

Original Article

Effectiveness of Video-Discharge Instructions and Multi-media on Patients with Colostomy

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Abstract

Background: In the world, colorectal cancer is the second most common cancer diagnosed in women and ranks third in men. A thorough and methodical discharge instruction or self-care education is highly important in the treatment of patients who have had colostomies, and nurses play a significant role in helping them overcome educational, physical, and psychological challenges and to boost their self-efficacy.

Aim: To examine the literature concerning the experience of colostomy patients with video discharge instructions for bridging the gap in improving the self-care outcome and the competence and abilities of colostomy patients.

Design: This integrative review employed a framework developed by Whittemore and Knafl (2005) to explore primary research studies that included quantitative and qualitative work and utilized a range of methodologies. The identification of the problem, review of the literature, assessment of the data, analysis, and presentation of the findings comprised the five stages that made up the appraisal framework. **Results:** Seven English-language publications with various methodological designs that were published in international journals were chosen. Three predominant themes emerged based on literature as to the use of video-discharge instruction and other multimedia sources for patients with colostomy. These are identified as 1) overcoming the physical, psychological, and social difficulties that come with having a colostomy; 2) the benefits of video-based discharge education over conventional patient education; and 3) the validity and legitimacy of multimedia and video discharge teaching tools for patient education.

Conclusion: The use of video-discharge instructions (VDI) was found to be an appropriate and effective teaching tool for patients with colon cancer who now have colostomies. And that VDI can be used to supplement educational recommendations and to improve and reevaluate pedagogical nursing methods.

The Implications for Practice: A video recording incorporated with conventional nursing enables for educational self-pacing as well as repetitive viewings. This is particularly advantageous given that two- and three-day hospital stay postoperatively are becoming more typical in the context of a “fast-track” approach as well as laparoscopic surgical technique. The use of video-discharge instructions helps achieve patient education objectives during brief stays.

Key Words: video-discharge instructions, multimedia, nursing, nursing care, colostomy, ostomy care

Background

Colon cancer is currently viewed as a serious health concern because of its increasing global impact and an increasing level of public concern (Vabi et al., 2021). As reported by the American Institute for Cancer Research, colorectal

carcinoma is the second highest prevalent cancer identified worldwide in women as well as considered the third most commonly diagnosed cancer in men. In 2018, there were an estimated 1.8 million new incidences of colorectal cancer (Vabi et al., 2021; Siegel et al., 2020). The prevalence of colorectal cancer

and the increase in ostomy surgery have been proven to be strongly correlated in numerous research, which in turn has a variety of negative effects on patients' health and quality of life. (Barreto and Valencia, 2013). It has been claimed that the patient's anxiety significantly increases the instant a surgical procedure results in an ostomy. Additionally, people who have an ostomy may experience long-term psychological and social effects (White et al., 2019).

Nurses are essential to the care of patients who have undergone colostomy surgery, particularly in assessing their needs, minimizing complications, and enhancing the standard of their living (Sujianto et al., 2020). Comprehensive and organized self-care education is necessary and essential to patients dealing with new ostomies to assist them in overcoming educational, physical, psychological, and social challenges and to enhance self-efficacy (Nam et al., 2019). Improved skills should consider using special suitable methods such as videos, colored pictures, and use of telehealth which are predicted to result in improved disease control, which furthermore result to improved outcomes and lower healthcare costs, including ER visits and hospitalizations, and eventually lower healthcare costs (Wonggom et al., 2019). Health education practices should pursue the patient's autonomy so that they will be the authors of their health and disease trajectory. Currently, there is a vast field of technological resources available for nurses to assist in patients' self-care actions, particularly to prepare the patient once discharged and to help establish routines (Pozebom & Viégas, 2021). The use of video discharge instructions (VDI) has been suggested to increase patient comprehension after discharge, among other suggestions. With this strategy, patients can obtain their diagnosis, management, and treatment plan via a variety of media. Moreover, regardless of patient literacy, the availability of providers to respond to inquiries, and the time restraints nurses face, this method provides standardization of information (Wray et al., 2021).

Premature discharge and ineffective care coordination have been recognized as key

contributors to ostomy problems and readmissions. Unfortunately, the trend toward a shorter hospital stays following surgery and the difficulty finding ostomy specialists has led to insufficient opportunities for the inpatient teaching required to lower complications and readmissions (Millard et al., 2020). Moreover, significant obstacles have been posed in many facets of the healthcare industry by the emergence of the coronavirus (COVID-19).

The strain on the restricted number of in-clinic appointments is decreased by continuing to use technology-supported consultations during the recovery period, when there is less capacity to meet patients in-person and when it is more important to see individuals who are actively receiving treatment. Beyond the current coronavirus pandemic, virtual consultations present opportunities for us to expand the use of this innovative remote working method in our ongoing clinical work. Some people could consider this to be one good thing that has come out of the current circumstances (Byrne & Watkinson, 2020).

