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RESEARCH ARTICLE

THE INFLUENCE OF EDUCATION ABOUT STOMA ON SELF CARE ABILITY IN PATIENTS WITH COLOSTOMY

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ABSTRACT

Background: Stoma is a disorder that occurs in the gastrointestinal tract and the opening results are made by surgery of the intestinal tract where the effluent (dirt, mucus) is diverted out of the body by using artificial openings. One of the stoma management strategy is education in the hope of increasing knowledge of self-care, by involving the patient's active role in the various self-care management strategies in managing and maintaining the patient so that the self-care ability can be fulfilled. **Aims:** to analyze the influence of education about stoma on self care ability in patients with colostomy. **Methods:** The results showed that there was a difference of self-care between before intervention with after stoma patient education intervention with p-value <0.05. Stoma education interventions have an effect on the improvement of self-care ability of patient with stoma. **Conclusion:** It is expected that the role and active efforts of health workers, especially nurses, to help stoma patients by providing education about stoma so that the involvement of patients in management of disease management can increase and give a positive impact on improving the health status of stoma patients.

INTRODUCTION

Colon and rectal cancer is gastrointestinal cancer, colon cancer is three times more common than rectal cancer (Black and Hawks, 2014). The causes of colorectal cancer are not known, but have the same prevalence among men and women, all ethnic groups, but the highest prevalence and mortality rates occur in African-American descent (Black and Hawks, 2014). The risk of developing colorectal cancer is 1: 17 people, incidence increases with age and the highest incidence in older people aged 85 years and higher in people with a family history of colon cancer (Smeltzer and Bare, 2010). The International Cancer Research Institute estimates cases of colorectal cancer are ranked third after breast and lung cancer (Savendra et al., 2015). In the United States, colon cancer is the leading cause of deaths from second cancer, an estimated 154,000 colorectal cancers were diagnosed in 2007, a mortality rate of 10 - 15% or about 52,000 (Black and Hawks, 2014). Data in China show that colorectal cancer is the fourth most common cause of cancer deaths. The morbidity of colorectal cancer in the country is about 28.08 per 10,000 with mortality of 13.41 per 10,000 (Ran et al., 2015) While in Indonesia the incidence of colon and rectal cancer is quite high and the incidence is increasing at age over 40 years, the number of cases is 12.8/100,000 population and is the third type of carcinoma in Indonesia (Kemenkes, 2015).

The modalities of treatment in colorectal cancer are surgery called colostomy. Colostomy indication is required for colorectal cancer, this procedure involves making a channel between the colon and the abdominal wall where the stool may escape, colostomy can be performed on the ascending, transverse, descending or sigmoid colon can be permanent or temporary (Black and Hawks, 2014). The installation of this colostomy is temporary and settled for a lifetime. For those temporarily installed will be closed in a few months after the conditions improve, while those that have to be installed for a lifetime will most likely have an impact on the life aspects of the patient's physical, psychosocial, social and spiritual. In other words, colostomy can have a negative impact on the quality of life of patients (Kadam and Shinde, 2014). Adverse effects of stoma insertion are physical, psychological and social, physical problems included in leaks, skin problems, pockets and odors and the need for adaptation of stoma equipment, where inappropriate stomas affect daily life. Impacts such as these can affect the practice of self-care inappropriately expensive financing (Pandey and Dhungana, 2015). The consequences or side effects of stoma formation have many challenges that are physical, psychological and social. Many physical symptoms such as stoma hernia, weight loss, and constipation (Lo et al., 2010). The installation of stoma each year is approximately 100,000 patients, undergoing stoma making operations. More than 70,000 people in the UK, and approximately 120,000 in the USA experience stoma every year (Ozturk, Yalcin and

