



EDUCATION TO IMPROVE QUALITY OF LIFE OF PATIENTS WITH STOMA: A LITERATURE REVIEW

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ABSTRACT	Keywords
Several conditions or disease may necessitate the formation of stoma as a treatment. However, stomas has a negatif effect on physical, psychological, social and spiritual aspects that can reduce the quality of life. Education is an effort to improve the quality of life of patients with stoma. The aim of this study was to describe the education of patients with stoma to improve quality of life. A review of the literature by searching in sciencedirect, EBSCO, and pubmed. Four relevant articles include in syntesis. Three studies conclude that education can improve quality of life and one study did not show significant results, but there were positive changes in the quality of life value. Education is provided through a variety of methods, the topic covers various aspects of life, delivered by a team of health care, given at least 2 sessions. Education in patients with stomas can improve quality of life. Although each article has a different method of education, it has a positive effect on improving the quality of life.	Stoma; Education; Quality of Life

INTRODUCTION

Several conditions or disease may necessitate the formation of stoma (colostomy, ileostomy or urostomy) as a treatment (Burch, 2015). Colorectal cancer or neoplasia are the main reasons for making stoma in addition to other conditions such as ulcerative colitis, crohn's disease, diverticular disease and bladder cancer (Freitas et al., 2017; Burch, 2015). Approximately 100.000 people live with ostomy in every most populous country in the world. More than 75% of stoma making procedures are performed as part of the colorectal cancer treatment (Ambe et al., 2018). Colostomy is the most popular procedure performed in 45% of ostomy

patients over 60 years, ileostomy performed in 38,7% of ostomy patients and urostomy performed in 16,1% of ostomy patients over 60 years (Wood, 2020). As many as 63% of colorectal patients with stoma and experienced at least one difficulties in stoma treatment (Bulkey et al., 2018).

Stoma formation is an alternative solution to the diseases or conditions, but also has a negatif effects after the operation of the formation of stoma both temporary and permanent stoma (Crystal & Barsevick, 2011). Patients with stoma have problems in physical, psychological, social and spiritual aspects (Vonk-klaassen, Vocht, Ouden, Eddes, & Schuurmans, 2016; Rangki et al., 2014). This is made worse by stoma complications that occur in 70% of patients

in the form of prolapse (16.4%), skin damage (15.1%), parastomal hernias (9.6%) (Jayarajah, Samarasekera, & Samarasekera, 2016; Ambe et al., 2018).

Physical, psychological, financial problems and complications after stoma formation have a significant negative impact on patients' quality of life (Aazam, Farideh, Maryam, & Zagheri, 2011; Vonk-klaassen et al., 2016) both in cancer and non-cancer patients (Fan., K. T & Barsevick, 2009). About 70% of patients with stoma have a quality of life score below 60% mainly due to changes in dress, feeling depressed, feeling self-harm after the surgical procedure, and patients who need a long time to participate in self-care (Jayarajah & Samarasekera, 2017). Patients with ostomy need information about ostomy and surviving for better life with ostomy (Tiranda, Y., Siripul, P., Sangehart, B., & Septiwi, C., 2019).

Improve the quality of life in patients are important things to do for patients with stoma. Good knowledge is one of the factors that contribute to maintaining the quality of life of patients (Romatua, 2018). In a previous study, most of patients with stoma had poor knowledge of stoma care and this contributed to poor stoma care that they performed (Nainggolan & Asrizal, 2012). Education of patients with stoma is an effort to improve the quality of life of patients. Health education can effectively increase knowledge about treatments, increase confidence in self care, and improve communication with health workers and participation in decision making (Shu-Fen et al., 2010). Health promotion intervention are aimed at improving health that influence lifestyle, health care service, physical, cultural and socioeconomic environment. Educational paradigm for health promotion intervention and analyse the main educational theories (Raffaele et al., 2016).

The existence of protocols as a reference in providing education to stoma patients is very important and has a positive impact on patient outcomes (Abdullah, Abdulmutalib, Abdullah, & Nagshabandi, 2018). Structured education is effective in increasing the knowledge and ability to performed stoma care (Abdelmohsen, 2020). However, currently the approach used in providing education to patients with stomas still varies. The aim of this study was to describe the education of patients with stoma to improve quality of life. This study will provide new information about curriculum that can applied in education for patients with stoma. Good educational standards can help patients live with stoma.

