Original Research Article

Prevalence and Risk Factors of Uterine Prolapse in Achham District, Nepal

Namita Kumari Bogati[1]; Bhagwan Aryal[2]*; Jyoti Kuikel[3]; Tilak Bogati[4]; Chhabi Lal Ranabhat[5]
[1]Kathmandu Shiksha Campus, Kathmandu, Nepal; email: bogatin59@gmail.com
[2]Central Department of Education, Tribhuvan University, Kathmandu, Nepal; email: bhagwan.aryal@cded.tu.edu.np;
ORCID: 0000-0002-9215-3551
[3]Central Department of Population Studies, Tribhuvan University, Kathmandu, Nepal; jyotikuikel01@gmail.com;
ORCID: 0000-0001-8313-0748
[4]National Model College for Advanced Learning, Institute of Medicine, Kathmandu, Nepal; email:
bogati.tilak@gmail.com
[5]Department of Health Administration and Promotion, College of Public Health, Eastern Kentucky University,
Richmond, KY 40475, USA; email: chhabir@gmail.com; ORCID: 0000-0002-4460-2121
*Corresponding author

Abstract

Uterine Prolapse (UP) is one of the hidden morbidities that do not lead to death, but women suffer from severe lifelong disabilities. In Nepal, the prevalence of UP in women varies from 10 to 40% due to several underlying causes. Therefore, the main aim of the study was to identify the prevalence and associated risk factors of UP. This community-based descriptive cross-sectional study was conducted among 300 married women aged 18 and over in four villages of Kamal Bazar Municipality, Achham, who suffered from UP. The random sampling technique was used to collect the data. The samples were selected using multistage sampling technique. The structured interview questionnaire was used and the face-to-face interview was conducted. The data were analyzed using MS-Excel and SPSS version 23. The statistical tests used were binary logistic regression, univariate and multivariate logistic regression. The prevalence of UP was 33.7%. In the multivariate analysis, participants aged 20-30 were forty one times more likely to suffer from UP than older participants of 50-60 {aOR 41.86 (95% CI; 14.31-122.45)}, were seven times more likely to have not attended health facilities for Antenatal Checkup/Postnatal Checkup (ANC/PNC) {aOR 7.10 (95% CI; 3.53-14.26)}, were less likely to have institutional delivery {aOR 0.13 (95% CI; 0.05-0.31)} and were three times more likely to have high Body Mass Index (BMI) {aOR 3.97 (95% CI; 1.81-8.71)}. Thus, the participants who hadn't attended ANC/PNC checkups, had given birth at home, or had a high BMI, were more likely to have suffered from UP. Education is necessary to make people aware of UP at an early age and its impact is seen among people of a lower age in the area.

Keywords: Prevalence, risk factors, uterine prolapse, women's experience

Introduction

Uterine prolapse (UP) is a serious public health problem in Nepal (Groen et al., 2015; Adhikari, 2017a). Recently, the worldwide prevalence of UP has been reported to be around 9%. It is estimated to be closer to 20% in low-income countries like Nepal (Masenga et al., 2018). Currently, one in every 10 women in Nepal is believed to have been suffering from UP, and a thousand more young girls are at risk (Adhikari, 2017b). Among the health problems faced by women, UP is a complex condition as it manifests different difficulties and symptoms like severe abdominal pain, an inability to sit, walk and/or stand, difficulties urinating and defecating, odorous discharge, sexual dysfunction, and inability to perform daily tasks (Subedi, 2010). Furthermore, it is stigmatized and women keep it secret because of the shame of the condition affecting a

sensitive part of a woman's body (Tamrakar, 2012). They experience interference in their daily activities (Joseph et al., 2016).

