

ORIGINAL ARTICLE

Effect of Nurse Led Bundle Care Therapy on Pop Symptoms and Quality of Life Among Women with Prolapsed Uterus

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ABSTRACT

Introduction: Pelvic organ prolapse (POP) is a common pelvic floor disorder in women. Women suffering from POP report symptomatic distress and impaired quality of life. Women with POP had great symptomatic distress and impaired QOL. Nurses in a nurse-led clinic teach patients how to control their situation and also offer emotional support, monitor their condition, and deliver nursing interventions. **Methods:** A Quasi-experimental study was performed in this work. About 320 participants were selected by simple random sampling technique and consisted of 160 individuals for each control and study group respectively. Women between the age group of 40-70 years of age were selected, who fulfilled the inclusion criteria. Role limitation, Physical social limitations, Personal connections, Emotions, Sleep & Energy, and POP related concerns were all assessed using a six-point rating scale. **Results:** After having interventions, the symptoms affecting QOL decreased to 18.02% score than the pre-test score of 18.17% whereas, in control group, with routine care, symptoms were decreased only by 1.42% score than pre-test score. This disparity demonstrates the efficacy of nurse-led bundle care therapy. More educated women, women from higher income groups, and women who follow a sedentary lifestyle reported fewer symptoms than other women. **Conclusion:** Nurse-led clinics have proven to be both clinically sound and beneficial for women with POP symptoms by focusing on established health traits and emphasizing on pop management.

Keywords: Nurse Led Bundle Care Therapy, POP Symptoms, QOL

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INTRODUCTION

Health is one of the most crucial aspects for the wellbeing of humankind. Women have various distinct health complications related to fertility and sexuality, which account for about one third of all medical problems that women face during their reproductive years. The health and function of reproductive structures and systems are among the subjects covered by reproductive health. The health of their women determines the strength of

their communities, countries, and eventually the planet (1). Women's health is an important factor in assessing and devising ways to improve the overall health of the entire human race and their health is an example of population's health for the longest time (2). Health of the woman was synonymous with reproductive health, endocrinal health, menstruation, birth control and menopause (3). As women health and disease differ from men's due to their unique biological health, ensuring access to better health care for all women has been a major concern. As a result, the term "women's health" has been replaced with the term "health of women," which encompasses all aspects of health and wellbeing (4). Quality of life is the level of happiness experienced by an individual or a group of people. It is

a non-tangible concept that cannot be easily quantified. It has two components: physical and psychological (5). Physical elements include health, food, and pain and disease prevention, whereas psychological aspects include things factors like stress, anxiety, enjoyment, and other good and negative emotional responses. Consequently, the quality of life of women has come in the forefront of health care with the growing realization and the wellbeing of women which is just an important consideration when treating them (6).

A nurse-led clinic is one that is defined by the nursing activities that are performed at the location. Nurses at a nurse-led clinic are in charge of their own patient caseloads, including health education, psychological support, monitoring the patient's condition, and treatment approaches (7). Intensive instruction within these clinics are given by nurse practitioners and they may play a major role in this process. With novel solutions originating from this new and challenging condition, nurses may employ critical thinking skills and creativity to improve patient outcomes and work environments (8). Provision of nurse-led services and the blurring of the lines between healthcare and nursing practice is promoted, allowing nurses to practise more independently and develop and implement advanced practise.

Pelvic organ prolapse (POP) is a typical illness that causes vaginal bulging, uncomfortable micturition and defecation symptoms, constipation, back/abdominal discomfort, and sexual dysfunction, all of which have a negative influence on quality of life (9).

Pelvic organ prolapsed (POP) doesn't only happen to older women, 50% of women of childbearing will experience some level of pelvic organ prolapsed. POP has some risk factors that have been identified. Various researches have suggested that advanced age, white race, menopause, some systemic disorders, obesity, vaginal delivery, smoking, chronic constipation, and giving birth to large kids are risk factors (10).

Although the actual prevalence is unknown, 40% of women who took part in the Women's Health Initiative (WHI) trial in the United States experienced some form of prolapse. Uterine prolapse was discovered in 14% of the 27342 women who took part in the study (11). Another study in US among 149554 women found an 11% lifetime risk of surgery for prolapse or incontinence in the United States (12).