METHOD

A literature review was conducted by selection of articles based on several criteria. Inclusion criteria are articles in English, full text available, the year of publication is above 2010, type of article include experimental study (quasy experiment, randomised controlled trial), case study and case control. Exclusion criteria are outcomes that do not focus on quality of life and articles in the form of review or meta-analysis. Scencedirect , EBSCO, and pubmed database were searched to find publication relevant to the aim of this study. A literature search was implemented based on the following keyword: stoma or ostomate or ostomy, education, quality of life. We used the "AND" boolean. Results in each database was recorded and collected. We screened the article and issued the same article. Abstract of each article identified the suitability of the expected outcomes. Researchers re-screened based on inclusion and exclusion criteria. Article selection could be seen in figure 1.

Quality assesment of selected studies were assessed with critical appraisal

tools of the Joanna Briggs Institute (JBI) (see table 1). We set a score of 7 as the cut-off assessment of the article for analysis. Quality assessment were performed by author independently. Researchers conducted data extraction using a model developed by Whitemore (2005), which consisted of data reduction, data display, data comparison, and drawing and verification consensus.

RESULTS

Screening process resulted of a total 4 articles about education to improve quality of life in patients with stoma. Three studies with experimental designs and one case control study. Respondents involved were patients with colostomy, ileostomy and urostomy. Three studies were conducted in Europe: Norway, Turkey and Denmark and one article in Arizona in the United States. Summary of the article analysis can be seen in table 1.

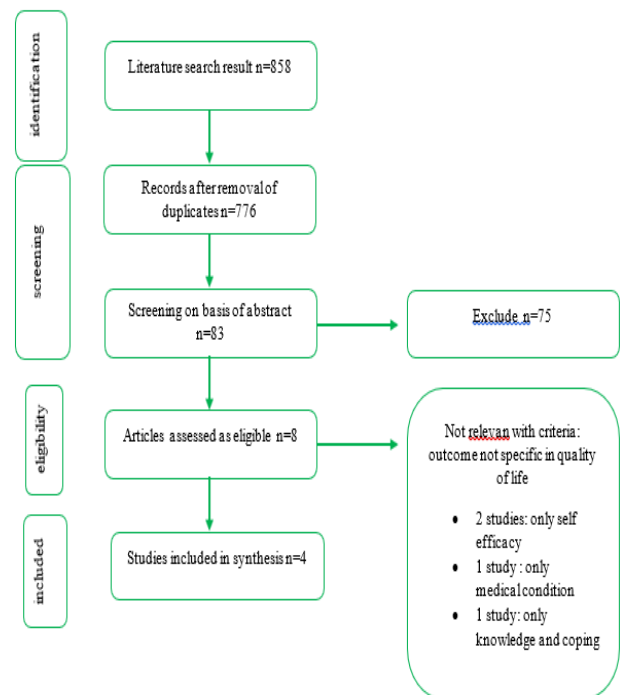


Figure 1. Flow diagram for relevance article selection of studies on education to improve quality of life patients with stoma

Table 1. Quality assesmet (JBI Checklist)

JBI checklist for Quasy Experimental Study											
	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Skor	
Altuntas et al., 2012	V	V	-	-	V	V	V	V	V	7*	
Forsmo et al., 2016	V	V	-	V	V	V	V	V	V	8*	
Krouse et al., 2016	V	V	-	-	V	V	V	V	V	7*	
JBI checklist for Case Control											
	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Skor
Danielsen & Rosenberg, 2014	V	V	V	V	V	-	-	V	V	V	8*

Q.1 to Q.10: question on the JBI checklist; *: eligible to analyse

Table 2. Summary of include study

Authors	Design	Participant	Media	Intervention	Tools	Outcomes
Altuntas et al., 2012	Experimental Study	Ileostomy, Colostomy and urostomy (N=72)	Lecturer; interactive talk; video; group education	Giving by surgeon, ostoma nurse specialist; 4-6 months education	SF-36	There is a significant increase in the quality of life in all aspects of quality of life in physical function, roles, pain, general health, social and emotional functioning.
Danielsen & Rosenberg, 2014	Case Control	Colostomy and ileostomy (N=50)	Group education	Giving by nurse, physiotherapis, and sexologist; 3 session, about 3 hours each session	SF-36	There was a significant improvement in quality of life at pre discharge, 3 minths and 6 months follow up. The most significant improvements were in the domain of pain and mental health.
Forsmo et al., 2016	Experimental Study	Colostomy and urostomy (N=38)	Individual consultation; brochure	Giving by ostoma nurse specialist; 1-2 session; about 45-60 minute each session	15D	There are changes in quality of life, but not significant. This is because the intervention group had fewer complication than the control group.
Krouse et al., 2016	Experimental Study	Patients with colostomy (N= 122)	Group education; skills demonstration	Giving by ostoma nurse specialist; 2 session in 1 months	COH-QOL-O	There was an increase in the quality of life, physical health and social wel-being. An increase was also seen in patient satisfaction with ostomy care skills after attending education, and a significant increase at follow up measurement at 6 months after intervention.