Many cross-sectional studies conducted on a community or clinical basis showed that the prevalence of UP in Nepal varies somewhere between 10% and 37% (Radl et al., 2012). It is observed that there is higher illiteracy, ignorance, and less decision-making capacity among women which has resulted in higher uterine prolapse cases in Nepal. UP is getting special attention globally. With the advent of International Conference on Population and Development (ICPD) 1994, women's health along with reproductive health were discussed in a more holistic way emphasizing reproductive rights, women's empowerment, and gender equity. The Constitution of Nepal 1990 focused on non-discrimination and equality as fundamental rights. The Ministry of Health and Population (MoHP) has provided services to address UP cases and declared UP as a priority. Recently, the Government of Nepal (GoN) developed guidelines for UP screening, the use of pessary rings, and referral services free of cost. Nepal's Supreme Court declared UP a human rights issue in 2008, and in response, the government pledged support for hysterectomies free of charge (Aryal, 2014).

The exact burden of UP is still growing as it is not openly shared due to shyness, stigma, and discrimination. Only a few studies have explored women's experiences of living with UP and their quality of life (Sharma & Zhang, 2014). In Nepal, UP appears to be widespread, but little published evidence exists (Torrisi et al., 2007). In addition, the outcome of conservative and surgical treatment for UP has rarely been evaluated in terms of quality of life (Sharma & Zhang, 2014). Thus, this study aimed to assess the prevalence of uterine prolapse among married women of age over 18 years in the Achham district, identify the risk factors associated with it and women's experiences of UP.

Methods and Materials

The community-based descriptive cross-sectional study design was used targeting married women aged 18 or over in Kamal Bazar Municipality, Achham district. The district from far-western region was selected as the prevalence of UP as it is high in that region (UNFCO, 2010) .

The sample size calculation suggested we needed 272 women (adjusted to 300) putting the allowable error at 5%. It was calculated as follows: The Annual Report 2073/74 suggests a national UP prevalence rate of 23%; resulting in $n = z^2 pq/d^2$ (Pourhoseingholi et al., 2013) where z is the value at 95% confidence interval, p is the prevalence of 23%, q is (1-p), d is allowable error, i.e. 5% so, n=272.

The sampling technique was a multi-stage sampling technique. At first, the far western region was selected as a universe of the study. Then three districts where the UP was highly prevalent were selected. Among those three districts, Achham district

was selected being one of the districts with high prevalence of UP. In Achham district, the villages were selected where the UP was high. Then in the next stage, the clusters/wards where there was high number of married women were selected as the study population.

Ten percent of the total population from each ward was included as the sampling unit. In this way, based on FY 2073/74 annual report, there was a selection of 113 respondents out of 1130 from Bayala, 53 out of 530 from Dhanku, 56 out of 560 from Mastabandali, and 78 out of 780 from Sera.

A questionnaire with structured questions was developed to be administered face-to-face by enumerators. The questionnaire was administered in Nepali language. Pre-testing of the tool was conducted in a neighboring ward of Kamal Bazar Municipality by taking ten percent of the total sample size. These pilot data were not included in the main study.

Variables

The independent variables were categorized into socio-demographic factors which included age, ethnicity, family type and age at marriage. The socio-economic factors included educational status, occupation, and source of family income. The obstetric factors included age at first pregnancy, ANC/PNC visit, place of delivery, and mode of delivery. The clinical factors included BMI, age at the time of UP, duration of UP, degree of UP, and symptoms of UP.

Figure 1

Conceptual Framework of the Study

Independent Variables   **Dependent Variable**

Socio-Demographic Variables
Age
Ethnicity
Family Type
Age at marriage

Socio-Economic Variables
Educational status
Occupation
Source of family income

Obstetric Factors
Age at first pregnancy
ANC/PNC visit
Birth spacing
Place of delivery
Mode of delivery

