

A Study to Evaluate the Effectiveness of Structured Teaching Programme Regarding Knowledge on Preventive Measures of Uterine Prolapse among Multiparous Women in Chigateri District Hospital, at Davangere

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Abstract: Introduction: The uterus is an organ of the female reproductive system. It is shaped like an upside-down pear and is located inside the pelvis. The uterus, bladder and bowel are supported by tight hammock of muscles slung between the tailbone and pubic bone. These muscles are known as the pelvic floor muscle. If these tissues are weakened. The uterus can slip down into the vagina.¹ A uterine prolapse is a weakening of the pelvic floor muscles. As the muscle mass become weakened there is inadequate support for uterus and thus it could descend in the direction of vagina. The most common causes of uterine prolapse are multiparity and loss of estrogen and increasing body mass index.² According to WHO in 2000 estimates, reproductive ill health accounts for 33% of total diseases burden in women globally. The global prevalence of uterine prolapse is estimated to be 2-20% in women under the age of 40 in Nepal. A recent surge in studies has boosted information on women's reproductive health. In spite of widespread reports of problems particularly uterine prolapse.³ Methodology: The research design adopted for this study was one group pre-test – post-test design. sample consisted of 60 multiparous women who are admitted in postnatal ward of Chigateri district hospital during the period of data collection and who fulfilled the inclusion criteria. purposive sampling technique was used to select the sample. . Structured knowledge questionnaire was used to collect data from the participants. Data was analyzed by both descriptive and inferential statistics. Results: The mean post-test knowledge score (66.06%) was found to be significantly higher than mean pre-test knowledge score was (44.06) at 0.05 level of significance ($t_{59} = 2.00$ $p < 0.05$). The findings of the study revealed that there was association of pre-test knowledge score and the demographic variables like education, occupation and income and also some variables show there was no association of pre-test knowledge score with selected demographic variables like age, place of residence, religion, type of family, number of children and place of previous delivery. Conclusion: The knowledge of multiparous women was below average knowledge in pre - test. Multiparous women were above knowledge after the administration of structured teaching programme on preventive measures of uterine prolapsed in posttest. So, it was clearly stated that to acquire maximum level of knowledge, effective structured teaching programme is essential.

Keywords: uterine prolapse, pelvic floor muscles, multiparity, effective structured teaching programme

1. Introduction

Uterine prolapse represents a severe uterine problem in which the uterus protrudes through the pelvic floor aperture or genital hiatus. Uterine prolapse occurs most often in multiparous women as a response to injuries to the muscle and fascia of the pelvis incurred during childbirth. The most commonly occurring problem with pelvic support is uterine prolapse. The uterus may undergo minor displacement in ways that are considered to be normal variations with little or no clinical effects.¹

Uterine prolapse is a common female complaint at least half of all women who have given birth experience. The incidence of uterine prolapse is highest in multiparous women. So, care is essential, both in the prevention and detection of prolapse. Conservative management approaches such as giving life style advice and delivering pelvic floor muscle training are often used in cases of mild prolapse. But if uterine prolapse makes you uncomfortable or disrupts your normal life you might benefit from treatment options include using a supportive device (pessary) inserted into your vagina or having surgery to repair the prolapse.⁴

In 1993 study from Egypt, physician diagnosis found that 56% of 509 married women between the age group of 20-40 years had uterine prolapse. In 1997, 694 in Southern India. 440 women under the age of 35 were evaluated for gynecological morbidity and cases of prolapse were noted in 3.4%. In 2000, study in Northern India, of 2,900 married women surveyed for prolapse cases were diagnosed in 7.6%. In a 2002 study in the United States, 27,342 women were evaluated in the women's health initiative. 14.2% of the 16,616 women who were diagnosed with uterine prolapse. Another US study suggests that uterine prolapse is present in some 20% of multiparous mothers.³