Technology advancements have created a number of opportunities to enhance the methods we use to teach our patients about their health. Because of this, the author thought it was essential to investigate the efficiency of video-discharge training as a teaching strategy. And although much research on the use of multimedia and video for discharge instruction has been published such as the randomized controlled trial by Hoek et al. (2021) on the effect of VDI for patients with mild traumatic brain injury, the randomized pilot trial of Chakravarthy et al. (2017) on measuring knowledge acquisition of opioid education in patients using a novel media platform, and the randomized controlled trial by Belisle et al. (2018) on the effectiveness of video discharge instruction for acute otitis media in children. This author still found that the body of literature that focuses primarily on the use of VDI for colostomy patients remains relatively limited, though appears promising for colostomy care teaching. In order to close the gap in improving the outcome of self-care, this integrative review was carried out to examine the literature pertaining to the experience of colostomy

patients with video discharge instructions, as well as the skills and competencies of patients who underwent colostomy.

Aim and Objectives: Numerous possibilities to enhance the techniques we employ to educate our patients about their health have arisen as a result of technological advancements. Because of this, the author considered it imperative to research how effective video-discharge training is as a teaching method. This integrative review was conducted to examine the literature on patients with colostomies and their experiences with video discharge instructions in enhancing their knowledge, skills and self-efficiency with colostomy care.

Research Questions

1. How effective is the use of video-discharge instruction in patient education for enhancing the understanding and competencies of colostomy patients in terms of self-care?
2. What are the advantages/ disadvantages of Video-Discharge Instructions in terms of improving patient education and self-efficacy on stoma care.
3. What is the implication for practice?
4. What are the recommendations?

Method

Design: An integrative review (IR), utilizing the process outlined by Whitemore and Knafl(2005), was carried out for this study. Integrative reviews are the most extensive types of research reviews and offer a framework for thoroughly examining intricate ideas or theories (Whitemore & Knafl, 2015; Broome, 1993). By utilizing various data sources, Whitmore & Knafl (2005) present an integrated review process that is most effective for assessing the intricacies of nursing practice. This method is also appropriate for a variety of research projects, including those that define concepts, examine methodological problems, or evaluate theories. The effectiveness of video-discharge teaching and multimedia for colostomy care were the main focus of this study's integrative review. Integrative reviews are conducted to identify, summarize, and evaluate findings from independent studies on related subjects,

potentially having a positive impact on the standard of patient treatment (Souza et al., 2010).

Search Strategy: A scoping search was conducted before a formal search strategy was developed to ensure that all pertinent terms were used. Using the boolean operators AND, OR, and NOT, the following keywords were added: "effectiveness," "video-discharge instruction," "multimedia," "colostomy," and "ostomy care". Articles on video discharge instruction and other uses of multimedia methods for colostomy care teaching were chosen after browsing and scanning article titles and abstracts. Because of the nature of the review, *Google Search*, *PubMed*, *SAGE*, and *ScienceDirect* were the major databases used for this study. A direct manual search was also conducted.

Inclusion and Exclusion Criteria: The author used existing published scholarly and peer-reviewed articles and journals covering the years between 2012 and 2022, from which pertinent studies were examined on the effectiveness of video-discharge instruction and multimedia use for colostomy patients. The Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) flow diagram was used to transparently summarize the screening procedure and to direct reviewers in reporting why the study was conducted and outlining the search and selection process (Page et al., 2021). Furthermore, the search was restricted to publications that described empirical research using peer-reviewed quantitative, qualitative, and mixed-method techniques and that had a primary focus on the efficiency of video-discharge instructions for colostomy patients. Only research and publications that have been published in English or that can be translated into English were used in this review. Table 1 displays the inclusion and exclusion criteria. The method for selecting articles was illustrated by the PRISMA Flow diagram, which is depicted in Figure 1. A total of 10,912 articles were elicited in the search query. After the elimination of duplicates, initial screening and specification of publication date from 2012-2022, there were 1,380 articles further screened. A total of 250 abstracts were reviewed, wherein non-

empirical and abstract-only research were further excluded. There were 32 full research articles that were further evaluated and 25 more studies were excluded since they are non-English or cannot be translated into English or the study was not intended specifically for patients with colostomy. This integrative review included a **total of seven studies** that examined the effectiveness of video-discharge instructions or multimedia instructions for colostomy patients.

Data Evaluation / Quality Appraisal: Two reviewers diligently look over the matrix table to enable them to evaluate the data and reach a consensus on the final studies. Critical appraisal tools facilitate the process of evaluating evidence and directing a researcher through an analytical, unbiased review process (Buccheri & Sharifi, 2017). Both the World Health Organization and Cochrane encourage using the CASP tool for synthesizing qualitative evidence, and it is viewed as an appropriate substitute for a novice qualitative researcher (Long et al., 2020). Due to the author's lack of considerable formal experience in assessing the level of qualitative research, this element played a part in the decision to employ this method. Using the Critical Appraisal Skills Programmes instrument (2014), the research's quality was evaluated; the results are included in Tables 2 and Table 3, along with an analysis and evaluation for each criterion. Each CASP tool's classification fell into one of three categories: met, unmet, or unclear. Moreover, the hierarchical evidence scale is the foundation for evaluating study designs, which then ensures that the best findings are used for patient treatment (Burns et al., 2011). The hierarchy of evidence for intervention studies proposed by Melnyk and Fineout-Overholt (2010) was used in the study based on its methodological merit, relevance, and validity for patient care outcomes. The tool provided a methodical technique to classify the quality of selected articles in accordance with the type of evidence employed (Fineout-Overholt et al., 2010).