Clinical Factors
BMI
Age at time of UP
Duration of UP
Degree of UP
Symptoms of UP
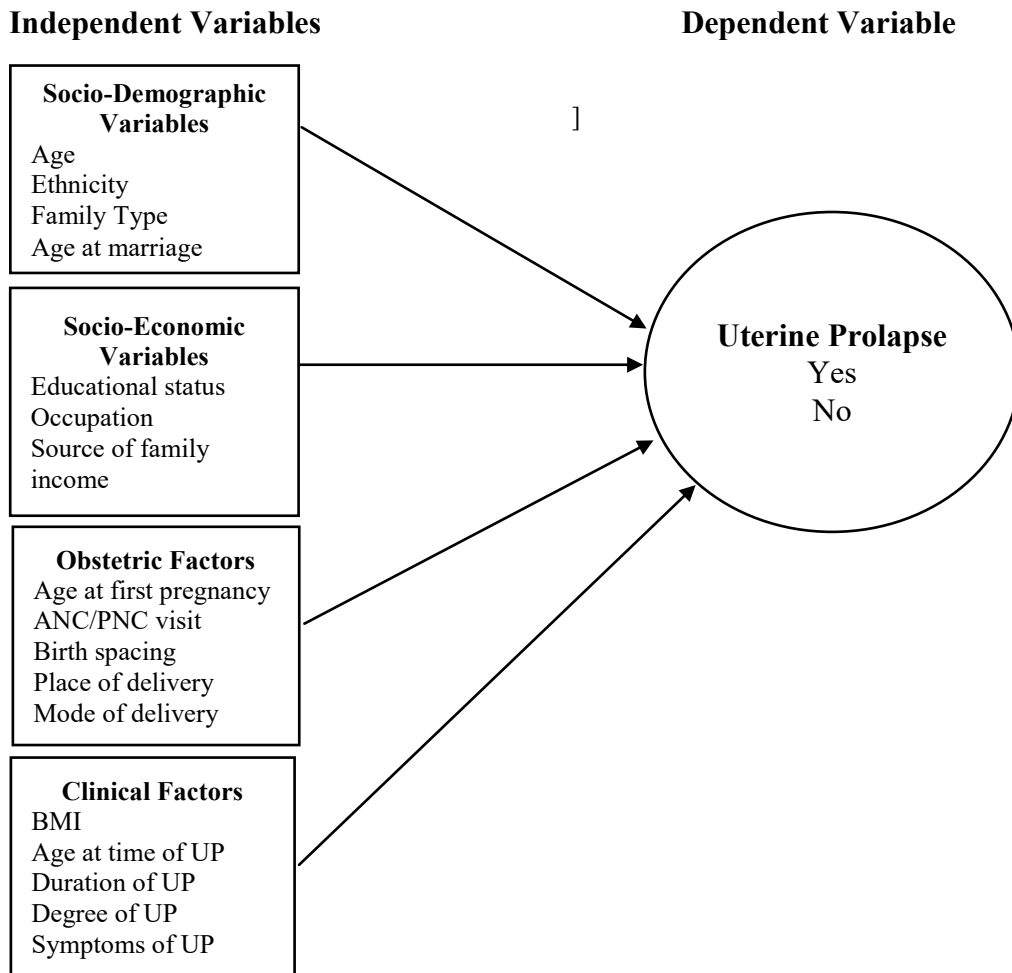
Uterine Prolapse
Yes
No

Figure 1 shows the dependent variables were participants with or without UP. Among the participants with UP, independent variables were assessed to identify the relationship.

Data Management

The data generated were categorized and coded in MS Excel and SPSS (version 23). For the measure of central tendency and dispersion, the percentage, mean and standard deviation were used as the numerical variable (like age) in a normal distribution. For the association between dependent and independent variables, chi-square was used since the variables were in categorical form and were non-parametric. To find out the degree of association between the dependent variable and independent

variables, binary logistic regression, univariate and multivariate logistic regression were used. These results were presented in tabular and diagrammatic forms.

Validity and Reliability of the Study

Study proposal preparation and interview schedule development were done under the close guidance of the research supervisor. Enough literature was reviewed for the accuracy of information and validity of tools. Pre-testing was done in the unselected ward of Kamal Bazar Municipality by taking 10% of the total sample size further. These samples were not included in the main findings of the study.

