

Ratna Aryani^{1,2} , Toar JM Lalisang³ , Debie Dahlia⁴ , Evi Martha⁵ ,
Yeni Rustina⁶ , Hening Pujasari⁷ 

¹Doctoral Program, Faculty of Nursing, Universitas Indonesia, West Java, Indonesia

²Nursing Department, Politeknik Kesehatan Kementerian Kesehatan Jakarta I, Jakarta, Indonesia

³Digestive Surgery Department, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

⁴Department of Medical Surgical Nursing, Faculty of Nursing, Universitas Indonesia, West Java, Indonesia

⁵Faculty of Public Health, Universitas Indonesia, Depok, West Java, Indonesia

⁶Neonatal Nursing Department, Faculty of Nursing, Universitas Indonesia, Depok, West Java, Indonesia

⁷Basic Science and Fundamental of Nursing Department, Faculty of Nursing, Universitas Indonesia, Depok, West Java, Indonesia

Unpacking self-management in colorectal cancer with stoma patients: a comprehensive concept analysis

Abstract

Background: Self-management has become an important issue discussed by healthcare providers and healthcare systems due to the increase in chronic disease cases, the high cost of chronic disease conditions, and the limited time of health workers. This study aimed to comprehensively and specifically explore and clarify self-management in stoma patients with colorectal cancer. Identifying the key attributes, antecedents, and consequences of self-management in this population will increase understanding in creating strategies and providing more appropriate nursing interventions in improving patient's quality of life.

Methods: This study used Walker and Avant's concept analysis technique to investigate the concept of self-management in colorectal cancer stoma patients, which involves an eight-step process. Thematic analysis identified key attributes, antecedents, and consequences of self-management based on a review of relevant literature and existing theoretical frameworks.

Results: Self-management is described as the ability of a person with a chronic disease condition to manage symptoms, treatments, physical and psychosocial impact, and lifestyle changes that affect his life. Outcomes can be achieved if patients have personal/lifestyle characteristics, health status, resources, environmental characteristics, and health care system. The outcomes include improved self-care, self-efficacy, ability to change stoma bag, quality of life, self-management behavior, self-care attitude, self-care behavior, and stoma proficiency.

Conclusions: Key attributes identified, such as managing skills, goal achievement, caring, and life satisfaction, highlight the need for nurses to equip patients with essential self-care knowledge and skills. By doing so, healthcare providers can enhance patient autonomy, reduce healthcare costs, and foster better health outcomes.

Palliat Med Pract

Keywords: colorectal cancer, self-management, stoma

Address for correspondence:

Ratna Aryani

Nursing Department, Politeknik Kesehatan Kementerian Kesehatan Jakarta I, 12450 Jakarta, Indonesia

e-mail: ratna_aryani@poltekkesjakarta1.ac.id



Palliative Medicine in Practice

Copyright © 2024 Via Medica, ISSN 2545-0425, e-ISSN 2545-1359

DOI: 10.5603/pmp.101549

Received: 12.07.2024 Accepted: 21.10.2024 Early publication date: 12.11.2024

This article is available in open access under Creative Commons Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

Introduction

Colorectal cancer is a chronic disease worldwide and requires good self-management. This disease impacts the patient's inability to pass feces through the anus, so a stoma is a solution as a life-saving procedure [1–3]. If the disease is unmanaged and untreated properly, the simultaneous diagnosis of cancer and stoma creation will affect personal life later and quality [1, 4–6].

The creation of a stoma (especially permanent) is a very traumatic event and requires efforts to improve quality of life; patients take several months to adjust to this challenging time [7, 8]. Stoma has several impacts on patients, such as physical limitations or activities, body image disturbances, difficulties when traveling, sleep and eating disorders, changes in dressing style, stoma complications, psychological disorders, discrimination, sexual problems, relationship problems with family or friends, financial problems, and lack of counseling services [9]. Patients report issues related to the stoma bag, such as leaking (58%), unpleasant odor (55%), skin problems (27%), and pain (21%) [10].