Data Analysis: The material acquired from primary sources regarding the characteristics and research methodology of studies relevant to the effectiveness of video discharge instruction and multimedia on colostomy patients is

presented in summary form. The following data extraction categories for each study were listed on the summary forms that each reviewer completed: citation, design, setting, sample size/participants, methods/instruments, aim, level of evidence and findings (Table 3 and Table 4). Seven (7) studies were conducted, with two coming from the United States of America and one each from Brazil, Egypt, Taiwan, China and India. The subjects who were involved in the research varied in terms of sociodemographic status such as age, education, profession, and gender, except two studies: Basim and Argun's study (2021) focused on YouTube videos about colostomy rather than the actual patients, while the study of Abouelela et al., (2022) targeted patients with low literacy among its sample participants. The study sample for this review included 288 ostomy surgery patients, 38 ostomy patient carers, and 84 YouTube videos on colostomy care instruction. Three of the articles in this study can be categorized as Level of Evidence IV because they used case-control studies as their source of evidence, while the other three were categorized as Level of Evidence VI because they used descriptive or qualitative research and lastly, one study falls under Level of Evidence II because it is based on randomized control trials.

Results

There are three predominant themes that were identified based on literature as to the use of video-discharge instruction and other multimedia sources for patients with colostomy. These are identified as 1) overcoming the physical, psychological, and social difficulties that come with having a colostomy; 2) the benefits of video-based discharge education over conventional patient education; and 3) the validity and legitimacy of multimedia and video discharge teaching tools for patient education. These key ideas interact with one another to form a conceptual framework that clarifies the efficacy of video-discharge instruction and multimedia use for colostomy patients.

Overcoming the physical, psychological, and social difficulties that come with having a colostomy: In the first few days following

surgery, ostomy patients frequently complain of discomfort, nausea, and mental distress associated with having an ostomy. Such problems may prevent or interfere with postoperative ostomy instruction (Crawford et al., 2012). The situation that surrounds an ostomy alters more than just the physiological aspects; it frequently causes mental distress and has emotional impacts that severely affect the quality of life of the patient. Due to socioeconomic and cultural variables where the ostomy patient is placed, these unpleasant emotions may be exacerbated, leading to social isolation and a sense of mutilation (Dalmolin et al., 2016). To enable ostomates to overcome physical, psychological, and social barriers to stoma teaching, and to increase self-efficacy, there is a need for thorough and structured self-care education, especially for patients with low literacy (Abouelela et al., 2022). Self-care is a process of making decisions on a personal level to adopt healthy habits and to seek out healthy living environments. A patient must be completely aware of their health state, comprehend the needs of these practices, engage in activities that will improve their capacity for self-care, take the effort to identify issues, demonstrate that you can solve problems, and prevent accruing extra medical expenses (Wang et al., 2021).

In this integrative review, five of seven studies included, the authors emphasized that to ensure effectiveness, discharge instruction for ostomy patients should be a comprehensive and thorough discharge education that looks at the patient's whole-being, including readiness for teaching. This instruction should go beyond simply teaching patients how to empty or change their colostomy bags.

The benefits of video-based discharge education over conventional patient education: The usefulness of multimedia patient education materials for enhancing the self-care performance of patients with colostomies was investigated in the study by Wang et al. (2021). When compared to patients who received conventional patient education, individuals who had colorectal cancer colostomies demonstrated significantly greater gains in postoperative self-care knowledge and

skills after receiving video-based (multimedia) teaching. The control group's knowledge and skills about stoma self-care considerably improved following the implementation of the intervention before they were released from the hospital (Wang et al., 2021).

Huang et al. (2021) conducted a study that was comparable to this one, comparing a control group that received standard nursing care to an observation group that received continuous nursing care based on online training. Their research revealed that the observation group's psychological conditions dramatically improved more than those in the control group after receiving constant, effective online nursing care. The ability and self-efficacy of patients to take care of themselves may have improved as a result. Patients who cultivated excellent self-care had a greater sense of control over their illness, which helped their psychological health (Huang et al., 2021).

Due to their lack of experience, patients who are caring for their own postoperative stomas frequently feel anxious and insecure. The approach that medical professionals take when educating patients is therefore very important. Additionally, multimedia and video resources can enhance patient involvement and productive behaviors in their colostomy treatment. Patients have a lower chance of being exposed to unfamiliar stoma care techniques when given the frequent opportunity for practice (Long et al., 2020). Lack of instructions slows independence and interferes with autonomy with self-care. The audio-visual technology is an addition to instructional suggestions and presents an opportunity to enhance and reevaluate pedagogical nursing approaches (Dalmolin et al., 2016).