Pelvic organ prolapse affects about half of all parous women over 50, with a 30–50% risk of prevalence rate. A vaginal bulge is common in women with clinically significant pelvic organ prolapse, which can lead to urinary, digestive, or genital problems. Many of these women, however, do not seek medical counsel for a bulge in the vaginal area due to embarrassment or fear

of malignancy (13). All over world large numbers of women have surgery for pelvic organ prolapse every year, yet little is known regarding long-term surgical outcomes or pelvic reconstruction procedures. As our society ages, more women will be affected by pelvic organ prolapse, so it is vital to know if these procedures are beneficial.

POP affects between 2.9% and 8% of females, according to some estimates, while current research suggest that women have a 12.6 percent lifetime chance of needing prolapse surgery.

According to a survey conducted in India (July 2018), about one-third of women who had hysterectomy were under the age of 40. The proportion of women under the age of 40 who underwent a hysterectomy was substantially higher in the southern states of Andhra Pradesh (42%) and Telungana (42%) respectively (47%). Women with no or little education, as well as those from households without health insurance, were more likely to have a hysterectomy (14).

In this present study the Investigator planned to implement the Bundle care therapy for the women suffering with prolapsed related symptoms on educational strategies to improve their quality of life, the package includes a combination of exercises, which are cost effective and easy to practice in daily life; in turn improve adherence to healthy practices thereby the overall achievement is possible in all wakes of quality life.

The findings of the study may be generalized for the women to have productive life. The aim of the present study is to determine the effect of bundle care therapy to improve QOL among women with POP. The study's goals are to assess the quality of life of women with pelvic organ prolapse, determine the efficacy of Nurse led bundle care therapy on quality of life in women with pelvic organ prolapse, and link quality of life in women with pelvic organ prolapse to their chosen socio demographic variables.

MATERIALS AND METHODS

A Quasi-experimental study was performed. The study was conducted at Gynaec Outpatient Department, Narayana Medical college Hospital, Nellore, Andhra Pradesh state, India. NMCH is with the bed strength with 1750 beds covering both general and speciality wards. Hospital has all latest facilities. Department of OBG has exclusive OPD functioning all seven days catering maternal and Gynecology population. On an average of 70-80 women attended the Gynecology OPD daily. Women also have inpatient facility with all Gynecological equipments, to carry out routine procedures since Diagnostic modalities are also available within the hospital with expert opinion at affordable cost.

Participants were chosen using a basic random sample procedure, and those who were mentally and physically ill at the time of data collection were excluded.

Ethical Clearance

The study protocol was approved by the Institutional Ethics Committee, Narayana college of Nursing Nellore, Andhra Pradesh, India (vide memo no. ECR/1348/INST/AP/2020.IEC).11th Nov 2019.

Data collection

Informed consent was obtained from women prior to data collection. Base line data such as Age, Religion, Marital status, education, occupation, Income, Residential status, Number of children and social support and clinical data such as BMI, Parity, Menopausal status, Family history, Grade of POP, and treatment taken for POP were collected (8). Six-point Rating scale was used to collect data on Health-Related Quality of Life (HRQoL) as per test and biofeed mechanism. Pelvic floor muscle training and education on lifestyle modification were also provided to participants and post test results were conducted with the same tool. Role limitation, Physical social constraints, Personal relationships, Emotions, Sleep and Energy, and POP associated concerns are the six components of HRQoL (9). Responsiveness of the Pelvic Floor Distress Inventory (PFDI) and Pelvic Floor Impact Questionnaire (PFIQ) are condition-specific quality of life instruments in medical and surgical trials with disorders of the lower urinary tract, gastrointestinal tract, and pelvic organ prolapse, measuring the degree of botheration and distress caused by a wide range of pelvic floor symptoms.

The sum score of all 6 components were summed up again producing the HRQoL, which reflects the standard of quality of life in general. The total score ranges from 0 to 60, in which '0' was given for no symptom and score '3' was awarded to the maximum problems in this study of HRQoL value below 15 was considered as NO QOL problems 16-30 as A little Problems, 31-45 QOL problems at moderate level and 45- 60 was considered as problems were a lot affected the Quality of life among women with POP problems.