A study was conducted in postnatal wards of Jayanagar General Hospital. The design used for the study was quasi experimental. It is of 350 bedded hospital with an average sample size of 60 to 70. The study result found in experiment group mean difference in mean is 3.4 and standard deviation is 0.5 for the prevention of uterine prolapse. In control group mean difference in mean is 4 and standard deviation is 1.88. the obtained 't' value 1.495 found out to be significant.⁵

A study was conducted to evaluate the pelvic floor exercises and balanced diet to prevents the uterine prolapse in post-natal wards. The hospital was conducting of 60 – 70 sample. The

sampling technique was purposive sampling. the sample size is 60 multiparous women. The results of the study determine that mothers are free from complications and prevention of uterine prolapse.⁶

A cohort study conducted on “Epidemiology of genital prolapse” among 17,032 women (25-39 years old) at seventeen large family planning clinics in England and Scotland revealed that the incidence of hospital admission with prolapse is 2.04 per 1000 person years of risk. Age, parity, calendar period and weight were significantly associated with risk of an inpatient admission with prolapse after adjustment for principle confounding factors. Smoking status and obesity were significantly associated with risk of prolapse. The incidence of prolapse which required surgical correction following hysterectomy was 3.6 per 100 person – years of risk this study supports that among the potential factors that were investigated, parity shows much the strongest relations to prolapsed.⁷

A study was conducted to determine the certain occupation or socioeconomic levels are associated with uterine prolapse. Investigations at six American sites performed pelvic organ prolapse quantification on women presenting for routine gynecological care between September 1999 and March 2002, 1004 patients were examined. The prevalence of severe uterine prolapse in our group was 4.3% women who were labours / factory workers had significantly more severe prolapse than the other job categories. These differences persisted even when controlling of age, race, number of deliveries, body mass index > 30 and smoking status, laborers / factory workers jobs and annual household income of Dollars 10,000 or less are associated with severe uterine prolapse.⁸

A study conducted on “predictive factors for genital prolapse among 85 young women (<or 45 years old) at Finland, stated that in the study group number of deliveries was higher and the babies cure heaven than in the control group. In addition, the women with prolapse more often hard operations of abdominal hernias and also had more chronic pulmonary disease. Familial incidence of prolapse was about 30% this study supports that these are both acquired and congenital factors that predispose women to genital prolapsed.⁹

Knowledge about the preventive measures of will help the mothers to lead to a healthy and happy postnatal mother should have the knowledge regarding the importance of diet, early ambulation, avoidance strenuous activity, personal hygiene, pelvic floor exercises. This is supported by a study conducted on “knowledge and practices of related aspects of postnatal care” among 70 postnatal mothers at Bangalore revealed that postnatal mothers had knowledge about diet (63.93%), early ambulation (57%), personal hygiene (61.4%), postnatal exercises (38.89%), breast feeding (54.55%) The overall mean % of knowledge, about diet, early ambulation, personal hygiene, postnatal exercises can help to prevent uterine prolapse¹⁰

Objectives of the Study

- 1) To assess the existing knowledge regarding preventive measures of uterine prolapse among multiparous women by pre- test.
- 2) To evaluate the effectiveness of structured teaching programme regarding knowledge on preventive measures of uterine prolapse among multiparous women by comparing pre and post test scores.
- 3) To find out the association between pre-test knowledge score with selected demographic variables.

