

Effect of Structured Teaching Program (STP) on Colostomy Care Among Caregiver of Patients

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Abstract—The study aimed to assess the effectiveness of a Structured Teaching Program (STP) on colostomy care among caregivers of patients admitted to tertiary care hospitals in Maharashtra. A total of 110 caregivers were selected using a convenient sampling technique. Demographic analysis revealed that the majority of caregivers were aged 21–30 years (59.1%), male (72.7%), Hindu (44.5%), illiterate (55.5%), and belonged to families with a monthly income below ₹10,000 (47.3%). Pre-test knowledge scores indicated that most caregivers (56.4%) had poor knowledge, with a mean score of 2.28 (SD = 0.679). After the STP intervention, post-test results showed marked improvement, with 47.3% achieving average knowledge, 39.1% good, and 6.4% very good knowledge. The mean post-test score rose to 3.44 (SD 0.748). Statistical analysis using a paired t-test demonstrated a highly significant difference between pre-test and post-test scores ($t = -20.9$, $p < 0.0001$), confirming the effectiveness of STP in enhancing caregivers' knowledge. Further, one-way ANOVA revealed a significant association between caregivers' age and post-test knowledge ($F = 2.448$, $p = 0.05$), while no significant association was observed with gender, religion, education, or family income. The findings conclude that structured teaching significantly improves caregivers' knowledge regarding colostomy care, with age influencing the learning outcome. This study underscores the importance of educational interventions in empowering caregivers, thereby contributing to better patient management and overall care quality.

Index Terms—Colostomy care, Structured Teaching Program (STP), Caregiver, Knowledge, Tertiary care hospitals.

I. INTRODUCTION

Colostomy care, as the name suggests, is an all-encompassing term referring to colostomy management, from its creation to peristomal skin

management, to colostomy appliance application and mental health management while dealing with a colostomy. The purpose of colostomy care is for skin protection and care for patient acceptance and to prevent stoma related complications. This activity outlines colostomy creation and care and highlights the role of the interprofessional team in evaluating and treating patients with this condition.¹

Colostomy patients experience difficulties functioning in work and social situation and have issues regarding sexuality and body image, difficulties with stoma function, anxiety about privacy when emptying the pouch, and always anxious about leakage, gas, traveling, and skin irritation. Patients with colostomy face huge problems in terms of need to receive suitable information to adapt them to this new situation.²

Providing adequate education and emotional support is crucial in empowering patients to manage their colostomy confidently. Preoperative counseling, postoperative teaching, and continued follow-up can significantly reduce anxiety and improve outcomes. Patients benefit greatly from individualized care plans that consider their lifestyle, preferences, and support systems. Involving family members or caregivers in the education process can also enhance understanding and foster a more supportive home environment. Additionally, access to specialized stoma care nurses and support groups can improve self-care abilities, promote mental well-being, and facilitate long-term adaptation. As such, a patient-centered, holistic approach remains essential in improving both clinical outcomes and overall quality of life for individuals living with a colostomy.³

II. BACKGROUND OF STUDY

Various report suggested that lack of knowledge on colostomy care is very essential in patient to prevent complication and further deterioration. Nursing care is significant to improve the quality of life of the patient by preventing these complications and to minimize the psychological and physiological adjustment to the created colostomy⁴

Stoma management, bag maintenance, peristomal skin care, nutritional recommendations, and psychological support are essential elements of colostomy care. exercise and modifying one's lifestyle⁵

It has also reported that knowledge of colostomy care not properly implemented by health care worker or health professional. Colostomy is one of the surgeries that saves lives worldwide and is essential in the treatment of various gastrointestinal issues. Numerous conditions such as bowel illnesses, protection of the anastomotic site, stool diversion, or a combination of these can be treated with a colostomy. A self-care management program is essential for encouraging, teaching, and enhancing colostomy patients' self-care routines.⁶

III. OBJECTIVES

- To find out the effect of STP on colostomy care among caregiver of patients admitted in the hospitals

IV. MATERIALS AND METHODS

A quantitative research approach was adopted and one group pre-test posttest pre-experimental design was used for this study. The study was carried out in the selected tertiary care hospitals at Maharashtra. The period of data collection was three weeks. The permission was obtained from medical superintendent of respective Hospitals, at Maharashtra. The convenient sampling technique was used to select 110 caregivers of colostomy patients from different wards of the Hospital. Written consent was obtained from the samples and pre test has been assessed for all the 110 caregivers of colostomy patients using demographic and Structured interview schedule for assessing knowledge. Then the structured teaching program was given for caregiver of colostomy patients to whom the pre-test was conducted. After 7 days, the post test was taken and the data was analyzed.

Statistical Analysis The data was analyzed by descriptive and inferential statistics. Demographic data was analyzed using frequency and percentage, data from the questionnaire before and after Structured teaching program administered was also analyzed using frequency, percentage and 't' test. The association between knowledge findings and demographic variables was found by using t test and one way ANOVA.