Data analysis

SPSS v18 was used to analyse the data, which was entered into an MS Excel sheet. There are six components: Role restrictions, physical and social limitations, personal relationships, emotions, sleep and energy, and POP-related issues are all issues that people with POP undergoes. The scores have been represented as mean and standard deviation (SD). Nonparametric The Wilcoxon signed ranks test and the Mann Whitney U-test were used to determine whether the median score was significant. For statistical significance, a P value of $P=0.001$ was used. The mean and standard deviation scores in each domain were also calculated.

RESULTS

Table I shows the clinical information of woman with prolapsed uterus who participated in this study. Similarity of demographic distribution between study and control group was assessed using chi square test.

TABLE I: CLINICAL VARIABLES

Clinical Variables	Group					Chi square test
	Study(n=160)		Control(n=160)			
	n	%	n	%		
BMI	< 18.5	8	5.00%	6	3.75%	$\chi^2=1.20$ $p=0.75$ DF=3(NS)
	18.5 – 24.9	69	43.14%	74	46.25%	
	25.0 – 29.9	57	35.63%	50	31.25%	
	30.0 and above	26	16.25%	30	18.75%	
	Parity	Nulli-para	6	3.75%	9	
1-2	120	75.00%	106	66.25%		
3-4	34	21.25%	45	28.12%		
>4	0	0.00%	0	0.00%		
Mode of delivery	Vaginal delivery	89	55.63%	80	50.00%	$\chi^2=1.17$ $p=0.55$ DF=2(NS)
	Instrumental	28	17.50%	29	18.13%	
	LSCS	43	26.87%	51	31.87%	
Menopausal status	Pre menopause	52	32.50%	56	35.00%	$\chi^2=4.34$ $p=0.22$ DF=3(NS)
	Post menopause	79	49.38%	67	41.88%	
	Pre menopause with HRT	16	10.00%	27	16.88%	
	Post menopause with HRT	13	8.12%	10	6.24%	
Family history of POP	Yes	43	26.87%	54	33.75%	$\chi^2=1.27$ $p=0.25$ DF=1(NS)
	No	117	73.13%	106	66.25%	
Co-morbid illness	Yes	64	40.00%	74	46.25%	$\chi^2=2.86$ $p=0.23$ DF=1(NS)
	No	96	60.00%	86	53.75%	

TABLE I: CLINICAL VARIABLES (CONT.)

Clinical Variables	Group					Chi square test
	Study(n=160)		Control(n=160)			
	n	%	n	%		
Grade of Pelvic organ Prolapse	G I	109	68.13%	100	62.50%	$\chi^2=1.11$ p=0.29 DF=3(NS)
	G II	51	31.87%	60	37.50%	
	G III	0	0.00%	0	0	
	G IV	0	0.00%	0	0.00%	
Treatment taken for Pelvic organ Prolapse	Allopathic Medication	121	75.63%	112	70.00%	$\chi^2=1.30$ p=0.25 DF=23(NS)
	Exercise	39	24.37%	48	0	
	Alternative medicine	0	0.00%	0	0	
History of lower back pain	Yes	103	64.38%	112	0	$\chi^2=1.15$ p=0.28 DF=1(NS)
	No	57	35.62%	48	30.00%	
HISTORY OF PELVIC ORGAN INJURY	Yes	0	0.00%	0	0.00%	$\chi^2=0.00$ p=1.00 DF=1(NS)
	No	160	100.00%	160	100.00%	

Table II Considers Level of QOL, in study group, none of them had “Not at all level” of score, 18.75% of them had “A little level” score, 49.38% of them represented “Moderate level” of score and 31.87% of them had a “lot of level of problem” score. None of the people in the control group had a “low level of problem” score, 24.38% had a low level of problem score, 45.00% had a moderate level of problem score, and 30.63% had a high level of problem score. There was no statistically significant difference between them.

