

# Impact Evaluation of Uterine Prolapse Surgery in Nepalese Women

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## ABSTRACT

**Background:** The problem of uterine prolapse exists throughout Nepal and negatively affects women's health and quality of life (QOL). The Government of Nepal recognizes it as a priority problem.

**Methods:** This study was conducted in eight districts to examine the status and problems of women who have undergone prolapse surgery. Qualitative and quantitative methods were used to examine the issues of prolapse. Survey method was used to administer the questionnaire.

**Results:** Sixty-six percent women reported pelvic organ prolapse at an early age. The mean age of its occurrence was 28 years. In the hill/mountain districts, 52% women among the non-poor and 72% among the poor went to health camps for surgery indicating that the camps were fulfilling the demands of the poor. Majority (>75%) of them from remote districts went to health camps for surgery indicating the camps were more beneficial to women in remote areas. Counseling was weak in the health camps and the use of IEC materials was minimal. Majority had improved health status after surgery. The incidence of post-surgery problems were as follows: 10.1% in government hospitals, 11.1% in non-government hospitals and 15.1% in health camps.

**Conclusions:** Despite improved performance of health camps, the program for prolapse management still seems weak due to lack of ownership of local health institutions and lack of proper coordination among the stakeholders/partners. However, these camps need to be scaled up for the benefit of the unreached population.

**Keywords:** Nepalese women; pelvic organ prolapse; prolapse surgery; uterine prolapse.

## INTRODUCTION

Uterine prolapse (UP) or pelvic organ prolapse (POP) is the abnormal descent of the pelvic organs from their normal position in the pelvis into the vagina, accompanied by urinary, bowel, sexual, or local symptoms.<sup>1,2</sup> Women who suffer from pelvic floor disorders like POP endure symptoms that decrease their quality of life, but rarely result in severe morbidity or mortality. It is not only socially embarrassing and disabling, but the surgical treatments are costly and complex. POP is commonly caused during pregnancy, labour and childbirth.<sup>3-5</sup> Economic circumstances force women in rural Nepal to resume heavy works soon after delivery. It can result

in reduced quality of life as many women are no longer engaged in sexual activity and many husbands desert them.

The problem exists throughout Nepal and negatively affects women's health status. It affects 10% of Nepalese women, that is, 600,000 women suffer from POP and among them 186,000 are in need of surgery.<sup>6</sup> The Government of Nepal has created a fund to provide free surgery to women with POP. In 2008 and 2009, Nepal's External Development Partners allocated a fund to support surgical services for 12,000 POP in Nepal.<sup>7</sup>

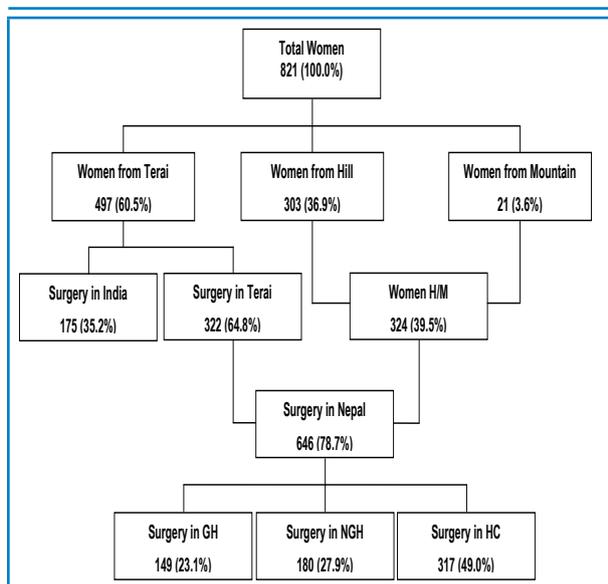
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Records indicate that 24498 women have already received free POP surgery between 2065/66 to 2067/68.<sup>8</sup> However, the health condition of women who underwent surgery is largely unknown. There is scant evidence about the post-surgical problems and follow-up of patients post-surgery.<sup>9,10</sup> This study looked into the problems of Nepalese women who underwent POP surgery within the period of the past three years. It assessed the outcome and health status of the women after surgery.

