Factors Affecting Uterine Prolapse among Females of 20-35 years on Semi-urban Area of Kathmandu District, Nepal

Panta PP[1], Phuyal S[2], Sharma D[3], Amgain K[4]

[1]Associate Professor of Biostatistics, School of Medicine, Karnali Academy Health Sciences (KAHS)
[2]Lecturer, Nepal Institute of Health Sciences, Kathmandu
[3]Associate Professor, Department of Physiology, School of Medicine, KAHS
[4]Assistant Professor and Head, Department of Anatomy and Cell Biology, School of Medicine, KAHS

Corresponding Author:

Prem Prasad Panta

Email: pantaprem7@gmail.com

ABSTRACT

Uterine prolapse is a significant public health problem in Nepal. The aim of this study was to determine the prevalence of uterine prolapse and to identify the possible risk factors for this. This is a cross sectional study conducted at semi urban area in Kathmadu district. A total of 168 women of age 25-34 years were surveyed, and nearly half of them were of 25-29 years. Maximum respondents (38.1%) were Chhettri, and least was Dalit (13.1%). Regarding occupation, two –third of the participants had agriculture and house maker as their main source of living. Among the interviewed population, the prevalence of uterine prolapse was found to be 11.9%. Among them, 15.3% were farmers, 29.4% were daily wagers, 18.2% were Dalit and 16.7% were of age more than 28 years. This study showed that the income has a vital role in the occurrence of the uterine prolapse, the odds ratio was found to be 13.6 (CI: 4.6-38.5). The pregnancy below the age of 20 was found to be the second major cause (OR: 12.6, CI: 3.5-45). Similarly, other factors like parity, gravid, child spacing, lack of rest during pregnancy, heavy weight lifting were the significant factors to uterine prolapse ($p<0.05$). However, the type of delivery was not associated to the occurrence of uterine prolapse.

Keywords: *uterine prolapse, income, pregnancy age, parity, Kathmandu, Nepal*

INTRODUCTION

Uterine prolapse is a complex condition that is often kept secret, the condition affecting a sensitive part of the women's body. Uterine Prolapse (UP) causes various problems such as difficulty in walking, pain and discomfort during coitus. In procidentia, it leads to decubitus ulcer and foul smelling discharge. As a result, women are isolated from some society. In addition to that women need to depend economically on others. Thus, it renders physical, psychological, economic and social impact on the life of women.[1]

In patriarchal society like that of Nepal, women have less access to income, wealth, education, health as compared to men. Women in Nepal work in average of 16 hours per day, a rate much higher than global average. Currently, only 53.4 % of women receive any antenatal care and 18.8% receive post natal services.[2,3] Almost all deliveries take place at home; a health worker assists only 18% of deliveries.[4]

Uterine Prolapse has become a great public health issue. One million of Nepali women suffer from the uterine prolapse, and most of them are of reproductive age. A study has shown that the 37% of the women in Siraha and Saptari districts are affected by the uterine prolapse.[5] At present, 6,00,000 women are affected by the disease: and among them 2,00,000 (33.3%) require immediate treatment.[4]

Substantial volume of studies in different parts of the world have shown association of several factors to the occurrence of uterine prolapse, like early marriage, early pregnancy, high parity, low socio-economic condition, low educational status, home delivery, lack of access to health services etc. Thus the aim of this study was to determine the prevalence of uterine prolapse in the semi-urban community near to Kathmandu, and to identify the possible risk factors. The identification of the main risk factor would allow us to intervene and reduce those factors.

MATERIALS AND METHODS

This was community based cross sectional study. A total of 168 female respondents having at least two children of aged 20-35 years from Alapot VDC of Kathmandu were interviewed from August to October 2015. Systematic random sampling was carried to collect the data. Data were collected through interview techniques by using pre tested structured questionnaire. Informed consent from participant and ethical clearance was taken. The data were analysed using SPSS 20.0, and both descriptive and inferential statistics were used. Demographic characteristics and prevalence of uterine prolapse were calculated in terms of percentage, and association of various factors (parity, child spacing, income, married age, and workload) with occurrence of uterine prolapse were calculated by using chi square and binary logistic regression method. The p value less than 0.05 was considered significant.

RESULTS

Demographic Information

The total number of respondents was 168. The table 1 shows the demographic characteristics of the respondents. The highest proportion of respondents were of age 25-29 years. Considering Ethnicity, The highest participation were from Chhettri followed by Newar, Brahmin and Dalit.

