Section II

Objective 1: To assess and compare the pre-test anxiety among experimental group and control group of patients, undergoing cholecystectomy **(Tables 2-10)**.

Table 2. Mean score of Pre-operative pre-test anxiety among experimental group and control group of patients undergoing cholecystectomy; N=40.

Groups	n	Anxiety score		't'
		Mean	SD	
Experimental group	20	65.65	2.27	2.94*
Control group	20	65.00	2.103	
Maximum score=80; Minimum score=20				

*Maximum Score=80; Minimum Score=20; *: significant at p<0.05 level*

Table 3. Pre-operative posttest anxiety among experimental group and control group of patients undergoing cholecystectomy; N=40.

Groups	n	Anxiety score		't'
		Mean	SD	
Experimental group	20	63.90	2.47	2.77*
Control group	20	65.00	2.10	
Maximum score=80; Minimum score=20				

*Maximum Score=80; Minimum Score=20; *: significant at p<0.05 level*

Table 4. Post-operative posttest anxiety among experimental group and control group of patients undergoing cholecystectomy; N=40.

Groups	n	Anxiety score		't'
		Mean	SD	
Experimental group	20	61.10	3.127	5.902*
Control group	20	65.15	2.033	
Maximum score=80; Minimum score=20				

*Maximum Score=80; Minimum Score=20; *: significant at p<0.05 level*

Table 5. Mean score pre-operative pretest and pre-operative posttest score of anxiety according to age in control and experimental group; N=40.

Group	n	Anxiety score				df	t
		Mean	SD	Mean	SD		
Control	20						
40-50 years	12	64.75	2.14	64.75	2.14	1	0.53^{NS}
51-60 years	8	65.38	2.13	65.38	2.13		
Experimental	20						
40-50 years	12	65.58	2.19	63.83	2.44	1	0.57^{NS}
51-60 years	8	65.88	2.70	63.13	2.36		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

Table 6. Mean score of anxiety of post-operative posttest of control group and experimental group according to age; N=40.

Post-operative post test	n=20	Anxiety score				df	T
		Control group		Experimental Group			
		Mean	SD	Mean	SD		
40-50 years	12	64.83	2.29	61.75	3.47	1	0.53^{NS}
51-60 years	8	64.75	2.12	61.25	3.77		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

Table 7. Mean score of anxiety of pre-operative pretest and post-operative posttest of control group and experimental group according to age; N=40.

	n=20	Anxiety score				df	T
		Control group		Experimental Group			
		Mean	SD	Mean	SD		
Post-operative post test							
40-50 years	12	64.75	2.14	65.58	2.19	1	0.53^{NS}
51-60 years	8	65.38	2.13	65.88	2.70		
Post-operative post test							
40-50 years	12	64.83	2.29	61.75	3.47	1	0.77^{NS}
51-60 years	8	64.75	2.12	61.25	3.77		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

Table 8. Mean anxiety score of Preoperative pretests, pre-operative posttest and post-operative posttest of patients undergoing cholecystectomy to education; N=40.

	n=20	Anxiety score				df	T
		Control group; (n= 20)		Experimental Group; (n= 20)			
		Mean	SD	Mean	SD		
Pre-operative pre test							
10+2	14	64.71	2.20	65.71	2.40	1	0.34^{NS}
Graduation	6	65.67	1.86	62.50	2.07		
Pre-operative post test							
10+2	14	64.71	2.20	64.00	2.42	1	0.34^{NS}
Graduation	6	65.67	1.86	62.50	2.07		
Post-operative post test							
10+2	14	64.93	2.20	62.43	3.59	1	0.70^{NS}
Graduation	6	64.50	2.26	59.5	2.77		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

Table 9. Mean score of anxiety of pre-operative pretest, pre-operative posttest and post-operative posttest of patients undergoing cholecystectomy according to income; N=40.

