AWARENESS OF HUSBANDS REGARDING BIRTH PREPAREDNESS AND COMPLICATION READINESS IN DISTRICT RAWALPINDI

Rehma Gilani, Naila Azam*, Javeria Kamran, Siddra Ihsan***, Rabia Atif***

National University of Medical Sciences (NUMS) Rawalpindi Pakistan, *Armed Forces Post Graduate Medical Institute/National University of Medical Sciences (NUMS) Rawalpindi Pakistan, **Armed Forces Institute of Cardiology National University of Medical Sciences (NUMS) Rawalpindi Pakistan, ***Armed Forces Bone Marrow Transplant Center/National University of Medical Sciences (NUMS) Rawalpindi Pakistan

ABSTRACT

Objective: To determine knowledge, attitude and practices of husbands regarding birth preparedness and complication readiness.
Study Design: Descriptive Cross-sectional study.
Place and Duration of Study: Tehsil Kallar Sayden, Rawalpindi district, from Jul 2016 to Dec 2016.
Material and Methods: Data was collected using a pre-structured questionnaire from 450 husbands of 20 to 55 years age group through multi stage sampling.
Results: Statistical analysis showed 370 (83%) husbands had adequate knowledge, 425 (95%) had positive attitude while only 246 (55%) husbands had good practices. Socio-demographic characteristics of husbands showed statistical association with their knowledge and practices.
Conclusion: The study identified barriers responsible for the gaps between knowledge and practices of husbands regarding birth preparedness and complication readiness and proposes recommendation for engagement of men in maternal health.

Keywords: Birth preparedness, Complication readiness, Husband participation, Maternal mortality.

INTRODUCTION

Millennium development goal five A and most recently, Sustainable developmental goal in 2016, targets to reduce maternal mortality by three quarters. However, the fact is that about 830 women are dying each day globally and 303,000 each year in the process of giving life. Sub-Saharan Africa with MMR of 510/100,000 of live births and South Asia with ratio of 190/100,000 of live birth, account for 86% of the maternal deaths globally[1]. Literature shows that major contributory factor for high maternal deaths in developing countries are from delays in deciding to seek care, in reaching to health care facilities and in receiving adequate care at health center[2].

Men play a fundamental role in patriarchal societies. As husbands they exhibit dominance in reproductive choices, mainly by holding financial power and influencing health seeking behavior[3]. But they are often unable to make informed choices because of limited place in reproductive, maternal and child health services. This facet of men as key decision maker is globally acknowledged but the actual progress towards engagement of men has been slow[4]. The evidence suggests that engaging men in services contributes to substantial improvements in maternal wellbeing, supports uptake and use of family planning and long-term contraceptive[4-8].

Birth preparedness and complication readiness (BP/CR) is a strategy employed in implementing safe motherhood program. This approach promotes utilization of skilled maternal and neonatal care on the assumption that preparing for childbirth and being ready for complications reduces all three phases of delays in obtaining care[9]. It is aimed at promoting timely access to skilled maternal and neonatal services by making a birth plan involving pregnant women, their spouses and families[10]. The birth plan incorporates essential components including

Correspondence: Dr Rehma Gilani, National University of Medical Sciences (NUMS) Rawalpindi Pakistan,
Email: rehma.gilani@gmail.com

recognition of danger signs, plan for a birth attendant, place of delivery and saving money for transport or other costs[11]. In addition, a potential blood donor and a decision-maker need to be identified[10]. This package is an important strategy in developing countries because their weak health systems make obstetric services ineffective[12].

The situation in Pakistan is alarming with a high MMR of 170 per 100,000 of live births[13]. It is influenced by multiple factors including cultural values and limited empowerment of women in the society. Given the role of men as decision maker at household and leaders at community, their involvement and participation are often marginalized in maternal health services and are provided with limited access to basic knowledge, thus narrowing their capacity to make informed choices and decisions.

In this context, husband's knowledge of danger signs and their attitude and practices towards BP/CR is understudied in Pakistan. Recognizing its importance, the aim of this study is to contribute in greater understanding of engaging men as an effective strategy in maternal health. The findings will help policy makers and health professionals to give priority to the important role of men in reducing maternal mortality. The objectives of the study are to determine knowledge, attitude and practices of husbands regarding birth preparedness and complication readiness, to find association of socio-demographic characteristics with knowledge, attitude and practices of husbands and to assess barriers against husband's involvement in maternal health.

MATERIAL AND METHODS

Community based cross sectional study was conducted among 450 husbands of age group 20–55 years at Mian Mohra village, Manyanda union council, Sir Suba Shah town, tehsil Kallar Sayden, district Rawalpindi, from July to December 2016. Tehsil Kallar Sayden comprises of eleven Union councils, each having 35-45 villages. There are nine basic health units (BHU) and one tehsil hospital in Kallar Sayden. Mian Mohra is located about 36 km south-east of Islamabad, the country's capital town.