Ethical Considerations

Ethical approval was taken from the National Health Research Council (NHRC), Kathmandu with Registered No. 64/2019. Written informed consent was obtained from each participant and utmost care and importance were given while maintaining the confidentiality of participants throughout the study.

Results

Prevalence of UP

The prevalence of UP was calculated by dividing the number of participants who had suffered from the UP once in their lifetime.

Table 1

UP among the Participants

UP		Villages				Total
		Bayala	Dhanku	Mastabandali	Sera	
Yes	N	67	11	11	12	101
	%	59.3	20.8	19.6	15.4	**33.7**

Table 1 shows the frequency distribution of the UP among the participants based on the selected villages. It reveals that out of 300 participants, 101 (33.7%) had suffered UP once in their lifetime. The highest rate was found in Bayala village. As per the information provided by the participants, there was no birthing center, and they had to walk for more than two hours to seek health care services. So, most of the women ignored their disease till they didn't suffer severely. The participants even complained about the distance from their home to the health facility as a barrier to seek health services. They preferred treatment during the campaigns but these campaigns were rare about once a year.

Risk Factors of UP

The analysis was further divided into subheadings where the socio-demographic characteristics, socioeconomic characteristics, obstetric factors, and clinical factors

were considered as the independent variables for the analysis and to assess the association. The detailed findings are discussed below in the sub-headings.

Socio-Demographic Factors

Participants' ages, ethnicity, family structure, and age at marriage are considered as socio-demographic factors affecting UP as following:

Table 2

Socio-Demographic Factors affecting UP

S.N.	Characteristics	Total (N=300)		UP				p-value
				Yes (n=101)		No (n=199)		
		n	%	n	%	N	%	
1	Age (in years)	(35.16±10.41)		(42.52±8.72)		(31.43±9.15)		
	20-30	115	38.3	9	3.0	106	35.3	0.000**
	30-40	66	22.0	22	7.3	44	14.7	
	40-50	77	25.7	39	13.0	38	12.7	
	50-60	42	14.0	31	10.3	11	3.7	
2	Ethnicity							
	Brahmin	3	1.0	1	0.3	2	0.7	0.781
	Chhetri	201	67.0	65	21.7	136	45.3	
	Dalit	96	32.0	35	11.7	61	21.3	
3	Family type							
	Nuclear	130	43.3	32	10.7	98	32.7	0.004*
	Joint	170	57.7	69	23.0	101	33.7	
4	Age at marriage (in years)	(17.72±2.06)		(16.95±2.27)		(18.11±1.83)		
	10-14	13	4.3	10	3.3	3	1.0	0.003**
	15-19	233	77.7	76	25.3	157	52.3	
	20-24	54	18.0	15	5.0	39	13.0	

(Mean±Standard deviation)

As shown in table 2, the participants had a mean standard deviation age of 35, 10 years where the majority of them were of the age group 20-30 years old. About 33.7% had suffered from UP. Among the participants with UP, the mean age and standard deviation were 42, 8.72 years. It revealed that there is a statistically significant association between age and UP.

The majority of participants were Chhetri which was about 67%. There weren't any ethnic groups. There was no statistically significant association between the ethnic group and the prevalence of UP.

The mean age at marriage was 17.72 years. Most of the women were married at the age group of 15-19 years which was an early marriage. Few of them, i.e. 54 out of 300, 18% were married at the age of 20-24 years. About 25.3% of those who were married at

the age of 15-19 years had suffered from UP. There was a statistically significant association between age at marriage and UP with a p-value of 0.003.

Socio-Economic Factors

The analysis shows the frequency distribution of socio-economic characteristics like educational status, occupation, and main source of family income. Along with the frequency distribution, it shows the association between the UP with the socio-economic characteristics.

