



# A study to assess the effectiveness of structured teaching programme on knowledge regarding colostomy care among patients undergone colostomy in various hospitals, Bangalore.

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## RESEARCH ABSTRACT

### Introduction

A colostomy is not a disease, but a change in the way your body works. A colostomy is an opening between the colon and the abdominal wall. The proximal end of colon is sutured to the skin which forms a stoma, which changes normal body function to allow stool to pass after a disease or injury. Where the stoma will be on the abdomen depends on which part of the colon is used to make it.<sup>2</sup>

Colorectal cancer or colon cancer, occur in the colon (Large intestine) or rectum. Rectum is the passage way that connects the colon to the anus. Colon cancer affects men and women of all racial and ethnic groups and is most often found in peoples above 50 years of age. It is estimated that 1, 36,830 peoples diagnosed and 50830 people died of colon cancer in 2014. People with a first degree relative (parent, sibling or offspring) who has colon cancer have two to three times risk of developing the disease.<sup>4</sup>

Educational activities aimed at increase in knowledge and focusing on patient's psychosocial needs may lead to a rise in patients' health related quality of life. When patients with a stoma attend a structured patient education program it is possible to improve their health related quality of life compared with patients with a stoma, who do not attend the programme.<sup>9</sup>

### Statement of problem

"A study to assess the effectiveness of structured teaching programme on knowledge regarding colostomy care among patients undergone colostomy in various hospitals, Bangalore."

### Objectives of the study

1. To assess the knowledge regarding colostomy care of patients before and after structured teaching programme.
2. To determine the effectiveness of structured teaching programme on knowledge regarding colostomy care among patients undergone colostomy.
3. To associate with the knowledge regarding colostomy care among colostomy patients with the selected socio-demographic variables.

### Methods

The research approach adopted for the study was one group pre-test, post-test method. The research design selected for the study was pre-experimental research design.

Non probability purposive sampling was used for the study. 30 patients undergone colostomy were selected for the study.

The tool used for the data collection was structured knowledge questionnaire, which has two sections. Section-A provides about socio-demographic data and Section-B deals with knowledge on colostomy care. Collected data was analyzed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, chi-square values and 't' test.

## Results

The higher percent of respondents (43.3%) found in the age group of 41-60 years, 60% of them were males, majority of the patients undergone colostomy 40% were higher secondary educated, 23.33% of clients were private employees, Christians considered as major group 43.33%, 40% having monthly income in between 20001 or above, most of the patients undergone colostomy 46.67% were married and 43.33% were having colostomy from less than 1 years, most of the patients undergone colostomy 43.33% were got knowledge from medical person, 66.67% were developed skin irritation as a complication of colostomy.

The result of this study showed that in pre-test majority of the patients undergone colostomy having inadequate level of knowledge regarding colostomy care. In post-test all patients had showed improvement in their knowledge, 56.67% were having adequate level of knowledge, 43.33% of them were having moderate level of knowledge and none of them were possessing inadequate level of knowledge regarding colostomy care. This shown that the structured teaching programme was effective in improving the knowledge of the patients undergone colostomy regarding colostomy care.

The chi-square value of the post-test level of knowledge of patients undergone colostomy were significant at  $P < 0.05$  level showed that there was significant association between educational status, duration of colostomy, sources of information with level of knowledge of patients undergone colostomy regarding colostomy care.

## Introduction:

Health is the greatest gift. The English word "health" comes from the old English word "hale", meaning "wholeness, a being whole, sound or wellbeing". The World Health Organization (WHO) defined "Health" as "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity."

A colostomy is not a disease, but a change in the way your body works. A colostomy is an opening between the colon and the abdominal wall. The proximal end of colon is sutured to the skin which forms a stoma, which changes normal body function to allow stool to pass after a disease or injury. Where the stoma will be on the abdomen depends on which part of the colon is used to make it. Globally, colorectal cancer is the third commonest cause of cancer death in men. In the developed countries it is now the second most common cancer after lung in men and the age-standardized incidence rates range from 25.3 per 1,00,000 (Eastern Europe) to 45.8 per 1,00,000 Educational activities aimed at increase in knowledge and focusing on patient's psychosocial needs may lead to a rise in patients' health related quality of life. When patients with a stoma attend a structured patient education program it is possible to improve their health related quality of life compared with patients with a stoma, who do not attend the program.