The sample size of 450 husbands was determined using the formula for single population proportion based on assumption of fixed alpha at 0.05 (95% confidence) which is 1.96, degree of accuracy/allowable error at 0.05 (5%) and 50% proportion of knowledge about birth preparedness and complication readiness among males, considering a non-response rate of 10%. The study employed multi stage sampling to identify the study units. Based on the catchment area of basic health units, Sir Suba Shah was selected by simple random technique. It has five health houses, each having 110-120 families (khandhan) registered with the lady health worker. The final sample of 450 was selected through computer generated random numbers from the sampling frame of khandhan registers maintained at the health houses.

The data collection instrument was pretested, structured, interviewer administered questionnaire, adapted from survey tool developed by JPHIECO Maternal and Neonatal Health program[9], and modified in native language of respondents (Urdu). It comprises of close ended question with a single open-ended question about barriers against men's participation in maternal health. Lady health workers of the area were given technical training for data collection by the principle investigator. The questions were asked from respondents with standardized explanation in order to avoid misinterpretations of question by the respondents

Data was analyzed by using Statistical Package for Social Sciences (SPSS) version 22. The questions were scored to assess adequate or inadequate knowledge, positive or negative attitude and good or bad practices. Inferential statistics were calculated using chi square test to examine possible association of socio-demographic variables on the outcome of interest. A *p*-value<0.05 was taken as significant. The study was approved by the Institutional Ethical Review

Board AFPGMI. Participation in the study was voluntary and based on the ability of each person to give verbal informed consent. Participants were guaranteed confidentiality of the information and had the right to refuse participation or quit participation at any time during data collection of study.

RESULTS

Socio-demographic characteristics of study population

A total of 447 married men out of 450, were interviewed giving a response rate of 99.3%. The mean age of husbands was 38.69 ± 10.2 years, ranging between 20 to 55 years. The socio-demographic characteristics of study participants

Table-I: Socio demographic characteristics of respondents (husbands).

Sr. #	Characteristics	Frequency (n)	Percentage (%)
1	**Age at tim time of marriage**		
	< 18 years	47	10.5
	18 – 25 years	172	38.5
	26 – 30 years	182	40.7
	> 30 years	46	10.3
2	**Years of Marriage**		
	< 5 years	105	23.5
	5 – 10 years	150	33.6
	> 10 years	191	42.7
3	**Educational Status**		
	Never enrolled to school	46	10.3
	< 5 years	41	9.2
	5 – 10 years	147	32.9
	> 10 years	213	47.7
4	**Occupational Status**		
	Unemployed	22	4.9
	Employed	425	95.1
5	**Monthly Income**		
	<10,000	80	17.9
	10,000 – 20,000	167	37.4
	21,000 – 30,000	111	24.8
	>30,000	89	19.9
6	**Type of Family**		
	Joint	275	61.5
	Nuclear	171	38.3
7	**Total no. of Children**		
	No child	17	12.5
	< 3 children	221	34.2
	3 – 5 children	153	49.4
	> 5 children	56	3.8
8	**No. of Accompanied Antenatal Visits**		
	Never	67	15
	Once	70	15.7
	2 – 3 times	189	42.3
	> 3 times	120	26.8
9	**History of Obstetric Complication**		
	No	245	54.8
	Yes	202	45.2

(table-I) showed majority, 425 (95.1%) employed and 213 (47.7%) participants with more than ten years of education. The greater number, 275 (61.5%) husbands were living in joint family system and 167 (37.4%) were earning between PKR 10,000 to PKR 20,000 only (shown in table-I). (78.7%) husbands knew about transport planning for emergency and 349 (78.1%) knew blood donor arrangement as part of birth preparedness and complication readiness Knowledge of husbands regarding female age of conception showed that 92 (20.3%) husbands were aware of the

Table-II: Association between socio-demographic characteristics and knowledge, attitude and practices of respondents.