Quality of life

Measurement of quality of life using various instruments. The SF-36 instrument was the instrument used in 2 studies (Altuntas et al., 2012; Danielsen & Rosenberg, 2014), while others used 15D (Forsmo et al., 2016) and City of Hope Quality of Life Ostomy COH-QOL -O) (Krouse et al., 2016). The measurement of the quality of life of the majority was carried out over a long period of time with a minimum distance of 3 months after the intervention, except for the forsmo study which was conducted soon after the patient was going home. Quality of life results indicate that education provided has a significant effect on quality of life in 3 studies (Altuntas et al., 2012; Danielsen & Rosenberg, 2014; Krouse et al., 2016). One study from Forsmo did not show significant results, but there were positive changes in the value of quality of life.

Educational method

Education was delivered in various ways, carried out by more than one method. The methods used include personal consultations, the use of brochures, lectures, videos, fellow patient gatherings, group discussions, demonstration of skills, to practice in the laboratory. In all studies, education was delivered by stoma specialist nurses. Some studies involve professions in the provision of education, such as colorectal surgeons, public health workers (Altuntas et al., 2012), physiotherapists, sexologists (Danielsen & Rosenberg, 2014). The duration of education in all studies is given at least 2 sessions with the time of each session and intervals between sessions varying, ie 1-2 sessions for 45-60 minutes (Forsmo et al., 2016), 3 sessions and a duration of 3 hours (Danielsen & Rosenberg, 2014), 2 sessions with a gap of 1 month (Krouse et al., 2016). The implementation of

education was carried out in the preoperative phase in 2 studies (Altuntas et al., 2012), 1 study was conducted after the patient was discharged from the hospital (Danielsen & Rosenberg, 2014), and 1 study conducted education at 6 months after stoma creation (Krouse et al., 2016).

Educational content

The four studies designed educational materials that were comprehensive, not only displaying the physical aspects of the stoma, but also other aspects. The material provided includes intestinal anatomy, reasons for making stoma, stoma function and the tools needed, stoma care, stoma complications, the impact of stoma on daily activities, social functions, body image to material about sexuality.

DISCUSSION

The results of the synthesis article found that in all four studies, the majority of respondents were patients with colostomy. Patients with colostomy are closely related to the high prevalence of colorectal cancer. Colorectal cancer is a type of cancer that ranks third in the world, ranks fourth cause of cancer death and ranks second with the number of survivors who survive five years after diagnosis (Rabeneck, Horton, Zauber, & Earle, 2015).

Education improve quality of life

Education in patients with stomas significantly influences quality of life (Altuntas et al., 2012; Danielsen & Rosenberg, 2014; Krouse et al., 2016). One study from Forsmo (2016) found insignificant results, but there was an increase in quality of life scores. The insignificant result is due to the proportion of respondents who have unequal disease complications between the intervention group and the control group. Another factor that influences the possibility is the measurement of quality of life which is done

immediately after the patient will go home, so the education provided has not had a major effect on quality of life. While in other studies the measurements were made at least 3 months after the intervention. In theory, educational programs can help provide information to ensure patient knowledge, control of comorbidities and prevention of complications that are one of the factors that decrease patient quality of life (Steinhagen, Colwell, & Cannon, 2017; Mohamed, Salem, & Mohamed, 2017; Abdullah, Abdulmutalib, Abdullah, & Nagshabandi, 2018).

Educational method

Before conducting education, planning is needed including clinical and sociodemographic studies and the patient's condition (Silva et al., 2014). Delivery of education needs to be considered primarily because individuals have different needs, the average age of patients is elderly, language barriers in the delivery of education (Bird, Wilson, Bertinara, & Amos, 2019).

