Research Article

Knowledge on risk factors of uterine prolapse among reproductive age group women of Bajrabarahi Municipality of Lalitpur, Nepal

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ABSTRACT

Background: Pelvic organ prolapse (POP) is a most common gynecological health problem contributing to maternal morbidity and mortality among women of reproductive age in developing countries. In Nepal prevalence of uterus prolapse among reproductive age women is around 17-27%. Still large numbers of rural Nepalese women are deprived of access to early diagnosis and quality treatment services related uterus prolapse. The present study was conducted with the aims to assess knowledge on risk factors on uterine prolapse among the reproductive age group of women who have at least one child below five years of age and residing at Bajrabarahi municipality of Lalitpur district.

Methods: This is a cross sectional descriptive study. Total 185 individuals were randomly selected from the list of safe motherhood register book of Bajrabarahi municipality for the interview. Semi-structured questionnaire was used as tools to collect data from study participants. Data collected was entered in Epi-data and data analysis was done using SPSS 16.0 version. Bivariate analysis was done using Chi-Square test to find the association between the selected variables of the study.

Results: The study results shows that out of total 46.5% of respondents have adequate knowledge and 53.5% of respondents have inadequate knowledge regarding risk factors of uterus prolapse. The study results explicitly reflects the knowledge on risk factors of uterus prolapse is significantly associated with the age of respondent (p=0.021), age at marriage of respondents (p=0.011), education status of respondents (p=0.001) and age at first child birth of respondent (p=0.001).

Conclusions: Though majority of respondents have heard about uterus prolapse, very few participants have in-depth or adequate knowledge about risk factors of uterus prolapse. Still extensive efforts of government and non-government organizations are essential to improve maternal health status of rural Nepalese women.

Keywords: Uterus prolapse, Knowledge, Risk factors, Reproductive age women, Nepal

INTRODUCTION

Pelvic organ prolapse (POP) is a most common gynecological health problem contributing to maternal morbidity and mortality among women of reproductive age in developing countries.[1,2] The global estimates reflect prevalence of pelvic organ prolapse (POP) among women below 45 years of age ranges from 2-20%.[3] Prevalence of POP based on symptoms ranges from 3-6% and up 50% when defined by vaginal examination.[4] In Nepal, prevalence of uterus prolopase (UP) among

reproductive age women is around 17-27%.[5] Despite the governmental and non- governmental organizations efforts in creating awareness and supporting in treatment facilities of UP both at rural and urban setting, still large numbers of Nepalese women are unaware about UP and have low access to UP diagnosis and treatments facilities.[6,7]

Family health division under ministry of health has developed operational guidelines in 2009 for the management of UP and also collaborated with National

Health Education, Information, Communication Center for communication of governmental preventive interventions of UP among public.[8] However, the expected reduction in UP cases has been not achieved and still community based additional efforts are essential to gain substantial reduction of UP among Nepalese rural women.[6,7] The consequences of UP does not only affects women health and quality of life, it has negative consequences on family health and socio-economic status as well.

Studies from different administrative regions of Nepal shows that in Siraha and Saptari districts of terai region has found high prevalence of UP among reproductive age women to be 30% and 42% respectively.[9] According to National Alliance for Pelvic Organ Prolapse Management- Nepal, UP prevalence rate were found to be higher among regions, caste and ethnic groups where women and girls are exposed to higher level of gender based discriminations.[10,11]

Adolescent pregnancy, lack of rest during and immediately after pregnancy - including carrying heavy loads, improper birthing practices used by unskilled birth attendants, poor nutrition, frequent pregnancies and pregnancies close together due to lack of access to contraception are major risk factors associated with UP.[4,7,12,13] In Nepal, child marriage and adolescent pregnancy are high among rural females.[14]

According to Nepal Demographic and Health Survey (2011) reflects that of the 29.1% of adolescent girls reporting recent sexual activity, 28.8% were married. NDHS 2011 also shows that 10.5% of 17-year-old girls, 4.9% of 16 years old girls and 0.9% of 15 years old girls were pregnant or had given birth to their first child.[14] Moreover, majority of Nepalese women work in the informal sector and do not have access to paid maternity leave or social security benefits.[11] Most of them are working in conditions where they have to lift heavy objects and carry heavy loads that can strain the pelvic muscles particularly during pregnancy and postnatal period.[11]

Also, study conducted among Nepalese women by UNFPA in 2013 shows those women who had undergone surgery for uterine prolapse found to have rested only 7-20 days after giving birth, where government have recommended for at least 6 week postnatal rest period after delivery.[15] Nearly 98% of rural women from Terai, Hills and Mountain region reported carrying heavy loads following giving birth.[5,15] Such activities and circumstances are highly contributing in raising prevalence of UP among Nepalese women.[5,15,16] Considering this situation, the present study was conducted with the aims to assess knowledge on risk factors on uterine prolapse among the reproductive age group of women who have at least one child below five years of age. The study also intended to identify the factors influencing knowledge on risk factors of UP.