Table 3

Socioeconomic Factors Affecting UP

S.N.	Characteristics	Total (N=300)		UP				p-value
				Yes (n=101)		No (n=199)		
		n	%	n	%	N	%	
1	Educational status							
	Illiterate	132	44.0	70	23.3	62	20.7	0.000**
	Non-formal education	58	19.3	16	5.3	42	14.0	
	Basic education	40	13.3	12	4.0	28	9.3	
	Secondary level	40	13.3	2	0.7	38	12.7	
	Higher secondary level	30	10.0	1	0.3	29	9.7	
2	Occupation							
	Housewife	236	78.7	79	26.3	157	52.3	0.000**
	Agriculture	33	11.0	20	6.7	13	4.3	
	Others	31	10.3	2	0.7	29	9.7	
3	Family income source							
	Agriculture	206	68.7	73	24.3	133	44.3	0.514
	Foreign employment	66	22.0	21	7.0	45	15.0	
	Others	28	9.3	7	2.3	21	7.0	

Table 3 reveals the percentage distribution and the relationship between the socioeconomic factors with UP. Among the participants, 23.3% of the illiterate had suffered from UP. According to the data, there is a statistically significant association between UP and educational status.

The next analysis was on the occupation where most of the participants were housewives, i.e. 78.7% of the participants followed agriculture. Among them, 26.3 percent of house wives suffered from UP. It showed that there was a statistically significant association between occupation and UP.

About 68.7% of the family depended upon agriculture as the major income source followed by foreign employment (about 20% depended upon foreign employment as their main source of family income). Among 206 who depended upon agriculture, 24.3% had suffered from the UP. But there was no statistically significant association between family sources of income to the UP.

Obstetric Factors

The obstetric factors among the participants like the age at first pregnancy, ANC/PNC visit, place of delivery, and mode of delivery were assessed. Along with it, the association between these variables and UP was analyzed.

Table 4

Characteristics of the Participants based on Obstetric Factors

Characteristics	Total		UP				p-value
			Yes		No		
	n	%	n	%	n	%	
Age at first pregnancy	(19.76±2.19)		(19.03±2.31)		(20.13±2.03)		
10-14	6	2.0	4	1.3	2	0.7	0.083
15-19	215	71.7	76	25.3	139	46.3	
20-24	79	26.3	21	7.0	58	19.3	
ANC/PNC visit							
Yes	167	55.7	19	18.8	148	74.4	0.000**
No	133	44.3	82	81.2	51	25.6	
Place of delivery							
Home	183	61.0	93	31.0	90	30.0	
Institution	117	39.0	8	2.7	109	36.3	0.000**
Government hospital	23	7.7	2	0.7	21	7.0	
Health post	92	30.7	6	2.0	86	28.6	
Private health facilities	2	0.7	0	0	2	0.7	
Mode of delivery							
Normal	293	99.3	101	100	197	99	0.312
Cesarean	2	0.7	0	0	2	1	

(Mean±Standard deviation)

Regarding age at first pregnancy, about 71.7% were pregnant in the age group of 15-19 years. Among them, 25.3% had suffered from the UP. But the study didn't show a significant association between UP and age at first pregnancy. Out of 300 participants, 167 i.e. 55.7% had visited the health facilities for ANC/PNC. Among those who visited health facilities for ANC/PNC, 18.8% had suffered from UP. The study showed that there is a significant association between ANC/PNC visits and UP. The women who didn't go for the ANC/PNC checkups during the pregnancy were at risk of suffering from UP. About 61.0% had home delivery. It showed that there is a significant association between UP and the place of delivery. Besides, there was no relationship between UP and the mode of delivery.

Clinical Factors

The information includes the clinical factors of the participants. It includes the BMI, age at the time of UP, duration of the UP experienced by the participants, and degree of UP.

