

Male participation in safe motherhood in selected village development committee of Morang, Nepal, 2016

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ABSTRACT

Background and Objective: Men can affect pregnancy and childbirth. However, the role of husbands in maternal health is often overlooked and neglected. Thus the objective of this study is to assess the Male participation in Safe Motherhood. **Methods:** A descriptive cross sectional research study was conducted in community people of Bahuni Village Development Committee, Morang Ward no 8. Systemic sampling technique was used to select 87 participants. Similarly, semi-structured questionnaire with self-reported face to face interview technique was used for data collection. The obtained data were summarized using frequency and percentage for socio-demographic factors, knowledge and practice while one way ANOVA was used to assess the differences in knowledge and practice of the male participation in safe motherhood based on demographic characteristics. Besides these, Pearson's correlation coefficient was computed to describe the relationship between knowledge of safe motherhood and practice of participation among male. **Results/Findings:** Among 87 participants, all (100%) have inadequate knowledge in safe motherhood and almost all of them (96.6%) have a low participation. Despite inadequate knowledge and low practice in majority, comparison among socio-demographic variables showed Buddhist had comparatively higher knowledge (Mean 17.39, SD 6.14) and high participation (Mean 30.25, SD 13.33). Similarly, Brahmin and Chettri had more knowledge (Mean 21.49, SD 12.51) and high participation (Mean 33.16, SD 14.28), Graduate and above education had more knowledge (Mean 39.13, SD 6.23) and high participation (Mean 64.70, SD 8.5). Similarly, Government job holders had more knowledge (Mean 21.30, SD 10.93) and high participation (Mean 35.88, SD 14.79). Lastly, High income had more knowledge (Mean 22.65, SD 9.78) and high participation (Mean 24.13, SD 13.52) than low income. There is the significant association between the ethnicity, education, occupation, income with knowledge and practice (p -value < 0.05). There is high positive (88.2%) correlation between knowledge and practice. **Conclusion:** All participants had inadequate knowledge, and also their participation in safe motherhood is very low. There is the significant association between the ethnicity, education, occupation, income with knowledge and practice (p -value < 0.05). It clearly showed that the health professionals from each region of the country should make efforts to make the maximum participation of male in safe motherhood issues.

Introduction

“Safe motherhood means creating the circumstances within which a women is able to choose whether she becomes pregnant and if she does, ensuring that she receives care for prevention and treatment of pregnancy complications, that she has access to skill birth attendance, and if she needs it to emergency obstetric care and care

after birth to prevent death or disability from complication of pregnancy and childbirth” [1].

Globally every day in 2015, about 830 women died due to complications of pregnancy and child birth. Almost all of these deaths occurred in low-resource settings, and most could have been prevented. The primary causes of death are hemorrhage, hypertension, infections, and

KEYWORDS

- male participation
- safe motherhood
- knowledge
- maternal mortality

indirect causes, mostly due to interaction between pre-existing medical conditions and pregnancy. Of the 830 daily maternal deaths, 550 occurred in sub-Saharan Africa and 180 in Southern Asia, compared to 5 in developed countries. The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country [2].

Nepal has one of the highest maternal mortality ratios in Asia, at 281 deaths per 100,000 live births. Multiple risk factors have been identified including the absence of skilled care at birth, delayed health-seeking and lack of access to health facilities. These risk factors are prominent in rural areas and particularly relevant for Nepal as 90 % of the population resides in rural areas and nationally only a third of deliveries occur in health facilities. The majority of births occur at home and many women deliver with relatives, friends, untrained traditional birth attendants, or even alone, with its attendant risks [3].

According to Nepal Demographic Profile (2016), maternal mortality rate is reducing then before i.e., 258 deaths/100,000 live births [4].

Evidences suggested that three delays are of critical importance to the outcomes of an obstetric emergency in Nepal's context: i) delay in seeking care, (ii) delay in reaching care, and (iii) delay in receiving care [5].

According to professor Mahmoud Fathalla, "women are dying during pregnancy and child birth not only because of conditions that are difficult to manage, but women are dying because the society in which they live did not see it fit to invest what is needed to save their lives" [6].