## Need of the study:

Worldwide day by day colorectal cancers are detected early by different advanced diagnostic techniques and the mortality due to cancer of colon & rectum is been avoided by performing surgical resection of colon & rectum as well as stoma over the bowel & colon in client. Client's need of elimination has been fulfilled from colostomy opening. Client with colostomy becomes dependent on hospital staff as well as caregivers. Caregivers are those who are concerned with the client care in hospital & home. Most of the caregivers are not able to provide care to clients of colostomy with quality. So the patient himself doing the colostomy care is better than doing by anyone, and this will increase the self-esteem of the patients. Worldwide to improve the quality of life of people with colostomies, there is need to assist in educating their caregivers in countries where the latest technology is not available. All material required for colostomy care available in the form of pharmaceutical goods. To assist individual with colostomy, caregivers need to have knowledge of care, cure & prevention. Knowledge will improve the quality of care provided, also it helps to change the attitude regarding colostomy care. Hospital based and population based data also show that the incidence rates for rectal cancer is higher than colon cancer in all parts of India. Population based time trend

studies show a rising trend in the incidence of CRC in India. Worrisome is the finding that the incidence rates of CRC in Indian immigrants to the United Kingdom and USA are much higher, suggesting that life styles and dietary habits are important in the causation of the CRC. This also means that with economic transition from a low income to middle income economy, there will be a big increase in the burden of CRC in India. Alcohol consumption has been considered as one of the major causes of colorectal cancer as per a recent monograph of WHO. Annually, about 9.4% new colorectal cancer cases are attributed to the consumption of alcohol, in India. An increased risk of 10% was observed with consumption of more than two drinks per day, which suggests a causative role of alcohol consumption in colorectal cancer. Recently, a study revealed that an increased risk of colorectal cancer was limited to consumption of more than 30.0 g of alcohol per day

## POPULATION AND DATA COLLECTION:

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### Sample

A sample is a small portion of a population selected for the study. It constitutes a subset of total population.

### Sample Size

The sample of the present study comprised of 30 clients with colostomy admitted in Ostomates India, Vyalikaval, Bangalore.

## CONCEPTUAL FRAMEWORK

The present study aims at evaluating the effectiveness of a structured teaching program on knowledge regarding colostomy care among patients undergone colostomy. In this study, Imogene M. King's goal attainment theory has been selected. The theory is based on the assumption that humans are open systems and are having constant interaction with their environment. The major concepts in this theory of goal attainment are interaction, perception, communication, transaction, role, stress, growth and development, time and space.

The definitions of these concepts are as follows:

### 1. Interaction:

According to Imogene M. King, each individual brings to an interaction with different set of values, ideas, attitude and perception to exchange. In this study, both the investigator and the patients undergone colostomy surgery come together for a purpose of improving knowledge regarding care of colostomy.

### 2. Perception:

According to Imogene M. King, it is the primary features of the personal system because it influences all the other behaviors, refers to a person's representation of reality. In this study, it means that the patients with colostomy are consistent with different demographic variables such as age, gender, religion, educational status, occupation, family income, type of family, marital status, duration of colostomy, source of information and complications developed.

### 3. Transaction:

According to Imogene M. King, two individuals mutually identify goals and the means to achieve it. They reach an agreement about how to attain these goals and then set about to realize them. In this study, the investigator will get the consent sign from the participants by explaining the goals that is to see the effectiveness of structured teaching programme regarding colostomy care.

**4. Communication:**

According to Imogene M. King, a person provides information directly or indirectly to another person. The person receives the information and processes it. In this study, the investigator provides information regarding colostomy care, directly with the help of appropriate audio visual aids (flash cards) to the receiver that is patients undergone colostomy surgery.

**5. Role:**

According to Imogene M. King, each person occupies in a social system that has specific rules and obligations. In this study, it means investigator occupies health educator role and patients undergone colostomy occupies recipient's role.

**6. Time:**

According to Imogene M. King, a person experiences a sequence of events that moves toward the future as the individual move forward, changes occur. In this study, the patients undergone colostomy experience a sequence of events that is pre test (1st day), STP (1<sup>st</sup> day) and post test (7<sup>th</sup> day) regarding colostomy care. So, this will improve the knowledge of patients undergone colostomy regarding colostomy care and changes in the lifestyle in future also.

**7. Space:**

According to Imogene M. King, each person has a designated physical area or territories that extend from the individual equally in all the directions. In this study, it means the setting where the pretest, structured teaching programme and post test was conducted i.e. Ostomates India, Vyalikaval, Bangalore.

**Results:**

### **Assessment of the knowledge on selected aspects of care of colostomy among patients undergone colostomy.**

**a) Assessment of the pre-interventional knowledge of patients undergone colostomy regarding colostomy care.**

n=30

Level of Knowledge	Score	No of Respondents (%)	
		No	%
Inadequate	< 50%	19	63.33
Moderate	51--75%	11	36.67
Adequate	>76%	0	0
Total		30	100

**Table- 12 Assessment of The Pre-Interventional Knowledge of Patients Undergone Colostomy Regarding Colostomy care.**

**Table-12** depicts that pre interventional level of knowledge of patients undergone colostomy regarding colostomy care. In this study, majority of the patients undergone colostomy (63.33) were having inadequate level of knowledge, 36.67 of them were having moderate level of knowledge and no one of them were possessing adequate level of knowledge regarding colostomy care.