METHODS

This is a cross sectional descriptive study. The calculated sample size was 190 considering the proportion of adequate knowledge level 0.37, confidence level 95% and error 7%. Among 190 study participants 5 individuals were dropout during interview process. Thus total 185 individuals were considered as study participants. The study participants were randomly selected from the list of safe motherhood register book of Bajrabarahi municipality. An interview method was adopted and Semi-structured questionnaire was used as tools to collect data from study participants. The data collection questionnaire was translated from English to Nepali language. Data collected was entered in Epi-data and data analysis was done using SPSS 16.0 version. Bivariate analysis was done using Chi-Square test to find the association between the selected variables of the study. The study was formally approved from Asian college for advance studies research committee, Purbanchal University. Verbal informed consent was taken from each respondent prior to interview. None of the respondent was forced to participate in the study and privacy of information gathered was assured.

RESULTS

Socio-demographic characteristics of respondents

The study findings in Table 1 shows majority of the respondents were of age group 25-29 (47%) followed by 20-24 (26.5%) with the mean age 26.7 years±4.69 SD. About 21.2% respondents were illiterate and 22.16% have basic informal education whereas 13.51, 29.19% and 14.05% have attended primary, secondary and higher education respectively. In the same way, 49.7% respondents were either housewife or engaged in agriculture, 35.7% were wages based laborers, 9.2% have their own business and only 5.4% of respondents were involved in public service.

Obstetric variables of respondents

The study results in Table 2 presents out of total respondents 42.16 % of respondents were married at early age i.e. between ages of 12-19 years. Similarly, about 29% respondent had already first child before age of 19 years of age. Also, more 28% of respondents had second child with less than 2 years of child spacing.

Study participants responses regarding knowledge variables of UP

The results in Table 3 shows nearly 85% of respondents have heard about Uterus prolapse however out that about 28 % of respondent were not able to responses even single risk factors associated to uterus prolapse. Similarly, about 68 % of respondents were not able to response any single sign and symptoms of uterus prolapse

Table 1: Socio-demographic characteristics of respondent.

Socio demographic variables	Frequency (n)	Percent (%)
Age (Years)		
15-19	7	3.78
20-24	49	26.49
25-29	87	47.03
30-34	24	12.97
35-39	18	9.73
Caste		
Brahmin	20	10.81
Chhettri	25	13.51
Newar	72	38.92
Janjati	68	36.76
Type of family		
Nuclear	123	66.49
Joint	62	33.51
Educational status		
Literate (informal education)	41	22.16
Illiterate	39	21.08
Primary level	25	13.51
Secondary level	54	29.19
Higher level	26	14.05
Occupation		
Housewife/agriculture	92	49.73
Wages based labour	66	35.68
Public service	10	5.41
Own business	17	9.19

Table 2: Obstetric variables of respondents.

Obstetric variables	Frequency	Percent
Age at 1st menstruation (years)		
Below 10	3	1.62
11-12	62	33.51
13-14	89	48.11
14-16	31	16.76
Age at marriage (years)		
12-15	23	12.43
16-19	55	29.73
20-23	84	45.41
24-27 y	23	12.43
Age at 1st child birth (years)		
10-14	3	1.62
15-19	50	27.03
20-24	85	45.95
25-29	42	22.70
30-34	5	2.70
Birth spacing of child (years)		
Below 2	23	28.40
3-5	39	48.15
Above 5	19	23.46
Total	81	
History of abortion		
Yes	5	2.70
No	180	97.30

Table 3: Study participants response regarding knowledge variables of UP.

Variables	Frequency	Percent
Heard about uterine prolapse		
Yes	156	84.32
No	29	15.68
Risk factors of uterine prolapse (multiple response) n= 156		
Frequent child bearing	25	16.03
Doing heavy works during postnatal period	108	69.23
Giving birth at early and too late age	20	12.82
Delivery conducted by untrained person	1	0.64
Nutritional deficiency during post natal period	9	5.77
Frequent and risky abortion	17	10.90
Don't know	43	27.56
Sign and symptom of uterine prolapse (multiple response)		
Feeling of something coming down	13	8.33
Pulling or heavy feeling in pelvis	23	14.74
Vaginal bleeding or increased discharge	13	8.33
Difficult in walking	20	12.82
Constipation	16	10.26
Don't know	106	67.95

Table 4: Knowledge on risk factors of uterus prolapse among respondents.

Knowledge level	Frequency	Percent
Inadequate knowledge (<75% score)	99	53.5
Adequate knowledge (>75% score)	86	46.5
Total	**185**	**100**

Knowledge on risk factors of uterus prolapse among respondents

The results in the Table 4 shows out of total respondents 46.5% of respondents have adequate knowledge regarding risk factors of uterus prolapse and 53.5% of respondents have inadequate knowledge about risks factors of uterus prolapse.

