

E-ISSN: 2663-0435 P-ISSN: 2663-0427 www.nursingpractice.net IJMNP 2020; 3(1): 28-33 Received: 10-11-2019 Accepted: 13-12-2019

#### Rohi Jan

Tutor Syed Mantaqi Memorial College of Nursing and Medical Technology, IUST, Awantipora, Kashmir, India

**Dr. Muneera Bashir** Professor Madre Meherban College of Nursing, SKIMS, Kahmir, India

**Dr. Wani Zahıd Hussain** Senior Resident, Dept. of Medicine, SKIMS, Kashmir, India

Corresponding Author: Rohi Jan Tutor Syed Mantaqi Memorial College of Nursing and Medical Technology, IUST, Awantipora, Kashmir, India

### International Journal of Midwifery and Nursing Practice

### A study on the usefulness of organized training program on information among postoperative patients on self-care with hysterectomy in Kashmir

### Rohi Jan, Dr. Muneera Bashir and Dr. Wani Zahıd Hussain

#### Abstract

**Introduction**: In Gynecology Hysterectomy is one of the foremost surgical procedures and every woman who undergoes through this procedure needs information to know exactly what part of her body is to be removed and why and what effect will it have on her body after the surgery. With inadequacy in knowledge regarding the causes and consequences of hysterectomy, women in Kashmir experience post-operative complications which advocates the need for well-organized training program on improving the information among postoperative women on self-care in a selected maternity hospital in Kashmir.

**Methodology**: Through a quantitative methodology with a pretest-posttest control group design on a non-probabilistic convenient sample of 50 (fifty) women the problem was addressed.

**Conclusion**: Data analysis through SPSS-16 version by using t-test exposed significant difference 30.24 (*P*<0.05) amongst pre-test and post-test information scores of respondents and revealed a substantial increase in information scores amongst postoperative patients on self-care using organized training program.

Keywords: Kashmir, teaching program, postoperative patients, self-care, hysterectomy

#### 1. Introduction

Hysterectomy has been identified as a common non-pregnancy associated major surgical procedure performed on women and in India annual incidence of hysterectomy is 23. 10,263 and exclusively in Kashmir 73213. Owing to the fact that hysterectomy is a surgical procedure, it considerably affects the quality in which the operated person views herself with lower self-confidence and brings about changes in the quality of life <sup>[1, 2]</sup>. Every woman who faces this surgical procedure needs information at every step to clearly understand what surgery is intended, what part(s) of her body are to be detached, and why. They further wish to discover if other options are available and be involved in making a learned decision, what effects the surgical procedure will have on their bodies predominantly in connection to their reproductive cycle and how this will affect their sexuality <sup>[3]</sup>. Additionally, it necessities workable and proficient guidance about their hospital stay, recuperation, and their ultimate return to a usual lifestyle. Correspondingly significant is their need to understood and given time to discover their emotional state and response to the hysterectomy, and here the nurse can play a pivotal role as they can act as a source of relief and wellbeing who can explain to them the details of their illness, the operation, and the technique of the pre and post-operative self-practices <sup>[4, 5]</sup>. Thus the need for information for postoperative women on self-care is vital for their arrival to routine health post to surgical procedure <sup>[6]</sup>. When suitable and sufficient information is not provided, women can brawl in an atmosphere of ambiguity and nervousness which can have a negative impression on post-operative results and one way to curtail the influence of this is to provide structured training program <sup>[7]</sup>. Providing suitable information is an unpretentious manner has the potential to authorize and empower women to enthusiastically participate in their own care and make the knowledgeable decisions essential to retain and promote their health during their recovery period <sup>[3, 4]</sup>. As a result nurses play an important role and can significantly act as a source of comfort as being a sympathetic counselor who can educate them about their ailment, the operation, and the process of the pre and postoperative self-practices thereby improving the knowledge score of post-operative hysterectomy women<sup>[4, 8]</sup>.