Demographic Characteristics	Knowledge frequency (%)		*p*-value	Attitude frequency (%)		*p*-value	Practice frequency (%)		*p*-value
	Adequate	Inadequate		Positive	Negative		Good	Bad	
Education <5 years >5 years	62(71.3) 308(85.6)	25(28.7) 52(14.4)	0.003	84(96.6) 341(94.7)	3(3.4) 19(5.3)	0.591	19(21.8) 182(50.6)	68(78.2) 178(49.4)	0.000
Employment Status Employed Unemployed	353(83.1) 17(77.3)	72(16.9) 5(22.7)	0.600	404(95.1) 21(95.5)	21(4.9) 1(4.5)	1.000	196(46) 5(22.7)	229(53.9) 17(77.3)	0.050
Socioeconomic Status Low SES Middle SES	196(79.4) 174(87)	51(20.6) 26(13)	0.045	232(93.9) 193(96.5)	15(6.1) 7(3.5)	00.300	17(77.3) 101(50.5)	17(77.3) 99(49.5)	0.040
Age at time of marriage <25 years >25 years	185(84.5) 185(81.1)	34(15.5) 43(18.9)	0.400	209(95.4) 216(94.7)	10(4.6) 12(5.3)	00.900	98(44.7) 103(45.2)	121(55.3) 125(54.8)	0.004
Duration of marriage <10 years >10 yeas	221(86.3) 149(78)	35(13.7) 42(22)	0.020	239(93.4) 186(97.4)	17(6.6) 5(2.6)	0.080	127(49.6) 74(38.7)	129(50.4) 117(61.3)	0.020
Type of Family Nucleus Joint	149(87.1) 220(80)	22(12.9) 55(20)	0.090	163(95.3) 261(94.9)	8(4.7) 14(5.1)	1.000	85(49.7) 116(42.2)	86(50.3) 159(57.8)	0.140
Total Children <3 children >3 children	198(83.2) 172(82.3)	40(16.8) 37(17.7)	0.900	225(94.5) 200(95.7)	13(5.5) 9(4.3)	0.700	118(49.6) 83(39.7)	120(50.4) 126(60.3)	0.040
Place of delivery Hospital Home	306(91.1) 64(57.7)	30(8.9) 47(42.3)	0.000	321(95.5) 104(93.7)	15(4.5) 7(6.3)	0.600	130(38.7) 71(64)	206(61.3) 40(36)	0.000
H/o ObsComplication Yes No	172(85.1) 198(81.1)	30(14.9) 47(42.3)	0.300	194(96) 230(94.3)	8(4) 14(5.7)	0.500	116(57.4) 84(34.4)	86(42.6) 160(65.6)	0.000
No. of Antenatal Visits None or <2 years >2 years	101(73.2) 269(87.1)	37(26.8) 40(12.9)	0.000	130(94.2) 295(95.5)	8(5.8) 14(4.5)	0.700	45(32.6) 156(50.5)	93(67.4) 153(49.5)	0.000

Knowledge of responders about birth preparation and complications

Knowledge regarding birth preparedness and complication readiness showed 373 (83.4%) husbands were aware of financial planning, 352 appropriate age for girls to conceive. While 391 (87.5%) believes that birth preparedness & complication readiness of husbands, produces positive outcome and 405 (90.6%) believed

women education and empowerment reduces maternal complication (table-II).

Attitude and Practices of responders about birth preparation and complications

Practice of husbands regarding birth preparedness showed majority 371 (83%) nominate their parents as alternative decision maker, followed by 321 (71.8%) husbands who seek guidance from doctor regarding their responsibilities during pregnancy and labor and 315 (70.5%) husbands discuss birth plans with their wives. Only 163 (36.5%) accompany their wife at their postpartum visit to doctor (table-II).

Association between socio-demographic characteristics and knowledge, attitude and practices of respondents

Men belonging to middle socio-economic strata, with more than five years of formal education, married for less than ten years, accompanied their spouses more than twice for antenatal visits,and children delivered at hospitals, were associated with adequate knowledge and good practices (*p*-value≤0.05) (table-III) (fig-1). Adequate knowledge of respondents was significantly associated with good practices (*p*-value 0.000) while positive attitude was associated with bad practices (*p*-value 0.007) (table-IV).

Major barriers cited against participation and active role of men in improving maternal health were lack of education 248 (55.5%), poverty 29 (6.5%), job requirement 23 (5.2%) and unemployment 11 (2.5%).

DISCUSSION

The study foundthat husbands had adequate knowledge (74%) of obstetric danger signs. Substantial proportion of husbands (79%) correctly identified severe bleeding as obstetric emergency. This is in agreement of studies conducted in different lower and lower middle-income African states of Tanzania, Uganda, Ethiopia and Nigeria where about half (49.5%) of study subjects mentioned vaginal bleeding as a danger sign during pregnancy[14-18]. As hemorrhage is readily visible and dramatic sign, it could explain the satisfactory level of knowledge about excessive bleeding[15]. In another study conducted in semi urban Northern Nigeria, a substantial proportion of men (70.2%) correctly identified danger signs despite their low participation in maternity care[19]. The contextual socio-demographic profile of participants including education, income, duration of marriage, place of delivery and number of antenatal visits were significantly associated with adequate knowledge and good practices of birth preparedness and complication readiness. However, none existed between attitudes of