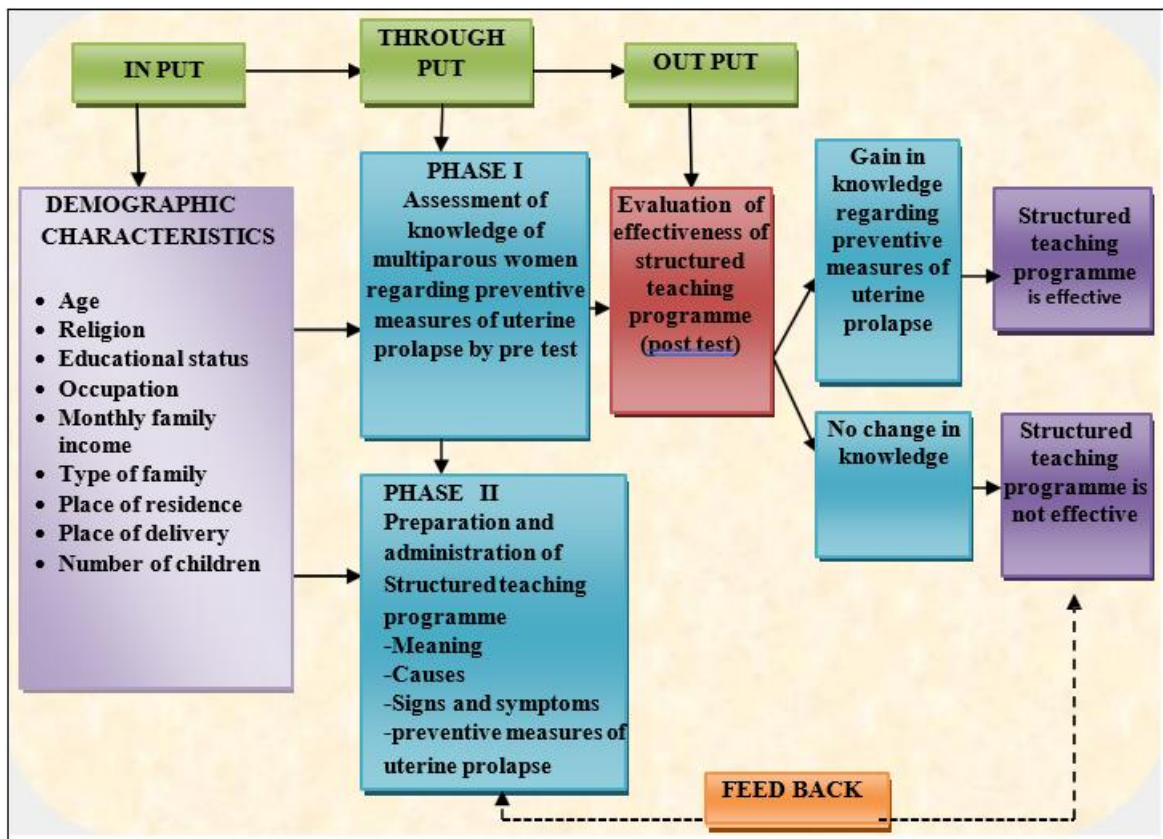
Hypothesis:

H1: The mean post-test knowledge score of the multiparous women will be significantly higher than their mean pretest knowledge score.

H2: There will be positive significant association between the pre-test knowledge score with selected demographic variables of multiparous women

Conceptual Framework

The conceptual framework of the study is based on Systems Model. According to the General Systems Model, a system is a set of interacting elements, all contributing to the overall goal of the system. Any system consists of the input, process and output. This study aims at developing and evaluating a structured teaching programme for multiparous women regarding preventive measures of uterine prolapse.



2. Materials and Methods

In this study the sample consisted of 60 multiparous women who are admitted in postnatal ward of Chigateri District hospital during the period of data collection and who fulfilled the inclusion criteria. In the present study purposive sampling technique was used to select the sample.

Description of tool: The tool comprised of 2 parts.

Part I- Demographic proforma: It consists of 9 items. It includes age, religion, educational status of mother, occupation, family income per month, area of residence, type of family, place of previous delivery and number of children.

Part II- Knowledge on Uterine Prolapse: The interview schedule consists of 30 items, that is further divided into 4 sections, section A B C and D. section A consists of 7 items, regarding general information about uterus and uterine prolapse. Section B consists of 3 items regarding causes of uterine prolapse section C consists of 5 items regarding symptoms of uterine prolapse and section D consists of 15 items regarding preventive measures of uterine prolapse.