Following a hospital discharge, patients may benefit from life coaching and health education that can help them develop more useful knowledge and skills, adopt healthy habits, and enhance the quality of their lives. From preoperative training through hospital discharge and home care, caregivers must receive continual education and support (Dabas et al., 2016). Colostomy patients and their families can use the educational movie as a resource for

healthcare education. It can be used to support pedagogical nursing interventions and the development of care and self-care. Photos and testimonies, it can also be used to approach the topic, spark conversation, and provide colostomy bag users and their families peace of mind by providing comfort and confidence in the future (Dalmolin et al., 2016).

Six of the seven publications included in this integrative review evaluated patient and patient relative experiences following colostomy surgery between traditional nursing instruction and a combination of conventional instruction plus video or multimedia. Of these six studies, five asserted that the use of video-based instruction in conjunction with video self-care training can significantly increase patients' ability to care for themselves and their psychological well-being while also lowering the rate of complications following discharge.

Validity and legitimacy of multimedia and video discharge teaching tools for patient education: Due to brief hospital stays and oftentimes scarce medical resources and available professional health staff, proper patient education seems to be insufficient in clinical settings. Additionally, the physical, emotional, and financial demands of patients may not be satisfied by traditional patient education approaches alone (Wang et al., 2021). Unfortunately, insufficient instruction may leave patients ill-equipped to handle postoperative stoma care once they are discharged from the hospital (Stelton et al., 2015). According to Rojanasart (2018), most people with ostomies around the world (particularly in areas with subpar healthcare services) frequently try to expand their inadequate understanding of ostomy care using easily accessible audiovisual information on user-generated websites. Online medical research has grown in popularity and is a convenient approach to learn the self-care techniques required for some chronic health issues, like ostomies.

These educational films, while often well-intentioned, are mostly unmanaged and may contain contradictory or misleading facts. The popularity of ostomy care videos shared on

YouTube does not depend on their accuracy, thoroughness, or quality, according to Basim and Argun's qualitative study from 2021. The platform's open-access design could result in a drop in the general accuracy and quality of the videos. To get the best results for patients with new ostomies, clinicians must be knowledgeable of trustworthy resources. Healthcare systems should be aware of this transformation in the accessibility of medical information via web-based search engines and point their patients toward sources that are more accurate and reputable for colostomy care knowledge and skill acquisition (Basim & Argun, 2021). For the management of patient education, medical institutions may create online platforms. Researchers could contrast video-discharge training techniques with internet-based approaches, and the findings might be used as a guide for successful nurse instruction regarding stoma care postoperatively (Wang et al., 2021). The current study's primary finding is that, despite the fact that video-discharge instructions have been shown to improve patient discharge experience in many studies, medical professionals and institutions still play a significant role in ensuring that the patient is receiving information from reputable and trustworthy sources.

Discussion

This integrative review was carried out to examine the literature pertaining to the experience of colostomy patients with video discharge instructions, as well as the skills and competencies of patients who underwent colostomy. This integrative review employed a framework developed by Whittemore and Knafl (2005) to explore primary research studies that included quantitative and qualitative work and utilized a range of methodologies. The identification of the problem, review of the literature, assessment of the data, analysis, and presentation of the findings comprised the five stages that made up the appraisal framework. For this review, seven English-language works with varied methodological designs that appeared in international journals were examined.

