ORIGINAL RESEARCH ARTICLE

CONTRIBUTING FACTORS OF UTERO-VAGINAL PROLAPSE AMONG WOMEN ATTENDING IN BHARATPUR HOSPITAL

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ABSTRACT

Uterine prolapse is a major public health problem in rural Nepal. It is a medical and social problem, deeply rooted with poor health services and socio-cultural beliefs. The objective of this study was to find out the contributing factors of utero-vaginal prolapse among women attending in Bharatpur hospital. Descriptive study design was used. A total of 100 women diagnosed with utero-vaginal prolapse were selected by using purposive sampling technique. Data processing and analysis was done using SPSS. The study reveals that 88% of women were involved in agriculture and 82% of them were illiterate. Ninety two percent of the women got marriage before the age of 20, 42% women became pregnant 3-5 times, 96.33% of babies were born at home and 100% of them were born vaginally. Sixty six percent of the women gave birth to first child between the ages of 16-20, 92% had done heavy work during pregnancy and postnatal period and none of the women did kegal exercise. Based on the findings of the study it is concluded that the most important contributing factors found by our study were heavy work, illiteracy, early marriage and child birth, inadequate food during pregnancy and postpartum period, multi parity, home delivery, vaginal delivery, less rest period in post partum, no kegal exercise. The relationship between age of uterine prolapse and age of first child birth was 0.306 which was positive relationship between them. Which shows that there was statistically significant (P- value=0.002).

Key Words: *Contributing factors, utero-vaginal prolapse, women*

INTRODUCTION

Uterine prolapsed is a condition in which the muscles and supporting ligaments holding the uterus in place gets too weak to keep the uterus in position. Risk factors for uterine prolapse are among others pregnancy and delivery, improper delivery techniques, heavy work during and soon after pregnancy and heavy lifting. According to the United Nations Population Fund (UNFPA), the high number of affected women in Nepal is due to, among other reasons, the lack of skilled birth-attendants, women carrying heavy loads, lack of contraceptives and giving birth to many children.[2]

Globally, 30% of all women who have delivered a child are affected. For every maternal death, an estimated six to 15 women face debilitating morbidity. The incidence in other countries is – 17% in Australia and U.S., 8.5% in France and 27% in Turkey. Global prevalence is quoted as 2 – 20 % under the age of 25 years. In Nepal, 9-35% of Nepali women are suffering from uterine prolapsed, and at least 200,000 are in need of immediate surgical treatment. Prolapse surgery is the 2nd in the operation list and 45% of cases appear after first delivery. There is one in four women complained of UP, and one in four were diagnosed with UP. Over one fifth of women are reported the onset of

prolapsed before the age of 20 years.[1]

A study conducted by Shrestha (2006) in TUTH Nepal reports that POP was detected in 207 out of 2070 (10%) women - 30.9% suffer from the major degree of UVP and would require operative management, the second degree and third degree constituted 12.6% and 16.9% respectively, while 1.4% have procidentia. Schaaf et al (2007) reports that in a region in West Nepal, 25% of the visitors of free female health care clinics were diagnosed with first, second and third degree UP and procidentia. In Bajhang, another deprived region in West Nepal, 51.6% of the visitors of a medical camp for women have gynecological problem of which 36% concerned UVP. In 2004, Bonetti, Erpelding, and Pathak conducted a clinic-based study, which examined 2,072 women with gynecological complaints. They found that one in four had UP, of which 95% self-reported their prolapse.[3]

The study was carried out in a mid western hilly part of Nepal: Manma, Village Development Committee (VDC), the capital of the Kalikot district to measure the prevalence of UP, the associated risk factors. Result shows the various risk factors

favoring UP (< 0.05) were illiteracy, multi parity, early age at marriage, poverty, home delivery and smoking.[4]

The causes of UP that have been generally identified are such as inaccessibility to quality maternal health care (Skilled Birth Attendant and Emergency Obstetric Care), poverty, gender discrimination related to health (RH/maternal care), nutrition (life cycle), workload during postnatal period and domestic violence. In particular, no additional food during pregnancy and postnatal period, absence of work load sharing during pregnancy and inadequate post natal care contribute to UP. Prolonged labor, birth of big babies, unsafe abortions, sexual intercourse immediately after delivery, tightening of stomach using patuka (a piece of cloth used to wrap around the stomach) after delivery, hypertension and diabetes are supposed to be other causal factors 5 of UP.[3]

METHODS

A descriptive study design was used to find out the contributing factors of utero -vaginal prolapse among women attending in Bharatpur hospital, Chitwan. Hundred women attending at out-patient department and in-patient department and diagnosed with utero-vaginal prolapse were selected by using purposive sampling technique.

