

## Prevalence and Socio-Cultural Determinants of Uterine Prolapse Among Women and Its Impact on Quality of Life

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### Abstract

*In India, every five minutes, a woman dies of complications related to pregnancy and child birth. Among these, utero-vaginal prolapse (UP) is the most common clinical condition, especially amongst parous women. In India, almost one quarter, out of the total gynaecological admissions, suffer from UP. The general objectives of this study were to determine the prevalence and socio-cultural determinants of Uterine Prolapse at Kalinga Hospital, Bhubaneswar, during a three month period. The study was conducted among 3216 women, who were reporting/attending the gynaecology OPD of Kalinga Hospital, Odisha with gynaecological complaints. A descriptive study design was used to assess the knowledge and health seeking practices of women regarding UP. Purposive sampling technique was used to select the participants. The results showed that only 2.4% (75) of the patients reporting to the Gynaecology OPD were detected with UP. The study revealed the prevalence of socio-cultural determinants of UP, like early marriage, high parity, obesity, poor antenatal care and postnatal health practices, low nutritional status of women. Also the causes perceived were delivery by untrained birth attendants, forced delivery, excess pressure on lower abdomen, prolonged labour, performing heavy work (lifting and carrying loads) during pregnancy and the postnatal period and poor nutrition. The quality of life of women with UP was also affected, as they suffered from both physical and psycho-social problems. Awareness programme at community level as means of a primary prevention must be promoted and surgery for the treatment of prolapse should be easily available to women within their locality.*

**Keywords:** prevalence, prolapse, quality of life, socio-cultural factors

**Abbreviations:** BMI, body-mass index; FGD, focus group discussions; UP, uterine prolapse

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### INTRODUCTION

“No country sends its soldiers to war to protect their country without seeking to it that they will return safely, and yet mankind for centuries has been sending women to battle to renew human resource without protecting them”

-Fred Sai, Former President of the International Planned Parenthood Federation.

The improvement in maternal health is one of the major goals and various measures in the form of increasing skilled attendance and emergency obstetric care are expected to contribute to the regression of maternal mortality as well as morbidity. Worldwide, nearly 585,000 women die every year due to complications related to pregnancy and child birth. In India, one woman dies every 5 minutes and approximately 121,000 women die each year due to the same

complications. Among these, utero-vaginal prolapse (UP) is a common clinical condition, especially among parous women. In India, almost one quarter, out of the total gynaecological admissions, suffer from UP.<sup>[1]</sup>

One of the most important causes of prolapse is childbirth. Vaginal delivery with consequent injury to the supporting structures results in pelvic floor dysfunction. Many women develop minor degrees of prolapse soon after childbirth; which might be due to the mothers not receiving proper care during their intra-natal and postnatal period or in cases when the mother, herself, is not conscious regarding taking care of her health. Proper training regarding pelvic floor exercises must be given to women so that it improves the general muscle tone and helps in controlling the prolapse.<sup>[2]</sup> So proper management during intra-natal and postnatal periods and imparting knowledge to postnatal mothers is very important in preventing it.

The present study is aimed at finding out the prevalence and socio-demographic determinants of utero-vaginal prolapse and its impact on quality of life of women and also in determining the level of knowledge of women regarding its occurrence and prevention. Postnatal mothers should be trained on pelvic floor exercises for the control and prevention of UP, which, in turn, should be strictly practiced at the hospital and community level.

## OBJECTIVES

- (1) To identify the prevalence of uterine prolapse among women during the specific time period of data collection.
- (2) To assess knowledge and health care seeking practices of women on uterine prolapse.

- (3) To find out the association between knowledge level of women and selected socio-demographic variables.
- (4) To determine the impact of uterine prolapse on the quality of life of women such as gender based violence.

## METHOD

### Study Population

This study was conducted in the gynaecological OPD of Kalinga hospital, Bhubaneswar, Odisha, a tertiary care hospital, for a time period of 3 months (August 2011 to November 2011). The population consisted of all women who were reporting/attending the gynaecology OPD of Kalinga Hospital with gynaecological complaints and were diagnosed with uterine prolapse.

### Study Design and Sampling Procedure

Descriptive study design was used to assess the knowledge and health seeking practices of women regarding uterine prolapse and purposive sampling technique was used to select the participants.

