a cross sectional observational study. Sample size: 200 Pregnant women who attended antenatal clinics at Kamineni Academy of Medical Sciences and Research Centre. Study period: All the pregnant women who attended OPD during the two months study period. Place of study: Kamineni Academy of Medical Sciences and Research Centre, located in Hyderabad.

Sampling technique

All antenatal women who gave their informed consent were recruited into the study until the desired number was reached. Information was collected and recorded as in the proforma / questionnaire.

Data collection

A semi-structured, interviewer administered questionnaire was used to obtain data from recruited women. Trained assistants helped the women on vernacular translation of the key words in the research and record keeping. The interview scheduled was translated from English to Telugu/Hindi to improve the validity and reliability. The interviews were periodically evaluated and relevant modifications were carried out. Data obtained from respondents included socio-demographic data namely; age, marital status, parity, educational status, occupation. The other section of the

questionnaire contained questions that assessed their knowledge of signs of severe illness in pregnancy, danger signs in labour and newborn.

The questionnaire contained questions that assessed knowledge of signs of severe illness in pregnancy, labour and childbirth, and in the newborn. Severe vaginal bleeding, swollen hands/face and blurred vision were considered as key danger signs of pregnancy. Severe vaginal bleeding, prolonged labour, convulsions, and retained placenta were considered as key danger signs of labour. Key danger signs of neonates were convulsion, difficult/fast breathing, very small baby, lethargy/unconsciousness, and unable to suck/drink during first 7 days of life.

Data entry and statistical analysis

Data collected was cleaned and edited manually with the aid of the computer. Frequency distributions of all relevant variables were presented in tables and charts for easy appreciation. Tests of statistical significance using chi-square were conducted using IBM SPSS version 16.0 software package with accepted level of statistical significance set at p value <0.05.

RESULTS

Table 1: Knowledge of danger signs in pregnancy.

Knowledge assessed	Frequency (n=200)	%
Vaginal bleeding	78	39.00
Abnormal vaginal discharge	48	24.00
Fever	67	33.50
Severe headache	56	28.00
Trouble with vision	44	22.00
Leg swelling	55	27.50
Convulsions	78	39.00
Reduced fetal movement	43	21.50
Water leak without pain	40	20.00
Abdominal pain	36	18.00
Don't know	53	26.00

Table 2: Knowledge of danger signs in labour and child birth.

Knowledge assessed	Frequency (n=200)	%
Severe bleeding	72	36.00
Severe Headache	66	33.00
Convulsions	97	48.50
High fever	78	39.00
Labour lasting more than 24 hours	47	23.50
Placenta not delivered in 30 minutes after delivery	33	16.50
Don't know	65	32.50

Table 1 showed the knowledge of danger signs in pregnancy. Among the 200 antenatal women, 39% were aware of vaginal bleeding and convulsions, 33.5% reported fever. 28%, 27.5% were aware of severe head ache and leg swellings respectively, whereas only 20% and 18% of the women could tell about reduced fetal movements and water leak without pain respectively. Table 2 showed the knowledge of danger signs in labour and child birth. 48.5% of the women reported convulsions of the danger signs, 39% reported high fever and 36% severe bleeding. Only 16.5 % were aware of placenta not delivered in 30 minutes after delivery. Table 3 showed the knowledge of danger signs in the new born. 44% of the women reported jaundice as the danger sign, 38% reported convulsions, 36.5% poor sucking.

Table 3: Knowledge of serious health problems to child that can occur during the first 7 days after delivery.

Knowledge assessed	Frequency (n=200)	%
Difficult or fast breathing	62	31.00
Yellow colour of skin or Eye (jaundice)	88	44.00
Poor sucking or feeding	73	36.50
Convulsion	76	38.00
Swollen eyes with pus	47	23.50
Don't know	70	35.00

Table 4: Perceptions regarding danger signs in relation to age.

Variable Category	Age			P value
	<= 20 years (n = 25)	21-30 years (n= 161)	>=31 years (n = 14)	
Knowledge about at least one danger sign of pregnancy	15(60%)	121(75.15%)	11(78.57%)	0.252776
Knowledge about at least one danger sign of labour	13(52%)	112(69.56%)	10(71.43%)	0.20707
Knowledge about at least one danger sign of new born	12(48%)	107(66.46%)	11(78.57%)	0.107528

Table 5: Perceptions regarding danger signs in relation to parity.