Administrative approval was obtained from the concerned authorities from Bharatpur hospital after submitting request letter from Chitwan Medical College Institutional Review Committee (CMC-IRC). Verbal informed consent was obtained from all participants to ensure the right of the subjects. Semi-structured interview schedule was used to collect data. The anonymity was maintained by giving code number instead of their name and privacy and confidentiality was maintained. Subjects were not forced to participate in the study. Data was collected from 2070/07/8 to 2070/10/30. Data were analyzed using SPSS full version 20.0. Descriptive analysis was done in terms of frequency, percent, mean and standard deviation.

RESULTS

Table 1: Socio Demographic Characteristics of Respondents of Age, Occupation, Type of Work, Education and Age of Uterine Prolapse (n=100)

Variables	Frequency	Percent
Age of the respondents		
≤50	24	24.0
51-65	47	47.0
66-80	25	25.0
>80	4	4.0
Mean age±SD= (59.14±11.44) yrs, min=38, max.=86 Occupation		
Agriculture	88	88.0
Business	7	7.0
Housewife	3	3.0
Daily wage earner	1	1.0
Tailor	1	1.0

Type of work		
Light	10	10.0
Heavy	90	90.0
Educational status		
Illiterate	82	82.0
Literate	18	18.0
Age of uterine prolapse		
<20	13	13.0
20-29	28	28.0
30-39	17	17.0
40-49	21	21.0
≥50	21	21.0

Mean age of uterine prolapse ±SD=(35.99± 14.54) years, min.= 17, max.=76

Table 1 demonstrates the socio-demographic characteristics of the respondents. Regarding the age of the respondents, 47% of the respondents were between the ages of 51-65 and minimum 4% of them were more than 80 years of age. Mean and standard deviation of age of respondents was 59.14±11.44 years. Regarding occupation, majority of the respondents (88%) were involved in agriculture. Ninety percent of the respondents responded that they performed heavy work and 82% were illiterate. Regarding the respondents' age of uterine prolapse, 28% of the respondents had uterine prolapse between the ages of 20-29 and minimum 13% of the respondents had uterine before 20 years of age. Mean and standard deviation of age of uterine prolapse was 35.99± 14.54 years.

Table 2: Contributing Factors of Utero-vaginal Prolapse of Age of Marriage, Food Adequacy during Pregnancy, Number of pregnancy, Place and Type of Delivery, Durtion of Labor in Primi and Multi

Variables	Frequency	Percent
Age of marriage(n=100)		
<20	92	92.0
≥20	8	8.0
Food adequacy during pregnancy (n=100)		
Yes	22	22.0
No	78	78.0
Number of pregnancy(n=100)		
1-2	10	10.0
3-5	42	42.0
6-9	39	39.0
10-13	9	9.0
Place of delivery		
Home	500	96.33
Hospital	19	3.8
Types of delivery(n=519) Vaginal Duration of labor of primi (n=98)	519	100

≤12	60	61.2
>12	38	38.8
Duration of labor of multi (G$_2$) (n=92)		

Table 2 reveals regarding the age of marriage of respondents, 92% of the respondents got marriage before the age of 20. Seventy eight percent of the respondents responded that they did not get sufficient foods during pregnancy. Regarding the number of pregnancy, 100 respondents became pregnancy 560 times (519 term babies and 41 abortions). Among them, majority of the respondents (42%) became pregnant 3-5 times and minimum 9% of the respondents became pregnant 10-13 times. Majority of the babies (96.33%) were born at home and 3.8% were born at hospital and cent percent of the babies were born vaginally. Regarding the duration of labor for primi women, 38.8% of them were delivered more than 12 hours and 28.3% of second gravida were delivered more than 6 hours.

Table 3: Contributing Factors of Utero-vaginal Prolapse of Age of First Child Birth, Type of Work during Pregnancy and Postnatal Period and Starting Daily Activities after Delivery(n=100)

Variables	Frequency	Percent
Age of first child birth		
≤15	5	5.0
16-20	66	66.0
21-25	24	24.0
26-30	3	3.0
≥31	2	2.0
Type of work during pregnancy and postnatal period		
Light	8	8.0
Heavy	92	92.0
Starting daily activities after delivery		
<15 days	66	66.0
15- 30 days	24	24.0
31- 45 days	7	7.0
> 45 days	3	3.0

Table 3 reveals that 66% of the respondents gave birth to first child between the age of 16-20 and minimum 2% of the respondents gave birth to first child after the age of 30. Regarding the type of work during pregnancy and postnatal period, majority of respondents (92%) had done heavy work and 8% had done light work. Regarding the days of starting to perform daily activities after delivery, majority of the respondents (66%) started within 15 days and 3% of the respondents responded that they started to perform daily activities after 45 days of postpartum period.

