

ARTICLE INFORMATION

Received: November, 10, 2023

Revised: December, 28, 2023

Available online: December, 30, 2023

at : <http://ejournalmalahayati.ac.id/index.php/nursing/index>

Education about stoma on self-care ability in colorectal cancer patients with colostomy

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Abstract

Background: Colon cancer is cancer in the colon or rectum. The colostomy is a surgically made hole in the large intestine that allows feces to flow in a pouch on the abdominal wall. Colostomy actions can affect the patient's physical and psychological changes. This happens because physically there are changes in defecation patterns, diet, bag use, skin care around the stoma, odor, and so on. Most complications occur at home. Prevention is the main key, early detection can catch serious complications.

Purpose: To determine the effect of health education on the stoma care capabilities in colon cancer patients with colostomy at MRCCC Siloam Hospitals Semanggi.

Method: The research design was quasi-experimental with a one-group pre and post-test design. The sample in this study was 16 respondents selected using a purposive sampling technique. The research instrument used a knowledge questionnaire and skills observation. Data analysis used the Wilcoxon Signed Ranks Test.

Results: The Wilcoxon Signed Ranks Test obtained a p-value of 0.000 ($p < 0.05$) which means that H_0 is rejected and H_a is accepted, which means that there is an effect of health education on the stoma care capabilities in colon cancer patients with colostomy at MRCCC Siloam Hospitals Semanggi.

Conclusion: There is an effect of health education on the stoma care ability of colon cancer patients with a colostomy at MRCCC Siloam Hospitals Semanggi.

Keywords: Capabilities of Colon Cancer Patients; Colostomy; Health Education; Stoma Care.

INTRODUCTION

The data from GLOBOCAN 2020 shows that new cases of colorectal cancer worldwide reached 1,931,590 (10%) of all cancer types globally, placing colorectal cancer in third place after breast cancer with 2,261,419 cases (11.7%) in the first place and lung cancer with 2,206,771 cases (10%) in the second place. The number of colorectal cancer cases increased from the previous year which was in fourth place. In Indonesia, based on GLOBOCAN 2020 data, colorectal cancer ranks fourth with a prevalence of 34,783 (8.8%) patients, where the number of male patients reached 21,764 (11.9%), and the number of female patients was 12,425 (5.8%) (Sharma, 2022).

A colostomy is a surgical hole made in the large

intestine that allows feces to be expelled (bypassing the rectum), flowing into a bag or another collection device (Sunarti, 2013). In the UK, it is estimated that between 80,000 to 100,000 people have an ostomy. Most colostomy patients are over 50 years old with colorectal cancer. Possible complications generally include shock, bleeding, respiratory problems, digestive disorders, urinary disorders, wounds, sepsis, psychological problems, and other complications. Peristomal skin complications (around the ostomy stoma) can occur in up to 80% of cases after surgery (Minarsih, 2018). These complications include erythema and leakage, irritant contact dermatitis, eczema/allergic contact dermatitis, folliculitis, epidermal pseudo verrucous, hyperplasia,

dermatological diseases, and specific wounds. Most complications occur at home (Diyono, 2016). Prevention is the primary key; early detection can prevent serious complications (Simarangkir, 2023).

Hospital-based health education aims to develop the understanding of patients and their families about the diseases they are experiencing, while health promotion in hospitals aims to empower patients and families to act and behave in a preventive and promotive manner in the future (Rohmah, 2023). Patients with chronic diseases may exhibit different reactions such as apathy, aggression, or withdrawal. Nurses are responsible for providing health education to clients to shape individual or community behavior (Larasanti, 2017).

Discharge planning aims to improve the efficiency and quality of healthcare by shortening the treatment duration and facilitating clients in transitioning from hospital to home care or other healthcare services (Triwandini & Zakiyah, 2022). It provides information about the disease condition and post-hospitalization treatment to clients. Discharge planning can enhance self-efficacy in patients and families, thus improving the patient's quality of life by reducing the recurrence rate by 60.8% (Rahayu, 2023).