### Aspects wise Mean, SD of pre-test knowledge of patients undergone colostomy regarding colostomy care.

n=30

Aspects wise knowledge	Max Statement	Max Score	Range	Mean	SD
General information of colorectal cancer and colostomy	10	10	1-6	4.64	1.36
Knowledge on Colostomy care	20	20	8-15	10.57	4.43
Overall	30	30	9-21	15.21	5.79

**Table- 13 Aspects wise Mean, SD of pre-test knowledge of patients undergone colostomy regarding colostomy care.**

**Table: 13** depict that area wise Mean, SD of pre-test level of knowledge of patients undergone colostomy regarding colostomy care. In this study, aspects of level of knowledge of patients undergone colostomy regarding colostomy care are divided in to two areas such as general knowledge about colorectal cancer and colostomy, knowledge about colostomy care. In this study the overall mean, SD were 15.21, 5.79 respectively

#### a) Assessment of the post-interventional knowledge of patients undergone colostomy regarding colostomy care.

n=30

Level of Knowledge	Score	No of Respondents (%)	
		No	%
Inadequate	< 50%	0	0
Moderate	51--75%	7	23.33
Adequate	>76%	23	76.67
Total		30	100

**Table- 14. Assessment Of The Post-Interventional Knowledge Of Patients Undergone Colostomy Regarding Colostomy Care.**

**Table: 14** show that post-interventional level of knowledge of patients undergone colostomy regarding colostomy care. In this study, majority of patients undergone colostomy (76.67%) were having adequate level of knowledge, 23.33% of them were having moderate level of knowledge and none of them were possessing inadequate level of knowledge regarding colostomy care.

### Comparison between pre-test and post- test knowledge of patients undergone colostomy regarding colostomy care

n=30

Level of knowledge	Score	Pre test		Post test	
		No	%	No	%
Inadequate	< 50%	19	63.33	0	0
Moderate	50--75%	11	36.67	7	23.33
Adequate	>76%	0	0	23	76.67
Total		30	100	30	100

**Table: 16. Comparison between pre and posttest knowledge of patients undergone colostomy regarding colostomy care.**

**Table-14** shows that the Comparison between pre and posttest knowledge of patients undergone colostomy regarding colostomy care. In pre-test majority of the patients undergone colostomy were having inadequate level of knowledge regarding colostomy care. In post-test all patients undergone colostomy have showed improvement in their knowledge, 76.67% were having adequate level of knowledge, 23.33% of them were having moderate level of knowledge and none of them were possessing inadequate level of knowledge regarding colostomy care. This showed that the structured teaching programme was effective in improving the knowledge of patients undergone colostomy regarding colostomy care.

### Evaluation of the effectiveness of structured teaching programme on colostomy care among patients undergone colostomy

Aspect wise knowledge	Knowledge of respondents				Paired ‘t’ test
	Pre-test		Post-test		
	Mean	SD	Mean	SD	
General information of colorectal cancer and colostomy	4.64	1.36	8.04	1.96	7.48*
Knowledge on Colostomy care	10.57	4.43	15.59	2.41	4.67*
Overall	15.21	5.79	23.63	4.37	12.16**

**\*\*Significant at  $P < 0.01$  level, df 29, table-value 2.4**

**Table-17. Evaluation Of The Effectiveness Of Structured Teaching Programme on Colostomy Care Among Patients Undergone Colostomy**

**Table 17.** revealed that the mean, SD and paired 't' value of knowledge score of colostomy care among patients undergone colostomy.

The obtained post-test mean value 23.63 was higher than the pre-test value 15.21. The SD between pre-test and post-test were 5.79 and 4.37 respectively. The obtained paired 't' value is 12.16 which was highly significant at 0.01 level.

It is inferred that patients undergone colostomy had significantly improved the knowledge after administration of structured teaching programme on colostomy care. So it is proved that the structured teaching programme was highly effective in improving knowledge of patients undergone colostomy regarding on colostomy care.

#### Implications of the study

The present study insists upon for patient's undergone colostomy in colostomy care. The need for the education programme is necessary for knowledge regarding colostomy care. Then the patients undergone colostomy will become highly knowledgeable and highly competent in their life there by improve their health related quality of life. In the present study, the obtained post-test mean value 23.63 was higher than the pre-test value 15.21. The SD between pre-test and post-test were 5.79 and 4.37 respectively. The obtained paired 't' value is 12.16 which was highly significant at 0.01 level.

The finding of the study has implications for nursing education, nursing practice, nursing research and nursing administration.