### Instrument Description

Information and data were generated from primary and secondary resources for the study.

The patients, who were reporting/attending the gynaecology OPD of Kalinga Hospital with gynaecological complaints during the three month time period, were interviewed, examined and their illnesses were identified and listed. Women diagnosed with UP were selected for the study.

The primary data were generated using four tools.

- (i) Tool I – This was a screening questionnaire, which was first administered to individual patients. Once a patient was diagnosed with UP, the next tool was administered.

- (ii) Tool II – This was a structured in-depth interview questionnaire. In this tool, patients were supposed to respond to questions regarding their socio-economic background, reproductive and maternal health care history.
- (iii) Tool III – It contained questionnaire regarding the assessment of level of knowledge and health seeking practices of women on uterine prolapse and its prevention.
- (iv) Tool IV – It comprised of quality of life questionnaire, in order to find out the level of satisfaction of women with uterine prolapse. Focus group discussions (FGDs) were conducted with women using the FGD guidelines and issues of UP among women and its impact on their quality of life were explored.

### Data Collection Procedure

Ethical consideration was obtained by taking written permission from the authority of the hospital. Self-introduction and the purpose of the study were explained to the participants and an informed consent was obtained from the study samples. The patients were interviewed to get the required information.

### Data Analysis Plan

Data was recorded and entered in SPSS version. Means and SDs were calculated for quantitative variables and 'Chi-square' test was used for comparing descriptive variables and for finding the association. P value of <0.05 was taken as statistically significant.

## RESULTS

### Prevalence of Uterine Prolapse Cases in Kalinga Hospital

During the three months of data collection, 3216 women availed the services of the Gynaecology OPD of Kalinga Hospital, Bhubaneswar, Odisha. Out of the 3216 women, 86 (2.67%) were identified with

UP. This meant that an average of 28–29 new cases are identified within a month, and approximately 344 new cases are estimated to be reported in a year in the hospital. However, only 86 patients gave their consent and were available for the study. Only 2.4% of patients reporting to the Gynaecology OPD were detected with UP, whereas population studies place this figure at at-least 7–30%.

### Analysis of Socio-Demographic Characteristics of the Respondents Suffering with Uterine Prolapse

#### Age of Respondents with Uterine Prolapse

Table 1 reveals the age group of respondents with UP. 5.33% of them range from 23 to 30 years of age, where as 8% were in the age group of 31–40 years. The respondents within the age group of 41–50 years were 14.66% while 24% were from the age group of 51–60 years. 18.66% of the respondents belonged to the age group of 61–70 years and the remaining 4% were between 71 and 80 years of age. Women from the age group of 41 to 50 years record the highest number amongst all (24%).

#### Marital Status of Respondents with Uterine Prolapse

With regards to marital status, maximum of them were with their husbands (86.36%). 12.12% were widows and only 1.52% were separated from their husbands.

#### Religion of Respondents with Uterine Prolapse

53.3% of respondents were Hindus. 12% were Christian and 34.7% were Muslims. The findings reveal that the prevalence of UP cannot be associated to any particular religious group.

#### Family Type of Respondents with Uterine Prolapse

Out of the total study samples, 5.3% were living with their extended family and 34.7% of them were in joint families. 60% lived in a nuclear family. Based on findings, women in nuclear families had more freedom compared to those living in joint families.

Additionally and generally, a daughter-in-law is given the responsibility of performing most of the tasks in a household.

### ***Education of Respondents with Uterine Prolapse***

With respect to education, 65.33% of women with UP were illiterate, 34.67% were literate, 20% of them had completed their primary level education and 14.66% of them had completed their secondary level education. None of the respondents received education at the higher secondary level.

This means that women who were illiterate were more prone to having UP than those who were literate. The husbands of the respondents were more literate (68%) than them.

Husbands who have received education play an important role as they influence the health seeking behaviour of women and are the decision makers in their households.

### ***Major Occupation of Respondents with Uterine Prolapse***

Odisha is mostly agricultural-based, which includes farming. Most women carry out tasks both inside and outside their homes.

They not only do household chores but are also actively involved in agricultural activities and animal husbandry. With respect to occupation, 13.33% of them were wage labourers and 17.33% performed farming activities.