	n	Anxiety score				df	t
		Control group;(n=20)		Experimental group; (n=20)			
		Mean	SD	Mean	SD		
Pre-operative pre test							
Rs. 20000-25000	15	65.27	1.94	65.53	2.61	1	1.47^{NS}
25001-50000	5	64.20		66.20	2.59		
Pre-operative post test							
Rs. 20000-25000	14	64.71	2.20	64.00	2.42	1	0.34^{NS}
25001-50000	6	65.67	1.86	62.50	2.07		
Post-operative post test							
Rs. 20000-25000	14	64.93	2.20	62.43	3.59	1	0.70^{NS}
25001-50000	6	64.50	2.26	59.5	2.77		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

Table 10. Mean score of anxiety of pre-operative pretest, pre-operative posttest and postoperative posttest of patients undergoing cholecystectomy according to religion; N=40.

Group	n	Anxiety score				df	t
		Control group;(n=20)		Experimental group; (n=20)			
		Mean	SD	Mean	SD		
Pre-operative pre test							
Sikh	16	64.81	2.17	65.69	2.77	1	0.47^{NS}
Hindu	4	65.75	1.89	65.75	2.99		
Pre-operative post test							
Sikh	16	64.81	2.17	63.56	2.45	1	0.43^{NS}
Hindu	4	65.75	1.89	63.50	2.38		
Post-operative post test							
Sikh	16	64.88	2.28	61.81	3.41	1	0.59^{NS}
Hindu	4	64.50	1.91	60.50	4.20		

Maximum Score=80; Minimum Score=20; NS: Non-Significant

MAJOR FINDINGS OF THE STUDY

According to income, in both control and experimental group majority of patients undergoing cholecystectomy were in the income group of 20000-35000 (85%, 85%) and least were in the income group of 36000-50000 (15%, 15%) respectively.

As per educational qualification in both control and experimental group majority of patients undergoing cholecystectomy were in the group of 10+2 (70%, 70%) followed by the group of (30%, 30%) respectively.

According to religion in both control and experimental group majority of patients undergoing cholecystectomy were in the religion group of Sikh (80%, 80%) followed by the religion group of Hindu (20%, 20%) respectively.

The pre-operative pretest anxiety of experimental group is significantly more as compared to control group.

There is a marked difference in pretest and posttest state anxiety scores of experimental and control groups.

IMPLICATIONS OF THE STUDY

The findings of the study have several implications, which are discussed in four areas:

1. Nursing practice
2. Nursing research
3. Nursing administration

Nursing Practice

Different nursing roles have developed that do embrace various nursing issues that developed largely as a result of the introduction of new surgical procedures. There is a need for the nurses to embrace nursing assessment that is comprehensive and effective in reducing pre-operative anxiety of patients undergoing surgery. Pre-operative counseling should be adopted as an intervention and included in the care plan of patients posted for surgery. Nurses should learn to identify verbal expression and forms of language used by patients, in addition to nonverbal messages, because then they can empower patients by opening new and important perspectives for them. Nurses' every question, remark or piece of advice leads to individualized understanding and interpretation by the patient. It is important to remember that counseling is a unique, dynamic and transforming process. Nurses should observe what figures of speech they use and thus gain self-awareness and discover new tools to work through a training program to counsel patients and develop professional empowering skills.

Nursing Research

Some attention has been paid in developing countries to evaluate the effectiveness of counseling on anxiety among pre-operative patients, but very few studies have been conducted in India. Nurses need to assist clients to expand their outlook by revisioning their lives encouragement of the patient's participation so that Patients preparing to undergo surgery should not suffer needless anxiety. The information contained in the present study can be valuable source of data for the future researchers. It can help them in conducting future researches with large sample size in different setting. Emphasis should be laid on the publication of findings of research in the journals to disseminate the research-based evidence for nurse practitioners so that it can help the nurse practitioners in giving better care to the patients. It can also be presented at various nursing forums so that more number of nurses can become aware about the importance of providing counseling to patients undergoing abdominal surgery.