The Mochtar Riady Comprehensive Cancer Center (MRCCC) Siloam Hospitals Semanggi is located in South Jakarta. MRCCC Siloam Hospitals Semanggi is the first private hospital in Indonesia specializing in cancer treatment and offering various healthcare services, including early cancer detection, surgical oncology, chemotherapy, radiotherapy, and various cancer treatment and management facilities (Siburian, 2022). Based on a preliminary study on October 31, 2022, from medical records, it was noted that data on colorectal cancer patients from 2016-2022 in September experienced an annual increase. In 2016, the number of patients with colorectal cancer was 119, in 2017 there were 171 patients, in 2018 there were 222 patients, in 2019 there were 258 patients, in 2020 there were 264 patients, in 2021 there were 303 patients, and from January to

September 2022, the number of patients was 297. The increasing prevalence of colorectal cancer is proportional to the increase in patients undergoing colostomy creation therapy (Handayani, 2021). The following is data on patients who had a stoma created on the abdominal wall in the operating room at the MRCCC Siloam Hospitals Semanggi: in 2016, 1 patient; in 2017, 8 patients; in 2018, 10 patients; in 2019, 7 patients; in 2020, 13 patients; in 2021, 27 patients, and from January to September 2022, 32 patients underwent colostomy. MRCCC Hospitals Semanggi also accepts referred patients from other hospitals who have undergone colostomy for radiotherapy or chemotherapy, contributing to the increasing number of patients with a colostomy (Retnaningsih, Ferari, & Winarti, 2022).

Based on the background above, researchers are interested and find it necessary to conduct research with the title "Health education of the stoma care capabilities in colon cancer patients with colostomy".

RESEARCH METHOD

The research design used in this research was quasi-experimental with a one-group pre and post-test design. This research design involved one group of subjects who would measure the patient's ability to care for the stoma before and after being given health education treatment by the researcher. This design aimed to reveal the possible influence of health education on the stoma care capabilities in colon cancer patients with colostomy at the MRCCC Siloam Hospitals Semanggi. This research used purposive sampling or judgment sampling. From this study, samples were obtained from secondary data taken from December 2022 until January 2023. The research inclusion and exclusion criteria were 16 people and was on the advice of Gay and Diehl (1992) who suggested a minimum of 15 subjects per group in experimental research. This study used a purposive sampling technique, this research was conducted at the MRCCC Siloam Hospitals Semanggi in 2023.

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DOI: <https://doi.org/10.33024/minh.v6i6.12966>

RESEARCH RESULTS

Table 1. Characteristics of Participants (N=16)

Variables	Results
Age (Mean \pm SD)(Range)(Year)	(51.37 \pm 13,83. 16)(20-73)
Gender (n/%)	
Male	10/62.5
Female	6/37.5
Religion (n/%)	
Islam	9/56.3
Protestant	3/18.8
Catholic	4/25.0
Education (n/%)	
Elementary school	2/12.5
Junior high school	3/18.8
Senior high school	7/43.8
Bachelor	4/25.0
Occupation (n/%)	
Employee (private company)	4/25.0
Housewife	3/18.8
Retired	3/18.8
Employee of BUMN (government's company)	2/12.5
Trader	2/12.5
Farmer	1/6.3
Unemployed	1/6.3
Capabilities in Stoma Care (n/%)	
Before	
Good	2/12.5
Poor	12/75.0
Incapable	2/12.5
After	
Good	16/100.0
Poor	0/0
Incapable	0/0

It can be seen from the table 1 that the age of the patients in this study was 20 years old, the upper limit was 73 years old and the average age of the patients was 51 years old with data distribution (SD) = 13.83173. The gender of patients in the male category was 10 people (62.5%), and in the female category there were 6 people (37.5%). Characteristics of the patient's religion are that there are 9 patients with the Islamic religion (56.3%), 3 people with the Protestant religion (18.8%), and 4 people with the Catholic religion (25%). The educational level of the patients: 2 patients with elementary education levels (12.5%), 3 people with junior high school education levels (18.8%), 7 people with senior high school education levels (43.8%), and 4 people with bachelor's levels

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(25.5%). The characteristics of the patient's occupation: 4 patients are working as employees (25.0%), 3 patients as housewives (18.8%), 3 patients as retirees (18.8%), 2 patients as employees of BUMN(12.5%), 2 patients as traders (12.5%), 1 farmer (6.3%) and 1 unemployed (6.3%).