Criteria for Sample Collection:

Inclusion criteria:

- Multiparous women who were admitted in postnatal ward of Chigateri District Hospital, Davangere.
- Women who known to speak Kannada or English.

Exclusion criteria:

- Multiparous women who are not willing to participate in the study.
- Multiparous women who are not available during the time of data collection.

Section 1 Frequency and Percentage Distribution of Subjects according Demographic Characteristics

Table showing distribution of samples according to their age

Age	Frequency	Percent
a. 25-35 years	30	50
b. 36-45 years	25	41.7
c. 46 years and above	05	8.3

Majority of the subjects belongs to the age group of 25 – 35 years (50%) and other age groups like 36 – 45 years (41.7%), 46 years and above (8.3%)

Table showing distribution Of Samples According to their Educational Qualification

Educational qualification	Frequency	Percent
No formal education	25	41.7
Primary education	20	33.3
Secondary education	10	16.7
Graduation and above	05	8.3

The data in the table shows majority (41.7%) of the mothers were no formal education, 33.3% were primary education, 16.7% were higher secondary education and 8.3% were graduation and above.

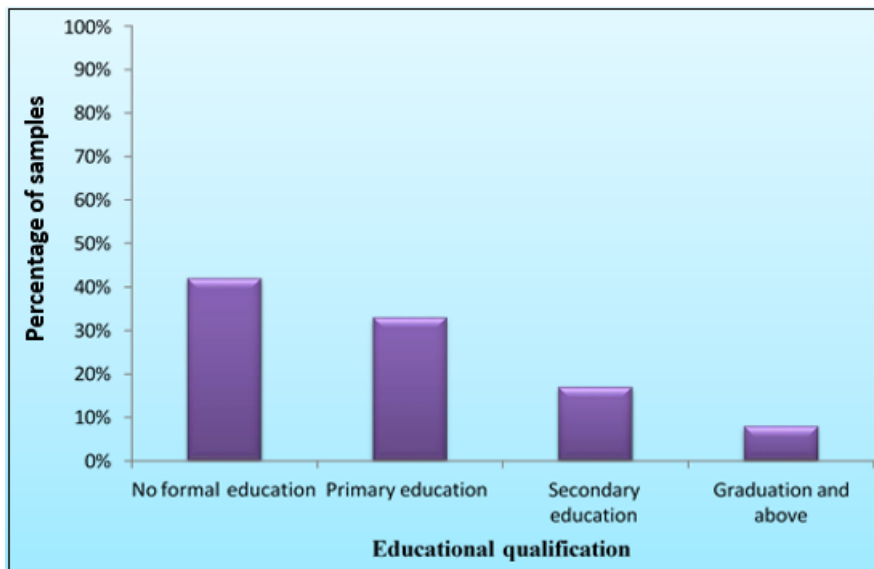


Table showing Comparison of pre-test and post-test knowledge level of women

Knowledge level	Score range	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Adequate	24-30	--	--	25	41.6
Moderate	16-23	7	11.7	30	50
Inadequate	0-15	53	88.3	05	8.4