Figure 1. Article Search and Selection Process

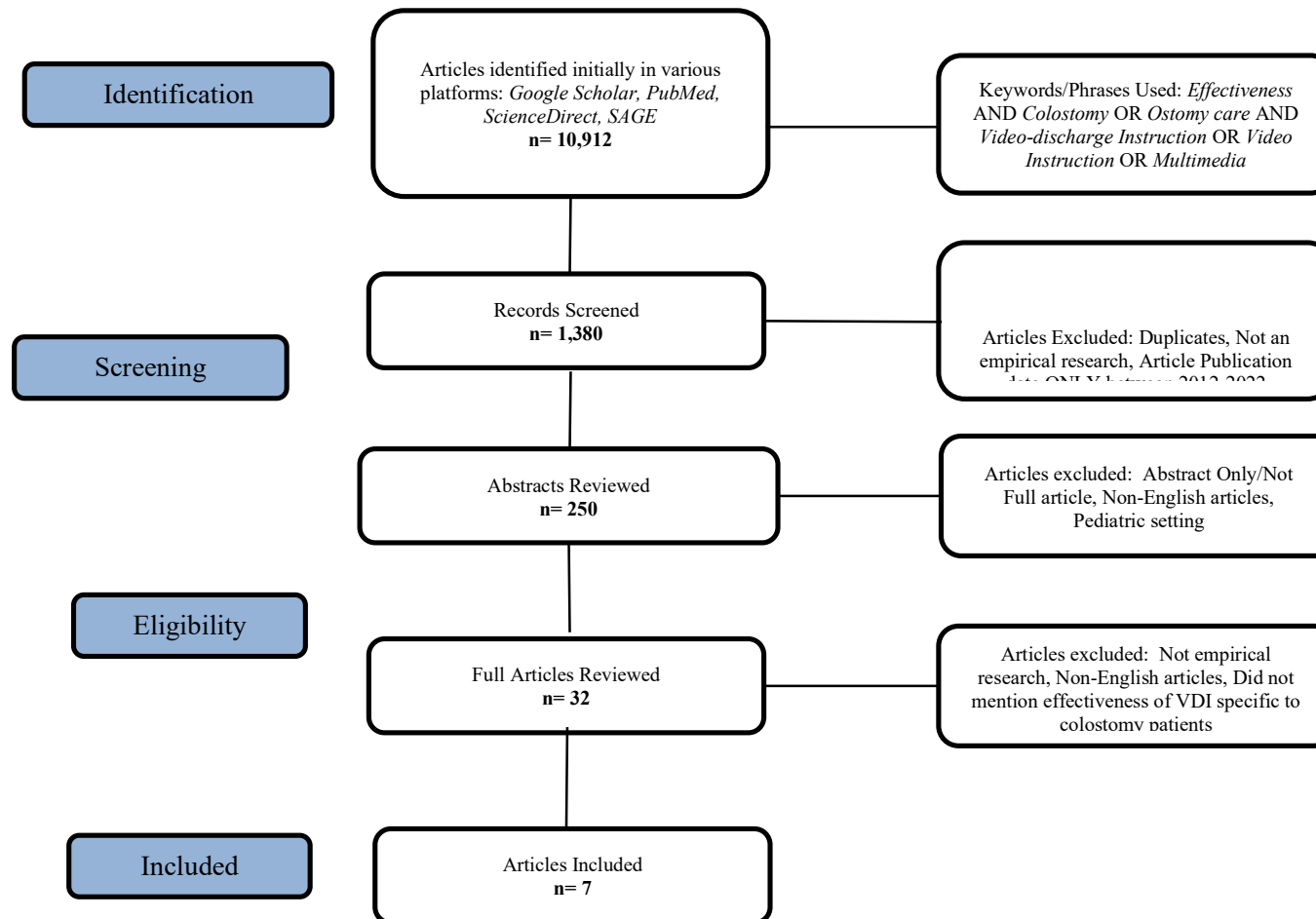


Table 1. Inclusion and Exclusion Criteria

Inclusion	Exclusion
<ol style="list-style-type: none"> 1. Published articles on the effectiveness of video-discharge instruction and multimedia use for colostomy patients. 2. Peer reviewed journals with full article access 3. Articles that reported empirical research 4. Articles published between 2012 and 2022 5. Articles in English or translated in English 	<ol style="list-style-type: none"> 1. Video-discharge instructions and multimedia use not specifically intended for colostomy patient 2. Non-empirical research studies 3. Abstract, case reports and commentaries 4. Non English articles 5. Articles before 2012

Table 2: Appraisal of Qualitative Study

Author	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10
Basim and Argun (2021)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Clear
Damolin et al. (2016)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Clear
Dabas et al. (2016)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Clear

CASP Key:

- Q1. Was there a statement of the aims of the research?
- Q2. Is a qualitative methodology appropriate?
- Q3. Was the research design appropriate to address the aims of the research?
- Q4. Was the recruitment strategy appropriate to the aims of the research?

- Q5. Was the data collected in a way that addressed the research issue?
- Q6. Has the relationship between the researcher and participants been adequately considered?
- Q7. Have ethical issues been taken into consideration?
- Q8. Was the data analysis sufficiently rigorous?
- Q9. Is there a clear statement of the findings?
- Q10. How valuable is the research?

Table 3: Appraisal of Quantitative Study

Author	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9
Abouelela et al. (2022)	Yes	Yes	Yes	Clear	Yes	Yes	Yes	Yes	Clear
Wang et al. (2021)	Yes	Yes	Yes	Clear	Yes	Yes	Yes	Yes	Clear
Huang et al. (2021)	Yes	Yes	Yes	Clear	Yes	Yes	Yes	Yes	Clear
Crawford et al. (2012)	Yes	Yes	Yes	Clear	Yes	Yes	Yes	Yes	Clear

CASP Key:

- Q1. Did the study address a clearly focused issue?
- Q2. Was the cohort recruited in an acceptable way?
- Q3. Was the outcome accurately measured to minimize bias?
- Q4. What are the results of the study?
- Q5. How precise are the results?
- Q6. Do you believe the results?
- Q7. Can the results be applied to the local population?
- Q8. Do the results of the study fit with other available evidence?
- Q9. What are the implications of this study for practice?