TABLE II: PRETEST LEVEL OF QOL SCORE

Score	Group				Chi square test	
	Study		Control			
	n	%	n	%		
Not at all	0	0.00%	0	0.00%	$\chi^2=1.54$ P=0.46 DF=2(NS)	
A little	30	18.75%	39	24.38%		
Moderate	79	49.38%	72	45.00%		
A lot	51	31.87%	49	30.62%		
Total	160	100.00%	160	100.00%		

P>0.05 not significant DF= Degrees of Freedom NS= Not significant

Table III Considers Level of QOL, in study group, 20.63% of them had “Not at all level” of score, 48.13% of them had “A little level” score, 25.00% of them had “Moderate level” of score and 6.25% of them represented “lot of level” of score. In control group, none of them had “Not at all level” of score, 42.50% of them had “A little level” score, 32.50% of them had “Moderate level” of score and 25.00% of them represented “A lot of level” of score. Statistically there was a significant difference between them.

TABLE III: POSTTEST LEVEL OF QOL SCORE

Level of QOL	Group				Chi square test	
	Study		Control			
	n	%	n	%		
Not at all	33	20.63%	0	0.00%	$\chi^2=53.12$ P=0.02* DF=2(S)	
A little	77	48.13%	68	42.50%		
Moderate	40	25.00%	52	32.50%		
A lot	10	6.25%	40	25.00%		
Total	160	100.00%	160	100.00%		

P>0.05 not significant DF= Degrees of Freedom NS= Not significant

Table IV in pre-test, women had 30.57 score and in post-test, they had only 19.76 score, where the difference is 10.81 and this difference was large and was significant. In pre-test, women had 29.84 score and in post-test, they had 28.99 score, where the difference is only 0.85, this difference was small, and it was not significant. It was tested using nonparametric Wilcoxon signed ranks test.

TABLE IV: COMPARISON OF PRETEST AND POSTTEST QOL

	Pretest		Posttest		Mean difference	Wilcoxon signed ranks test
	Mean ±SD	Median (25-75)	Mean ±SD	Median (25-75)		
Study	30.57 ±5.22	27(27-36)	19.76 ±5.17	17(16-25)	10.81	Z12.15 P=0.001***(S)
Control	29.84 ±6.61	27(26-29)	28.99 ±6.34	26(25-31)	0.85	z=1.57 P=0.13(NS)

Table V In pre-test Study group, women scored showed 30.57 and in control group women scored 29.84, and the difference is only 0.73, where the difference is small, and it is not significant. In Post-test Study group of women scored 19.76 score and in control group women scored 28.99 score. The difference is 9.23 and this difference is large, and it was significant.

TABLE V: COMPARISON OF QOL BETWEEN STUDY AND CONTROL GROUP

	Study (n=160)		Control(n=160)		Mean difference	Mann Whitney U-test
	Mean ±SD	Median (25-75)	Mean ±SD	Median (25-75)		
Pre test	30.57 ±5.22	27(27-36)	29.84 ±6.61	27(26-29)	0.73	z=1.56 P=0.13(NS)
Post test	19.76 ±5.17	17(16-25)	28.99 ±6.34	26(25-31)	9.23	z=10.55 P=0.001***(S)

Table VI shows the effectiveness of Nurse led bundle care therapy on POP Symptoms, and Quality of life among woman with prolapsed uterus at selected hospitals in Nellore.

TABLE VI: EFFECTIVENESS NURSE LED BUNDLE CARE THERAPY AND GENERALIZATION OF QOLREDUCTION SCORE

	Max score	Mean score	%Mean score	Mean QOL score reduction score with 95% Confidence interval	Decrease in Percentage of QOL affecting symptoms with 95% Confidence interval
Study Pre test	60	30.57	50.95%	10.81 (10.72–10.90)	18.02% (17.87%–18.17%)
Study Post test	60	19.76	32.93%		
Control Pre test	60	29.84	49.73%	0.85 (-0.28 – 1.98)	1.42% (-0.46% – 3.30%)
Control Post test	60	28.99	48.32%		

In Study group, on an average, in post-test after having intervention, the symptoms affecting QOL decreased to 18.02% score than the pre-test score of 18.17% whereas, in control group, on an average, in post-test with routine care, symptoms were decreased only by 1.42% score than pre-test score. This difference shows the effectiveness of Nurse led bundle care therapy. The mean difference with 95% confidence intervals and the proportion with 95% confidence intervals were used to compute the differences and generalization of QOL decline score between pre-test and post-test scores.