**METHODS**

We selected eight districts (Okhaldhunga, Saptari, Nuwakot, Rautahat, Gorkha, Rolpa, Jumla and Kanchanpur) representing both ecological and developmental regions of Nepal. The triangulation of qualitative and quantitative research methods was utilized to explicate the issues of POP. We did focused in-depth interview with 32 stakeholders and employed the survey method to administer the structured questionnaire during July 2012.

The following figure summarizes the number of women by region and place of surgery.



**Figure 1. Breakdown of Women by Region and Place of Surgery.**

A data entry template was developed in CSPro software and appropriate statistical tools with the help of a statistician were used for analysis. Family Health Division, Nepal provided the ethical approval.

**Table 1. Methods of Data Collection by Sources and Nature of Data.**

Nature of Data	Sources of Data	
	Primary	Secondary
Quantitative	Individual level data were collected through a respondent, especially women (821) who had already experienced UP surgery during last three years	Others identified as relevant
Qualitative	In-depth interviews (32)	Plan and program documents of Nepal government, Planning Commission, and other development partners, MoHP periodic and action plan documents, Others materials to be identified
Triangulation	Triangulation of individual women who experienced UP surgery during last three years and other data collected from interviews.	review of qualitative and quantitative data as relevant from the survey reports, program documents and others emerging during the study process

**RESULTS**

A total of 821 women who had undergone prolapse surgery were interviewed. The age of the women ranged from 20 to 80 years, covering three generations with mean age of 47.8. Only 19% were literate and 32% were poor.

Irrespective of the women of Terai and Hill/Mountain (H/M) regions, the mean age at occurrence of UP was 28, and by this age these women had already gave births to 3.5 children. Among 497 women of the Terai districts, 91.8% reported that they did not go for immediate check-up. Likewise, of 324 women of the H/M regions, 88.6% reported that they did not go for immediate check-up. The main reasons for not having done immediate check-up were shyness (49%) and lack of knowledge (31%). Among 497 women interviewed in the Terai regions;

one out of three went to India for surgery, whereas the women of the hill/mountain regions did not.

This is to compare the mean ages of the lifetime major five events- marriage, first child birth, start of UP, first check- up of UP, and surgery for UP - between women of the Terai and Hill/Mountain Regions (Figure 2).

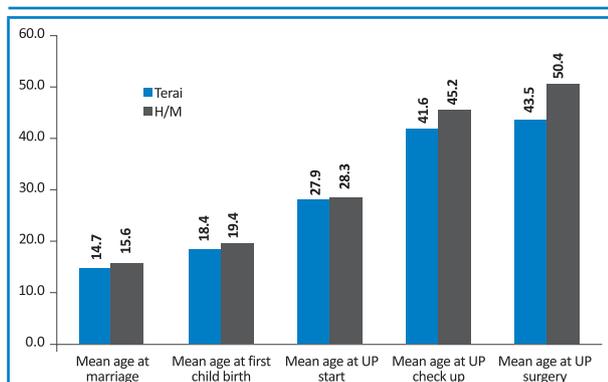


Figure 2. Comparison of Mean Age in Years of Major Events Women (n=821).

Treatment seeking behavior of Brahmin/Chhetry (B/C), Janjatis and Dalits - varied across government hospital (GH), non-governmental hospital (NGH) and health camps (HC) (Table 2). However, more than 50% women of each social group went to HC for surgery. Dalits have benefitted more than Janjatis and the Janjatis have benefitted more out of the services of HC.

Table 2. Treatment Seeking Behavior of Women in Different Social Groups in H/M Regions (n=322).

Social group	GH (%)	NGH (%)	HC (%)	Total (%)	N
B/C	24.3	22.8	53.0	100.0	202
Janjatis	26.9	12.8	60.3	100.0	78
Dalits	7.1	14.3	78.6	100.0	42

Chi square value = 12.84 and p-value = 0.012

Irrespective of their poverty, more than 50% of each group went to HC for surgery. Poor women (72%) had benefitted more than non-poor women (Table 3).

Table 3. Treatment Seeking Behavior of Women in Different Economic Groups in H/M Districts (n=324).

