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Awareness of Obstetric Danger Signs among Husbands in Outpatient Department of Obstetrics and Gynaecology at King Abdulaziz University Hospital (KAUH), Jeddah, Saudi Arabia in September 2015. (Cross-Sectional Study)

Ayman A Bakhari[1]*, Ahmad MS Almrstani[1], Osama S Bajouh[1], Abdullah F Alahmari[2], Ziyad T Alzahrani[2] and Rayan M Alghamdi[2]

[1]Obstetrics and Gynaecology, King Abdulaziz University, Saudi Arabia

[2]Faculty of Medicine, King Abdulaziz University, Saudi Arabia

***Corresponding Author:** Ayman A Bakhari, Department of Obstetrics and Gynaecology, Faculty of Medicine, King Abdulaziz University, Saudi Arabia.

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Abstract

Objective: The aim of the study was to assess awareness of obstetric danger signs among husbands who attended outpatient department of Obstetrics and gynecology at King Abdulaziz University Hospital, Jeddah, Saudi Arabia in September 2015.

Methods: A cross sectional descriptive community survey was done at the outpatient department of Obstetrics and Gynaecology at King Abdulaziz University Hospital. Participants were husbands accompanying patients attending outpatient department of Obstetrics and Gynaecology at King Abdulaziz University Hospital. The study was conducted over a period of two weeks in September 2015.

Results: Out of the 140 husbands were asked to participate, 5 husbands refused participation. One-hundred-and-thirty-five husbands volunteered to be in the study, making the response rate 96.5%. Knowledge and perception toward obstetric danger signs: doctors were the predominant source of information to 31.9% of husbands. The awareness score was made as follows, husbands who mentioned three or more obstetric danger signs were labeled as aware whereas husbands who mentioned less than three were labeled as not aware. Sixty percent of husbands could mention three or more obstetric danger signs during pregnancy, only 31.9% during labor and 42.2% in the period of two days after giving birth.

Conclusions: Husbands' awareness of obstetric danger signs in labor and two days after labor were low in comparison with their awareness in the pregnancy period. Thus, more effort needs to be done to educate husbands through couples' classes, social media and to involve husbands in the antenatal care visits.

Keywords: *Danger signs; Husbands' awareness; Couples' classes; KAUH; Antenatal care*

Abbreviations: KAUH: King Abdulaziz Hospital

Introduction

Maternal mortality is a serious global health issue despite the decrease in its ratio in the last 2 decades [1] .Over the years in Saudi Arabia, it was estimated that in 1990 the maternal mortality ratio was41 and in 2013 it was 16 (per 100.000 live births) [2]. Even though the maternal mortality was declining, the target set by the Millennium Development Goal (MDG) 5, which aimed to decrease the maternal mortality ratio by three quarters by 2015, was not met yet in Western Asia, thus more effort needs to be done for the goal to be reached [3]. The dominant causes of maternal deaths are hemorrhage, hypertensive disorders and sepsis [4]. The most influential, decisive and

decision-maker for a pregnant woman to seek medical attention in most societies is the husband [5]. Therefore, the role of husbands is crucial in deciding the fate of their pregnant wives and the wellbeing of their expected newborns [6]. The husband's awareness of obstetric danger signs and his non-hesitant action towards minimizing their complications is essential [7,8]. There were no published studies in Saudi Arabia assessing the knowledge of obstetric danger signs among husbands, thus this study aimed to assess awareness of obstetric danger signs among husbands who attended outpatient department of Obstetrics and gynaecology at KAUH, Jeddah, Saudi Arabia in September 2015.

Materials and Methods

This study was carried out at the outpatient department of obstetrics and gynaecology at King Abdulaziz University Hospital (KAUH) in Jeddah, which is in the west region of Saudi Arabia. It was designed as a cross sectional descriptive community survey. Participants were husbands accompanying patients attending outpatient department of Obstetrics and Gynaecology at KAUH. The study was conducted over a period of two weeks in September 2015. These clinics ran four days per week and dealt approximately with 50 patients per day, almost more than half of them were accompanied by a male companion. Sample size was calculated using Raosoft® website to be 140. Eligibility criteria included husbands accompanying patients who attended outpatient clinic of Obstetrics and Gynaecology at KAUH and all legible husbands were recruited. Data were assembled by three medical students who were trained to interview the husbands; each interview takes from 3 to 5 minutes. An informed consent was taken after explaining to the husbands the aim of the study and that all of their information will be confidential. A pre-tested structured interviewer-administered questionnaire made by Johns Hopkins program for international education in gynaecology and obstetrics (JHPIEGO) was used to collect the data and was modified for the Saudi context. [5] The questionnaire consisted of questions about husbands' sociodemographic characteristics, reproductive information, their general knowledge and perception toward obstetric danger signs and to name them spontaneously during pregnancy, labor and postpartum (during the first two days after giving birth). Data were collected via an electronic survey (google® form) and were analyzed by Statistical Package for the Social Sciences (SPSS) version 22. Pilot study was conducted among 10% of targeted population and some changes were done, such as: the variable type of age of husbands was changed from an interval variable to a continuous variable. The outpatient department had two waiting areas, one for females and one for males, the data were collected from the male side. The Research Ethics Committee in King Abdulaziz University gave the approval for this study.