Table 4. Specification of Included Articles

Author (Year) Country	Design	Settings	Sample Size and Participants	Methods/ Instruments	Aim	Level of Evidence
Abouelela et al. (2022) Egypt	Quasi-experimental study design (pre–post test)	The Outpatient Clinic and the General Surgical Department at Assiut University Hospital	Thirty individuals with colostomies and low literacy	Assessment Phase: Individual patient interviews Evaluation using Tool (I): Patient awareness Questionnaire and Tool (II): Stoma self-Efficacy Scale (pre/post) assessment)	This study sought to assess the impact of video discharge instructions on patients with poor literacy levels' understanding and sense of self-efficacy about colostomy self-care.	Level of Evidence IV
Wang et al. (2021) Taiwan	Quasi-Experimental Study Design	The general surgery department of a regional teaching hospital in northern Taiwan	63 colorectal cancer patients who underwent colostomy surgery	Structured questionnaire Multimedia patient education was provided to the experimental group, while generic nursing recommendations were solely given to the control group.	To investigate the impact of a multimedia patient education strategy on the knowledge and self-efficiency of colorectal cancer patients who have undergone colostomy procedure.	Level of Evidence IV
Basim and Argun (2021) USA	Qualitative Analysis	Online Content	84 YouTube videos	Two medical professionals with experience in ostomy management separately examined a total of 84 videos.	The study's objective is to assess the content, dependability, and the quality of the most popular YouTube videos for ostomy patients who are interested in learning more about ostomy care (OC).	Level of Evidence VI
Huang et al. (2021) China	Experimental Study	Hainan Medical University's Second Affiliated Hospital	Study participants: 119 rectal cancer patients hospitalized for permanent colostomies	The observation group received ongoing nursing care based on online training, whereas the control group	The study examined and assessed the effects of ongoing nursing care through online education on patients'	Level of Evidence IV

			between January 2018 and December 2019 were selected.	only received standard nursing care.	quality of life after permanent colostomies for rectal cancer.	
Damolin et al. (2016) Brazil	Descriptive, Qualitative Research	The Support group of colostomy patients in the municipality of Santa Maria, Rio Grande do Sul, Brazil	Sixteen patients participated in this research. Eight were colostomy patients and the other eight participants were family members who participated in patient care.	The researcher interacts with the focus group (FG) participants through dialogue and discussions	To understand what participants in a support group for colostomy patients thought about utilizing video as a tool for health education.	Level of Evidence VI
Dabas et al. (2016) India	Qualitative Research	An outpatient pediatric surgery unit in a tertiary care facility	30 caregivers attending the pediatric surgery outpatient department of a tertiary level care facility.	Utilizing pre-tested and validated knowledge questionnaires, observational checklists, and the stoma evaluation scale, researchers evaluated the knowledge and skills of caregivers (SAS).	The goal of this study was to create video-based learning materials and evaluate how successfully they assisted parents of colostomy-dependent children acquire knowledge and skills.	Level of Evidence VI
Crawford et al. (2012) Michigan, USA	Multisite Randomised Controlled Trial	Two acute care hospitals in a tertiary healthcare system in the Midwest of the United States.	There were 68 participants in total, comprising 45 patients with ileostomies and 23 individuals with colostomies.	The teaching methods of Nurse Instruction and Nurse Instruction Plus DVD video for patients with new ostomies were compared using a posttest-only experimental design.	This randomized controlled experiment examined two ostomy care education programmes in order to ascertain their effects on patients' ostomy care knowledge, skills, and confidence.	Level of Evidence II

Table 4. Included Study Findings on the Effectiveness of Video-Discharge Instruction and Multimedia on Patients with Colostomy

<i>Study</i>	<i>Findings</i>
Abouelela et al. (2022) Egypt	Patients with low literacy levels experienced a positive impact and an increase in knowledge and self-efficacy thanks to the use of video-discharge instructions for colostomy self-care.
Wang et al. (2021) Taiwan	Compared to traditional instruction, a multimedia patient education intervention led to a larger improvement in self-care knowledge and abilities. Multimedia patient education is a useful instructional tool for colorectal cancer patients who had colostomy surgery.
Basim and Argun (2021) USA	The open-access feature of the YouTube platform could jeopardize the accuracy and dependability of patient education materials. YouTube might be another educational resource for OC, but practitioners must be aware of specific, credible and reputable websites in order to best assist and educate new patients with ostomies and get the best results.
Huang et al. (2021) China	The quality of life and psychological well-being of rectal cancer patients who undergo permanent colostomies can be considerably improved, and the complication rate after discharge can be decreased, with continuous nursing care based on online training.
Damolin et al. (2016) Brazil	A lack of guidelines impedes autonomy in care and self-care and delays independence. The audio-visual technology used in this study is a supplement to the educational recommendations and offers the chance to improve and reconsider pedagogical nursing methods.
Dabas et al. (2016) India	The Video Teaching Program (VTP) proved successful in improving the knowledge and abilities of those who care for children who have colostomies. As a result, video can be used to provide caretakers of children with colostomies with counseling.
Crawford et al. (2012) Michigan, USA	A nurse education plus DVD strategy is equally successful as nurse training alone for teaching first-time ostomy patients postoperative self-care.

Discussion Contin.