Male involvement in pregnancy and childbirth influences pregnancy outcomes. It reduces negative maternal health behaviors, risk of preterm birth, low birth weight, fetal growth restriction and infant mortality. There is epidemiological and physiological evidence that male involvement reduces maternal stress (by emotional, logistical and financial support), increases uptake of prenatal care, leads to cessation of risk behaviors (such as smoking), and ensures men's involvement in their future parental roles from an early stage [7].

It seems that almost all women in industrialized countries have their partner with them during labour and birth [8]. Despite decades of safe motherhood programs, maternal mortality rate in Nepal is high. The major causes

of death include: postpartum hemorrhage, obstructed labour, hypertension, postpartum infection and abortion related complications [9].

To reduce maternal mortality and morbidity, interventions had been made in the areas of implementation of safe motherhood initiatives and hospital care. Despite the interventions, studies continue to show that existing strategies to save mothers' lives had been less successful. This may be due to less emphasis placed on the adverse maternal outcomes due to social factors that surround decision making at home in obstetric care and the husbands involvement [10]. It has been suggested that fertility, particularly in developing countries would have been lower if women were in the position to decide when to become pregnant and how many children they want to have, because it is women that undergo all the sicknesses associated with pregnancy and delivery and they may lose their lives as a result of pregnancy and childbirth [11]. The husband's permission is required before a woman can take any step regarding her own health [12]. Though studies have been done on male involvement in reproductive health, only few studies have examined the male participation in Safe motherhood.

Methodology

A descriptive cross sectional study was conducted with a sample of 87 males selected by probability systemic sampling technique who were having children below 5 years Bahuni Village Development Committee (VDC), ward no.8, Morang from August to December 2016. Standard Interview Schedule was taken from the survey tools and indicators for maternal and newborn health developed by Jhpiego, an affiliate of Johns Hopkins University. Some modifications were done in local context as per objectives of the study by pretesting the tool in 10% of similar but different samples in different setting. Internal consistency of tool was assessed by Cronbach's alpha (α) coefficients ($\alpha=0.7$). The interview schedule comprised of three parts i.e., Part I: Questions regarding the socio-demographic data, Part II: Questions related to the knowledge on safe motherhood and Part III: Questions related to the safe motherhood practices. It was prepared in English language then translated in Nepali language.

Formal approval letter was taken from concerned authority of research committee of Norvic Institute of Nursing Education and

from the concerned authority of Bahuni VDC. The informed written consent was taken from each participant and ethical approval was taken from Nepal Health Research Council (NHRC).

Data was checked for completeness and accuracy and collected data was entered in SPSS Software version 20. The findings are presented in the tables and charts using appropriate statistics according to the objectives of the study. The frequency and percentage of (socio demographic characteristics, knowledge and practice) was obtained by descriptive statistics. Association between the selected socio-demographic variables with knowledge and practice was obtained by using inferential statistics ('p' value <0.05 reflects association). The relationship between the knowledge and practice was obtained by using the bivariate analysis technique. The knowledge level less than 50% was considered as inadequate knowledge whereas more than 50 adequate. Similarly the level of participation less than 50% was considered as low level however more than it as high.

Findings

■ Demographic patterns

TABLE 1 shows that majorities (83.9%) of the participants were Hindu and the minorities (8%) were Christian and Buddhists. The majority (58.6%) of participants were Dalit and Janjati and the minority (41.4%) were Brahmin and Chettri. Most of them (28.7%) were literate with primary level education and least (1.1%) were graduate and above. The majority (52.9%) of them were farmers and least (5.7%) were private job holder. Among total majority (78.2%) were of low income and minority (21.8%) were from high income.

TABLE 2 shows most of them (82.8%) had radio and least (9.2%) had internet as mass media used in family. The majority (34.5%) of the participants had a >30 min distance between home and health care facilities.

TABLE 3 shows knowledge in perinatal danger signs. Majority (46%) have knowledge on antenatal danger signs of which majority (42.5%) reported bleeding. Only (18.4%) have knowledge on danger signs of labor among which majority (16.1%) reported prolonged labor. Only (39.1%) have knowledge on postnatal danger signs among which majority (39.7%) reported fever.

Table 1. Socio demographic data of the participants (n=87).