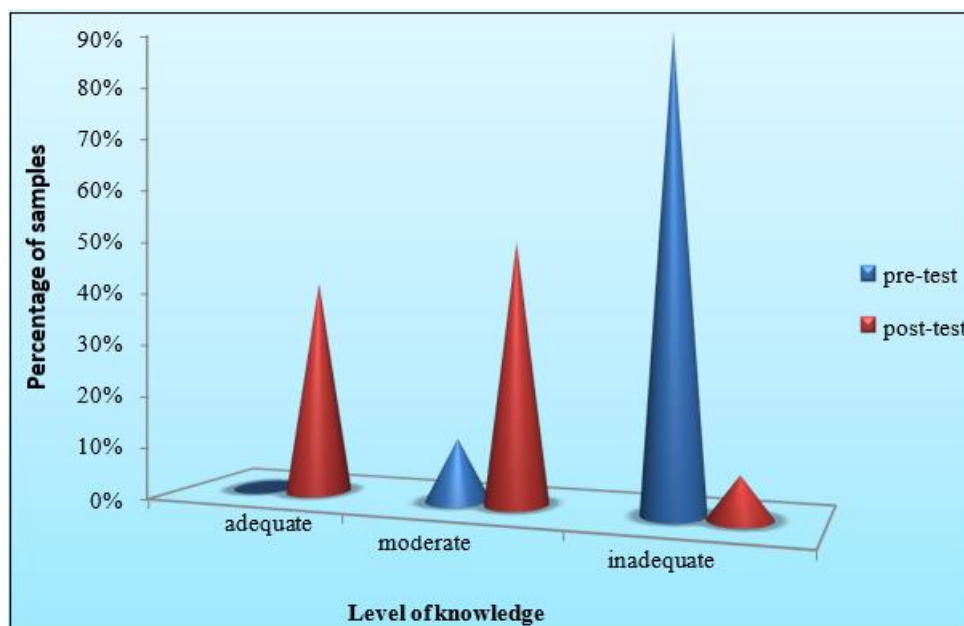


Figure 12: Comparison of pre-test and post-test knowledge level

Figure shows comparison of pre-test and post-test knowledge level of multiparous women.

Section 2: Assessment of Knowledge of Multiparous Women by Pre- Test Scores

Table showing distribution of samples according to their level of knowledge in pre- test

Knowledge level	Score range	Pre- test	
		Frequency	Percentage
Adequate	24-30	--	--
Moderate	16-23	7	11.7
Inadequate	0-15	53	88.3

The data in the table shows that 88.3 % multiparous women

had inadequate knowledge, while 11.7 % had moderate knowledge in the pre –test.

Section 3 Effectiveness of Structured Teaching Programme

The pre-test and posttest knowledge scores obtained by the subjects regarding the Preventive measures of uterine prolapse. The data has been presented in table.

Table showing Mean, mean percentage, standard deviation of knowledge scores of multiparous Women.

	Range	Mean	Mean percentage	SD
Pre-test	7-17	13.22	44.06%	3.32
Post-test	10-29	19.82	66.06%	4.51

Maximum possible score= 30

The above table shows that the pre-test score range (7-17) was apparently less when compared to the post-test score range (10-29). The mean post-test knowledge score, 19.82 ± 4.51 (66.06%) was significantly higher than the mean pre-test knowledge score 13.22 ± 3.32 (44.06%). This shows that there was apparent increase in the mean posttest knowledge score following the structured teaching programme.

Table showing distribution of samples according to their level of knowledge in post- test, N= 60

Knowledge level	Score range	post-test	
		Frequency	Percentage
Adequate	24-30	25	41.6
Moderate	16-23	30	50
Inadequate	0-15	05	8.4

The data in the table shows that 41.6% multiparous women had adequate knowledge, while 50 % had moderate and 8.4 % had inadequate knowledge in the post -test.

Table showing Comparison of pre-test and post-test mean and mean percentage scores of subjects

Sl. No	Knowledge aspects	Max score	Pre-test		Post-test		Mean difference	t value	Inference
			Mean	Mean %	Mean	Mean %			
1	General aspect	7	2.08	29.71%	2.28	32.57%	0.2	10.145	S
2	Causes of uterine prolapse	3	0.81	27%	1.81	60.33%	1	11.212	S
3	Signs and symptoms	5	2.10	42%	3.15	63%	1.05	13.898	S
4	Preventive aspect	15	6.31	42.06%	8.91	59.4%	2.6	14.516	S
Overall knowledge		30	13.22	44.06%	19.82	66.06%	6.6	20.405	S

S= Significant

From the above table it is evident that the mean difference between the pre- test and post-test score was 6.6. The obtained "t" value, **20.405** is greater than the table value at 0.05 (2.009575) level of significance. Therefore, the null hypothesis (**H₀₁**) is rejected. Hence it can be concluded that there is significant difference between the pre-test and post-test knowledge levels of women and the difference of mean observed was true difference. Thus, the teaching programme was effective in terms of gain in knowledge among multiparous women.

