

A Study to Assess the Effectiveness of Nurse Led Interventions on the Level of Knowledge and Pre-Operative Anxiety among Patients Undergoing Cataract Surgery at Shri Vinoba Bhave Civil Hospital, Silvassa

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Abstract

Background: A Cataract is one of the most common disorders affecting the eye and is the leading cause of visual impairment and blindness. Patients who are planning for surgery don't have adequate knowledge not prepared for the surgery which results in increase anxiety. Aim: This study aimed to assess the effectiveness of NLI on the level of knowledge and preoperative anxiety. Method: An evaluator approach with Quasi experimental non randomized control group design was adopted for the study. The study was conducted on 60 (30 each experimental and control group) patients using non-probability consecutive sampling technique. Result: In the experimental group the pre-test mean $\pm$ S.D of level of knowledge was 11.5 ± 2.02 were significant difference with post-test mean $\pm$ S.D was 21 ± 1.96 . In the experimental group the pre-test mean $\pm$ S. D of pre-operative anxiety was 84.76 ± 4.95 with post-test mean $\pm$ S.D was 40.26 ± 6.75 .

Index terms— cataract, nurse led interventions, level of knowledge, pre-operative anxiety.

1 Introduction

ye is the most important sensory organ that helps to receive or gather information from the surrounding. Sight is the primary sense which keeps us safe and helps us to appreciate, criticize, evaluate other's performance, as age progresses the visual impairment increase in nature. A cataract is such a condition that happens with the human eye where there is opacity or clouding of the eye's natural lens, which if not treated can lead to blindness.

Permanent cure for cataract is surgery that it is to remove the natural lens and replace it with a new artificial lens. Cataract surgery is the most frequently performed operation. It is the most successful and safest procedure performed for cataract patients. 1 Patient who are undergoing surgery will be always anxious & this is due to the fear of unknown. Cataract surgery is performed under local anesthesia and is completed in a relatively short period time. In most cases patients are fully conscious during the procedure; they may be more stressed and evoke anxiety. It is important that they must remain steady. Any unanticipated movement during cataract surgery could result in suboptimal surgical outcomes and may even lead to blindness.

Low vision is a significant psychological stressor for the patient as well as family members 2 . At the time of surgery physical stress is greatly enhanced by the psychological stress of anxiety and worry, which eventually ends up with the use of more energy that is indeed needed in the post-operative period. One's deepest and worst fears are often felt as the surgery is planned. ?? The patient's basic needs have to be intervened by a nurse and assist them to meet these needs. According to the Department of Health, individual's needs have to be achieved, maintained or restored to an acceptable level to develop social independence or improve quality of life. 4 Education is one of the common aspects of the pre-operative preparation performed before almost all Result: In the experimental group the pre-test mean $\pm$ S.D of level of knowledge was 11.5 ± 2.02 were significant difference with post-test mean $\pm$ S.D was 21 ± 1.96 . In the experimental group the pre-test mean $\pm$ S. D of pre-operative

anxiety was 84.76 ± 4.95 with post-test mean $\pm$ S.D was 40.26 ± 6.75 . In the experimental group obtained t-value for level of knowledge was 15.23 and pre-operative anxiety was ($28.2 > 2.00$) at 0.05 level of significance. In the experiment and control pre-test, there is a weak positive correlation between level of knowledge and pre-operative anxiety and in the experimental group posttest level of knowledge and posttest pre-operative anxiety there was a moderate positive correlation. In the Control group and experimental group, there was no significant association between pre-test level of knowledge, pre-test level of preoperative anxiety with demographic variables respectively. surgical procedures. It is believed that pre-operative education mainly focuses on beneficial outcomes for the patient. It varies from patient to patient with their culture, background and experience. It includes three types of information sensory, process and procedural. It helps to decrease post-operative surgical complications, increase patient satisfaction, shorten the length of hospitalization and promote well-being. 5