One of the strategies to improve the quality of life of colorectal cancer patients undergoing ostomy is self-management. The general definition of self-management is the ability of a person with a chronic illness to control symptoms, treatments, and physiological, and psychological changes in coping lifestyles [11, 12]. Self-management also refers to how individuals manage their relationships with their community, family, and healthcare professionals due to their condition [13].

Nurses have a crucial role in supporting the self-management of colorectal cancer patients with stomas, such as ensuring comfort, preventing complications, and improving their overall health and well-being, including psychological well-being [14, 15]. Several innovative self-management interventions in patients with colorectal cancer involve nurses and other health workers in improving patient's quality of life. The creative interventions are such as personalized psycho-educational programs, the use of technology, and structured counseling. A deep understanding of self-management will help nurses provide more effective and customized guidance to help patients better manage their conditions [16]. Martz mentioned three main reasons for self-management being a research topic or an important issue discussed by healthcare providers and healthcare systems. The three reasons include the increase in chronic disease cases, the problem of high costs for chronic disease conditions, and the limited time of health workers [17].

There is still minimal consensus on self-management in stoma patients with colorectal cancer, so it is crucial to analyze because self-management is a concept often used in health care [18]. Concept analysis is essential in clarifying poorly defined or confusing concepts [19]. This study presents a comprehensive concept analysis approach to understanding the self-management of patients with colorectal cancer stomas and provides a new holistic perspective. This research is crucial because it can directly contribute to clinical practice and the development of educational programs for patients with stomas, especially in modern healthcare that emphasizes active patient engagement.

The innovation of this article lies primarily in how it identifies and outlines key elements of self-management, ranging from socio-psychological to physical adaptations that previous literature has not specified. By integrating various data sources and prior research, this article provides a more detailed mapping of the concept of self-management that can help patients deal with significant changes in their quality of life. The results of this study can serve as a foundation for healthcare professionals in designing more effective interventions, thereby improving patients' quality of life and supporting the global trend of patient-centered care while enhancing the overall standard of care for colorectal cancer patients. This study aimed to analyze the concept of self-management in stoma patients with colorectal cancer, focusing on identifying key attributes, causes, and impacts. The study also aimed to clarify the elements that shape self-management ability in this population to support improving patient's quality of life.

Methods

Concept analysis is a systematic process that explores, clarifies, defines, and distinguishes an abstract from related concepts, facilitating its use in theory development and communication [20, 21]. The concept analysis proved beneficial in understanding complex health concepts, has a systematic structure, and allows in-depth exploration of various aspects of self-management in the context of colorectal cancer stoma patients. The concept analysis of self-management with a clinical case used an eight-step approach from Walker and Avant [20], including choosing a concept, determining the purpose of analysis, identifying all uses of the concept, identifying attributes, building a model case, identifying antecedents, identify consequences, and identify empirical referents.

The concept exploration used literature search, relying solely on scientific articles. The search was conducted in the Scopus, ProQuest, and ScienceDirect databases without time restrictions (up to February 2022), using the terms: ("self-management") AND ("definition"). At the core of concept analysis is identifying attributes to understanding the concept. The search helped pinpoint the attributes most pertinent to the concept and provided substantial evidence for the analysis. The review also contributed to identifying real-world examples, developing model cases, borderline and related cases, and determining empirical referents.

Antecedents refer to events or conditions that must precede the concept's occurrence, while consequences are the concept's manifestation outcomes. Empirical referents are observable phenomena that indicate the concept's existence [21]. The reviewed articles drew empirical referents of self-management. Ethics approval for this article was not applicable. This article is part of the first author's (RA) dissertation.

Results

This paper analyzed the concept of self-management by following the steps of concept analysis that can be useful for nurses in theory development or in providing nursing services. The attribute data extracted using the literature are managing skills, achieving goals, caring, and satisfying quality of life. Self-management achievement is when the patient has a good and capable personal/lifestyle, health status, resources, environmental characteristics, and health care system. Fulfilling these can increase self-care, self-efficacy, ability to change stoma bag, quality of life, self-management behavior, self-care attitude, self-care behavior, and stoma proficiency.