In Kashmir hysterectomy is a major, yet routine operation procedure conducted extensively. Singh, et al., revealed that the most frequent reasons of hysterectomy here are fibroid tumors accounting to (27%), followed by prolapse (09%), urinary frequency (19%), pelvic inflammatory diseases (27%) and cyclical bleeding (82%)<sup>[9]</sup>. Owing to these surgical problems many women die each year to prolonged or heavy bleeding or pain <sup>[10]</sup>. Hence hysterectomy signals a new release from worries about pregnancy and contraception and resorts to save maternal life<sup>[11]</sup>. But again, there are double sides to every story. Many women, mostly the young women while recognizing the necessity for the operation may still sense a keen logic of loss at the removal of their uterus, this means an end, often early to their gestation year when the ovaries, as well as the uteruses, are removed, women are sent into an abrupt menopause, normally called the change of life, and are frequently unwilling for it so hysterectomy which can be great benefit may also bring grief and sorrow <sup>[4]</sup>. Thus the inadequacy of knowledge regarding the causes and consequences of hysterectomy and post-operative complications advocated the need of a structured training program on improving the information score of post-operative hysterectomy women for preventing postoperative complications and a speedy recovery. Therefore the nurse's goal in management is strategically important <sup>[11]</sup>. Women look forward to a new life physically, mentally, and sexually by providing them information regarding length of stay, rest, exercises, early ambulation, hygiene, diet, and returning to work to prevent complications <sup>[12]</sup>. Hence the current study was conducted which aimed to access the usefulness of organized training programs on information on self-care between postoperative women belonging to different socio-demographics in Kashmir.

#### 2. Literature Review

Literature survey is a key aspect of every research and while going through the available literature, it has been observed that the compressive knowledge and information on the effectiveness of the well-structured training programs useful in identifying and dealing with the possible post-operative problems like abdominal distress, sleeplessness, tiredness and nervousness in women was not given more importance in nursing care <sup>[13]</sup>. This research undertakes the existing literature on the usefulness of the organized training programs on information among postoperative women on self-care with hysterectomy so as to give an understanding of the deeper aspect of the problem under study.

Singh and Kaur reported that in India approximately 75% to 90% of women suffer from post-operative complications after hysterectomy and incorporation of well-structured and organized post-operative training program help the women the post-operative complications reduce like to physiological distress, and other problems <sup>[9]</sup>. These findings were further strengthened by the study of Hollins who through randomized clinical trials at The University Medical Center Netherlands revealed a high risk for developing postoperative complications <sup>[8]</sup>. Jayashri and Pandey reported that women after hysterectomy have a high incidence of post-operative complications like pain, weightiness, descent in sexual life, early menopause, loss of productiveness as well as demonstrative changes like downheartedness and such complications were mostly seen above 60 years <sup>[1, 14]</sup>. In a similar type of study Mohan explored that post-operative scars after hysterectomy is a significant source of infection as a result of prolonged length of stay in hospital <sup>[12]</sup>. He attributed such postoperative complications to lack of inadequate information regarding the consequences of hysterectomy and advocated the need for structured training program on improving the information score of post-operative women for preventing complications and to a speedy recovery. Barnes through a cohort study on a group of 4855 women at a tertiary care hospital revealed a lower confidence and variations in the quality of life of women following a hysterectomy and attributed it to lack of post-operative knowledge which affects the quality in which the operated women views herself with lower self-confidence and brings about changes in the class of life <sup>[15]</sup>. Hollins and Key studied the effects of a rational and emotional involvement with the information given prior to surgical procedure on post-operative results of Chinese women undergoing an abdominal hysterectomy<sup>[8,]</sup> <sup>16]</sup>. The study results showed that women in the experimental group conveyed lesser post-operative apprehension and pain scores and advanced levels of happiness than women in the control group. This concludes that a rational and emotional involvement may have significant clinical benefits and improve the care of women having an elective hysterectomy. Manmeet and Kolewaski revealed a significant impact of post-operative education on the decreased level of anxiety and increased level of selfbehavioral outcomes of patients undergoing care hysterectomy in Indian subcontinent [17, 4]. Studies of Manmeet, Salwan and Sardeshpande found that one of the most important responsibilities of the nurses is in imparting education to post-operative women which helps them to relieve from emotional stress and prevents complications like urinary difficulties, vaginal discharge, weightiness, sleep disorders, wound problems, body aches and vertigo 2, <sup>[17, 18]</sup>. Thus by providing post-operative training, the nurses can inform, support, and collaborate the planned care among the post-operative women which can further strengthen in them the sense of wellbeing and of improved health. Hence it is of paramount importance to impart information to every woman undergoing hysterectomy about the possible complications or side effects so as to minimize or prevent the damage to back to the upkeep of health or its recovery. Educating women about what to expect is one of the methods that can be used to increase health and quick recovery. Not having immediate access to the information can invoke anxiety and tension for patients, while the provision of information is one of the coolest resources for staff to utilize <sup>[11, 19]</sup>. The study of Sharmila also articulated a need for an efficient health care system to be extra mindful of the results that women wanted as well as being helpful to patient's satisfaction and hence supported the need for accurate and useful information throughout the postoperative period [11].