Unal, 2015). While in China about 100,000 patients are estimated to undergo surgical stoma-making each year starting in 2005, the number of stoma-making patients is estimated to be 1000,000 by 2015 and is expected to continue to increase (Ran *et al.*, 2016). One of stoma management strategy is education in the hope of increasing knowledge of self-care, where self-care knowledge as the foundation for self-management of stoma disease. Education is an interactive process that encourages learning is an effort to add new knowledge, attitudes and skills through strengthening certain practices and experience, with one of the scope of education is health education (Smeltzer and Bare, 2010). Educational approaches are very effective on improving knowledge such as choice in medicine, enhancing confidence in self and increasing the confidence of interacting and participating in decision making self care (Lo *et al.*, 2010). Treatment plays an important role in helping to remedy this problem by taking a role in educating patients and ensuring that education begins as soon as possible after stoma formation (Lo *et al.*, 2010). The symptoms of the impact of the stoma may be exacerbated by a low level of knowledge and inadequate stoma care (Lo *et al.*, 2010). From the Culha, Kosgeroglu and Bolluk (2016) studies, it was found that the value of self-care agents increased in the educational intervention groups of the control group, with educational approaches having an important role in the development of self-care, independence and individual adaptation to the disease. The results of the study of Saavedra *et al.* (2015), in stoma patients obtained data that respondents do not get education 62.2% and 30.8% get education about pockets, cleaning stoma, skin care and nutrition, when measured about his care 53.8 % said he was unable to care for himself and 38.5% said that his self-care was helped by the family. The study shows that self-nursing increases after being educated about the stoma. Research by Cheng *et al.* (2013), said that 54 respondents with knowledge about stoma with mean value is showing that 20 respondents are able to manage stoma treatment independently, 30 people do self treatment with help and 4 people must be assisted with care of others. Based on the above research shows that education or education after stoma surgery is very important. Self-care of stoma patients increases after treatment education intervention, patients have an interest in intervention materials because they can solve their problems, therefore this study will study the effect of education on stoma and assess self-care ability of stoma patients after surgery.

METHODS

This was quasi experiment with one group pre test-post test. The stoma patients were selected by consecutive sampling that amount 44 patients with stoma colon. Inclusion criteria of the study sample were outpatient stoma-attached patients, adult patients aged 18-70 years, willing to be respondents, not experiencing communication disorders, able to read and write, have good hearing and vision, never get the same intervention from researchers who other or health care workers. Exclusion criteria are circumstances that cause the subject does not meet inclusion criteria for various causes. The exclusion criteria in this study are patients who are not aware, weak or unable to perform self-care so that care and patient needs should be done by the family and assisted by the nurse. Data collection method in this research is begins by taking care of research permit to take data of patient who installed stoma. Before the data collection was prepared also research instruments in the form of stoma education module in booklet form, respondent

characteristic questionnaire (age, sex, education level, occupation, marital status and old using stoma). The self-care agency scale (SCAS) questionnaire and data collection form are based on a literature developed in 1979 by Keraney and Fleiscer with 43 question items, then modified by designing a self-care agency self-care stoma questionnaire with a total of 30 question items used to determine the ability of self-responder. Each item is judged between 0 - 4.

RESULTS

Characteristics of Respondents

Table 1. Characteristics of respondents

Characteristics	F	%
Ages		
18 - 25 years	5	11.40
26 - 35 years	5	11.40
36 - 45 years	8	18.20
46 - 55 years	17	38.60
56 - 65 years	8	18.20
> 65 years	1	2.30
Gender		
Male	28	63.60
Female	16	36.40
Educations		
Elementary School	5	11.40
Junior High School	7	15.90
Senior High School	29	65.90
Diploma 3	2	4.50
University	1	2.30
Marital Status		
Married	35	79.50
Single	6	13.60
Widow/widower	3	6.80
Long using stoma		
< 1 year	28	63.60
> 1 year	16	36.40
Stoma creation history		
Cancer	41	93.00
Trauma	2	4.50
Obstruction	1	3.30

Distribusi Frekuensi of Self-care: Based on Table 2, the value of self care before intervention shows that self care is in the category of not higher than the good category, that is 37 (85.40%) respondents are in the less category.