Economic group	GH (%)	NGH (%)	HC (%)	Total (%)	N
Non-poor	26.2	21.7	52.0	100.0	221
Poor	14.6	13.6	71.8	100.0	103

Chi square value = 11.41 and p-value = 0.003

#### Assessment of Risk Factors

The mean childbirth among the women turned out to be 4.3, and 99 % of these births were normal, 95% took place at home and 92% births were attended by TBA or

relatives/friends. During the post-delivery period, 12% had to work on farmland, 13% had to carry fodder/ firewood and 27% had to lift/carry heavy loads. The percentage of smokers was 31% among women from Terai and 52% in the H/M districts.

#### Counseling Before Surgery

Counseling before surgery was weak in all service centers, where 20% women did not understand the counseling provided. Majority of women (>75%) reported that no IEC materials were used. The reason for weak counseling, as per the qualitative research, was the poor implementation of guidelines<sup>11</sup> and standards set by the government.<sup>12</sup>

#### Effectiveness of Surgery

Seventy-six women (9.3%) reported that their husbands had other wives. Of these women, 13 (17%) reported that POP was responsible for their husbands seeking a second marriage. Among 677 currently married women, 61 (9.3%) reported that their husbands' attitude was negative towards them because of POP. Surgery brought positive attitudes among husbands towards their wives. As a result, 42 (71%) out of 59 husbands who had negative attitudes turned positive.

Of the 646 women who had undergone surgery in Nepal, 74 % reported that their overall health status was improved, and nearly 4 % reported that their health status was worsened. Likewise, 646 women interviewed, 64 % rated improvements in their health status due to surgery as above average and 10 % rated as below average; 74% rated their satisfaction with health workers involved in surgery as above average and 4 % rated below average; and 77% rated as their satisfaction with services provided by the service centers as above average and 10 % rated below average.

#### Post-Surgery Problems

Of 821 women, 338 (41.2%) reported that they had some form of post-surgery problems (Table 4).

Table 4. Incidence of Post-surgery Problems by Place of Surgery (n=821).

Incidence of Post-surgery	Surgery in Nepal				Surgery in India
	GH	NGH	HC	Overall	
Number of problem cases	57	52	172	281	57
Number of surgery cases	149	180	317	646	175
Incidence of problem (%)	38.3	28.9	54.3	43.5	32.6

These problems emerged over a period of one to three years due to many reasons other than surgery. To ensure that the problems developed are due to surgery, the question to be asked is, whether the problems appear within a week after discharge from hospital. Of 338 women with post-surgery problems, 97 (28.7%) reported that they developed these problems within a week after discharge from hospital (reference period). Out of 97 cases, 83 were surgery cases of Nepal and 14 were surgery cases of India. Hereafter, analysis concentrates on 83 cases (Table 5).

**Table 5. Incidence of Problems within the Reference Period (n=83)**

Incidence of post-surgery problem	GH	NGH	HC	Overall
Number of problem cases	15	20	48	83
Number of surgery cases	149	180	317	646
Incidence of problem (%)	10.1	11.1	15.1	12.8

Important problem of something coming out from vagina was found in 12% (Table 6).

**Table 6. Types of Problems Reported by the 83 Women (%)**

Types	GH	NGH	HC	Overall
Fever	0.0	10.0	6.3	6.0
Heavy foul smelling discharge/ bleeding	13.3	30.0	22.9	22.9
Urinary problem	13.3	10.0	10.4	10.8
Heavy abdominal pain	33.3	30.0	37.5	34.9
Backache	13.3	10.0	6.3	8.4
Something coming out from vagina	26.7	10.0	8.3	12.0
Stitch tear out	0.0	0.0	8.3	4.8
Total	100.0	100.0	100.0	100.0
N	15	20	48	83

## DISCUSSION

The problem of UP among women started at a younger age where, 66% reported the problem by 29 years indicating aging was not a major factor to have this problem in Nepal; also suggested by another study.<sup>13</sup> On the contrary, POP is prevalent in post-menopausal women in the West.<sup>14,15</sup>

The higher parity, higher smoking habits, heavy workloads even during postnatal period, improper home delivery were some of the risk factors for POP in this study, confirming similar results from other studies too.<sup>3,7,9,16</sup> The regional variations indicate the situation was worse in the Hill/Mountain Regions. Women of H/M Regions are at greater risks of UP than those in the Terai Regions. The women of Terai and H/M Regions correspondingly waited for 14 and 17 years to receive UP check-ups since the

start of POP. This indicates the long years of sufferings of these unfortunate women.