2 a) Methodology

A Quasi experimental non randomized control group design and non-probability consecutive sampling technique was adopted to assess the effectiveness of nurse led interventions (NLI). The sample size was 60 and equally divided into 2 groups, 30 in each (experimental and control group). The nurse led interventions included video assisted teaching on perioperative cataract management (15min) and binaural music therapy (15min). Socio-demographic Performa, Self-structured knowledge questionnaire and Modified State Trait Anxiety scale -Adult were used as a tool for the study. Pre-test was conducted a day prior to surgery, followed with the implementation of NLI in the experiment group, in phases; Phase 1: video assisted teaching for 15 minutes and binaural music therapy (15min) along with routine nursing care a day prior to the surgery in IPD and Phase 2: binaural music therapy (15min) was administered one hour before the surgery in IPD. In control group routine nursing care was administered as per need. Post-test for pre-operative anxiety was conducted half an hour before surgery in IPD and level of knowledge was assessed on the postop day 5 at OPD of ophthalmic department at SVBCON, Silvassa. In the experimental group the pre-test knowledge mean score was 11.5 with standard deviation of 2.02 and mean % was 44.2 whereas in post-test the mean score was 21 with standard deviation of 2.16 and mean % 80.7, the effectiveness of mean % was 36.5. The obtained "t" value ($15.23 > 2.00$). The maximum pre-operative anxiety score was 100, In the experimental group pre-test pre-operative anxiety mean score was 84.76 with standard deviation of 4.95 and mean % 84.76 whereas in post-test the mean score was 40.26 with standard deviation of 6.75 and mean % 40.26, the effectiveness of mean % was 44.5. The obtained "t" value ($28.2 > 2.00$).

3 II.

4 Results

5 Figure 1 indicates that

In the control group, there was weak positive correlation between the pre-test level of knowledge and pre-test level of pre-operative anxiety ($r = 0.099$), also there was a weak positive correlation between post-test level of knowledge and post-test level of pre-operative anxiety ($r = 0.083$). In the Experiment group, there was weak positive correlation between the pre-test level of knowledge and pre-test level of pre-operative anxiety ($r = 0.2$). There was a moderate positive correlation between the post-test level of knowledge and post-test level of pre-operative anxiety ($r = 0.469$).

6 III.

7 Conclusion

The present study was conducted to assess the effectiveness of nurse led interventions on the level of knowledge and pre-operative anxiety among patients undergoing cataract surgery at Shri Vinoba Bhawe Civil Hospital, Silvassa. Based on the findings of the study the following conclusion was drawn. The patient in age group 61-70 years went more for the cataract surgeries in which females are more operated and majority of them resides in rural community. The pretest revealed that majority of the samples had moderate knowledge and severe pre-operative anxiety. In the experimental group, after the administration of nurse led interventions the post-test scores revealed adequate knowledge and mild pre-operative anxiety among the patients undergoing cataract surgery. Thus, the investigator concluded that the nurse led interventions (Video assisted teaching and Binaural music therapy) was an effective non -pharmacological intervention in increasing the level of knowledge and reducing the level of pre-operative anxiety among patients undergoing the cataract surgery.

1

Year					
2022					
28					
Sr	Demographic data	Control group (n=30)		Experimental group (n=30)	
No.		f	%	f	%
1.	Age in years:				
	41-50 years	10	33.33	2	6.67
	51-60 years	4	13.33	9	30
	61-70 years	13	43.33	15	50
	Above 70 years	3	10	4	13.33
2.	Gender:				
	Male	10	33.33	9	30
	Female	20	66.67	21	70
3.	Residential area:				
	Urban	10	33.33	11	36.67
	Rural	20	66.7	19	63.33
4.	Marital status:				
	Married	23	76.67	23	76.67
	Unmarried	2	6.67	1	3.33
	Widowed	5	16.67	6	20
5.	Education:				
	Illiterate	14	46.67	10	33.33
	Primary school	8	26.67	14	46.67
	Middle school	3	10	1	3.33
	High school	2	6.67	3	10
	Intermediate/diploma	2	6.67	2	6.67
	Graduate	1	3.33	0	0
6.	Occupation:				
	Professional	2	6.67	0	0
	Semi profes-	2	6.67	1	3.33
	sional Clerical/shop/farm	4	13.33	6	20
	Skilled worker	0	0	1	3.33
	Unskilled worker	19	63.33	19	63.33
	Unemployed				

Figure 1: Table 1 :

2

N=30

Figure 2: Table 2 :

3

N=30

Figure 3: Table 3 :

4

Figure 4: Table 4 :

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