

**Assessment of husband’s awareness about Birth Preparedness and Complication Readiness (BPCR) in Surat city:**

**A Cross Sectional Study**

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**Abstract**

**Background:** Maternal death is caused by a wide range of problems which range from antenatal period to postnatal period. Understanding of these by not only the mother but also her husband is essential to counter this issue. Birth preparedness estimation gives us an idea in this regard. Increasing husband’s awareness about birth preparedness and complication readiness is crucial to ensure maternal and new-born survival.

**Methods:** A cross sectional survey was conducted among 104 men who accompanied their pregnant or newly delivered wives at the department associated

study centres. A semi-structured questionnaire was used to collect data.

**Results:** Mean age of the participants was 27.3 + 5.6 years with majority of them educated at the level of Class X or below. 74 participants had pregnant spouse while others had partners in postnatal period. Around three-fourth of the participants (73.1%) had identified their place of delivery beforehand. Bleeding was the most known complication among the participants at all phases of delivery; 65.4% in antenatal period, 72.1% during delivery and 70.2% in postnatal period. More than half the participants have identified skilled birth attendant (51.9%) and health facility (51.0%) as a part of

Complication readiness. Previous history of spouse's pregnancy had significant association with awareness about prompt actions required during complications. Education and awareness about complications had a significant association.

**Conclusions:** Strengthening communication with partners would reduce Maternal Mortality by early diagnosis and prompt management. There is still a great scope and necessity of improving husband's awareness and participation in antenatal care and childbirth.

**Keywords:** Awareness, Antenatal care, birth preparedness, complication readiness.

### **Introduction**

Despite the progress, in most of the developing countries, maternal mortality still continues to be the most important challenge. Involvement of husbands in birth preparedness and complication readiness can notably decrease these challenges (1). The main identified factor for this problem is lack of application of knowledge and delayed action. Emergency without preparedness leads to superfluous expenditure of both money and time which ultimately raises Maternal Mortality (1).

Birth preparedness and complication readiness is a tool which aims to promote timely access for maternal and neonatal services (2). It constitutes awareness about the danger signs, planning for a birth attendant and its location, arrangement of transportation, identifying a blood donor, and saving money in case of an obstetric complication (3). Direct obstetric causes are observed in 50-98% maternal deaths. (This includes haemorrhage, infection, and hypertensive disorders, ruptured uterus, hepatitis and anaemia). 50% of maternal deaths due to sepsis are related to illegal induced abortion (4).

Gize et al. conducted a study which revealed that educational status of men and monthly income was significantly associated with birth preparedness (5). Hilut et al. conducted a study which showed that parity and birth preparedness and complication readiness are significantly associated (6). Rahman et al. conducted study which showed positive association of women received ANC from a medically trained provider, birth at a health facility and receiving PNC from a medically trained provider with husbands accompanying their wives (7).

Similar studies are very rare in India as maternal mortality is focused upon by actions and interventions among mothers. As developing country focus should also be upon the partners who play a very significant role in this regard.

The study was conducted at rural field area attached to Medical College to assess husband's awareness about Birth Preparedness and Complication Readiness (BPCR) among participants who were coming to the centre.

Objectives of this study are to study sociodemographic profile of participants, to document awareness about unplanned problems that can occur during pregnancy, delivery or after delivery and to assess the association between different variables.

### **Materials and Methods**

**Study design:** Cross-sectional study

**Study setting:** Department associated study center

**Study participants:** Study was done for 3 months. Participants were men who accompanied their pregnant or newly delivered wives at department associated RHTC were selected consecutively for this study.

**Sampling type:** Consecutive sampling

**Study duration:** September 2020 to February 2021.

**Study tool:** A predesigned and pretested questionnaire

was used. The questionnaire consisted of 4 parts: Socio demographic factors, awareness about unplanned problems that can occur during pregnancy, delivery or after delivery, arrangements made for pregnancy and delivery and health care seeking behavior for any complication.

**Ethical consideration:** Verbal consent was taken from the participants after they were explained about the study in a language they could understand.

**Statistical Analysis:** Data was entered in MS Excel and analysis was done in Open Epi software. Significance was considered at alpha < 0.05 and 95% Confidence Interval. Chi square test was used to explore relationships between categorical variables.

**Results**

**Socio Demographic Characteristics**

Mean age of the participants was 27.3 + 5.6 years. Mean salary of the participants was Rs 15,590 + 8699. Average family size was 5 in the population under study. Other characteristics have been presented in Table 1.