The finding indicated that the health facilities in Nepal were inadequate in meeting the demand of UP surgery and some women from Terai went to India for surgery due to easy access. Nearly half of the women went to free health camps for surgery, indicating HC's usefulness. Of 646 women (322 from Terai and 324 from Hill/Mountain) who sought treatment in Nepal, 49% went to health camps, 28% to non-government hospital, and 23% to government hospitals.

In the Hill/Mountain Regions, 53% among Brahman/Chhetry, 60% among Janjatis, and 79% among Dalits went to HCs for surgery, indicating that HC were fulfilling the greater demands of the disadvantaged women. Generally there was no access to prolapse surgical services in the Hill/Mountains, women there largely depended on HCs for surgery. In the Hill/Mountain Regions, 52% among the non-poor women and 72% among the poor women went to HCs for surgery indicating that the health camps were fulfilling the greater demands of the poor. Overwhelming majority (>75%) of the women of remote districts, such as Okhaldhunga, Jumla and Rolpa went to HCs for surgery. HC services were more beneficial to women of remote Hill/Mountain Regions.

Counseling before surgery is at a pitiful state, as nearly 20% did not understand the procedure. The main findings indicated that there are more works yet to be done in this area. Use of IEC materials during counseling was minimal in all the three service facilities (only 15%). This also indicated that there was a large gap in practice and standards. More efforts are needed in order to educate women on treatment and follow up of POP.

Nearly 40% did not take rest post-surgery as suggested due to their work at home and farmland. The percentage of women having problem was highest among cases of the HC and it was least among cases of the NGH. Eighty-three women reported to have post-surgery problems within a week after discharge from the hospital (reference period). The incidence of post-surgery problems across the service centers is as follows: 10.1 % in government hospitals, 11.1 % in non-government hospitals and 15.1% in health camps.

Something coming out from vagina or cystocele or rectocele or vault prolapse can only be verified by examination. This was beyond the scope of this study. It may include mild to severe condition of pelvic floor disorder including residual cystocele or rectocele and vault prolapse. Despite surgery, if the women could not take adequate rest and were unable to avoid heavy work, there was a likelihood of recurrences. Besides, long standing and huge prolapse in Nepalese women predisposes to recurrence. It seemed that majority

of the problems were minor and treated locally. None needed referral to higher centers and no one needed re-surgery after discharge in the reference period. This is also in line with the result of other study.<sup>9</sup>

Findings from this study hold limitations. First, there was no comparison group for the follow-up of women who underwent surgery. Second, there were a significant number of losses to follow-up. Lately, HCs have been criticized for their weak follow-up and monitoring. Many raised doubts of effecting no change or causing poor outcomes of surgery.<sup>18,19</sup> The evidence found in this study of improved health status after surgery supports the idea that the ongoing HC surgery should be continued. Previous studies in Nepal also provided proof of improved health status<sup>9,20</sup> and quality of life<sup>10</sup> after surgery. However, larger long-term well-designed follow-up studies with QOL dimensions, as none of the studies on POP except one unpublished study<sup>10</sup> examined the change in QOL of Nepalese women, are needed to explore further clinical outcomes.

## CONCLUSIONS

In rural Nepal, ageing was not a major factor for POP and its prevalence was high starting right from adolescence. Women already had POP at the mean age of 28. Besides frequent births, heavy workloads, unattended birth, poor nutrition and smoking practice were believed by the respondents to be contributing factors to high prevalence of POP in Nepal. As a result, in poor countries like Nepal, free surgical camps targeting an unreached population of women suffering from pelvic organ prolapse continue to be a helpful intervention to improve their overall health. To improve quality of health camps, care, supervision, monitoring and follow-up can be improved with proper implementation of guidelines, effective counseling and better coordination among the stakeholders.

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