The three studies used various educational methods and used more than one method in delivery. The principle of providing education to stoma patients can use a variety of media, through lecture and group discussion methods using videos, posters and can be through practice with demonstration, re-demonstration and video methods. At the end of the session, a booklet was provided which can be used as a guide for stoma care independently (Abdullah et al., 2018).

In several studies have used multimedia technology as an educational medium. The use of interactive audio-visual/multimedia media, telephone follow-up, internet use are alternatives to effective media choices for patient education (Bedra, Wick, Brotman, & Finkelstein, 2013; Silva et al., 2014). This is because it can be easily accepted by patients, is fun, is not difficult to use, good media is used for nurses in

providing health education, and gives the impression of good learning for patients (Bedra et al., 2013). The instruction method and DVD / video are more effective than the instruction method alone, especially in first time education. Integration of the use of this video can accommodate patients to be able to see for themselves and can be done repeatedly. The use of this method can also facilitate family members to be able to learn about stoma. The use of video is very useful when patients are hospitalized and can achieve educational goals in a relatively short time (2-3 days) (Crawford et al., 2012). Nevertheless, the method of using technology is not easy to do, because of cultural and social economic factors that influence the level of patient education in using technology (Silva et al., 2014).

Who is the educator?

The education nurse must understand various surgical procedures that have the potential for stoma formation; understanding of available stoma devices so as to be able to carry out effective treatments for patients with new stomas; effective postoperative care with patient support and education to adapt quickly to the conditions; and ensuring patients understand the changes that occur due to stoma so that patients can increase confidence in stoma care independently (Burch, 2017).

The role of health workers who have special skills in stoma care is one of the breakthroughs in dealing with patient problems (Jayarajah & Samarasekera, 2017). Stoma special nurses have higher knowledge compared to ordinary nurses. The experience of working as a nurse influences the level of knowledge in providing care to stoma patients. In addition, the level of education, involvement in scientific meetings and the ability to study the literature on ostomy care are factors that influence nurses' knowledge (Duruk & Ucar, 2013). Stoma specialist nurses are

considered capable more successful in transferring knowledge to patients, overcoming difficulties in providing education, and able to provide good care examples directly to patients (Gothi, 2019). Interventions given in a team, multicomponent and structured manner can improve self-efficacy, reduce complications and improve the quality of life of patients with stoma (Zhou et al., 2019).

When will education begin?

Education for stoma patients is highly recommended given in the perioperative period (Rosado, Galvão, & Sonobe, 2017). In the preoperative period the material can be in the form of topics related to stoma, stoma products, work, exercise and exercise, travel, sexual relations, diet, and post-surgery follow-up. In the postoperative period namely psychological issues that arise, demonstration of replacement of colostomy bags, assessment of the skin around the stoma. In the period after returning: the topic of body image, specific needs such as dressing (Bird et al., 2019).

Patients also need education and training during recovery to maintain a high quality of life (Jayarajah & Samarasekera, 2017). Subsequent periodic assessments can be conducted in the first 6 months to determine the focus and educational needs at that time (Mohamed, Salem, & Mohamed, 2017). Health services including education can now be carried out in several perspectives both in the context of educational services at home, community, outpatients and in the social environment (Figueiredo & Alvim, 2016).

Educational content

The four studies designed educational materials that were comprehensive, not only displaying the physical aspects of the stoma, but also other aspects (Altuntas et al., 2012; Danielsen & Rosenberg, 2014; Krouse et al., 2016;

Forsmo et al., 2016). Good patient education is understanding of the situation and arousing self-confidence, enhance knowledge, partnership and active involvement during recovery (Poland et al., 2017). Good educational material covers aspects of biopsychosocial and spiritual with the target to achieve a degree of well-being (Figueiredo & Alvim, 2016).

Education on psychological aspects can prevent the occurrence of complications, anxiety and fear of patients due to stoma, help adapt patients and accept conditions with stomula and assist patients in undergoing the rehabilitation process by respecting patient decisions on health and treatment given (Rosado et al., 2017). This is in accordance with the Indicator that is often used as a reference in Nursing Outcome Classification, which is that patients can receive conditions with their stomula (Freitas et al., 2015).

CONCLUSIONS

Education in patients with stoma can improve quality of life. Educational interventions in patients need to consider a variety of educational methods, appropriate educational times, comprehensive material, and delivered by competent people. Although each article has a different form and method of education, it has a positive effect on improving the quality of life.

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