The detailed examination of these historical studies clearly identified the importance of the information that women require following hysterectomy. It also highlighted the need for an exploratory research in Kashmir owing to lack of literature available so as to access the usefulness of organized training program on information on self-care among postoperative women belonging to different sociodemographics in Kashmir.

#### 3. Material and Methods

The major contribution to this present research was a preexperimental design which included pre-test and post-test design, where only the experimental group was designated as the study subject. A pre-test opinion of the study variables was made earlier to the application of the treatment to the selected group. The treatment was administrated and a post-test assessment of variables was done to measure the outcome of treatment on the group. Women with hysterectomy were assessed for their information regarding self-care on 2<sup>nd</sup> postoperative day by pre-test. A structured teaching program on self-care of hysterectomy was administered following pre-test on the same day and the post test was taken on 8<sup>th</sup> postoperative day using the same interview schedule to assess the gain in knowledge as shown in (table-1).

Group	Pre-test	Training program	Post-test
Experimental	O1	Х	<b>O</b> 2

#### Key:

 $0_1$ : Assessment of information by pre-test on  $2^{nd}$  post-operative day of women with hysterectomy.

X: Structured training program on self-care of hysterectomy on the same day following the pre-test.

 $0_2$ : Assessment of information by post-test on  $8^{th}$  post-operative day.

This study was carried on a sample of 50 women admitted in LD hospital, Srinagar who had undergone hysterectomy procedures. The sample was selected through a nonprobability purposive sampling technique. Proper agreement was sought from the study hospitals official ethical board before the data was collected. The conditions for inclusion in the study were determined by interviewing and reviewing the records. The inclusion standard included women who had undergone abdominal hysterectomy irrespective of indication, women who willingly participated in the study, and the women who easily understood & responded. The exclusion standard included women who were having some complications. The data collection was made through a semi-structured questionnaire administered on the sample population in the gynecological wards of LD hospital. Each questionnaire was divided into three parts. Part-A: included items linked to demographic variables - Age (in years), marital status, education, occupation, income of family per month (in rupees), and residence. Part-B: included the gynecological and obstetrical profile of women who had undergone hysterectomy - Menstrual history, obstetrical history. Part-C: included knowledge regarding self-care of hysterectomy. The knowledge regarding self-care of hysterectomy was measured in terms of knowledge score and accordingly right answer was given a score of one mark and incorrect answer or un-attempted was given a score of zero.

The data collected through the questionnaire was exposed to tests of reliability thereby ensuring the internal consistency among the items of the questionnaire and was established through Cronbach's alpha <sup>[20]</sup>. A measurement of alpha value larger than 0.7 proved a high degree of intercorrelations among the items was used to measure the constructs and hence was taken for the final study. The reliability values of Part-A, Part-B, and Part-C of the questionnaire are given in (Table 2).

**Table 2:** The Reliability Values

Part-A	Part-B	Part-C
0.72	0.76	0.73

All the values well surpassed the essential requirement, thereby testifying that the items in the questionnaire were internally consistent and appropriate for use in the current study. Additionally, the validity of the questionnaire was established through content validity through expert's opinion from the subject area. Changes if any were incorporated and the final study was conducted.

Data analysis was done by SPSS-16 using frequency and percentage to analyze the background information, knowledge and selected outcome. Mean percentage and standard deviation were used to describe the knowledge, and elected outcome. Further T-test was used to compare means of the information scores and the possible selected outcomes and accordingly inferences were made.

#### 4. Results and Discussion

The findings of the study are discussed under these subheadings as:

#### 4.1 Demographic findings of study group

Demographic findings revealed that majority of women 24 (48%) who underwent hysterectomy were in the age group of 40 - 49 years; followed by 15 (30%) in the age group of 50 - 59 years; 10 (20%) in the age group of 30 - 39 and only 1 (2%) women is in the age group of  $\geq 60$  years. It classified respondents according to their marital statuses and revealed that 46 (92%) were married living with their spouses and only 4(8%) were widows. It further depicted a major chunk of the women i.e. 29 (58%) as illiterate and 21 (42%) as literate. Additionally, it discovered that a bulk of respondents i.e. 45 (90%) were self-employed and only 5 (10%) as employed. Moreover it showed that a greater part of respondents i.e. 39 (78%) belonged to families having an income of  $\geq 10,001$  rupees per month and only 11 (22%) having  $\leq 10,000$  rupees as family income per month. Finally it determined that approximately 39 (78%) belonged from rural areas and only 11 (22%) were from urban areas of Kashmir (Table 3).