The use of video discharge instructions (VDI) has been reported to improve post-discharge patient comprehension. Through the use of a variety of media, patients can receive their diagnosis, management, and treatment plan using a variety of techniques. Additionally, regardless of patient literacy, the providers' accessibility to answer questions, and the time constraints nurses encounter, this approach offers standardization of information. One of the most crucial tasks of healthcare professionals that is occasionally disregarded over the course of treatment is educating patients on their treatment strategy, and management. Patients may experience lower outcomes and higher risk of avoidable complications if this step is neglected. Video discharge instructions could enhance hospital outcomes by helping patients grasp aftercare instructions. The deployment of VDIs may be simple given the ubiquitous use of smartphones and Internet access (Wray et al., 2021).

Video-Discharge Instructions In Asia and Philippines

The implementation of video-based instructional materials in Asia and the Philippines shows potential, however there is a noticeable gap and a limited number of studies undertaken in this field. These multimedia solutions have the capacity to completely transform patient education and discharge procedures, particularly for intricate postoperative care such as colostomy maintenance. The research gap is substantial due to the potential for these tools to greatly assist in meeting the unique requirements of Asian and Filipino communities, while considering the varied cultural, linguistic, and socioeconomic backgrounds found in the region. Thorough investigations conducted in this particular situation could assist in determining the most efficient tactics for applying video-based discharge instructions in different healthcare environments.

This review Video-discharge instructions provide a substantial advantage for patients in Asia and the Philippines, especially those who have undergone procedures such as colostomy

surgery. These multimedia tools offer explicit, sequential visual instructions on colostomy care, which is essential for patients and their families after leaving the hospital. Given the wide range of languages and dialects spoken in Asia, it is possible to customize these instructions to the patient's mother tongue. This will result in improved comprehension and compliance with the necessary post-operative care, hence reducing the risk of problems. Additionally, this strategy can cater to different levels of literacy and serve as a powerful educational tool in remote locations where access to subsequent healthcare may be restricted. Implementing video-based discharge instructions can result in enhanced patient outcomes, increased satisfaction, and potentially lower hospital readmission rates in these areas. However, financial capability of institution and patients could hinder this process. It is important that governmental institution can consider tapping private-public partnerships to address this gap.

Evaluating effectiveness of technological approach to health education

In a randomized controlled experiment, Crawford et al. (2012) examined 2 postoperative ostomy instruction strategies. For patients with fresh ostomies, a posttest-only experimental design was employed to contrast the Nurse Instruction teaching approach with the Nurse Instruction plus DVD video teaching method. The results of this study showed that the Nurse Instruction with DVD strategy was just as effective as the Nurse Instruction method we had previously used to instruct patients with fresh ostomies. On assessments meant to gauge how well participants in both groups understood challenges, nutrition, resources, and problem-solving techniques, both groups of participants scored highly. When applying and manipulating pouching materials, subjects demonstrated equivalent levels of skill. The majority of participants in both groups were able to measure, prep, and apply the pouching items properly, as well as show correct emptying technique. Both the Nurse Instruction and Nurse Instruction with DVD training methods were equally effective, according to the results of the Visual Analog Scale (Crawford et al., 2012).

Sun et al. (2018), introduced a preliminary randomized clinical study employing Telehealth in the same field of healthcare technology evaluated the efficacy of an ostomy training programme. The programme seeks to educate patients with ostomies brought on by cancer about the importance of self-care as well as offers techniques for goal-setting and problem-solving to foster autonomy. Stomal treatment nurses are providing four group sessions through video conference in real time. Users from three distinct geographic locations, in two different time zones, and from the comfort of their homes were able to take part in the study because of this technology. This online strategy, which uses real-time support groups, has a great chance of helping cancer survivors who have permanent ostomies with their particular physical, psychological, social, and spiritual demands. The foundation of the course is a strong academic and practical comprehension of the problems faced by ostomy survivors.

Effects of video-discharge instructions for patients with low literacy

A recent article by Sheik et al. (2018) revealed that even in this technologically advanced age, patients continue to have very little comprehension of their discharge instructions. According to a study by Ismail et al. (2016), adding VDI to standardized verbal instructions will benefit families the most who have lower educational levels (less than a high school diploma). Their study concluded that although both lower-income patients and those with greater education experienced a statistically significant improvement in knowledge after receiving video discharge instructions, those with less education had an even more significant increase in understanding. Wood et al. (2017) carried out a study with a comparable methodology to this study using different diagnoses and achieved similar outcomes. A study by Ihrig et al. (2012), examined the viewpoint of doctors who used multimedia patient education as a preventative measure before prostatectomy. According to researchers, the lack of time constraints in the multimedia approach allowed the patients to learn about self-care. The study's findings demonstrated

that multimedia patient education was superior to traditional patient education because it was more conducive to patients' understanding of difficult subjects, simpler to comprehend, and aesthetically engaging.

Evolution of digital health technology

Multimedia technology can get around space and time limitations when addressing patients' and families' demands for self-care after being released from the hospital and guaranteeing consistency in patient education content (Tsai & Chou, 2012). Multimedia also permits independent, flexible learning in addition to recurrent viewing of self-care techniques. Multimedia has a positive learning impact when employed in clinical settings and can reduce the risk of patients obtaining inadequate or inconsistent information (Wang et al., 2021).