Step 1. Choosing a concept

A self-management concept was selected to write this article. Self-management was chosen for its relevance in helping to improve the quality of life of stoma patients with colorectal cancer. This approach helps identify the core elements of self-management behavior development in current clinical practice.

Step 2. Determining the purpose of the analysis

This analysis aimed to define the self-management concept more specifically and in-depth because it has not been defined clearly in the context of colorectal cancer patients with stomas. It will help nurses

determine the interventions needed to support patients. Self-management is one of the most popular topics nowadays, especially in the health field, because it is one of the key components of the chronic care model, which is internationally used as a clinical guide to improving the quality of life of patients with chronic diseases [22, 23].

Step 3. Identifying all uses of the concept

There is no gold standard to define self-management [11]. However, some literature provides definitions, as summarized in Table 1 [11, 13, 24–30]. The authors conducted literature searches in the Scopus, ProQuest, and ScienceDirect databases.

Step 4. Identifying attributes

Walker and Avant [20] define self-management by identifying the word that appears repeatedly in all definitions in the previous stage (Table 1). This method will help researchers distinguish the occurrence of a particular phenomenon from other similar phenomena. Some of the attributes obtained are summarized in Table 2.

Step 5. Building a model case

A model case illustrated effective self-management in stoma patients with colorectal cancer. The model includes specific examples of self-management skills shown below:

Mrs. A, 45 years old, was diagnosed with colorectal cancer three years ago. She performed stoma surgery due to the disease three months ago. The nurse's assessment indicates that the patient can adapt to her condition. Moreover, she dared to see or hold his stoma, could clean herself without excessive worry or fear, and could perform better daily life than she had before.

Mrs. A said she was much more prepared to meet other people or travel far. She can prepare before meeting people, such as choosing types of food to eat or avoid or preparing tools and materials brought in the bag before traveling. Moreover, she knows what to do when feces suddenly come out or when the stoma and pouch are full. As a result, she can prevent unpleasant smells from the stoma or minimize the possibility of the pouch breaking. She also stated that she felt confident in performing her role as a wife who must fulfill her husband's sexual needs. Mrs. A's husband willingly helps her change the stoma bag anytime she needs help. The nurse assessed that Mrs. A and her partner had good self-management to face a new life with her stoma.

Table 1. Definitions of self-management from different disciplines

Sources	Fields	Institutions	Definitions
California Office to Reform Education [24]	Education	CORE (The United States)	Self-management is a person's ability to manage emotions, thoughts, and behaviors effectively in different situations, and a person's ability to manage stress, delay gratification, motivate himself, and work towards goals (personal and academic)
Barlow et al. [11]	Health and social sciences	Coventry University (England)	Self-management is the ability of a person with a chronic or lifelong illness to manage symptoms, therapies, physical changes, psychosocial changes, and lifestyle changes that affect his or her life. Effective self-management includes a person's ability to monitor their condition and influence the cognitive, behavioral, and emotional responses necessary to maintain a satisfactory quality of life
Clark, Becker, and Janz [12]	Public health and medicine	University of Michigan, Stanford University, Brown University (The United States)	Self-management is a person's concern for their health and well-being, including actions that lead to a healthy lifestyle so that they can meet their social, emotional, and psychological needs, long-term maintenance, preventing more serious illnesses or accidents, responding to signs and symptoms, managing acute conditions, relaxation, exercise, and smoking cessation, managing the effects of emotional disorders and work effectively with medical professionals and other community resources
Nakagawa-Kogan et al. [26]	Nursing and medical rehabilitation	University of Washington (USA)	Self-management is a treatment approach that combines biological, psychological, and social interventions to maximize the function of regulatory processes
Alderson et al. [27]	Rehabilitations	St Joseph's Hospital and McMaster University (Canada)	Self-management is an interdisciplinary educational group based on adult learning principles, individualized treatment, and case management theory
Wanless [28]	Public health	HM Treasury (England)	Self-management is a form of contribution that contributes to effective healthcare delivery by increasing client engagement in care, enhancing preventive activities, and reducing dependence on services. Formal medical care by significantly managing existing conditions
Ryan and Sawin [29]	Nursing	University of Wisconsin Milwaukee (USA)	Self-management is a process of involving a person in managing health and well-being
Richard and Shea [13]	Nursing	University of Colorado Denver College of Nursing (USA) and Arizona State University (USA)	Self-management is the ability of an individual to involve their community, family, and health professionals so that they can manage their lifestyle, medications, symptoms, and psychological, cultural, and spiritual consequences of a health problem
Thorne, Paterson and Russell [30]	Nursing	University of British Columbia (Canada) and University of Tennessee Health Science Center (USA)	Self-management is an individual's ability and process to control his disease. Thus, it is not the disease that controls him
Wilkinson and Whitehead, [31]	Nursing	University of Otago (New Zealand)	Self-management is an individual's ability to build relationships with family, community, and health professionals so that they can manage symptoms, therapies, lifestyle changes, and consequences. About the psychology, culture, and spirituality of a chronic illness