Table 5 presents the multivariate analysis of selected variables with knowledge categories on risk factors of uterus prolapse. The results shows, age of respondents, age at marriage of respondents, education status of respondents, age at first child birth of respondent, were significantly associated (p-value <0.05) with the knowledge on risk factors of uterus prolapse among respondents.

Table 5: Chi-square test of association between UP knowledge categories and selected study variables.

Variables	Inadequate knowledge		Adequate knowledge		x^2	p-value
Age of the respondent (years)	N	%	N	%		
15-19	7	100	0	0		
20-24	21	42.9	28	57.1		
25-29	44	50.6	43	49.4	11.54	0.021
30-34	17	70.8	7	29.2		
35-39	10	55.6	8	44.4		
Age at marriage (years)						
12-15	16	69.6	7	30.4		
16-19	31	56.4	24	43.6	11.14	0.011
20-23	35	41.7	49	58.3		
24-27	17	73.9	6	26.1		
Family type						
Nuclear	67	54.4	56	45.5	0.13	0.713
Joint	32	51.6	30	48.3		
Educational status						
Literate	27	65.9	14	34.1		
Illiterate	28	71.8	11	28.2		
Primary level	17	68	8	32	22.43	0.001
Secondary level	18	33.3	36	66.7		
Higher level	9	34.6	17	65.3		
Occupation						
Housewife/agriculture	49	53.2	43	46.7		
Labour	36	54.6	30	45.4	3.1	0.375
Service	3	30	7	70		
Business	11	64.7	6	35.3		
Age at 1st child birth (years)						
10-14	0	0	3	100		
15-19	37	74	13	26		
20-24	32	37.6	53	62.3	23.77	0.001
25-29	28	66.7	14	33.3		
30-34	2	40	3	60		

DISCUSSION

The present study illustrates that more than 40% of respondents were married and had first child before age of 19 years. This result is consistent with the national data presented in Nepal Demographic Health Survey 2011.[17] Similarly, in the present study, 85% of respondents were heard about uterus prolapse, however out which about 28% of respondent were not able to responses even single risk factors associated to uterus prolapse. Similarly, about 68% of respondents were not able to response any single most sign and symptoms of uterus prolapse. In the study, 70% of the respondents have responded doing heavy work during postnatal period is single most risk factor of uterus prolapse followed by frequent child bearing with less child spacing is also perceived as risk factors for uterus prolapse among respondents. Over all adequate knowledge on risks factors of UP among respondents found to be 46.5% and 53.5% of respondents showed inadequate knowledge

regarding risk factors of uterus prolapse. Similar study conducted in different districts of Nepal revealed that nearly more than 50% were not heard about uterus prolapse and only 37.5% of women who have heard about uterus prolapse presented a satisfactory level of knowledge about UP risk factors, sign and symptoms.[6] Also study conducted by Karki et al showed that 55.1% of the respondents were aware regarding the cause of utero-vaginal prolapsed 58.5% of respondents were aware regarding the sign and symptoms of utero-vaginal prolapsed.[18] In addition, a qualitative study in India also showed that most women do not know the symptoms and risks factors of uterus prolapse.[19]

Likewise, the present study also explicitly reflects the knowledge on risks factors of uterus prolapse is significantly associated with the age of respondent (p=0.021), age at marriage of respondents (p=0.011), education status of respondents (p=0.001), age at first child birth of respondent (p=0.001). Results showed that

older the age of respondent higher the level knowledge on risk factors of UP and those respondents who were married at early age before 19 years have comparatively less aware about risk factors of uterus prolapse. Similarly, higher the education status better the awareness level on risk factors of uterus prolapse was found. Study conducted by Shrestha et al also demonstrated that women's age group was associated with UP knowledge. Compared with women aged <20 years, the odds of having UP knowledge were 0.4 and 0.3 times higher in women aged 20-35 years and >35 years, respectively. The strengths of associations in multivariate and univariate models were similar, except the odds that women of the age group 20-35 years would have satisfactory knowledge were 0.4 and 0.7, and that of the age group >35 years were 0.3 and 0.5, respectively.[6] The study results are consistent with the similar comparable studies from Nepal, India, Moscow and Vienna.[6,18,20-22]

CONCLUSION

In conclusion, majority of respondents have heard about uterus prolapse however very few participants have in-depth or adequate knowledge about risk factors of uterus prolapse. Study clearly indicates that though government and non-governmental organizations have been working for early diagnosis treatment and prevention of uterus prolapse in Nepal since long time, still lot need to be done for expected achievement in preventing UP particularly among rural Nepalese women. It would be more effective if information regarding UP can be introduced on secondary level health education curriculum along with sexual and reproductive health content. Moreover Community based pragmatic interventions are equally important for both creating awareness; early diagnosis and treatment of UP to improve maternal health status of Nepalese women. Health workers at community level particularly at health post and Primary health care centre need more active involvement in creating awareness for prevention of uterus prolapse among rural Nepalese women.

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