Table 2. Respondents' Self Care Description Before Educational Stoma Intervention (n=44)

Self-care value	N	Before intervention	
		F	%
Good	44	7	15.90
Poor	44	37	84.10

Based on Table 3, the value of self care after the intervention shows that self care is in the good category higher than the less category that there are 41 (93.20%) respondents in the good category.

Table 3. Respondents' Self Care Description after Educational Stoma Intervention (n=44)

Self-care value	N	After Intervention	
		F	%
Good	44	41	93.20
Poor	44	3	6.80

Based on Table 4, the results of the study in table 4.3 using statistical tests Paired t-test obtained p value = 0.00 where p

<0.05 conclusions that education stoma affects the increased ability of self care in patients with colonic stoma.

Table 4. Differences in Self Care Patients stoma between before and After Educational Interventions (n=44)

Self care	N	Mean	Standar devisiasi	t	Df	Sig. (2-tailed)
Pretest	44	-12.886	6.535	-13.080	43	0.00
Posttest	44					

DISCUSSION

The results of Paired t-test Test analysis showed that the value of $p < 0.00$, which is less than p value (0.05) so that it can be concluded that there was a difference in the value of self care before and after the education intervention means that the action or intervention carried out has an influence on the improvement of respondents' self-care ability. Cheng, Meng's study, Yang and Zhang (2013), that research in permanent colostomy patients will use stoma bags for the rest of their lives, to overcome these problems patients must be given knowledge and skills such as stoma care, identify problems, treat peristomal skin and understand prevention and treat potential complications. It was concluded that patients with a higher level of knowledge about stoma care will be able to manage all aspects of care independently of the stoma. The results of research by Kadam and Shinde (2014), said that stoma patients must understand the complications of stoma such as the risk of skin infections, stoma complications, with health education provided to stoma patients will be able to reduce the side effects of colostomy complications and increase patient awareness in self-care.

The results of the study after being given an educational intervention that included knowledge about the respondent's stoma and patients in self-management in the daily lives of the majority of respondents were able to manage their own self-care as evidenced by the achievement of the majority of self-care scores increased 93.20%. According to Notoatmojo (2010) to change a person's behavior can be done by providing health education. Education provided is a process of developing skills, skills and knowledge. One way to support the implementation of education is the use of health education media such as booklets that are useful to stimulate the interests of educational targets, overcome the limitations of time, place, language and sensory power and overcome the passive attitude of respondents, can stimulate experience and generate the same perception. Health problems such as illness are determined by two main factors, namely behavioral factors and non-behavioral factors (physical, social, economic, and political). Efforts to intervene in behavioral factors can be done through two approaches, namely education and coercion. Education is an effort of persuasion or learning for individuals to be willing to take actions to maintain (overcome problems) and improve their health. Changes from the results of educational interventions are based on their knowledge and awareness through the learning process so that these behaviors are expected to last long and remain because they are based on awareness (Notoatmodjo, 2010). The aim of health education is to improve the healthy behavior of individuals and communities, knowledge relevant to interventions and strategies for maintaining health status, prevention of diseases, and managing (providing care) of chronic diseases. Health education not only provides information, but the important

thing is to create activities that can make a person independent to make decisions about health problems faced (Nursalam, 2008). After 2 weeks of education about stoma for 5 times with the first material on the basic concept of stoma (understanding, causes, type of stoma, complications and how to treat stoma), the second material was the selection of stoma bags, third material for stoma care and stoma bag replacement, skin care and the problem of complications and the fifth material about psychosocial problems. Furthermore, respondents were evaluated by direct demonstration of stoma care and how to replace stoma bags, and the distribution of booklets about stoma to respondents, resulting in a change in respondents, namely the increased ability of self-care in stoma patients. This is supported because enthusiasm and good cooperation between respondents and researchers.

Conclusion

This study aims to identify the effect of stoma education on the ability of self care in colonic stoma patients by using a quasi experimental design where there were 44 patients who participated in this study as an intervention group for 4 weeks. Based on the results of the study it can be concluded that there is an effect of stoma education on the self-care ability of patients with colonic stoma so that stoma-based education can help support and improve the ability of self-care of patients with colon stoma.

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