Borderline case

Mrs. A, 45 years old, was diagnosed with colorectal cancer three years ago. She performed stoma surgery due to the disease three years ago. The findings reveal

that Mrs. A has begun to embrace her situation as she confidently examines and handles her stoma, taking care of her hygiene without overwhelming fear or anxiety.

Table 2. Self-management attributes

Concept	Attributes and their synonyms
Self-management	• Managing skills (monitoring, organizing, controlling, managing, and prioritizing) • Achieving goals (effective behavior, treatment, action, preventive activity, effective working, and meeting needs) • Caring (maintaining, nursing, and preventing illness) • Satisfying quality of life (health and well-being, long-term living, and healthy lifestyle)

Table 3. Factors influencing self-management

Factors influencing self-management	Description
Personal/lifestyle characteristics	• Knowledge • Beliefs • Psychological stress • Motivation • Self-management • Life/transition experiences
Health status	• Comorbidities • Severity of a disease • Symptomatic signs/side effects • Cognitive functions
Resources	• Financial • Equipment • Psychosocial support
Environmental characteristics	• Home environment • Work environment • Community
Healthcare systems	• Access to healthcare facilities • Continuity of care • Relationships with providers

Contrary case

Mrs. A, 45 years old, was diagnosed with colorectal cancer three years ago. She had surgery to make a stoma because of the disease one month ago. The assessment also shows that Mrs. A struggles with the reality of living with a stoma; she experiences confusion, fear, and anxiety about her daily life. She asked the nurse numerous questions about whether she could still enjoy a good quality of life like she did before. She also asked if she could still work as a career woman who should meet many customers. She was concerned about what would happen if the feces suddenly came out, the bag was full, an unpleasant smell occurred, the bag broke, and the bag could not accommodate the feces coming out. She also felt

embarrassed and confused about her role as a wife who should fulfill her sexual partner's needs. When learning how to change the stoma, Mrs. A expressed a lack of confidence and was afraid of touching the stoma. The husband also refused to watch this process when replacing the stoma bag.

Step 6. Identifying antecedents

This identification helps in understanding the factors that support self-management. Walker and Avant define antecedents as events or occurrences that must occur before the concept emerges [20]. Five factors that influence self-management in patients with chronic pain. These factors can interact and have positive or negative effects that can become barriers to self-management [31] (Table 3).

Step 7. Identifying consequences

A consequence is an event or occurrence that will happen because of a concept [20]. This paper reviewed the impact of self-management interventions on stoma patients with colorectal cancer. First, an equivalent control group pretest post-test design study by Seo found that self-management can improve self-care knowledge, self-efficacy, and the ability to change stomas. This study recommends developing and implementing guidelines for educational programs, conducting long-term and follow-up investigations to confirm the effect of the intervention after hospital discharge, and adding additional content to the instructional program used in this study [32].