Table 1: Sociodemographic characteristics of participants (n=104)

Sn.	Variable	Category	Frequency
1.	Age (in years)	18-20	17
		21-25	37
		26-30	40
		>30	10
2.	Education	Illiterate	8
		Primary & Secondary	48
		Higher secondary	27
		Graduate	21
3.	Occupation	Employed	101
		Unemployed	03

**Awareness about danger signs**

Vaginal bleeding was most known danger sign among all: antenatal, intranatal and postnatal periods. All characters have been mentioned in Table 2 in detail. Others include breathing difficulty, accelerated/reduced fetal movement, water breaks without labor, severe headache, prolonged labor, delayed placental delivery, malodorous vaginal discharge and severe weakness.

Table 2: Participant’s awareness of obstetrical danger signs (n=104) (Multiple responses considered)

Danger signs	ANC	During labor	PNC
Bleeding	68	75	73
Convulsion	17	03	03
Fever	22	01	12
Loss of consciousness	06	07	01
Others	43	64	50

Awareness of prompt action in case of complication was significantly associated with his spouse’s previous pregnancy in Table 3.

Table 3: Association between awareness about prompt action in case of complication and previous history of spouse’s pregnancy (n=104)

Previous history of spouse’s pregnancy	Awareness about prompt action in case of complication		Chi square value	p-Value
	Yes	No		
Yes	55 (75.3%)	18 (24.7%)	14.91	<0.01
No	11 (35.5%)	20 (64.5%)		

Awareness about complications was also significantly associated with education of participants in Table 4.

Table 4: Association between awareness about complications and education (n=104)

Education	Awareness about complications		Chi square value	p-Value
	Yes	No		
Illiterate	5 (33.3%)	10 (66.7%)	19.68	<0.01
Primary and Secondary	12 (32.4%)	25 (67.6%)		
Higher secondary	22 (81.5%)	5 (18.5%)		
Graduate and above	17 (68.0%)	8 (32.0%)		

A total of 104 men were involved in the study. Out of them three fourth (73.1%) had identified the place of delivery beforehand. Only (11.5%) of participants had saved money. Identification of blood donor is least arranged factor among study participants.

Around half of the participants had identified skilled birth attendant (51.9%), health facility (51.0%) and personally accompanied their wives to the hospital (52.9%) for complication readiness. Only (3.8%) participants have given permission to their wives to attend hospital by herself.

**Discussion**

This study identified different elements in the husband’s involvement in birth preparedness and complication readiness. Majority of the participants (93.0%) were having education of primary and above similar to study done by Baraki et al.(86.0%) (1). Majority of participants (73.0%) had identified the place of delivery beforehand. Only one of ten participants (11.0%) had saved money which is less than the study done by Falade-Fatila et al. (8) and Iliyasa et al. (9) where majority of participants had saved money. This may be

due to the fact that this study was done in a government setup, which provides free care and hence participants are not concerned about monetary savings. High fever was the most known factor during pregnancy among participants in study of Tanzania (10) which differs from our study as bleeding is most known factor in this study which may be due to geographical diversity.

**Limitations and Strengths**

As this is a cross sectional study, there is no possibility of providing a causal relationship between being well prepared and other characters. The responses were given by the participants hence they might be socially desirable responses. However this was countered by the data collector who asked each participant to give truthful response. This is a novel study which looks into husband’s knowledge and preparedness which is sometimes overlooked in a patriarchal society.

**Conclusion and Recommendations**

The only obstetrics danger sign recognized by most participants was vaginal bleeding and overall, participants showed less involvement in identifying blood donor for their wives during antenatal, delivery and postpartum care. Participant had knowledge on many of birth preparedness and complication readiness elements during pregnancy with the exception of knowledge on arranging blood donation and loss of consciousness. This study showed a strong association between previous history of birth and awareness of prompt action in case of complication and Education and Awareness of Complications. Hence, it is recommended to counsel the spouse along with the pregnant women in the maternal care. Awareness increase through mass media and campaigning is recommended. It is recommended to give special focus on utilization of postnatal care to improve the low level of knowledge in

the post- partum period, where most of maternal mortalities occur, as compared to the ante-partum and intra-partum period. It is also important to increase men's awareness on the possible need for blood donation during delivery and postnatal care.

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