Variable Category	Parity		P value
	Primi para (n = 70)	Multi para (n= 130)	
Knowledge about at least one danger sign of pregnancy	53(75.71%)	94(72.30%)	0.602662
Knowledge about at least one danger sign of labour and child birth	47(67.14%)	88(67.69%)	0.937239
Knowledge about at least one danger sign of new born	47(67.14%)	83(63.85%)	0.641105

Table 6: Perceptions regarding danger signs in relation to socio-economic status.

Variable Category	Socio economic status					P value
	Upper Class (n=35)	Upper Middle Class (n= 146)	Lower Middle Class (n=12)	Upper Lower Class (n=6)	Lower Class (n=1)	
Knowledge about at least one danger sign of pregnancy	30(85.71%)	109(74.65%)	6(50%)	2(33.33%)	0(0%)	0.000775
Knowledge about at least one danger sign of labour	28(80%)	99(67.80%)	6(50%)	2(33.33%)	0(0%)	0.006669
Knowledge about at least one danger sign of new born	28(80%)	95(65.06%)	5(41.66%)	2(33.33%)	0(0%)	0.008063

Table 4 showed the perceptions regarding danger signs in relation to age. The whole 200 pregnant women were divided in to three categories <= 20, 21 to 30, >=31 years. This table showed that women >= 31 years had better knowledge when compared to the women of the other two categories. Table 5 showed the perception of danger signs in relation to parity. The whole 200 pregnant women were divided into two categories namely primi

para and multi para. Primi para had better knowledge when compared to multi para.

Table 6 showed the perception of danger signs in relation to socio-economic status. The 200 women were divided into five categories namely upper class, upper middle class, lower middle class, upper lower class, lower class. Women belonging to the upper class had better

knowledge when compared to women of the other classes.

This study showed that the proportion of respondents aware of at least one key danger sign each of pregnancy, labour and newborn were 73.5%, 67.5%, and 65%, respectively. The socio-demographic, individual, and health service-related factors under study did not have any significant association with participants' knowledge on all key danger signs, but have significant association with knowledge of at least one key danger sign.

On further analysis, it was found that not a single respondent could enumerate all key danger signs of pregnancy, labour, or newborn.

DISCUSSION

Knowledge of danger signs of obstetric complications during pregnancy, labour and first seven days of life is the first essential step for appropriate and timely referral. The findings of this study provided information on pregnant women's knowledge about obstetric danger signs, which could help in designing appropriate interventions and as a base for further wide scale studies.

73.5% of the respondents knew at least one danger sign during pregnancy, which is lower when compared to Siddharth Agarwal et al, Indore city (79.2%), Mukhopadhyay et al, West Bengal (75%).^{6,7} In this study about 39% of the study subjects mentioned vaginal bleeding as the key danger sign during pregnancy.

8.5% knew of three danger signs, compared to 12% in AnneNjelita et al, Nigeria, 19% in Per-OlofOstergren et al, rural Uganda.^{8,9}

67.5% respondents knew at least one danger sign during labour, which is less when compared to 78.5% in Siddharth Agarwal et al, Indore city, high when compared to Mukhopadhyay et al, West Bengal (20.6%).^{6,7} Key danger signs during labour and childbirth are severe vaginal bleeding, prolonged labour, convulsions, and retained placenta. In this study a proportion of pregnant women, who mentioned convulsions as a danger sign during labour and childbirth was 48.5%. The proportion of the study subjects who mentioned severe bleeding as a danger sign was 36%.

The finding that 65% of the respondents knew at least one danger sign of New born, which is lower when compared to Siddharth Agarwal et al, Indore city (82.1%) and higher when compared to Mukhopadhyay et al, West Bengal (37.2%).^{6,7} 44% of the women reported jaundice as the danger sign, while 38% reported convulsions and 36.5% reported poor sucking as the key danger signs of newborn.

Being urban resident was found to have a significant association with mentioning at least two danger signs

during pregnancy, child birth and first seven days of life. This could be due to the fact that urban residents have better access to health information and maternal health services as compared with rural counterparts.¹⁰

This study shows that the respondents knowledge of danger signs was quite low and this is indeed worrisome. This brings to the fore the content and quality of health education and counselling services provided by health care workers during antenatal clinic sessions. They are ignorant of the importance and benefits of the health education sessions hence they do not avail themselves the opportunity of participating in the sessions.

In general, this study showed that significant proportion of the pregnant women were unaware of obstetric danger signs. This indicates that the large proportion of women who do not have the knowledge are likely to delay in deciding to seek care.

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