Furthermore, COVID-19 pandemic has also provided an opportunity to emphasize the value of technology advancement in the care of patients with ostomies in order to provide new care modalities and retain support for care even when social distance is required. The time has come to develop, review, and assess fresh approaches to caring for patients with ostomies. It is necessary to keep making advancements and improvements in the usage of digital health technologies (Pozebom & Viégas, 2021). To assist these individuals in getting back as close to their normal function as feasible, sensitive, instructive, and prompt therapies should be given priority. In this way, using videoconferencing and telehealth tools for postoperative visits enables a thorough evaluation of the patient, expedites care, lowers anxiety, and monitors acute problems. It is a tool to give each patient more control over their own health (White et al., 2019). This integrative review supported what is already known in the literature, which points to digital health as an alternative for access, enhancing the delivery of care and enhancing patients with ostomies' quality of life. All of the examined digital technologies have been suggested as alternatives for enhancing patient care. These are instruments that support face-to-face care and promote self-care. They make it easier for patients to receive care, but they don't take the

role of in-person patient assessments and nursing consultations.

Video-discharge instructions provide a substantial advantage for patients in Asia and the Philippines, especially those who have undergone procedures such as colostomy surgery. These multimedia tools offer explicit, sequential visual instructions on colostomy care, which is essential for patients and their families after leaving the hospital. Given the wide range of languages and dialects spoken in Asia, it is possible to customize these instructions to the patient's mother tongue. This will result in improved comprehension and compliance with the necessary post-operative care, hence reducing the risk of problems. Additionally, this strategy can cater to different levels of literacy and serve as a powerful educational tool in remote locations where access to subsequent healthcare may be restricted. Implementing video-based discharge instructions can result in enhanced patient outcomes, increased satisfaction, and potentially lower hospital readmission rates in these areas. However, financial capability of institution and patients could hinder this process. It is important that governmental institution can consider tapping private-public partnerships to address this gap.

Implication for Practice

A video recording incorporated with conventional teaching enables educational self-pacing as well as repetitive viewings. Moreover, it provides home caregivers with a practical and convenient means of helping patients grasp ostomy management. This is particularly advantageous given that a two- or three-day hospital stay postoperatively is becoming more typical in the context of a "fast-track" approach as well as laparoscopic surgical technique. The use of video-discharge instructions helps achieve patient education objectives during brief stays (Crawford et al., 2012). The surgical team, wound care and ostomy nurses, and surgical nurses should collaborate to create a multimedia education programme for stoma patients that is tailored to the needs that have been identified in the healthcare system. Medical institutions may

also create their own online platforms for managing patient education. Researchers may compare video-instructional approaches with online techniques in order to successfully provide clinical nurse education for postoperative ostomy management for colorectal cancer patients. In this manner, they could ensure that the patient and their families are receiving information from a reputable and trustworthy source.

Limitations and Recommendations: Because the study only used a small sample size and had a short implementation period, the articles and literature that were used still need to be improved and a more effective method in scoping for related articles may be implemented. Additionally, the resources available to compare the approaches and outcomes were somewhat constrained by the insufficiency of studies pertaining to the creation and application of instructional technologies in the field of stomal therapy aimed for this particular demographic. It is recommended that researchers increase the sample size and prolong the evaluation period in the follow-up study in order to examine the usefulness of video-discharge instructions for colostomy patients in greater detail. New comprehensive discharge education methodologies and the necessity for additional research in the nursing field are also suggested. The study's authors also recommend more research into the long-term impact of multimedia patient education on colorectal cancer patients who have undergone colostomies. It is recommended to place more emphasis on how crucial it is to talk about the themes and how these tools may be used to help colostomy patients educate themselves about their health and take better care of themselves. It also highlights the importance of conducting an additional study in the field of nursing using modern communication technology. The utilization of electronic resources also represents an active teaching style that fosters knowledge and skills, making them crucial for the teaching and learning process. People from different backgrounds and experiences are brought together by the opportunity of observing the stoma, the material, and how to

manage these materials in the video. This allows them to visualize themselves in the position and consider the necessary techniques. It is recommended to design a multimedia education programme for stoma patients that would be tailored to the needs identified in the healthcare setting, working closely with surgical nurses, wound care and ostomy nurses, and the surgical team.

Conclusion: According to the findings of the current study, patients with rectal cancer who have enterostomies can successfully increase their self-care abilities and self-efficacy through the use of videos or other multimedia training programmes. This promotes psychological health and life quality while reducing the possibility of complications upon discharge. In addition, video-discharge instructions (VDI) have been proven to be a suitable and efficient teaching tool that may be employed to supplement educational recommendations as well as to enhance and reevaluate pedagogical nursing approaches. However, medical professionals and healthcare institutions should be aware of the significant increase in the availability of medical information via internet search engines and direct their patients toward more dependable and trusted sources in order for them to learn about ostomy care and develop the necessary competencies.

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