**Table 3:** Socio-demographic profile of study group

Socio-demographic grou	c profile of study ip	Frequency	Percentage
	30 - 39	10	20.0
A and (in young)	40 - 49	24	48.0
Age (III years)	50 - 59	15	30.0
	$\geq 60$	1	2.0
Manital status	Married	46	92.0
Marital status	Widow	04	8.0
Education	Illiterate	29	58.0
Education	Literate	21	42.0
Occupation	Self employed	45	90.0
Occupation	Employed	5	10.0
Income of family	$\leq 10,000$	11	22.0
(in rupees)	$\geq$ 10, 001	39	78.0
Davidance	Urban	11	22.0
Residence	Rural	39	78.0

# 4.2. Gynecological and obstetrical profile of profile of study group

Gynecological and obstetrical findings revealed that the majority of respondents i.e. 42 (84%) had the age of

menarche from 13 -15 years, followed by 7 (14%) from 10 -12 years and only 1 (2%) had menarche at 16 years of age. It classified respondents according to their duration of menstruation (in days) and revealed that majority of respondents i.e. 35(70%) had a duration of menstrual periods from 3-5 days; 9 (18%) had a duration of menstruation from 6 - 8 days, 4 (8%) had it for > 8 days and 2(4%) had it for less than 2 days. It further depicted that the bulk of the respondents i.e. 26(52%) of respondents were having heavy menstrual periods before hysterectomy; 23 (46%) of respondents were having normal periods before hysterectomy and only 1(2%) was having less than normal flow. Additionally, it discovered that majority of respondents i.e. 35(70%) were having menstrual cycle in the range of 21-28 days before; 13(26%) respondents were having menstrual cycle of <21 days and only 2(4%) were having menstrual cycle in the range of 29-35 days before hysterectomy. Moreover it showed that a bulk of respondents i.e. 31(62%) were pre-menopausal and 19(38%) respondents were menopausal. It also revealed that the approximately that 27(54%) respondents were multiparous, 21(42%) were grand multiparous, 1(2%) is nulliparous and only 1(2%) is primiparous. It also determined that around 43 (86%) of the respondents were having no complications during their deliveries and only 7(14%) of respondents were having complications. Finally, it determined that majority of respondents i.e. 28(56%) had abnormal uterine bleeding as a their hysterectomy: 16(32%) cause for had cvsts/fibroids/PID as the cause for their hysterectomy and 6(12%) had uterine prolapse as cause for their hysterectomy (Table 4).

Gynaecological and obstetrical pro	Frequency	Percentage	
	10 - 12	7	14
Age of menarche (in years)	13 - 15	42	84
	16 - 18	1	2
	< 3	2	4
Duration of monotonation (in days)	3 - 5	35	70
Duration of menstruation (in days)	6 - 8	9	18
	> 8	4	8
	Normal $(2 - 3 \text{ pads per day})$	23	46
Menstrual flow	Heavy (> 3 pads per day)	26	52
	Less (< 2 pads per day)	1	2
	< 21	13	26
Menstrual cycle (in days)	21 - 28	35	70
	29 - 35	2	4
Menopause	Yes	19	38
	No	31	62
	Nulliparous	1	2
Parity	Primiparous	1	2
	Multipara	27	54
	Grand multipara	21	42
Complications	Yes	7 43	14
Complications	No		86
	Abnormal uterine bleeding	28	56
Cause for hysterectomy	Cysts/fibroids/PID	16	32
	Uterine prolapse	6	12

Fable 4: Gynaecological	and obstetrical profile	of profile of stu	dy group
-------------------------	-------------------------	-------------------	----------

# 4.3 Information of women regarding self-care of hysterectomy in pre-test and post-test

Frequency distribution of women information level according to their pre-test and post-test scores discovered that during pre-test majority of women i.e. 38 (76%) were having inadequate knowledge followed by 12 (24%) having moderately adequate information and none was having

adequate information. During the post-test majority of women, i.e. 26 (54%) were having adequate information followed by 24 (48%) having moderately adequate knowledge and none was having inadequate information. Thus, it can be concluded that the post-test information level was more than the pre-test knowledge level (Table 5).