Table 5

Characteristics of Participants based on Clinical Factors

Characteristics	Total (N=300)		UP				p-value
			Yes (n=101)		No (n=199)		
	n	%	n	%	n	%	
BMI	(21.50;2.57)		(22.02;2.74)		(21.23;2.45)		
Low	42	14.0	22	7.3	20	6.7	0.000**
Normal	230	76.7	62	20.7	168	56.0	
High	28	9.3	17	85.7	11	3.7	
Age at the time of UP							
15-20	22	7.3	22	7.3	0	0	0.000**
20-25	45	15.0	45	15.0	0	0	
25-30	21	7.0	21	7.0	0	0	
30-35	13	4.3	13	4.3	0	0	
None	199	66.3	0	0	199	66.3	
Duration of UP							
1-10	17	5.7	17	5.7	0	0	
10-20	40	13.3	40	13.3	0	0	
20-30	31	10.3	31	10.3	0	0	
30-40	13	4.3	13	4.3	0	0	
None	199	66.3	0	0	199	66.3	
Degree of UP							
Grade I	30	10.0	30	10.0	0	0	
Grade II	65	21.7	65	21.7	0	0	
Grade III	6	2.0	6	2.0	0	0	
None	199	66.3	0	0	199	100	

(Mean; Standard deviation)

As shown in Table 5, the BMI of the participants was normal, i.e. most of them (76.7%) had BMI ranging from 18.5-24.9 kg/m². Among the participants with high BMI, i.e. 17 out of 28 (60.71%) had suffered from UP. This shows that the participants with high BMI were more likely to suffer from UP. Similarly, the study showed a statistically significant association between BMI and UP. Talking about the age at the time of UP, it shows 45 out of 101 and 22 out of 101 were of the age group 20-25 and 15-20 years respectively. This shows that younger women were more likely to suffer from UP.

Underlying Factors for UP

The underlying factors for UP were found with the help of logistic regression. From the above information, there was an association with certain independent variables, so those associated variables were used for further analysis.

Table 6

Underlying Factors of UP, OR with 95% CI

Characteristics	UP		
	Crude OR	95% of CI	p-value
Age			
20-30	33.19	12.61-87.34	0.000**
30-40	5.63	2.39-13.28	0.000**
40-50	2.74	1.20-6.23	0.016
Family type			
Joint	0.47	0.28-0.79	0.004*
Educational status			
Non-formal education	2.96	1.51-5.79	0.001*
Basic education	2.63	1.23-5.62	0.012
Secondary education	21.45	4.97-92.59	0.000**
Higher secondary education	32.74	4.33-247.45	0.001*
Occupation			
Housewife	0.35	0.16-0.73	0.005
Agriculture	7.04	1.63-30.32	0.001*
Age at marriage			
10-14	6.88	1.84-25.75	0.004*
15-19	8.66	2.09-35.89	0.003*
ANC/PNC visit			
No	12.52	6.93-22.63	0.000**
Place of delivery			
Home	14.07	6.49-30.53	0.000**
BMI			
Low	0.71	0.27-1.87	0.49
High	2.98	1.52-5.83	0.001*

Table 6 shows the degree of association between the UP and other associated independent variables. The odds of participants who were in the age group of 20-30 years are 33 times more with UP than that of the odds of patients belonging to a higher age group of 50-60 years. Similarly, the odds of participants who were in the age group of 30-40 years are 5 times more with UP than that of the odds of patients belonging to a higher age group. The odds of participants who were in the age group 40-50 years are 2 times more with UP than that of the higher age group. It shows that younger-aged women were more likely to suffer from UP than older-aged women. There was a statistically significant association between the young-age participants and UP.

It is often assumed that illiterate people were likely to be suffered from different diseases. But the study showed different findings. The odds of participants who had attained higher secondary education were 32 times more sufferer of UP than illiterate. Similarly, the odds of participants who had attained a secondary level of education were 21 times more likely to suffer from UP. The odds of participants who had attained non-formal and basic education were twice more likely to suffer from UP than illiterate

participants and there was a statistically significant association between non-formal education, secondary education, and higher secondary education with a p-value of 0.001, 0.000, and 0.001 respectively.