Most of the respondents were farmers, followed by home maker, business and daily wage. 38.1% demonstrated work load during pregnancy, half of the study poplution were married at their age of 20-23.

Table 1: Demographic findings

		Frequency (n=168)	Percent
Age (Years)	20-24	14	8.4
	25-29	78	46.4
	30-35	76	45.6
Ethnicity	Brahmin	38	22.6
	Chhetri	64	38.1
	Newar	40	23.8
	Dalit	22	13.1
	Others	4	2.4

Occupation	Agriculture	59	35.1
	Home maker	52	31.0
	Service	10	6.0
	Daily wage	17	10.1
	Handicraft	10	6.0
	Business	20	11.9
Income	Adequate	132	78.6
	Inadequate	36	21.4
Work load during pregnancy	Yes	64	38.1
	No	104	61.9
Age at marriage (years)	16-19	60	35.7
	20-23	86	51.2
	24-26	22	13.1

Table 2: Occurrence of Uterine prolapse

Uterine prolapse	Frequency	Percent
Yes	20	11.9
No	148	88.1
Total	**168**	**100.0**

Occurrence of uterine prolase and factors affecting it

The overall prevalence of uterine prolapse was 11.9% (table2). The prevalence of uterine prolpase varied with the occupation and ethnicity (fig 1 and 2). Both the factors were significantly associated with the occurane of UP. In our study, daily wages women were more vulnerable (prevalence 29.4%), similarly dalits were at greater risk.