Table	5:	Information	of women	regarding	self-care
abic	J.	mormation	or women	regarding	sen-care

Information of women regarding self-care		Pre	test	Post test	
		Frequency	Percentage	Frequency	Percentage
	Inadequate information	38	76.0	0	0.0
Knowledge level	Moderately adequate information	12	24.0.	24	48.0
	Adequate information	0	0.0	26	52.0

#### 4.4. Mean, median, standard deviation and range of pretest and post-test

The study revealed that the values of mean, median, standard deviation, and range of pre-test and post-test were 20.12, 20.55, 4.355 & 18 and 39.36, 39, 2.455 & 13

respectively. Therefore it was concluded that the mean pretest information was higher than the mean post-test information which necessitated the need for well-structured information program (Table 6).

Table 6: Mean, median, standard deviation and range

Information	Mean	Median	Standard deviation	Range
Pre test	20.12	20.50	4.355	18 (11-29)
Post test	39.36	39.00	2.455	13 (31-44)

### 4.5 Comparison of pre-test and post-test Information scores

The test results showed the comparison between the pre-test

and post-test information scores of women regarding selfcare of hysterectomy. The't' test values showed significance (at the level of  $\alpha$ =0.05). It was evident that compared to pretest information scores there was a noteworthy increase in the post-rest information scores. Therefore it was interpreted that the organized information program was operational in improving the information regarding self-care among women with hysterectomy (Table 7).

Table 7: (	Comparison	of pre-test and	post-test information scores
Table / .	comparison	or pre test una	post test information secres

Pre-test Information		Post-test Information		Mana difference an	642 <b>1</b>	Inference		
Mean	SD	Mean % age	Mean	SD	Mean % age	Mean difference	't' value	( <i>P</i> <0.05)
20.12	4.355	44.72	38.66	2.455	81.47	18.540	30.248	S

## 4.6 Relationship of pre-test Information scores of women with certain demographic variables.

The study results presented an insignificant association between the age of respondents and total pre-test information scores (ANOVA: 'p' value- 0.848). Similarly the other demographic variables viz. marital status ('p' value- 1.417), education ('p' value- 0.772), occupation ('p' value- 0.584), income ('p' value- 0.271) and residence ('p' value- 0.842) also had insignificant relation with total pretest information scores of respondents at (P<0.05) level of significance. Therefore it was inferred that the organized training program was effective in improving the information of self-care among women with hysterectomy (Table 8).

 
 Table 8: Association of pre-test Information scores of women with the certain demographic variables.

Variable	Pre-test Information Mean ± SD	ʻp' value	Inference (P<0.05)
Age (in years):			
a. 30 – 39	$19.40 \pm 5.910$		
b. 40 – 49	$20.29 \pm 3.277$	0.040	NS
c. 50 - 59	$20.31 \pm 4.909$	0.040	IND
Marital status:			
a. Married	$19.85 \pm 4.109$	1 417	
b. Widow	$23.25\pm6.500$	1.417	NS
Education:			
a. illiterate	$19.97 \pm 4.484$	0.772	NC
b. literate	$20.33 \pm 4.270$		IND
Occupation:			
a. Self employed	$19.96 \pm 4.296$	0.584	NC
b. Employed	$21.60 \pm 5.128$	0.384	IND
Income per month			
(in rupees):			
a. ≤ 10,000	$19.82 \pm 3.459$	0.271	NS
b.≥10,001	$20.21 \pm 4.612$	0.271	1ND
Residence:			
a. urban	$22.00\pm4.427$	0.842	NC
b. rural	$19.59 \pm 4.241$	0.042	GNI

### 5. Conclusion

Post-operative self-care activities are the sum total of activities vital to effect satisfactorily the underlying grounds of disease as well as to guarantee women physical and mental wellbeing so that they can begin again as normal as possible in the life of the community. But owing to inadequate knowledge, women experience post-operative complication which affect their functional capability, emotional health, return to work and endurance. As a result, the nurses can play an important role and can significantly act as a source of ease as being a sympathetic counselor who can teach and educate to them the particulars of their illness, the surgery and post-operative self-practices thereby improving knowledge which in return will improve health, well-being and value of life. The findings of this study also highlighted the importance of early teaching program on Kashmiri women having inadequate knowledge regarding the causes and consequences of hysterectomy. It statistically proved and revealed that the mean post-test information score obtained from the women had improved to 81.47% from a mean pre-test information score of 44.72% (t= 30.24; P < 0.05) with the incorporation of well-organized training program on post-operative women. Also the frequency distribution scores of respondent's information level according to their pre-test and post-test scores revealed similar results as 48% of women were found to have moderately adequate knowledge and remaining 52% were found to have adequate knowledge and none among the women had inadequate knowledge regarding self-care post to hysterectomy. Further the study findings revealed no association between the demographic variables such as age, married status, educational level, occupation, income, and residence among the pre-test level of knowledge scores among women with hysterectomy. Thus the findings clearly reveal that information scores amongst postoperative patients on self-care using structured training program regarding self-care of hysterectomy was very less among women admitted in LD hospital, Srinagar. It considerably increased after the administration of organized training programs hence established that such program was operative, suitable, and feasible in improving the information level of women as they felt it more useful in identifying the possible post-operative problems.