Results

Sociodemographic and reproductive characteristics: out of the 140 husbands were asked to participate, 5 husbands refused participation. One-hundred-and-thirty-five husbands volunteered to be in the study, making the response rate 96.5%. The mean age was 39 years with standard deviation of 8.6. Two-thirds of them had bachelor's degree. More than 95% of them had one wife while less than 5% had two. Saudis accounted for 82.2% while Non-Saudis made up 17.8% of the total number of husbands. Only 11.1% were Healthcare Employees. 52.2% earned a monthly income more than 10.000 Saudi Riyals. Results related to successful completed pregnancy were; (12.6%) having no pregnancies, (60.7%) having 1-4 successful pregnancies and (26.7%) having more than 4. Thirty eight of their wives, 28.1%, were pregnant at the time of data collection, 28.9% were pregnant in a period of two years or less, 35.6% were pregnant in more than two years while 7.4% had never been pregnant. Husbands who had accompanied their wives to the antenatal care clinic in their last pregnancy were equal to89.6%. Obstetric complications of their wives were found to be 24.4% in their last pregnancy. Table 1

Knowledge and perception toward obstetric danger signs: doctors were the predominant source of information to 31.9% of husbands followed by family and relatives 20%, the internet 14.8% while 24.4% reported not having enough information about the subject. Husbands who believed in the presence of pregnancy-related problems which they could endanger pregnant women's lives were 91.1%.The awareness score was made as follows, husbands who mentioned three or more obstetric danger signs were labeled as aware whereas husbands who mentioned less than three were labeled as not aware. Sixty percent of husbands could mention three or more obstetric danger signs during pregnancy, only 31.9% during labor and 42.2% in the period of two days after giving birth. When husbands were asked about the danger signs during pregnancy, labor and two days after giving birth, 74.8%, 64.4% and 63.7% mentioned bleeding, respectively. During pregnancy, 63% mentioned severe abdominal pain and 37.8% mentioned water breaking before labor. During

labor, almost 30% of husbands mentioned labor lasting more than 12 hours and placenta not delivered within 30 minutes after delivery of baby. In the two days period after giving birth 40.7% mentioned high fever and 32.6% mentioned severe weakness. (Table 2)

Characteristics		Number N = 135	%
Age in years, mean (SD)a		39.1(8.6)	
Marital Status	Married	135	100.0%
Nationality	Saudi	111	82.2%
	Non-Saudi	24	17.8%
Number of Wives	1	129	95.6%
	2	6	4.4%
Number of Successful Completed Pregnancy	0	17	
	1-4	82	
	More than 4	36	
Number of Abortions	0	80	
	1- 4	55	
	More than 4	15	
Wives' Current Pregnancy Status	Currently pregnant	38	28.1%
	Pregnant in a period of one year or less	24	17.8%
	Pregnant in a period of less than or equal to two years and more than one year	15	11.1%
	Pregnant in a period more than two years	48	35.6%
	Never been pregnant	10	7.4%
Education Level	Primary education	3	2.2%
	Intermediate education	8	5.9%
	Secondary education	25	18.5%
	Bachelor's degree	84	62.2%
	Postgraduate degree	15	11.1%
Occupation	Healthcare employee	15	11.1%
	Non-healthcare employee	92	68.1%
	Others	28	20.7%
Residency Type	Villa	28	20.7%
	Apartment	95	70.4%
	Slum	10	7.4%
	Others	2	1.5%
Housing Tenure	Owned	64	47.4%
	Rented	71	52.6%
Monthly Income	Less than 2000	2	1.5%
	2000-5000	16	11.9%
	More than 5000-10.000	46	34.1%
	More than 10.000-20.000	51	37.8%
	More than 20.000	20	14.8%