Another 38.66% of the respondents were household workers, 10.66% were employed, 14.66% were doing small business and 5.33% of respondents were involved in other types of work.

***Table 1. Socio-Demographic Characteristics of the Respondents***

Variables	No (%)
Age group, years	
23–30	4(5.33)
31–40	6(8)
41–50	11(14.66)
51–60	18(24)
61–70	14(18.66)
71–80	3(4)
Religion	
Hindu	40(53.3)
Christian	09(12)
Muslim	26(34.7)
Level of education	
Illiterate	49(65.33)
Primary (1–5 class)	15(20)
Secondary (6–10 class)	11(14.66)
Higher secondary	00(00)
Level of education of husband	
Illiterate	24(32)
Primary(1–5 class)	17(22.66)
Secondary(6–10 class)	15(20)
Higher secondary	9(12)
Graduate and higher education	10(13.33)
Occupation	
Unemployed (household work)	29(38.66)
Employed	08(10.66)
Farming activities	13(17.33)
Wage labourer	10(13.33)
Business	11(14.66)
Others	04(5.33)

### ***Analysis of Determinants of Uterine Prolapse***

#### ***Degree of Uterine Prolapse of Respondents***

The respondents stated that they realized their problem when they experienced “something coming out of the vagina”. Upon examination, 86 cases were identified as UP cases. Over three months, 75 out of 93 women agreed to be participants in the study.

After the examination, the respondents with UP were classified in descending

order based on the three degrees of UP severity.

44% of the total cases had third degree prolapse, followed by 32% with first degree prolapse while 24% of the respondents had second degree prolapse. These numbers are evident in Figure 1.

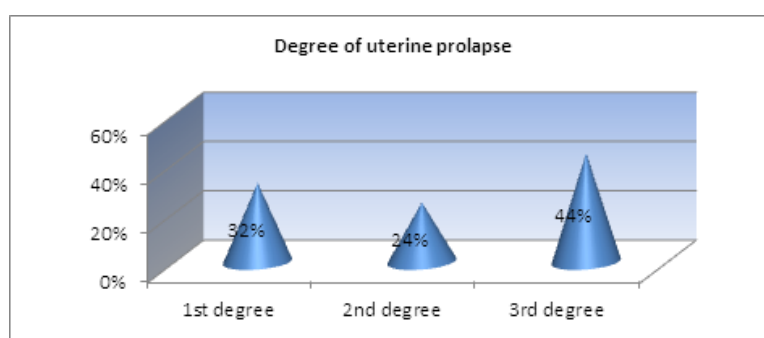
#### **Age at First Pregnancy of the Respondents with Uterine Prolapse**

Data in Figure 2 reveals that 61.33% of the women with UP were first pregnant when

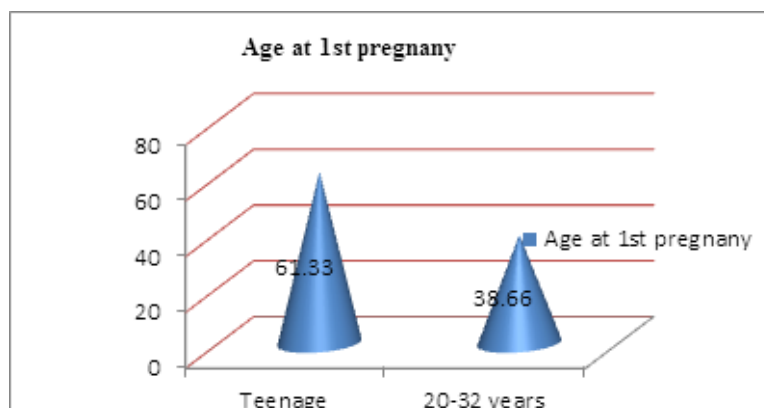
they were in their teens and 38.66% had their first pregnant in the age group of 20–32 years.