The odds of participants who had agriculture as the occupation were 7 times more likely to suffer from UP than the participants with other occupations. There was a statistically significant association between participants with agriculture as an occupation and UP with a p-value of 0.001. The odds of participants who had married in the age group of 10-14 years were 6 times more likely to suffer from UP than the higher age group. The odds of participants who had married at the age group of 15-19 years were 8 times more likely to suffer from the odds of participants who were at a higher age group and there was a statistical association between UP and early marriage with a p-value of 0.004 and 0.003 respectively.

The odds of participants who hadn't visited health facilities for ANC/PNC visits were 12 times more likely to suffer from UP than the odds of participants who had visited health facilities for ANC/PNC visits. There was a highly statistically significant association between UP and those participants who hadn't visited health facilities for ANC/PNC visits.

The odds of participants who had conducted home delivery were 14 times more likely to suffer than the odds of participants who had conducted institutional delivery and there was a highly statistically significant association between UP and place of delivery with a p-value of 0.000. The odds of participants who had high BMI were twice more likely to suffer than the odds of participants who had normal BMI and there was a highly statistically significant association between UP and high BMI with a p-value of 0.001.

Table 7
Underlying Factors of UP, Multivariate Analysis, AOR with 95% of CI

Characteristics	UP		
	Crude AOR	95% of CI	p-value
Age			
20-30	41.86	14.31-122.45	0.000**
30-40	6.25	2.52-15.50	0.000**
40-50	3.10	1.33-7.23	0.000**
Joint family	1.60	0.89-2.87	0.110
Educational status			
Non-formal education	1.21	0.55-2.65	0.629
Secondary level	3.66	0.75-17.87	0.108
Higher secondary level	9.85	1.14-84.67	0.037
Agriculture	0.19	0.03-1.13	0.068
Age at marriage			
10-14	0.73	0.35-1.50	0.396
15-19	0.097	0.02-0.50	0.006
No ANC/PNC visit	7.10	3.53-14.26	0.000**
Home delivery	0.13	0.05-0.31	0.000**
High BMI	3.97	1.81-8.71	0.001*

Age, ethnicity, educational status, family type, and occupation were adjusted in the above multivariate analysis

The independent variables associated with the UP were analyzed by multivariate analysis in table 7. The odds of participants at the age group 20-30 years were 41 times more at risk of UP and there was a highly statistically significant association between UP and the age of the participants with a p-value of 0.000. The young women were more likely to suffer from the UP than the old aged women, i.e. 50-60 years.

The odds of participants who hadn't visited the health facilities for ANC/PNC visits were 7 times more at risk of UP than those who visited health facilities for ANC/PNC visits. There is a highly statistically significant association between UP and ANC/PNC visits with a p-value of 0.000. The odds of participants who had conducted home delivery were highly associated with the UP with p-value of 0.000. Regarding the high BMI, the odds of participants with high BMI were thrice more at risk of UP and there was a highly significant association between UP and high BMI with a p-value of 0.001.

Discussion

The study showed that the prevalence of UP was 33.7%. There was a highly statistically significant association between the ages of the participants, participants who hadn't received ANC/PNC checkups, the participants who had conducted the home delivery, and the participants with high BMI. More than half of the participants didn't receive treatment for UP.

Furthermore, they hide the disease for more than 10 years and when the problem seemed chronic, they went for treatment which was either in a health camp or in the district hospital. They didn't prefer to go to traditional healers for treatment. Among those who got the treatment, the majority of them received treatment from the health camp. The majority of them received counseling and medication. Few of them who had grade III degrees of UP received the surgery/ operation as the treatment. But among those who had received allopathic treatment, the majority of them were not satisfied with the treatment as they suffered from the disease even after the treatment.

The study showed that the mean age of the participants was 35 years and the majority of participants were of the age group 20-30 years. Most of the participants belonged to a joint family. Most of them were illiterate and were housewives. Similar to the study, Tamrakar (2012) conducted a community-based cross-sectional study in the Kaski district which showed that the mean age of the respondents was 38.8 years where the majority of them were between the age group of 21-30 years. Most of them were housewives. Most of them belonged to joint families. The study found that the

prevalence of UP among the participants was 33.7%. The study conducted in the Doti district by Paneru et al. (2010) showed that the prevalence of UP was 35.97%.