Variables	Frequency	Percent
Religion		
Buddhist	7	8
Christian	7	8
Hindu	73	83.9
Ethnicity		
Brahmin, chettri	36	41.4
Dalit, janajati	51	58.6
Education		
Illiterate	14	16.1
Literate only	21	24.1
Primary	25	28.7
Secondary	16	18.4
Higher secondary	10	11.5
Graduate and above	1	1.1
Occupation		
Government	10	11.5
Private sector	5	5.7
Farmer	46	52.9
Labor/driver	14	16.1
Own business	12	13.8
Income		
Low	68	78.2
High	19	21.8

Table 2. General information of the participants (n=87).

Variables	Frequency	Percent
Source of information		
Radio	72	82.8
Television	59	67.8
Newspaper	15	17.2
Internet	8	9.2
Distance Between Home and Health Care Facilities		
10 min	19	21.8
20 min	16	18.4
30 min	22	25.3
>30 min	30	34.5

TABLE 4 shows knowledge in safe motherhood. Majorities (98.9%) have agreed that antenatal checkup is needed during pregnancy of which only (47.1%) have knowledge on ≥ 4 antenatal checkups are needed. Majority (88.5%) has agreed that post natal checkup is needed after child birth of which only (49.3%) have knowledge on ≥ 3 postnatal checkups are needed. Only (1.1%) have knowledge about the safe delivery kit.

TABLE 5 shows the practice of accompanying spouse for perinatal checkup. Majority (70.1%) accompanied their spouse for antenatal checkup

Table 3. Knowledge related to perinatal danger signs (n=87).

Component	Frequency	Percent
Knowledge on antenatal danger signs		
Yes	40	46
Antenatal danger signs (n=40)		
Headache	6	6.9
Swelling	3	3.4
Pain	10	11.5
Tremor	19	21.8
Bleeding	37	42.5
Knowledge on Danger signs of labor		
Yes	16	18.4
Danger signs of labor (n=16)		
Prolonged labor	14	16.1
Abnormal pressure	0	0
Fainting	3	3.4
Bleeding	0	0
Knowledge on postnatal danger signs		
Yes	34	39.1
Postnatal danger signs (n=34)		
Fever	33	37.9
Discharge	8	9.2
Bleeding	7	8
Headache	1	1.1
Fainting	2	2.3

Table 4. Knowledge related to safe motherhood (n=87).

Component	Frequency	Percent
Need of ANC checkup		
Yes	86	98.9
Number of ANC checkup needed (n=86)		
One	11	12.79
Two	9	10.46
Three	25	29.06
Four and more	41	47.1
Need of PNC checkup		
Yes	77	88.5
Number of PNC checkup needed (n=77)		
One	26	33.76
Two	13	16.88
Three and more	38	49.3
Knowledge on safe delivery kit		
Yes	1	1.1

of which (49.18%) participated for complete four antenatal checks up and not having leisure (38.46%) was a reason for not accompanying. Among total only (29.9%) accompanied for labor, 67.21% reported cultural beliefs as the reasons for not accompanying their spouse during childbirth. Only (44.8%) accompanied for post natal checkup of which 43.58% had a practice

Table 5. Practice related to accompanying for perinatal check-up (n=87).

Component	Frequency	Percent
Accompany for ANC checkup		
Yes	61	70.1
Number (n=61)		
One	8	13.11
Two	18	29.03
Three	5	8.19
Four	30	49.18
Reason of not accompanying (n=26)		
Out of home	8	30.76
Cultural beliefs	3	11.53
Female business	5	19.23
No leisure	10	38.46
Accompany during the labor		
Yes	26	29.9
Reasons for not accompanying		
Out of home	9	14.5
Cultural beliefs	41	67.21
Female business	10	16.39
No leisure	1	1.63
Accompany for PNC checkup		
Yes	39	44.8
Number (n=39)		
One	10	25.64
Two	12	30.76
Three	17	43.58
Reasons for not accompanying		
Out of home	28	58.33
Cultural beliefs	1	2.08
Female business	1	2.08
No leisure	9	18.75

of accompanying their spouse for complete 3 postnatal checkups, 58.33% reported of being out of home as reason for not accompanying their spouse for post natal checkup.

TABLE 6 shows the practice related to safe motherhood. Majority (97.7%) of participants provided the money for transportation and medicines, 95.4% saved money for delivery, 57.5% planned place of delivery, 49.4% planned for transportation, 14.9% arranged blood donors and no one purchased safe delivery kit, 4.6% arranged SBA. In majority (35.6%) all family members took part in deciding the place of delivery.

TABLE 7 Shows all (100%) of the participants have inadequate knowledge.