Section I: Demographic Characteristics

In this study majority of the subjects were in the age group of 25-35years (50%). Most of the subjects were not educated. In occupational status 41.6% were house wife. In religion most of the subjects belongs to Hindus 41.7% Hindus. Most of the subjects monthly family income less than 3000. This finding is similar to study done by A. J Singh in rural north india that reported that 85% were lower / lower middle-class families. In type of family most of them were in nuclear family i.e., 58.3% and most of them have more than two children i.e., 58.3%. In residence most of them were in rural area i.e., 58.3%.

Section II: Testing Of Hypothesis

1) Effectiveness of structured teaching programme:

The mean post-test knowledge score (66.06%) was found to be significantly higher than mean pre-test knowledge score was (44.06) at 0.05 level of significance (t 59= 2.00 p < 0.05).

2) Association of pre-test knowledge score and selected demographic variables.

The findings of the study revealed that there was association of pre-test knowledge score and the demographic variables like education, occupation and income and also some variables shows there was no association of pre-test knowledge score with selected demographic variables like age, place of residence, religion, type of family, number of children and place of previous delivery.

3. Major Study Findings

- Among multiparous women, majority of them belong to age group of years 25-35(50%)
- Religion of most of subjects were Hindu (41.7%)
- Educational states of the subjects had no formal education (41.7%)
- Occupation most of subjects were house wife (41.6%)
- Monthly income of most of subjects belongs to less than Rs 3000 (41.7%)
- Place of residence majority subjects living in rural area (58.3%)
- Type of family majority subjects belongs to nuclear family (58.3%)
- Place of previous delivery most of subjects had hospital delivery (61.7%)
- Number of children majority of subjects had more than two children (58.3%)
- The pre-test and post-test knowledge scores of subjects ranged between 7 - 17 and 10-29 respectively.
- The mean pre-test knowledge score was 13 . 22 and mean post-test score was 19 . 82 with mean difference of 6.62. The mean post-test knowledge score was found to be significantly higher than mean pre-test knowledge score at 0.05 level of significance. (T 59= 2.00 P<0.05)

4. Nursing Implication of the Study

The nursing implication includes the specific suggestions for nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice:

- The present study finds that there was the need for providing teaching programme by the nurse including student nurse, auxiliary nurse and other health professionals.
- The nurse has an excellent opportunity to provide teaching programme to the mothers, family members in hospital and community setting.
- Periodically the knowledge and needs to be reviewed, evaluated and motivated in hospital regarding preventive

measures of uterine prolapsed.

Nursing Education:

- Nurse educator needs to prepare the nursing students to obtain the skill in identifying and educating the multiparous women regarding preventive measures of uterine prolapse.
- The student nurse must be prepared to use the technology in providing effective health education such as video film, models regarding preventive measures of uterine prolapse.

Nursing Administration:

- The present study is proposed to help the health administrator to accurately plan and lead the juniors to meet the needs of multiparous women.
- Administration in both private and government sector should take
- initiatives to update the knowledge of health professionals regarding preventive measures of uterine prolapse by in-service education.
- Nursing administration should provide necessary facilities to equip their staffs to provide necessary services to the multiparous women regarding preventive measures of uterine prolapse.

Nursing Research:

- The study findings will help to expand and review the education programme for further research.
- The study can be done in different community settings.

5. Limitations

- This study was limited to multiparous women who are admitted in postnatal ward of Chigateri District Hospital at Davangere.
- The study was limited to 6 weeks.

6. Recommendations

On the basis of findings of the study the following recommendations have been made for further study.

- Similar study can be replicated on a larger sample
- A comparative study can be done between urban and rural multiparous women
- The study can be conducted among health professionals.
- The same study can be conducted as an experimental approach.
- The same study can be conducted by using different teaching methods.

Conflicts of Interest: Nil

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