The study revealed that the majority of women had normal BMI. The mean age at marriage was 17.72 years and the majority of them had married at the age group of 15-19 years. The mean age at first pregnancy was 19 years and most of them had their first pregnancy at the age group of 15-19 years. Most of them hadn't visited health facility centers for the ANC/PNC checkups. Most of them had conducted home delivery, but most of them had a normal mode of delivery. Most of them suffered from UP at the age group of 20-25 years which seems to be early. Most of them had been suffering from UP for 10-20 years of their lifetime. The majority of them had suffered from grade II degrees from UP.

Similar to the study, the community-based cross-sectional study conducted by Masenga et al. (2018) in Tanzania showed that the majority of the respondents had normal BMI. The median age at first pregnancy was 20 years and the majority of them were of the age group 20-29 years. Most of them had delivered to their home and most of them had a normal mode of delivery. Regarding the information on disease, most of them had suffered from grade II degree of UP.

With the bivariate analysis, there was a statistically highly significant association with the age of the participants, joint family, non-formal education, and participants who were engaged in agriculture as their occupation. Similarly, there was a statistically highly significant association with age at marriage, and the participants who hadn't attained ANC/PNC visit. The study also showed that there was a statistically highly significant association with the participants who had conducted home delivery and the participants with high BMI. In multivariate analysis, there was a statistically highly significant association between the age of the participants, participants who hadn't attained ANC/PNC checkups, the participants who had conducted the home delivery, and the participants with high BMI. Masenga et al. (2018) conducted a study that showed that the associated risk factors of UP were increasing age and home delivery. Yuk et al. (2018) conducted a cross-sectional study that revealed that low socio-economic status was associated with pelvic UP. It is the main contributor to reproductive health problems that influences women's quality of life (Shrestha et al., 2014b).

The study conducted by Dahal (2017) showed family income, educational status, and family type were associated factors of UP. Joseph et al. (2016) explored obstetric factors like parity more than 5 times, age at last pregnancy between 30-39 years, inadequate birth spacing, home deliveries or deliveries conducted by untrained personnel, vaginal deliveries, prolonged duration of labor, heavy work in the postnatal period were the causes of UP. The study conducted by Elbiss et al. (2015) showed that

higher parity, birth weight, lifting heavy loads, and body mass index was also associated with prolapse.

In some places, prior to visiting the outreach clinics, participants had not visited health facilities for various reasons, including shame, inability to share with male service provider, fear of stigma and discrimination and perceiving UP as normal for childbearing women (Shrestha et al., 2014a).

The study couldn't consider all the risk factors, so further research should be conducted to identify in-depth causes of the UP such that the issue can be reduced to zero. There is a requirement for research on the psychological aspect among patients of uterine prolapse to identify the real need and initiate the program accordingly.

Conclusion

There was a highly statistically significant association with the age of the participants, joint family, non-formal education and participants who were engaged in agriculture as their occupation, and also with age at marriage, among the participants who hadn't attained ANC/PNC visit, the participants who had conducted home delivery, and the participants with high BMI. Therefore, the study recommends that health camps or mobile health clinics should be mobilized regularly so that women can seek health services timely. Adequate rest should be taken during pregnancy, childbirth, and after delivery. For this, appropriate education should be provided to women about nutritious foods and treatment against uterine prolapse. Educational intervention is necessary for people to be aware of UP at an early age and its impact is seen among people of a lower age in the area.

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Authors' Contribution

NKB as a principal investigator implemented the study in the field and prepared the manuscript. BA supervised the research work and contributed as the corresponding author. BA and CLR revised the manuscript and provided inputs for the finalization of the manuscript. JK and TB contributed to the data collection and report writing and also assisted in obtaining the grant from NHRC for the research work. All authors reviewed and approved the final version of the manuscript.

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