The results of the research before the intervention (pre-test) were that the majority of patients had poor ability in stoma care as many as 12 patients (75.0%), incapable as many as 2 patients (12.5%) and with goodcategory as many as 2 people (12.5%).After being given the intervention (post-test),all the patients, 16 people (100.0%) demonstrated goodcapability in the stoma self care.

Table 2. Test results of Health Education Effect on The Stoma Care (N=16)

Variables	Mean ± SD	p-value
Before	19.93	0.000
After	38.37	

There were 16 patients in this study with an average pre-test result score of 19.9375 with a lower limit value of 12.00 and an upper limit value of 37.00, while the average post-test result value after being given the health education intervention increased to 38.3750 with a lower limit value of 34.00 and the upper limit value has increased to 34.00. The results of the Wilcoxon Signed Ranks Test showed a significance value of $p = 0.000 (<0.05)$, which means that there is an influence of health education on the ability of colon cancer patients with a colostomy in the stoma care at home.

DISCUSSION

In this study, 16 respondents met the inclusion and exclusion criteria, with the gender characteristics of the respondents being known, the majority of whom were male, 10 people (62.5%) and female, 6 patients (37.5%). The majority of colorectal cancer patients were male, 18 patients (60%) compared with 12 female patients (40%) and the results of the analysis showed a p -value <0.001 , which means there is a relationship between gender and the prevalence of colorectal cancer (Rahayu, 2023). The rate of colorectal cancer in men is higher than in women because men consume more cigarettes and cigarette consumption is a risk factor for colorectal cancer, where the substances in cigarette tobacco have a carcinogenic effect which can trigger cancer of the colon and rectum. The incidence of colorectal cancer in men is related to estradiol levels. Estradiol in normal amounts functions in spermatogenesis and fertility (Izzaty, Utama, & Hernawan, 2015). The amount of estradiol will reduce the secretion of testosterone, high testosterone reduces the risk of colorectal cancer (Oktobiannobel, Nur, & Dananda, 2020).

No significant relationship between age and the incidence of colorectal cancer. This is because the opportunity for colorectal cancer not only occurs at

ages > 50 years but also occurs at ages < 50 years which can be caused by genetic factors, poor pattern of life such as a diet low in fiber and fruit, excessive consumption of red meat and saturated fat, lack of physical activity, smoking, and alcohol (Sitanggang & Tambunan, 2023).

Characteristics of respondents based on occupation consisted of employees as many as 4 patients (25%), housewives as many as 3 patients (18.8%), retirees as many as 3 patients (18.8%), employee of BUMN as many as 2 people (12.5%), 2 patients were traders (12.5%), 1 person was a farmer (6.3%) and 1 person was unemployed (6.3%). Physical activity provides a protective effect against colorectal cancer as shown in the research results by the highest number of respondents. many in the inactive category amounting to 46 (82.1%) of the total sample. One of the protective mechanisms for physical activity is through the mechanisms of immunity and intestinal performance (Majid & Ariyanti, 2020).

According to the researcher's assumptions, the results of the characteristics in this study show that the majority of respondents who had colorectal cancer were male. Still, the researchers could not conclude that this gender had a relationship because

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the researchers did not ask about smoking or not smoking (Bouk, Sasputra, Wungouw, & Rante, 2021). The characteristics of the respondents' average age of 51 could be due to a decline in the body's immune system so that respondents who have never had regular health checks will find themselves sick in old age because they are late in carrying out early detection examinations (Sulistiyani, 2020). From an educational perspective, researchers assume that educated patients will find it easier to master new knowledge and skills. Occupation characteristics can be a supporting factor in the prevalence of colorectal cancer due to high levels of activity so respondents pay less attention to the nutrition they consume and lack of rest patterns (Mulyaningsih & Paramita, 2018).

The test results on the influence of the patient's ability before and after being given the stoma care health education intervention obtained a p-value of 0.000 ($p < 0.05$), which means that H_0 is rejected. H_a is accepted, which means that there is an influence of health education on the ability of cancer colon patients with a colostomy.

Based on the process and results of this research, the researcher assumes that there is an influence of health education on the stoma care ability of cancer colon patients with a colostomy. This capability will help them increase their life quality as cancer colon patients with a colostomy.

CONCLUSION

There is an influence of health education on the stoma care ability of cancer colon patients with a colostomy at the MRCC Siloam Hospitals Semanggi.

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