#### **Parity of Respondents**

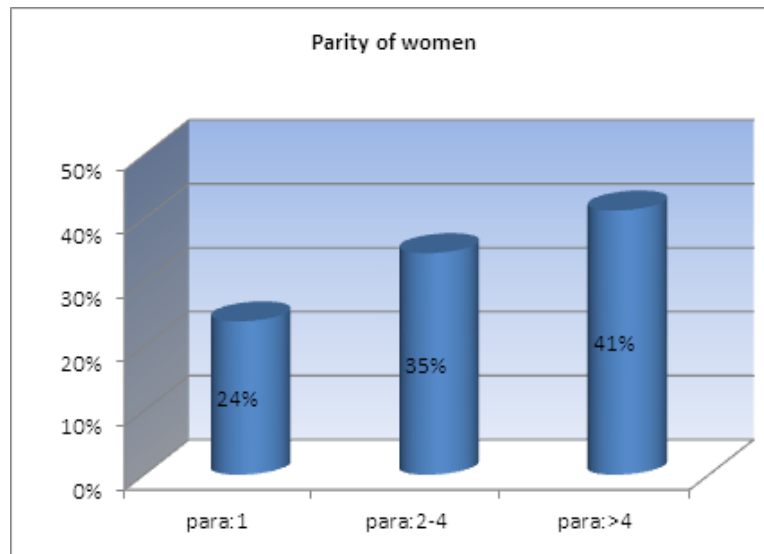
Figure 3 shows that maximum number of respondents, i.e., 28 (37.33%) had their prolapse after having more than four children. A large group consisting of 23 (30.66%) realized they had prolapse after 2–3 children and 24% had prolapse after having one child.



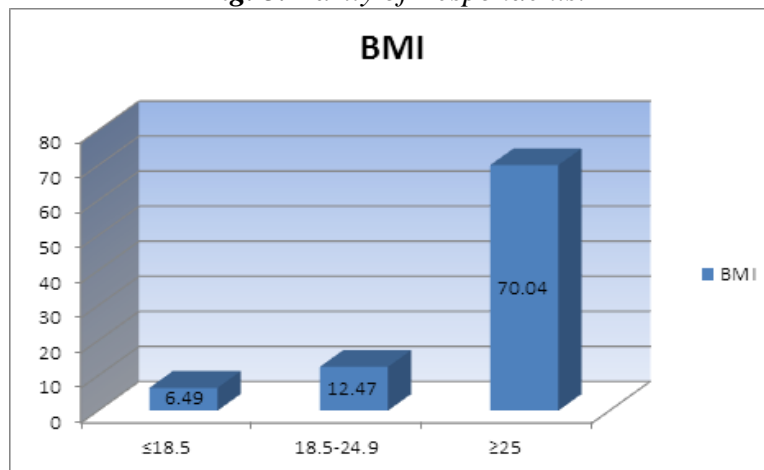
**Fig. 1. Degree of Cervical Descent.**



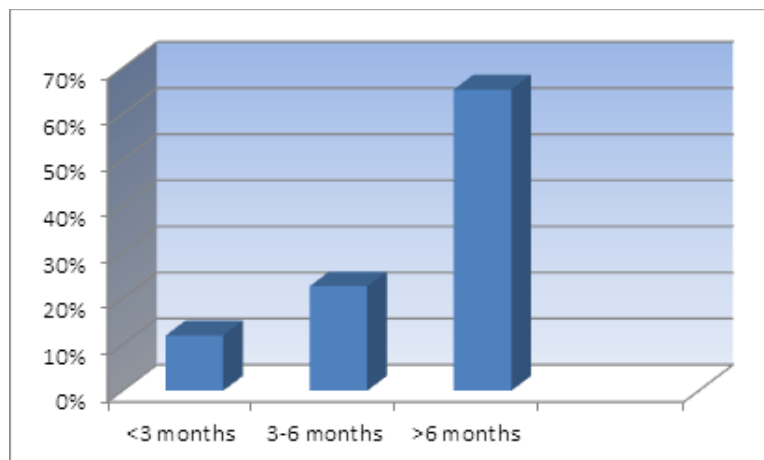
**Fig. 2. Age at First Pregnancy of the Respondents.**



**Fig. 3. Parity of Respondents.**



**Fig. 4. BMI of Respondents with Uterine Prolapse.**



**Fig. 5. Duration of Sufficiency of Food of Respondents.**



### ***BMI of Respondents with Uterine Prolapse***

With respect to body-mass index (BMI) of women, maximum (70.04%) were obese and 12.47% had average weight. Very few (6.49%) were normal with respect to their weight, as depicted in Figure 4.