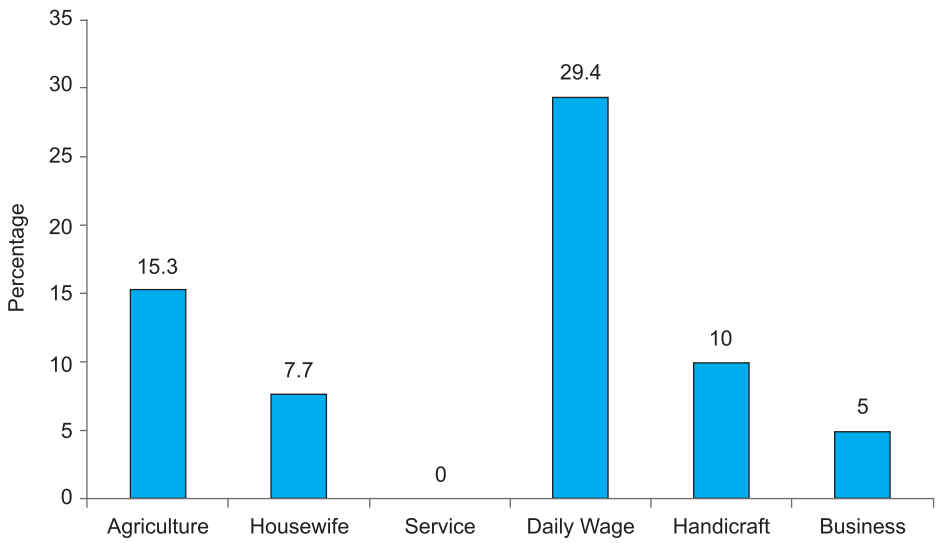

Figure 1: *Occurrence of uterine prolapse by occupation*

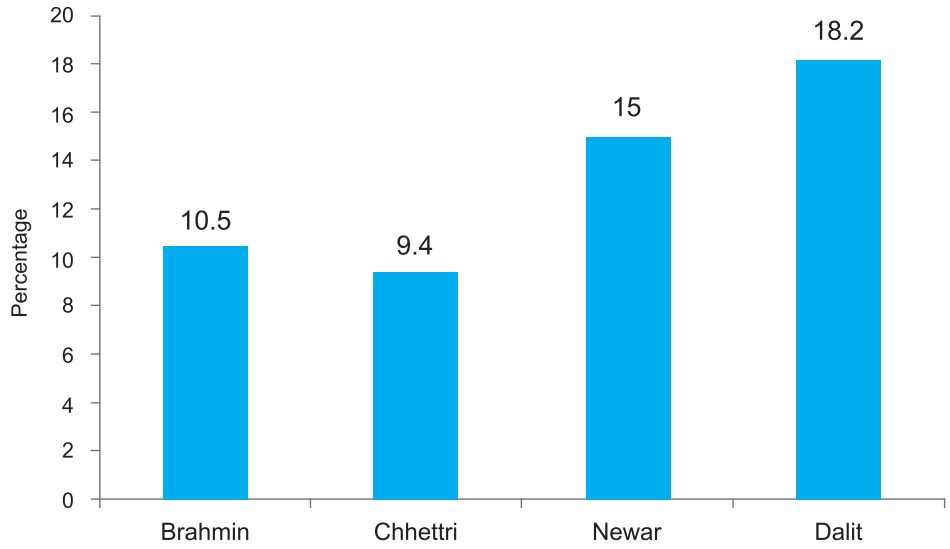

Figure 2: *Prevalence of uterine prolapsed by ethnicity*

In this study, the occurrence of UP was found to be significantly associated with the different factors (table 2). The risk of having uterine prolapse is 8.87 (CI: 2.8 - 28.0) times more in women who married below 20 years of age compared to women who married at greater age.

The women in the nuclear family were more likely (3.9 times) to suffer from uterine prolapse compared to the joint family. The difference of proportion is significant.

Similarly the proportion of occurrence of uterine prolapse is more in women with inadequate income 38.8% (14 out of 36) compared to adequate income women 4% (6 out of 132). This shows that the subjects who had inadequate income were more likely (OR= 31.8 times) to suffer from uterine prolapse. Likewise there is highly significant association between uterine prolapse and mother having more than two children ($p<0.05$), women who had pregnant below 20 years ($P<0.05$), women who had pregnant more than 2 times ($p<0.05$). Place of delivery, working hours during pregnancy, rest and weight lifting were the significant factors for the occurrence of uterine prolapse.

Table 3: Association between uterine prolapsed and various factors

	Variables	Present	Absent	P value	χ^2	OR	C.I.
Married age	< 20 Years	16	46	<0.001	18.1	8.87	2.8-28.0
	≥ 20 years	4	102				
Family type	Nuclear family	18	102	0.038	3.9	4.09	1.0-18.2
	Joint family	2	46				
Income	Inadequate	14	22	<0.001	31.8	13.6	4.6-38.5
	Adequate	6	126				
No. of children	> 2 children	14	48	.001	10.6	4.8	1.8-13.4
	2 children	6	100				
Age at first pregnancy	<20 years	17	46	<0.001	21.8	12.6	3.5-45.0
	≥ 20 years	3	102				

	Variables	Present	Absent	P value	χ^2	OR	C.I.
No. pregnancies	> two times	14	48	.001	10.7	4.8	1.8-13.4
	2 times	6	100				
Total number of live birth	> 2times	14	48	.001	10.7	4.8	1.8-13.4
	2 times	6	100				
Child space	<2 years	15	62	0.005	7.8	4.1	1.4-12.0
	≥ 2 years	5	86				
Place of delivery	Not in hospital	11	47	0.04	4.2	2.6	1.06-2.8
	Hospital	9	101				
Type of delivery	Vaginal delivery	13	94	.897	0.017	1.067	.401-2.8
	Others	7	54				
Worked during ANC and PNC	≥ 6 hours	17	88	.027	4.9	3.8	1.08-13.8
	< 6 hours	3	60				
weight lifting at ANC and PNC period	>7 kg	14	50	.002	9.8	4.5	1.6-12.6
	≤ 7 kg	6	98				

DISCUSSION

The prevalence of uterine prolapse in our study population was found to be 11.9%, which align with the findings of a study conducted in a similar area of Kaski district (11.7%).[6] At present 200,000 Nepali women are in need of immediate surgical treatment.[7]

Dalit women were found to be relatively affected more compared to others. The same ethinic group was pointed out as a most vulnerable group in another study conducted in Bhaktapur.[8] Our present study showed that various factors were significantly associated with the occurrence of the Uterine Prolapse. Considering occupation, daily wages women were mostly affected, whereas women with regular job showed no uterine prolapse at all.

Married age under 20 year, woman having more than 2 children, higher parity, age at first pregnancy, child spacing were identified as the important casual factors of UP. The risk factors identified in our study are strongly supported by several studies conducted in different parts of the country.[9,10]

The study conducted in Chandigarh, India has also reported the significant association of higher parity with the occurrence UP.[11]

In regards to income generation, women with low income were more likely (OR:13.6) to have UP as compared to high income generators. Number of studies has demonstrated a low income as a predominant causative factor for UP. [9,10]

A similar study in Doti has stated the inverse relationship between monthly income and prevalence of UP.[12]

Most of the women who are the income generator for the family, have to work even during pregnancy for living. They may involve in heavy weight lifting, prolong period of work without rest and inadequate nutrition. This present study along with others strongly indicate that improvement in economic status may meaningfully reduce the occurrence of UP.