TABLE 8 Shows majority (96.6%) have a low participation.

Table 6. Practice related to safe motherhood (n=87).

Component	Frequency	Percent
Money for transportation		
Yes	85	97.7
Saving money		
Yes	83	95.4
Planning place of delivery		
Yes	50	57.5
Planning transportation		
Yes	43	49.4
Arranging blood donors		
Yes	13	14.9
Purchasing safe delivery kit		
Yes	0	0
Arranging skilled birth attendant		
Yes	4	4.6
Deciding the place of delivery		
Husband	11	12.6
All family	31	35.6
Mother	20	23
Wife	9	10.34
Husband and wife	16	18.4

Table 7. Level of knowledge of participants in safe motherhood (n=87).

Level	Frequency	Percent
Inadequate	87	100

Table 8. Level of male participation in safe motherhood (n=87).

Level	Frequency	Percent
Low	84	96.6
High	3	3.4

TABLE 9 Shows comparison to other religions, Buddhist had more knowledge.

(Mean 17.39, SD 6.14) than others. Similarly, Brahmin and Chhetri had more knowledge (Mean 21.49, SD) than others, Graduate and above education had more knowledge (Mean 39.13, SD 6.23) than other education level. Similarly, Government job holders are more knowledge us (Mean 21.30, SD 10.93) than other occupations. Lastly, High income had more knowledge (Mean 22.65, SD 9.78) than low income.

There is significant association between the religion, ethnicity, education, occupation, income with knowledge (p value <0.05).

TABLE 10 Shows comparison to other religions, Buddhist had high practice (Mean 30.25, SD 13.33) than others. Similarly, Brahmin and Chhetri had high practice (Mean 33.16, SD 14.28) than others, Graduate and

above education had high practice (Mean 64.70, SD 8.5) than other education level. Similarly, Government job holders are high practice (Mean 35.88, SD 14.79) than other occupations. Lastly, High income had high practice (Mean 24.13, SD 13.52) than low income.' There is significant association between the religion, ethnicity, education, occupation, income with practice (p value <0.05)

Table 9. Association between socio demographic variables with knowledge. *One way ANOVA test.

Variables		Mean	Standard Deviation	*p value
Religion	Buddhist	17.3913	6.14875	0.186
	Christian	5.5901	5.45029	
	Hindu	13.52	13.2939	
Ethnicity	Brahmin, chettri	21.4976	12.5128	0
	Dalit, janajati	7.3316	8.88873	
Education	Illiterate	1.8634	2.80959	0
	Literate only	4.9689	5.01146	
	Primary	14.9565	12.681	
	Secondary	20.1087	11.099	
	Higher secondary	28.2609	6.23357	
	Graduate and above	39.1304		
Occupation	Government	21.3043	10.9322	0.001
	Private	20	8.47547	
	Farmer	12.7599	13.0403	
	Labor, Driver	2.1739	4.0893	
	Own business	18.1159	11.8467	
Income	Low	10.5499	12.0733	0
	High	22.6545	9.78437	

Table 10. Association between socio demographic variables with practice. *One way ANOVA test.

Variables		Mean	Standard Deviation	*p value
Religion	Buddhist	30.2521	13.3399	0.18
	Christian	16.8067	5.29256	
	Hindu	25.141	14.2835	
Ethnicity	Brahmin, chettri	33.1699	14.2815	0
	Dalit, janajati	19.0311	10.2284	
Education	Illiterate	12.1849	5.86617	0
	Literate only	15.1261	4.76849	
	Primary	27.0588	12.2551	
	Secondary	32.3529	10.7397	
	Higher secondary	41.7647	8.52434	
	Graduate and above	64.7059		
Occupation	Government	35.8824	14.7906	0
	Private	35.2941	17.1499	
	Farmer	24.4246	13.2389	
	Labor, Driver	13.4454	5.37573	
	Own business	26.4706	11.8976	
Income	Low	21.6263	12.2145	0
	High	24.8817	13.525	

TABLE 11 shows there is the high positive (88.2%) relation between knowledge and practice.

Table 11. Correlation between participants' knowledge and practice.			
		Knowledge	Practice
Knowledge	Pearson Correlation	1	0.882**
	Sig. (2-tailed)	-	0
Practice	Pearson Correlation	0.882**	1
	Sig. (2-tailed)	0	-

Discussion

The findings of this study have been discussed in association with socio-demographic factors, Knowledge regarding safe motherhood, practice regarding safe motherhood, association of selected socio-demographic factors with knowledge and practice, relationship between knowledge and practice.