### ***Uterine Prolapse Related to Sufficiency of Food***

Figure 5 reveals that 12% respondents had access to sufficient food for less than 3 months, 22.66% of them had sufficient food for 3–6 months, and 58.66% had sufficient food for more than 6 months.

### **Health Practices of Women with Uterine Prolapse**

#### ***Safe Motherhood Practices***

Table 2 shows that almost 68% of the respondents had no antenatal check-up done. 46.66% of the deliveries were conducted by their mother-in law or neighbour, while about 18.66% were conducted by health care worker/staff nurse/ANM.

20% of the women delivered their babies with help from a local Dhari. Thus, a total of 78.66% of the respondents reported delivering at home and only 21.33% had delivered at the hospital.

#### ***Postnatal Rest of Respondents***

After delivery, 65.33% of the respondents had postpartum rest for 15–30 days, while 50.66% of took rest for 7–14 days. Postnatal rest up to 2 months was reported by few cases.

#### ***Treatment Practice/Health Care Seeking Behaviour***

Nearly 50% of the respondents sought no specific treatment, 16% used herbs in the form of eating them or as special food or visiting a religious Baba (local faith healer), for treating UP. Almost 16% of

the respondents used pessary ring while over 08% combined the use of pessary rings and consumed herbs, as shown in Table 2. It has been reported that the respondents resorted to these practices before finally, going to the hospital for care.

#### ***Workload after Delivery***

Table 2 shows that majority (72%) of the respondents worked one week after delivery and 8% started working three weeks after delivery. Besides that, 4% of the respondents carried heavy loads after four weeks of delivery, whereas 1.33% performed heavy tasks after 2–3 months. This indicated that only 14.66% of the respondents had the privilege of taking rest for 2–3 months after delivery. Thus, 85.33% of the overall respondents were not fortunate enough in getting the ideal amount of rest after delivery.

#### ***Time Taken by Respondents to Seek Treatment for Uterine Descent***

Table 2 reveals that women waited a few months to 30 years before they sought treatment at a hospital. Majority of the patients (45.33%) waited for 15 years before seeking treatment at the hospital, which is appalling, while over 16% of cases suffered from UP for 1–5 years before they sought treatment at the hospital.

#### ***Family Decision Making for Health Care***

Usually in Odisha households, the head of the family is a man who takes decisions for the family. According to the data depicted in Table 2, 5.33% of the respondents stated that they made their own decisions when going for a medical check-up. 29.33%, however, reported that their husbands decided for them, whereas 37.33% said that it was a joint decision by husband and wife. 22.66% responded that they made the decision together with their relatives, while 5.33% stated that their

family members, neighbours and health workers were the decision makers when it came to them seeking medical treatment.

### ***Family Support for Treatment in the Hospital***

Data, as shown in Table 2 revealed that 46.66% of the respondents were accompanied by their husband, whereas 28% of them were accompanied by their relatives when seeking treatment at a hospital. Friends and neighbours went with 22.66% of respondents while 2.66% went alone to the hospital.

### ***Cost of Treatment***

The women expressed that they could spend very less amount for the cost of service, details given in Table 2. It showed that poor economic status of women lead to delay in seeking services which, in turn, caused more complications.

### **Knowledge of Women about UP and Association with Socio-Demographic Variables**

The findings of the study showed that the participants had 56.66% knowledge regarding parts of uterus and vagina, 37.33% had knowledge regarding utero-vaginal prolapse, 48.87% on causes of utero-vaginal prolapse and 43.68% on prevention of utero-vaginal prolapse, as has been shown in Table 3.

Also significant association was found between knowledge level of women and selected socio-demographic variables, like educational level of women and their husband, high parity and occupation ( $p < 0.01$ ). No significant association was found between the knowledge level of women and other selected demographic variables such as: age of women, religion, family type, occupation, and marriage age. Literacy and education are important indicators to understand the socio-economic status of an individual and it also indicates the level of awareness among people.