The second study, conducted by Wen et al. [33], employed a randomized controlled trial. The study concluded that the transtheoretical model of self-management intervention positively affects the self-management behavior of patients with stomas and can provide a reference for healthcare providers to develop behavior promotion programs and improve the self-management of these patients. The study recommends measuring various domains, such as caregiver's self-esteem, anxiety, and depression, and developing multiple versions of educational manuals specifically for patients with stomas, healthcare providers, and researchers to guide overall behavior change.

The third study by Goodman et al. [34] conducted a systematic review and meta-analysis. The study concluded that four out of six studies reported a better quality of life in the intervention group than in the control group. Two studies found that the intervention group had improved self-care attitudes and behaviors, with increases noted from baseline to follow-up assessments. Additionally, one study revealed that stoma proficiency criteria required a shorter time to achieve.

Table 4. Antecedence and consequences

Concept	Antecedence	Consequences/outcome
Self-management	• Personal/lifestyle characteristics • Health status • Resources • Environmental characteristics • Health care system	• Self-care ↑ • Self-efficacy ↑ • Ability to replace stoma bags ↑ • Self-management behavior ↑ • Quality of life ↑ • Attitude of self-care and behavior of self-care ↑ • Stoma proficiency ↑

The literature review of this research has obtained antecedence and consequences, as summarized in Table 4.

Step 8. Identifying empirical references

Empirical references refer to actual phenomenal categories whose existence or presence indicates the emergence of the concept [20]. The defining attributes of the patient outcome concept remain abstract. Therefore, empirical referents are needed to make the concept measurable. Knowledge in performing self-care is measured using self-care knowledge level, self-efficacy using self-efficacy scale score, and ability to change stoma using self-management/nurse observation scores [32]. The ability of self-management behavior is measured using the self-efficacy instrument [33]. According to Goodman et al. [34], several instruments to assess the quality-of-life instrument: the COH-QOL-O (the City of Hope Quality of Life Ostomy Questionnaire), QOL-Colostomy and WHOQOL-HK (Hong Kong Chinese version of the World Health Organization Quality of Life Measure), Stoma-QoL, and EORTC QLQ (the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire).

Discussion

This paper attempts to explain the concept of self-management by examining its meaning, antecedents, effects, uses, and empirical references, along with examples of sample cases and fields. Based on the results of the concept analysis, self-management is an ability that must be optimized by patients, including stoma patients with colorectal cancer, to manage their health. Patient's knowledge and skills need to be improved to care for themselves confidently, determine goals, and make the right decisions. Good self-management can reduce health costs, especially since colorectal cancer is a chronic disease that requires sustained care [35]. The highest cost incurred is the cost of care during hospitalization [36].

Most health professionals in clinics or hospitals have limited time for direct contact with patients, both in frequency and duration [17]. These time constraints mean that professional services from healthcare professionals only focus on how to address symptoms and how to manage them based on best practices. Therefore, a person with chronic illness must be able to manage their symptoms, so it is crucial to give them the skills to manage their chronic illness condition. They also need to know when to seek healthcare professionals. Self-management in patients with chronic diseases is not an option, but it is inevitable.

Three aspects of successful self-management include having sufficient knowledge about the condition and undertaking treatment to make decisions about the treatment; doing the recommended activities, for example, an exercise program to ensure adequate physical activity; and applying the skills to maintain adequate psychosocial function. All these behaviors aim to reduce the impact of the disease on daily life [12].

Analyzing the concept of self-management in colorectal cancer patients has several important implications for nursing practice. It will help nurses gain a comprehensive understanding and approach to help patients manage the changes in their lives after stoma surgery. The authors identified four attributes based on the evaluation results: managing skills, achieving goals, providing care, and maintaining a satisfactory quality of life.

These attributes have implications for nursing knowledge in developing appropriate intervention models in patients with colorectal cancer. Analyzing the concept of self-management will also help nurses understand patient's needs and plan appropriate interventions. It will help patients improve their quality of life and minimize possible complications. Another implication is to help nurses empower patients to take an active role in their ostomy management. Patients should feel confident in their stoma care and make informed decisions about their health.