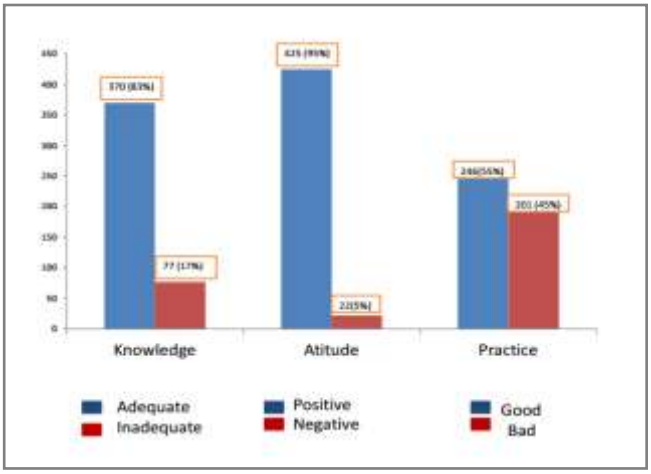

Figure-1: Knowledge, attitude and practice of respondents with frequency and percentage.

Table-III: Association of knowledge and attitude with practices of respondents.

		Practices n(%)		x² (df)	*p*-value
		Bad	Good		
Knowledge	Adequate	184 (49.7)	186 (50.3)	24.4 (1)	0.000
	Inadequate	62 (80.5)	15 (19.5)		
Attitude	Positive	240 (56.5)	185 (43.5)	7.206 (1)	0.007
	Negative	6 (27.3)	16 (72.7)		

respondents and any of socio-demographic characteristics. These findings are in contrast to studies conducted on male partners attending emergency department of Tamilnado and Bangalore tertiary care hospitals where men were found to lack knowledge about the care of women during pregnancy, their nutritional requirements, identification of warning signs or any of the parameters of birth preparedness and complication readiness[20,21]. Inadequate knowledge was also the dominant theme in focus group discussions and interviews conducted in rural Bangladesh, South Africa and Tanzania[15,22,23]. The explanation for this finding could be related to the fact that large number of respondents 213 (48%) had more than ten years of formal education and majority 161 (40%) employed abroad or to other metropolitan cities. It is in agreement with studies in rural Zambia and Nepal where higher education of the husbands was associated with better knowledge (p=0.005)[24,25]. The results of another rural Nigerian study showed that there is a significant relationship between men's level of education and their knowledge about antenatal care (p=0.000)[26]. In a Ugandan study education level and occupation of spouse was found to be associated with having a birth plan[27]. Evidently education helps build positive attitudes toward modern healthcare and wider knowledge of the benefits of skilled attendance at birth, therefore educated couples are highly likely to make better informed choices and develop and implement a birth plan.

This study found that only half of the respondents (55%) were practicing birth preparedness and complication readiness even though more than three quarters had adequate knowledge (83%) and positive attitude (95%), towards being birth prepared. There was statistically significant association (p=0.000) between adequate knowledge and good practices despite reported frequency of study subjects with adequate knowledge and good practices was 186 (50.3%) and with bad practices was 184 (49.7%). These finding are consistent with a Northern Nigerian community study which found that men gave high priority to making plans for naming ceremonies rather than birth preparedness[19]. In contrast August *et al*[15] reported no association of knowledge during intra-partum and postpartum period with being birth prepared. This finding indicates that patriarchal societies where pregnancy and child birth are regarded as women domain only, an effective execution of birth preparedness is not easy, despite good intentions. Gender dynamics in such societies excludes males from the whole process as a culturally unacceptable norm regardless of the fact that men act as the primary decision maker and a gatekeeper (chowkidar) to women access to health services[28].

The challenges to male involvement in maternal care identified by the husbands in the study varied from commonly quoted barriers of lack of education 248 (55.5%), poverty 29 (6.5%), job requirement 23 (5.2%) and unemployment 11 (2.5%), joint family system 9 (2%), to lesser cited ones 4 (0.8%) like lack of family planning, transport facilities and isolation of men by society. This is in agreement to many African and Asian studies which explored the context specific barriers confronted by the males in the society. Their findings provide better understanding regarding impediments that, until now, have prevented men from providing support and participation in maternal health care[4,19,33-37]. Understanding barriers against male participation in maternal health is a helpful step in designing appropriate health or behavior change intervention[38]. Other barriers reported in literature are cultural gender norms of the society,[35,39] stigma to men participating in maternal health which are considered "women business"[38,39] and health services.

CONCLUSION

Despite having adequate knowledge, the practices about birth preparedness and complication readiness among husbands, were low in rural settings of Rawalpindi district. The participants exhibited positive attitudes yet it was

not translating into well practicing couples. The study underscores the need to step up male involvement in services related to maternal care as their participation can greatly contribute towards improvements in health service utilizations and informed decision making by expectant couples. Existing policy should provide enabling environment and should not preclude men in order to address birth preparedness and complication readiness for obstetric emergencies as literature provides strong rationale for their engagement.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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