Nursing Administration

There is a need to sensitize nursing administrators about the importance of counseling for patients undergoing abdominal surgery. In-service programs can also be organized for nurses to teach them about methods and effectiveness of pre-operative counseling. Even workshops can be organized to enhance the counseling skills of the nurses so that they can provide effective counseling to patients posted for surgery and alleviate pre-operative anxiety.

DISCUSSION

This chapter deals with the discussion of the findings of the study in accordance with the objectives of the research problem. The findings of the study are discussed with reference to the results observed by the investigator. The analysis of data according to objective first i.e., to asses and compare the pretest anxiety among experimental group and control group of patients undergoing cholecystectomy concluded that pre-operative pretest anxiety was higher in the control group. Mean value of pre-operative pretest anxiety among experimental group& control group are 65.65 & 65.00 respectively and t is 2.942 which is significant at 0.05 level of significance $p<0.05$ level thus the pre-operative pretest anxiety of experimental group is more as compared to control group [3-6]. These findings are supported by similar quasi experimental study was conducted by Nadiye Ozer to investigate the effect of music therapy on pre-operative anxiety levels in Turkish men undergoing urogenital surgery using randomized controlled sampling on 64 patients, 32 in the experimental group, 32 in the control group, aged between 18 and 65, and able to speak, read and write Turkish. The control group received routine preoperative care while the experimental group listened to their choice of music for 30 min in their room while they awaited surgery. Pre and posttest anxiety was measured using the State Trait Anxiety Inventory (STAI) to assess anxiety before and after listening to the music preferred by the patient. Results Anxiety score averages between the groups following the music therapy were statistically significant ($p<0.001$), 33.68 (SD=8.03) for the experimental

group and 44.43(SD=10.42) for the control group. These findings support the use of music as an independent nursing intervention to manage preoperative anxiety in patients undergoing urogenital surgery. Listening to self-selected music during the pre-operative period can effectively reduce anxiety levels and should be a useful tool for preoperative nursing. Another study was conducted by Nazanin to examine effects of performing preoperative preparation program on children's anxiety. In Amirkola Pediatrics Hospital, Mazandaran on 122 children (7-12 years of age) admitted for selective [7-11].

Surgery Analyzing was performed through independent t-test and $\chi 2$ test. $P<0.005$ was considered statistically significant. The experimental group received therapeutic play and the control group received routine preoperative information preparation. The mean and standard deviation of the state anxiety scores of children in experimental and control groups before intervention were 35.52±6.99 and 34.98±6.78, after intervention 31.44 ± 5.87 and 38.31±7.44 respectively. The state anxiety score was lower significantly in the experimental group prior to preoperative surgery than in the control group (P=0.000). Performing preoperative program with using therapeutic play intervention is effective for preparing children before surgery and decreases their anxiety. The analysis of the data according to objective second i.e., to compare pretest and posttest anxiety among experimental group and control group of patients undergoing abdominal surgery was that the pre-operative posttest anxiety of control group is significantly more as compared to experimental group. The mean values of preoperative posttest anxiety of experimental and control group are 63.90 and 65.00 respectively. The tabulated value is 2.77 which is significant at 0.05 level of significance. So, it can be concluded that counseling had an impact on the patients undergoing abdominal surgery in the experimental group. Hence, research hypothesis was accepted. These findings of the present study were in accordance with the quasi-experimental study conducted by Gul Pinar focusing on the impact of systematic preoperative instruction on the level of postoperative anxiety in patients. Through a random sampling, 60 patients were recruited in each group. The study group was given a systematic preoperative instruction while the control group was given routine nursing care. Patients were interviewed in the postoperative period and anxiety was measured. The data-collecting tool consisted of the Individual Information Form and the State-Trait Anxiety Inventory. The collected data were analyzed by using the SPSS Program to find the frequency, the percentage, the mean and the standard variables, and the hypothesis was tested with Chi-square, variance, and t-independent test. It was found that the incidence rates from the post-operative anxiety score of the study group were lower than those of the control group ($p < .05$). The results of this research demonstrated that gynaeoncologic surgery patients who were given systematic.

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