**Table 2. Health Practices of Respondents**

<b>Health Practices of Respondents</b>	
(a) Safe motherhood practices	No (%)
(i) ANC received:	
None	51 (68)
1-3 times	24 (32)
(ii) Delivery assistant:	
Mother-in law/neighbour	35 (46.66)
ANM/staff nurse	14 (18.66)
Local dhai	25 (33.33)
Relatives	01 (1.33)
(iii) Place of delivery:	
Home	59 (78.66)
Hospital	16 (21.33)
(b) Postnatal practices	No (%)
Postnatal rest:	
7-14 days	38 (50.66)
15-30 days	49 (65.33)
60 days	04 (5.33)
More than 60 days	04 (5.33)
(c) Health care seeking behaviour	No (%)
Type of treatment received:	
None	38 (50.66)
Herbs/special food	12 (16)
Visited hospital	05 (6.66)
Pessary ring	12 (16)
Pessary ring and herbs	06 (8)
DJ/herbs	02 (2.66)
(d) Work load after delivery	No (%)



1 week	54 (72)
3 week	06 (8)
4 week	03 (4)
2-3 month	01 (1.33)
Total	64 (85.33)
No work	11 (14.66)
(e) Duration to reach hospital for UP treatment	No (%)
On examination	08 (10.66)
3-12 months	12 (16)
1-5 years	12 (16)
5-10 years	4 (5.33)
10-15 years	5 (6.66)
>15 years	34(45.33)
(f) Family decision maker	No (%)
Self	04 (5.33)
Husband	22 (29.33)
Self and husband	28 (37.33)
Self, family members and relatives	17 (22.66)
Family members and neighbours, health workers	04 (5.33)
(g) Family support for treatment	No (%)
Self	02 (2.66)
Husband/children	35 (46.66)
Relatives	21 (28)
Friends/neighbour	17 (22.66)
(h) Cost of service (NRs)	No (%)
501-1000	58 (77.33)
1100-2000	06 (8)
2001-6000	07 (9.33)
10,000-16,000	04 (5.33)

**Table 3. Area-wise Analysis of Knowledge Score of Women About UP**

S.No.	Area	No. of Items	Max Score	Mean	Mean%	Median	SD
1	Uterus and vagina parts	13	14	7.93	56.66	7	3.35
2	Utero-vaginal prolapse	3	3	1.12	37.33	1	0.77
3	Causes of utero-vaginal prolapse	6	6	3.91	48.87	4	1.19
4	Symptoms of utero-vaginal prolapse	3	3	1.39	34.75	1	0.94
5	Prevention of utero-vaginal prolapse	31	31	17.91	43.68	17	5.4
	Total	56	56	32.26		50	9.97

### Perception of Women Regarding Causes of Uterine Prolapse

Various reasons were asked from women suffering from uterine prolapse through in-depth interview and FGD as presented in Figure 6. The main reason for occurrence of UP was due to doing heavy work immediately after child delivery (65%). Other important reasons shared during the

FGDs were inadequate health services and using traditional practice by seeking the local untrained assistance during birth (26%), using forceful pull and push method during child delivery (12%). The respondents added that another important reason of UP was taking inadequate food and using traditional method of food restriction after delivery till upto 3 months (7%).

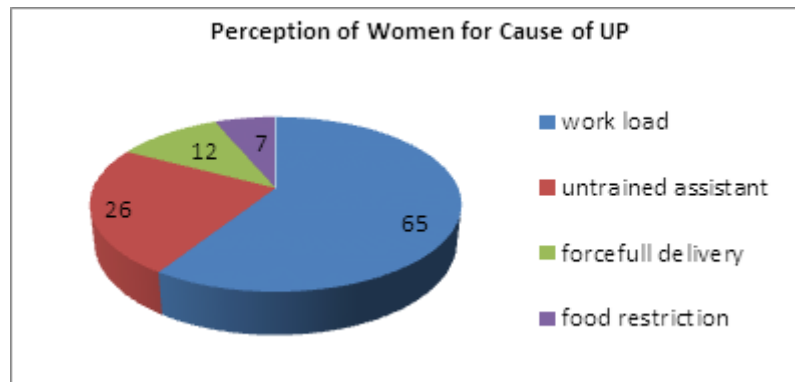


Fig. 6. Perception of Women Regarding Causes of Uterine Prolapse.

### Impact of Uterine Prolapse on Quality of Life of Women

Quality of life of women was measured by McGill quality of life questionnaire and it was found that 40% of them were moderately satisfied with their life, 46% were dissatisfied and only 14% were satisfied in their life. The quality of life was measured with respect to physical discomfort, such as abdominal pain, low food intake, difficulty in doing day to day activities, sexual dysfunction, vaginal discharge and infection. Many expressed psycho-social discomfort like being emotionally upset, ill treatment by husband and divorce, financial problems due to their inability to work, decreased self-esteem and social discrimination, lowered the quality of their life.