Further, the women of Nuclear family residing in the semi-urban city were affected more. The study conducted in Jhaukhel, a semi-urban city in Bhaktapur, also reported nuclear family women as most susceptible to UP. Almost three-forth of the nuclear family women were affected with the Uterine Prolapse.[8] The women in the nuclear family have to perform all the household chores by herself, and this may lead to unwanted stress and less rest hours.

The total working hours during pregnancy also demonstrated significant association with the occurrence of UP. The womens who worked more than 6 hrs in total (ANC+PNC) were almost four time more prone to UP. The finding is supported by a similar study conducted in Chitwan. The study in Doti also has highlighted the significant association of working hours and occurrence of UP.[10, 13]

Heave weight lifting was also one of the predominant cuase of UP in our study population. The women who were lifting heave weight (>7 KG) during ANC and PNC period were found to be suffered from UP. They were 4.5 times more likely to have this disorder.

The study pointed and highlighted to the possible risk factors to the occurrence of UP in a semi-urban area of Kathmandu district. It could have been extended to the similar other villages in Kathmandu to explore the true prevalence and to identify the most predominant and common cause to UP.

CONCLUSION

Uterine prolapse in a semi-urban area of Kathmandu was a mild public health problem. Demographic and socio-economic factors were found to be the significant causative factors for the occurrence of Uterine Prolapse. Income, age of women at first pregnancy, child spacing and number of parity were the predominant casual factors in for uterine prolapse in our study population.

REFERENCES

1. Shrestha B, Onta S, Choulagai B, Poudyal A, Pahari DP, Uprety A, Petzold M, Krettek A. Women's experiences and health care-seeking practices in relation to uterine prolapse in a hill district of Nepal. BMC Women's Health. 2014;14:20
2. Bajracharya AR, Uterine Prolapse: Hidden tragedy of women. 2007
3. Datta DC. Textbook of Gynaecology. 5th ed. India: Central book agency; 2008. p.193-196
4. Barbara BA, Chanda S, Bodnerkhaus. Risk factors for uterine prolapsed in Nepal. International urogynecology journal and pelvic floor dysfunction. 2007; 18(11): 1314-6
5. Subba B, Adhikari D, Bhattari T. The neglected case of the fallen womb. Himal south Asian Nepal; 2003.
6. Tamrakar A. Prevalence of uterine prolapse and its associated factors in Kaski district of Nepal. JHAS. 2012;2:38-41
7. Khatri RB. Situation of Uterine Proplapse in Salyan, Muguand, Bajhang Districts of Nepal: A Clinic Based Study. Health Prospect 2011; 10
8. Shrestha B, Onta S, Choulagai B, Paudel R, Petzold M, Krettek A. Uterine prolapse and its impact on quality of life in the Jhaukhel Duwakot Health Demographic Surveillance Site, Bhaktapur, Nepal. Glob Health Action. 2015; 8: 10.3402/gha.v8.28771.
9. Puri R. Prevalence, risk factors and traditional treatments of genital prolapsed in Manma, Kalikot district, Nepal: A community based population study (MPH). University of Tromso, Norway; 2011. Available from: https://munin.uit.no/handle/10037/4658
10. Thapa B, Rana G, Gurung S. Contributing factors of utero-vaginal prolapse among women attending in bharatpur hospital. Journal of Chitwan Medical College. 2014; 4(9): 38-42
11. Kumari S, Walia I, Singh A. Self reported Uterine Proplase in a resettlement colony of North India. Journal of Midwifery Womens Health. 2000;4:343- 50.
12. Paneru D. Uterine Prolapse in Doti District of Nepal. Kathmandu: NHRC; 2010.Available from:http://library.nhrc.gov.np:8080/nhrc/handle 123456789/611
13. Dharshan S, Lakhe B, Sharma J, Singh S, Shrestha B Singh S. Prevalence of Uterine Prolapse amongst Gynecology OPD Patients in Tribhuvan University Teaching Hospital in Nepal and its Socio- Cultural Determinants.