Due to the link between the post-test level of score and prolapsed uterus, women's demographic characteristics were chosen. More educated women with Higher income group women and women adopt to Sedentary Lifestyle had comparatively less significant POP problems than the other women.

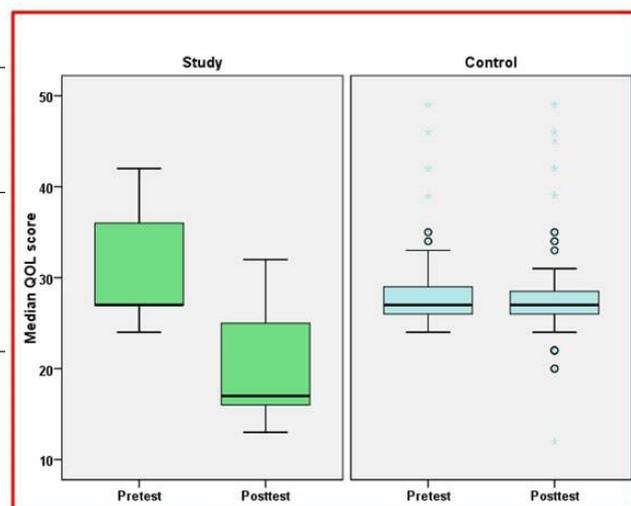


Fig 1 Box-plot compares the prolapsed uterus women pre and post-test QOL score

DISCUSSION

Prolapse can have a major impact on a person's physical, mental, and social well-being. There are a variety of activities that can be taken to reduce the risk of uterine prolapse or to prevent a mild prolapse from deteriorating. Among these include regular pelvic floor exercises, weight loss, and maintaining a healthy weight. High-fiber diet and avoiding heavy lifting, avoiding constipation and straining when going to the bathroom. The following findings were discovered and judged to be statistically significant in this investigation.

Women in the pre-test study group scored 30.57, while women in the control group scored 29.84, a difference of only 0.73, which is minor and not significant. In Post-test Study group of women scored 19.76 score and in control group women scored 28.99 score. The difference is 9.23 and this difference is large, and it was significant. In study group, on an average, in post-test after having intervention, the symptoms affecting QOL decreased to 18.02% score than the pre-test score of 18.17% whereas, in control group, on an average, in post-test with routine care, symptoms were decreased only by 1.42% score than pre-test score.

This difference shows the effectiveness of Nurse led bundle care therapy. The post-test level of score and the demographic characteristics of women with a prolapsed uterus are linked. Moreover educated women, women from higher income groups, and women who follow a sedentary lifestyle experienced fewer symptom than other women.

Women with stage II POP, especially those with prior surgery, reported more symptoms and impact than women with more advanced POP. There were no other significant predictors of symptoms or life impact. Women planning sacrocolpopexy with stage II prolapse

and prior pelvic surgery reported more symptoms and quality of life impact than those with more advanced prolapse (15).

Labour pain is a physiological condition generally experienced by almost all women who give birth. Pain causes tachycardia in the mothers, increased oxygen consumption, lactic acid production (lactic), hyperventilation with the risk of respiratory alkalosis, and increased skeletal muscle tension (16). Despite reports of trials in this study, the result available from this study is not significant for guided practice. Further evidence from larger, a better quality randomized control trial is still essential.

CONCLUSION

Nurse-led clinics have revealed to be both clinically sound with perceived benefits for patients by focusing on improving health traits and emphasizing POP control. Nurse-led clinics are a wonderful supplement to general practitioner clinics. Nevertheless, the nurses must be well-trained in order to successfully manage each patient's preventative care according to clinic criteria. The growing number of patients with prolapsed uterus will become less of a financial burden on the healthcare system as a result of the perceived benefits of improved health and likely to lower admission rates. So, women presenting with prolapse symptoms need to be looked after by health care team, offered better information about treatment choices, and supported to make a decision that is right for them.

ACKNOWLEDEMENT

The authors are thankful to the authorities of Narayana College of Nursing Nellore, Andhra Pradesh, India for permitting them to carry out the work.

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