#### Physical Discomfort

With regards to physical discomfort, 56 out of 75 UP cases (74.66%) complained of lower abdominal pain and backache, half of them (50%) had frequent micturations, 28% had chronic constipation, 42% suffered from fever due to infection and chronic cough and some experienced pain during sexual intercourse, as shown in Table 4.

#### Domestic Violence

Odisha is dominated by a patriarchal culture that gives preference to men since their birth until their old age. The lower economic and social status of women

reduces their ability to fight against discrimination and injustice. As a result, women suffer from domestic violence. Although only 10.66% of the respondents stated that they were physically ill-treated and 20% were mentally ill-treated, it is possible that 33.33% who did not wish to respond to this issue were also ill-treated by their husbands. Only 36% of the respondents reported that they did not experience any kind of domestic violence at all, as shown in Table 4.

#### Gender-Based Violence

The women are viewed as subordinate figures and thus, have lower societal status compared to men. The respondents reported that their husbands had married again after they suffered from prolapse (26.66%). 72% of the respondents stated that their husbands did not remarry because of UP. 1.33% of the respondents did not respond to the query presented in Table 4.

Table 4. Complaints by Respondents

S. No	Complaints	(%)
1.	Physical discomfort	
	Abdominal pain and backache	74.66%
	Febrile (Sign of infection)	21%
	Dyspareunia	18.75%
	Frequent micturations	50%
	Chronic constipation	28%
	Chronic cough	21%
2.	History of domestic violence	
	No	27 (36)
	Yes (physical)	08(10.66)
	Yes (psychological)	15(20)

	Total	50 (66.66)
	Do not wish to respond	25 (33.33)
3.	Husband remarried	
	No	54 (72)
	Yes	20 (26.66)
	Total	74 (98.66)
	No response	01 (1.33)

## CONCLUSION AND DISCUSSION

The present study showed a high prevalence of early marriage among women with uterine prolapse. A similar study done in Eastern India showed high prevalence (92%) of early marriage.<sup>[3]</sup> This study revealed that almost all women who had no primary education had uterine prolapse, which shows the role that education plays in prevention and treatment of diseases. Same type of finding was obtained for women who were illiterate.<sup>[4]</sup> The present study also shows that gravid, parity and age on the last child birth, weight were found to be associated with occurrence of uterine prolapse. Similar findings have been reported that age, parity and weight were significantly associated with risk of prolapse.<sup>[4-11]</sup> Age of women (more than 70 years) had higher significant association with risk of prolapse.

Present study found that the prevalence of uterine prolapse was more among women who had unsafe delivery, more vaginal birth, delivery by untrained person, prolonged labour, and forced delivery during labour events. During postnatal period, women who performed heavy work, no adequate postnatal rest and poor nutritional status had higher significant association with risk of prolapse. The study showed that amongst the women with UP, 65.33% started light work within 15–30 days. 50.66% started within 14 days. Only 5.33% started heavy work in less than 60 days and 5.3% started working after more than 60 days. Similar type of findings were observed in another study.<sup>[8]</sup>

A study done in Nepal also revealed similar determinants of UP. The result of the study showed that a significant difference between days of household work started (14.24%), duration of rest after delivery ( $z\alpha=16.53$ ), and days of heavy load lifting started (7.96%) in case and control.<sup>[4,5]</sup>

This study concludes that proper pregnancy management and adequate antenatal check-up, early diagnosis of high risk pregnancy, proper delivery plan and timely precaution during antenatal period, delivery by skilled birth attendant, proper postnatal care play an important role in preventing UP. Women are the neglected group in a family and society, therefore, awareness programmes need to be conducted at community level so that women could be provided with ample rest after delivery, their work load is reduced and a proper nutritional status is maintained, which will help the women to resume their normal day to day activities and with proper pelvic organ replacement. According to international standards, all women must have access to medical services and maternal health services, which is an important key factor of quality health services. Awareness programme at community level as primary prevention must be promoted and surgery for treatment of prolapse should be available to the women in their locality.

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