#### 6. References

- Ajayi OO, Pandolfino RO. Abdominal Surgeries. African Journals of Nursing and Medical Science. 2014; 17(4):25-36.
- 2. Ridley JK. Exercise during Post -operative hospitalization. British Journal of Nursing. 2014; 19(3):34-36.
- Mohammadi F, Malakooti J, Babapoor J, Mohammad-Alizadeh-Charandabi S. The effect of a home-based exercise intervention on postnatal depression and fatigue: A randomized controlled trial. International journal of nursing practice 2015; 21(5):478-85.
- 4. Khaskheli MN, Baloch S, Sheeba A, Baloch S. Hepatitis E–A preventable health issue–endangering pregnant women's life and foetal outcomes. J Pak Med

Assoc. 2015; 1(65):655-9.

- Herstad L, Klungsøyr K, Skjærven R, Tanbo T, Forsén L, Abyholm T, *et al.* Elective cesarean section or not? Maternal age and risk of adverse outcomes at term: apopulation-based registry study of low-risk primiparous women. BMC pregnancy and childbirth. 2016; 16(1):230.
- 6. Ghazi A, Karim F, Hussain AM, Ali T, Jabbar S. Maternal morbidity in emergency versus elective caesarean section at a tertiary care hospital. J Ayub Med Coll Abbottabad. 2012; 24(1):10-3.
- <sup>7.</sup> Zanardo V, Pigozzo A, Wainer G, Marchesoni D, Gasparoni A, Di Fabio S, *et al*. Early lactation failure and formula adoption after elective caesarean delivery: cohort study. Archives of Disease in Childhood-Fetal and Neonatal Edition 2013; 98(1):37-41.
- 8. Hollins Z, In Q. Early Post-operative Complication in Abdominal Surgeries. African Jouranal of Medical Sciences. 2014; 74(1):45-56
- Singh Amarjeet Kaur Arvind Arora. Author Information Article Notes, Research Articles of Indian Journal of Community Medicine. Indian J Community Med. 2008; 33(3):196–197.
- 10. Dutts's DC. Textbook of Obstetrics. (7th Ed.), Jaypee Brothers Medical Publishers, New Delh, 2014, 430.
- 11. Sharmila R. Preoperative teaching about postoperative care among hysterectomy patients. Nightingale Nursing Times 2012; 8(6):62-5.
- 12. Mohan R. A Comparative study on prevalence of postoperative complications in women. Indian journal of community medicine 2016; 27(2):56-61.
- 13. Kolewaski CD *et al.* Quality of life and exercise rehabilitation in post-operative period of major surgical patients. Journal of Physical Therapy. 2015; 9(3):3-21.
- 14. Jayashri G. A study to evaluate the effectiveness of structured teaching program on selected Post-operative patients. Nightingale Nursing Times. 2015; 48(7):98-102.
- 15. Barnes WHş Browne GB. The effects of post-operative Analgesia on Post-operative pain and Complication. Nursing Clinical Of North America. 2015; 34(4):433.
- 16. Key SM. The Role of Pre-operative Spirometry education. Medical Surgical Journal 2015; 35(4):94-107.
- 17. Manmeet M. Effect of health education on knowledge attitude and practice about Surgery. Nightingale Nursing Times. 2015; 26(3):128-136.
- Salwan A. Effect of exercise on functional independence after abdominal surgery in the elderly Indian of Physiotherapy and Occupational Therapy. 2016; 3(4):45-48.
- 19. Sasikala. Post-operative assessment. Nightingale Nursing Times. 2015; 2(11):48-59.
- 20. Cronbach J. Essentials of psychological testing (3rd ed.), Harper & Row, New York, 1970, 74-99.