V. RESULTS:

Table 1: Percentage wise distribution of nurses according to their demographic characteristics

n=110

Demographic Variables	Caregiver of colostomy patients	Percentage (%)
Age(yrs)		
21-30	65	59.1
31-40	29	26.4
41-50	15	13.6
51-60	1	0.9
Gender		
Male	80	72.7
Female	30	27.3
Religion		
Hindu	49	44.5
Muslim	15	13.6
Buddhist	30	27.3
Christian	16	14.5
Educational Status		

illiterate	61	55.5
Primary Education	25	22.7
Secondary Education	20	18.2
Graduation and above	4	3.6
Family income		
Below -R.S. 10,000	52	47.3
R.S. 10,001 – R.S. 15,000	26	23.6
R.S. 15,001 – R.S. 20,000	18	16.4
R.S. 20,001 - Above	14	12.7

Table 2: Overall Mean & Standard deviation of between pre-test and post-test knowledge scores of STP on colostomy care among caregiver of patients admitted in the hospitals in Post-test

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
pre-test	2.28	110	.679	.065
post-test	3.44	110	.748	.071

Table 3: Significant difference between pre-test and post-test knowledge scores of STP on colostomy care among caregiver of patients admitted in the hospitals in pre-test and Post-test

Paired Sample Test								
	Paired difference					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
pre-test - post-test	1.155	.578	.055	-1.264	1.045	-20.9	109	0.000

P value<0.0001 ***highly significant, p value<0.001

**moderately significant, p value<0.05 *significant

Paired 't' test was computed to find out the significant difference between pre-test and post-test knowledge score, whereas the calculated 't' value of -20.9; p<0.05 i.e. 0.000 between pre-test and post-test knowledge shows highly significant.

Hence it is interpreted that, there is a significant difference between pre-test and post-test scores of STP on colostomy care among caregiver of patients admitted in the hospitals in pre-test and Post-test.

Hence the null hypothesis was rejected.

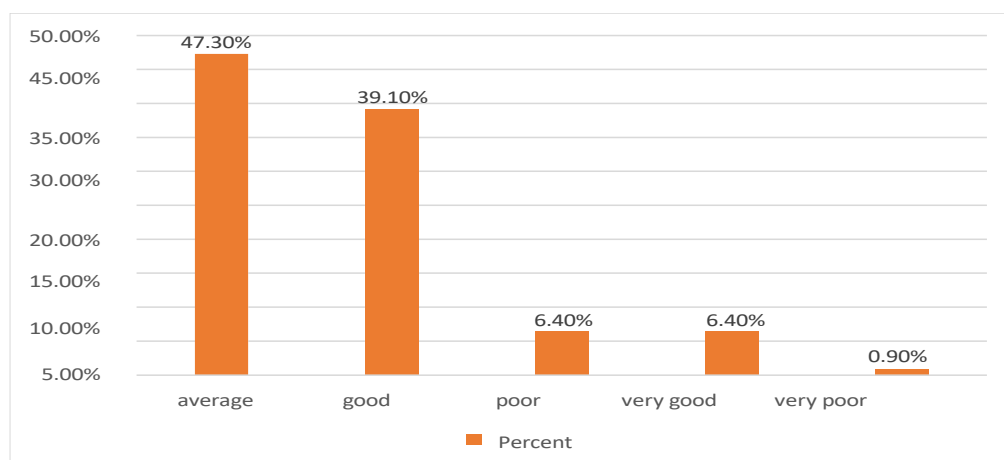


Fig. 4.2.1 Percentage wise distribution of the knowledge score of STP on colostomy care among caregiver of patients admitted in the hospitals in post-test

Percentage distribution of knowledge score of caregivers of patients on STP on colostomy care according to their level of knowledge show that out of 110 caregivers of patients, highest 47.30% of them had average knowledge. Whereas 39.10% caregiver of patients had good knowledge. However, 6.40% had both poor and very good knowledge respectively, 0.90% of caregiver of patients had very poor knowledge on STP on colostomy care among caregiver of patients admitted in the hospitals in post-test.

V. DISCUSSION

The present study was undertaken to effect of structured teaching program (stp) on colostomy care among caregiver of patients admitted tertiary care hospitals, Maharashtra. Prior to intervention, the percentage distribution of caregivers' knowledge ratings on colostomy care showed that just 0.9% had high knowledge, 56.4% had bad knowledge, 32.7% had moderate knowledge, and 9% had very low knowledge. Pre-test scores ranged from a minimum of 3 to a maximum of 28. Prior to the intervention, the mean knowledge score was 2.28 ± 0.68 , and the pre-test mean knowledge score percentage was 11.51. From the findings, it was observed that the pre-intervention demographic variables of caregiver of patients had similar characteristics. It was observed that the percentages of knowledge (45.6% %) on colostomy care among caregiver of patients were more or less similar before intervention. However, after an intervention, the percentage of knowledge (68.8% %) on colostomy care was significantly increased. There was a significant difference ($p < 0.05$) was found between knowledge on colostomy care and, gender, religion, educational qualification and family income of caregiver of patients. But significant association (p

VI. CONCLUSION

After the detailed analysis, this study leads to the following conclusion. The caregiver of colostomy patients does not have 100% knowledge regarding colostomy care. There was a significant increase in the knowledge of caregiver of colostomy patients after the introduction of Structured teaching program. Thus, it

was concluded that STP on colostomy care was found effective as a teaching strategy. Demographic variables did not show a major role in influencing the pre test and post test knowledge score among colostomy care. Hence based on the above cited findings, it was concluded undoubtedly that the written prepared material by the investigator in the form of SIP helped the caregiver of colostomy patient to improve their knowledge on colostomy care.

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