Region Of Residence	North of Jeddah	37	27.4%
	South of Jeddah	24	17.8%
	East of Jeddah	26	19.3%
	West of Jeddah	4	3.0%
	Downtown	11	8.1%
	Outside Jeddah	33	24.4%
Accompanied Wife to Antenatal Clinic in Previous Pregnancy	Yes	121	89.6%
	No	4	3.0%
	Never been pregnant	10	7.4%
Obstetric Complication in Previous Pregnancy	Yes	33	24.4%
	No	92	68.1%
	Never been pregnant	10	7.4%
Place of Delivery in Previous Pregnancy	University hospital	17	12.6%
	Governmental hospital	39	28.9%
	Private hospital	58	43.0%
	Private clinic	1	0.7%
	Polyclinic	3	2.2%
	Never gave birth	17	12.6%
Source of Information Regarding Obstetric Danger Signs	Doctor	43	31.9%
	Family and relatives	27	20.0%
	Internet	20	14.8%
	Books and magazines	8	5.9%
	audiovisual media	4	3.0%
	No information	33	24.4%
Perception Towards Obstetric Danger Signs	Yes	123	91.1%
	No	12	8.9%

Table 1: *Sociodemographic and Reproductive Characteristics.*

Obstetric danger sign	Number N = 135	%
During Pregnancy		
Bleeding	101	74.8%
Severe headache	26	19.3%
Blurred vision	24	17.8%
Convulsions	28	20.7%
High fever	35	25.9%
Loss of consciousness	40	29.6%
Difficulty breathing	42	31.1%
Severe weakness	45	33.3%
Severe abdominal pain	85	63.0%
Reduced fetal movement	42	31.1%

Water breaks without labor	51	37.8%
During Labor		
Bleeding	87	64.4%
Severe headache	17	12.6%
Convulsions	28	20.7%
High fever	27	20.0%
Loss of consciousness	35	25.9%
Labor lasting > 12 hours	48	35.6%
Placenta not delivered 30 minutes after baby	37	27.4%
During Postpartum		
Bleeding	86	63.7%
Severe headache	22	16.3%
Blurred vision	21	15.6%
Convulsions	19	14.1%
High fever	55	40.7%
Loss of consciousness	33	24.4%
Difficulty breathing	37	27.4%
Severe weakness	44	32.6%
Malodorous vaginal discharge	39	28.9%
Multiple responses possible.		

Table 2: *Husbands' knowledge of danger signs during pregnancy, labor and postpartum.*

Factors associated with awareness of obstetric danger signs: a chi square analysis of sociodemographic characteristics was put against awareness of obstetric danger signs during pregnancy, labor and two days after labor. During the pregnancy period, awareness was significantly related to nationality ($P < 0.0001$), wives' current status of pregnancy ($P < 0.024$) and obstetric complication in previous pregnancy ($P < 0.026$). Furthermore, during labor, awareness was significantly related to nationality ($P < 0.025$), wives' current status of pregnancy ($P < 0.001$) and occupation ($P < 0.035$). The awareness during two days after labor was significantly related to nationality ($P < 0.001$), wives' current status of pregnancy ($P < 0.001$) and obstetric complication in previous pregnancy ($P < 0.027$).

Discussion

This study turned the spotlight on the level of awareness of obstetric danger signs between husbands. It showed that the awareness of husbands towards obstetric danger signs during pregnancy was significantly higher (60% of husbands) in comparison with their awareness during labor (31.9%) and two days after labor (42.2%) which could be explained by the fact that husbands whom their wives were pregnant or had been pregnant (92.5%) were more aware than those who had never been pregnant (7.5%). Furthermore, this study found that around 79% of husbands whom their wives had complications during previous pregnancies were aware. It's known that antenatal care have a positive impact on the maternal and perinatal health [9] which is a reassuring fact since almost 90% of husbands in this study went with their wives to the antenatal care clinic in their last pregnancy, this might have had a hand in increasing the awareness of husbands about the obstetric danger signs during the pregnancy period, although this association was not statistically significant, perhaps due to the small sample size of this study. Bleeding was mentioned in this study as an obstetric danger sign in the pregnancy period by around three quarters of interviewed husbands, in contrast with two studies done in Tanzania (10.1%) and Nigeria (11.6%). [10,11] In comparison with the study published in Tanzana, the awareness of convulsions (13.9%), severe headache (4%) and loss of consciousness (1.8%) in labor were low similarly to the findings of this study. [11]

Limitations

Regarding this study's limitations, there were few worth stating. Respondents who were waiting for long hours due to the large number of patients attending the obstetrics and gynaecology clinic made them stressed and to some extent, unable to recall enough information about what was asked.

Conclusion

Husbands' awareness of obstetric danger signs in labor and two days after labor were low in comparison with their awareness in the pregnancy period. Thus, more effort needs to be done to educate husbands through couples' classes, social media and to involve husbands in the antenatal care visits with their wives so that they start recognizing the obstetric danger signs as soon as it occur and seek medical advice as soon as possible.

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