Table 4: Contributing Factors of Utero-vaginal Prolapse of Food Adequacy during Postnatal Period, Tying Patuka during Postnatal Period and Abortion

Variables	Frequency	Percent
Food adequacy during postnatal period		
Yes	30	30.0
No	70	70.0
Tying patuka (waist binder) during postnatal period		
Yes	75	75.0
No	25	25.0
History of induced abortion		
Yes	20	20.0
No	80	80.0

Table 4 reveals that 70% of the respondents responded that they did not get sufficient food during postnatal period. Regarding tying patuka (waist binder) on abdomen during postnatal period, 75% of the respondents tied waist binder during postnatal period. Regarding history of abortion, 20% of the respondents had done induced abortion.

Table 5: Contributing Factors of Utero-vaginal Prolapse of Sexual Intercourse after Delivery, Birth Spacing, History of Smoking, Menopause, Kegal Exercise and Pelvic Surgery(n=100)

Variables	Frequency	Percent
Sexual intercourse after delivery		
Within 42 days	46	46.0
After 42 days	54	54.0
Birth spacing		
Yes	41	41.0
No	59	59.0
History of smoking		
Used to smoke	20	20.0
Have been smoking	25	25.0
Don't smoke	55	55.0
History of menopause		
Yes	85	85.0
No	15	15.0
Pelvic floor (kegal) exercise during postnatal period	0	0.0
yes No	100	100.0
History of constipation		
I had	1	1.0
I have been suffering	20	20.0
No history	79	79.0

Table 5 reveals that 46% of the respondents resumed sexual intercourse within 42 days of postpartum period. Regarding birth spacing, 41% of the respondents had birth spacing. Regarding history of smoking, 55% of the respondents were non-smokers, 25% of the respondents have been smoking and 20% of the respondents used to smoke in the past. Eighty five percent of the respondents were postmenopausal women. Cent percent of the respondents responded that they never did pelvic floor (kegal) exercise during postnatal period. Seventy nine percent of the respondents do not have the history of constipation, 20% of the respondents have been suffering from constipation and 1% had the history of constipation in past. Cent percent of the respondents do not have the history of pelvic surgery.

Table 6: Relationship between Age of Uterine Prolapse and Selected Variables

Variables	Correlation	P- Value
Age of uterine prolapse Age of marriage	0.041	0.686
Age of uterine prolapse Age of first child birth	0.306	0.002

P-Value at 0.05 level of significance

The relationship between age of uterine prolapse and age of marriage was 0.041 that is positive relationship between them, which shows that there was no statistically significant (P- value=0.686). The relationship between age of uterine prolapse and age of first child birth was 0.306 which was positive relationship between them. Which shows that there was statistically significant between age of uterine prolapse and age of first child birth (P- value=0.002).

DISCUSSION
The main objective of the study was to find out the contributing factors of utero -vaginal prolapse among women attending in Bharatpur hospital, Chitwan.

The study finding of this study reveals that majority of the women (88%) were involved in agriculture. A study conducted by Menur & Hailemariam reveals that 68.2% of the patients were farmers and there was a significant association between prolapse and occupation (p < 0.05).[5]

Finding of this study reveals that the majority of the women (82%) were illiterate. In majority of the women (28%), the uterus was prolapsed at the age of 20-29 and 13% of the respondents had uterine prolapse before 20 years of age. The mean age of uterine prolapse was 35.99. Ninety two percent of the women got marriage before the age of 20. Sixty six percent of the women gave birth to first child between the age of 16-20 and 5% women under the age of 15 and 96.33% of the babies were born at home. Seventy eight percent of the women responded that they did not get sufficient foods during pregnancy period and 70% did not get sufficient food during postnatal period. Similar results were reported by the study of Pradhan (2007). Result reveals that 85% of respondents were illiterate. In 58% of women uterus was prolapsed at the age of

20- 29 years. Earliest onset on this survey is 14 years which figures that uterus prolapsed often occurs from a very early age. Ninety three percent of the women were married under the age of 18. Sixty five percent of the women gave birth to their first child before the age of 19, 4% women under the age of 15. A total of 93% of respondents gave birth at home. Comparing the type of food given to the women during post natal period, it was noted that women have insufficient nutritious food during pregnancy and the post natal period.[6] Similar results were reported from other studies too.[3, 4, 7]

In this study, cent percent of the babies were born vaginally, 38.8%) of the primi mothers were delivered more than 12 hours. Sixty six percent of the respondents started to perform daily activities within 15 days, 24% started between 15-30 days, 7% started between 31-45 days and 3% of the respondents responded that they started to perform daily activities after 45 days of postpartum period. Similar results were found by Puri (2011). The result reveals that the majority of women (80.2%) delivered vaginally and prolong labour was experienced by 41.6%. Similarly, 59.5% of the women took rest after delivery for less than 15 days, while 18.3% took rest for a minimum of 30 days. Minimum 45 days rest was taken by 2.4% of the women and more than 45 days rest was taken by 9.9% of women.[4]