■ Socio demographic factors

The demographic pattern of 87 male participants having children below 5 years studied were religion, ethnicity, education, occupation, income, mass media and distance between home and health care facilities. In relation to this majority of the participants were literate with primary level education which is similar to the report by WHO in Nepal 2002 [13] in which 32.2% participants have primary level education.

We have the target of second long term health plan to have essential health care services available up to 90% of the population living within 30 min travel to the health facility [14] which is similar to this study in which majority (65.5%) of the participants were residing in the less than 30 min distance from the health facility.

■ Knowledge regarding safe motherhood

All of the participants in this study have inadequate knowledge about the safe motherhood this might be due to, less emphasis regarding the male involvement in safe motherhood programs. Since in the developing countries like Nepal where various non-governmental organizations and international non-governmental organizations are working for maternal health and pregnancies issues, making various strategies for maternal health improvement. It cannot be said that awareness programs and health teaching is not being conducted in the corners of our country Nepal but the fact is male involvement is often

overlooked and neglected. However, 100% of participants have inadequate knowledge which is contrast to the study conducted in Nellore where participants had 60% [15]. But the variation might be due to the difference in data analysis and interpretation.

In current study, only few of the participants have knowledge on danger signs of labor, their participation during the labor was also dissatisfactory and 67.21% provided cultural beliefs as the reason for not participating, this seemingly argues of lacking adequate knowledge among the people though there occurs a physiological process in female but the evidence suggests that women place a high value on their partner's presence and support in labour, leading to reduced anxiety, less perceived pain, greater satisfaction with the birth experience, lower rates of postnatal depression and improved outcomes in the child [16].

■ Practice regarding safe motherhood

In current study, result of practice related to providing money for transportation and medicines was (97.7%) which is similar to the study conducted by Olayemi in Nigeria which is (94.6%) [17].

Furthermore, result of practice related to preparation for skilled birth assistance was (4.6%) which is similar to the study conducted by Zubairu in the year 2010 in Nigeria (6.2%) [18].

Moreover, result of practice related to arrangement of potential blood donor was 14.9% which is similar to the study conducted by Wai during the year 2015 in Myanmar where there is (15.5%) a practice of arranging blood donor [19].

Likewise result of practice related to savings for emergencies was (95.4%) which is not similar to the study conducted by Zubairu II (19.5%) this variation might be due to the "Ama Samuha" approach of saving money for emergency condition and a daily money saving (piggybank) for delivery in rural community of Nepal [18].

In fact there is very low (96.6%) male participation in safe motherhood issues [20].

■ Association of socio demographic factors with knowledge and practice

In this study there was an association between the education and practice which is similar to the study conducted by WHO in Nepal 2002 [13] in which there is also the significant association

between knowledge and practice. Despite inadequate knowledge and low practice in majority, comparison among socio-demographic variables showed Buddhist had more knowledge (Mean 17.39, SD 6.14) and high participation (Mean 30.25, SD 13.33) [21]. Similarly, Brahmin and Chhetri had more knowledge (Mean 21.49, SD 12.51) and high participation (Mean 33.16, SD 14.28), Graduate and above education had more knowledge (Mean 39.13, SD 6.23) and high participation (Mean 64.70, SD 8.5) [22]. Similarly, Government job holders are more knowledgeable (Mean 21.30, SD 10.93) along with high participation (Mean 35.88, SD 14.79) [23]. Lastly, High income had more knowledge (Mean 22.65, SD 9.78) and high participation (Mean 24.13, SD 13.52) than low income. Above mentioned data showed, those groups having more knowledge had more practice than others [24].

■ Relationship between knowledge and practice

In this study there is the high positive relationship between knowledge and practice [25].

Conclusion

The findings of this study identified that all of the participants had inadequate knowledge. Likewise, majority of males (96.6%) have a low participation in safe motherhood. Despite decades of safe motherhood programs, maternal mortality rate in Nepal is still high. Though most of the participants agreed the need for safe motherhood practice but the actual participation is very low. Health professionals from each region of the country should make efforts to make the maximum participation of male in safe motherhood issues [25-28].

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Conflict of interest

None.

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