In this study, 42% of the women became pregnant 3-5 times, 39% became 6-9 times pregnancy, 10% became 1-2 times and 9% of the respondents became pregnant 10-13 times. Forty nine percent of the respondents responded that income for food is sufficient for 1 year followed by 24% responded that income for food is sufficient for 6 months, 17% responded that income for food is sufficient for more than 1 year and 10% of the respondents responded that income for food is not sufficient for 6 months. Shrestha & Lakhey, Sharma, Singh, Shrestha & Singh (2009) found that 33.34% of the respondents were pregnant for more than 5 times (6-9 times), 46.97% were pregnant for more than two times (3-5) and only 13.64% were pregnant for 1-2 times and 6.07% of women were pregnant between10-13 times. Regarding sufficiency of food of the respondents, 9.1% respondents had access to sufficient food for less than 3 months and 22.7% of them had sufficient food for 3-6 months whereas 66.7% had sufficient food for more than 6 months.[3] In this study, 92% of women had done heavy work during pregnancy and postnatal period. It is supported by the study of Bodner-Adler, Shrivastava and Bodner which reveals nearly all patients reported that they were working heavily during pregnancy as well as in the postpartum period (87%).[8]

In this study, 45% of the women have the history of smoking. The study of Progetto Menopausa Italia Study Group found that the percentage of smokers was 31% among women from Terai and 52% in the hill/mountain districts.[9] Contradict results were reported in the study of Panta which reveals that more than 95% were smokers and most of the smokers were suffering from chronic cough.[10]

In this study, 16% of the women had the history of chronic cough. Twenty one percent of the women had the history of

constipation. Similarly, in the Menur & Hailemariam study, the risk factors identified were chronic cough (20.9%), constipation (30.2%).[5]

CONCLUSION

Based on the findings of the study it is concluded that the most important contributing factors found by our study were heavy work, illiteracy, early marriage and child birth, inadequate food during pregnancy and postpartum period, multi parity, home delivery, vaginal delivery, less rest period in post partum, no kegal exercise. The relationship between age of uterine prolapse and age of marriage was 0.041 that is positive relationship between them, which shows that there was no statistically significant (P- value=0.686). The relationship between age of uterine prolapse and age of first child birth was 0.306 which was positive relationship between them. Which shows that there was statistically significant between age of uterine prolapse and age of first child birth (P- value=0.002).

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REFERENCES

1. Khatri RB. Situation of Uterine Proplapse in Salyan, Muguand, Bajhang Districts of Nepal: A Clinic Based Study. Health Prospect 2011; 10.

2. Broms I, Ingvarsson AK. Nepalese women suffering from uterine prolapsed. A participant observational study in a maternity hospital in Nepal 2012.

3. Shrestha AD, Lakhey B, Sharma J, Singh M, Shrestha B, Singh S. Prevalence of uterine prolapse amongst gynaecology OPD patients in Tribhuwan University Teaching Hospital in Nepal and its socio cultural determinants. Kathmandu: Safe motherhood network federation, Beyond Beijing Committee, TUTH 2009.

4. Puri R. Prevalence, risk factors and traditional treatments of genital prolapsed in Manma, Kalikot district, Nepal: A community based population study. (Thesis for the degree of Master of Public Health 2011). Menur A, Hailemariam S. Pelvic organ prolapse in Jimma University specialized hospital, Southwest Ethiopia. Ethiopian Journal of Health Science 2012; 22(2): 85-92.

5. Pradhan S. Unheeded Agonies - A Study on Uterine Prolapse Prevalence and its Causes in Siraha and Saptari Districts. Women's Reproductive Rights Program (WRRP), Centre for Agro-Ecology and Development (CAED), Kathmandu, Nepal 2007.

6. Tamrakar A. Prevalence of uterine prolapsed and its accociated factors in Kaski District of Nepal. Journal of Health and Allied Science 2012; 2: 38-41.

7. Bodner-Adler B, Shrivastava C, Bodner K. 'Risk factors for uterine prolapse in Nepal.' International Urogynecology Journal and Pelvic Floor Dysfunction 2007; 18(11):1343-6.

8. Progetto Menopausa Italia Study Group. Risk factors for genital prolapse in non hysterectomized women around menopause. European Journal of Obstetrics of Gynaecology and Reproductive Biology 2000; 93(2): 135-140.

9. Pant PR. Utero-vaginal prolapsed in far western region of Nepal. Journal of Institute of Medicine 2009; 31(2).