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EFFECT OF TEACHING PACKAGE ON AWARENESS AND QUALITY OF LIFE AMONG PATIENTS WITH CYSTECTOMY.

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Background: Radical cystectomy is most commonlyperformed for cancer that has invaded the muscle of the bladder. Furthermore, a radical cystectomy may negatively impact urinary, bowel, and sexual function, as well as affect body image, which can lower quality of life and lead to physiological and psychological problems. **Aim:** This study aimed to evaluate the effect of the teaching package on awareness and quality of life among patients with cystectomy. **Research Design:** A quasi-experimental (one-group with pre and post-test) design was used to achieve the aim of this study. **Setting:** This study was conducted at the Oncology Center, Mansoura University. **Sample:** A purposive sample consisting of (70) adult patients, who were admitted to the previously mentioned setting was recruited in this study. **Tools:** two tools were used in the current study. Firstly, the patient's interview evaluation form covered the Patient's demographic and Patient awareness questionnaire. The patient's functional assessment of cancer therapy bladder came in second. **Results:** The present study revealed that there were highly statistically significant

differences between patients' awareness regarding cystectomy pre and post-implementation of the teaching package. Correspondingly, a significant improvement in the QOL ($p<0.001$) was revealed post the implementation of the teaching package compared to pre-implementation among patients with cystectomy. **Conclusion**: This study concluded that the teaching package has a positive effect on improving awareness and quality of life among patients with cystectomy. **Recommendations:** Applying a teaching package for patients post cystectomy to increase their awareness and improve their health-related quality of life.

Keywords: Awareness, Teaching package, Patients with radical cystectomy, Quality of life.

Introduction:

Bladder transitional carcinoma is one of the most often diagnosed malignant illnesses worldwide, with an increasing incidence and prevalence as well as limited diagnostic possibilities. The most typical histo-pathological kind of bladder cancer, following squamous cell carcinoma, adenocarcinoma, and small cell carcinoma, is transitional cell carcinoma. (**Cussenot, et al., 2020**).

Men, white people, smoking, pelvic radiation, exposure to specific medicines, chemicals in the environment or at work, having a chronic infection or irritation of the urinary system, and other medical disorders, such as obesity and diabetes, are all risk factors for bladder cancer. **(De George, et al., 2017).**

Cancer that has spread to the bladder muscle is most frequently treated with a radical cystectomy. A radical cystectomy involves the removal of the bladder with surrounding lymph nodes and any additional cancerous organs. The prostate and seminal vesicles in men may fall under this category. This could comprise a piece of a woman's ovary, uterus, Fallopian tubes, and vagina (**Wieder, 2018**).

Ileal conduits (IC), cutaneous continent urinary diversion, and orthotopic neobladder reconstruction are a few of the techniques utilized for urine diversion (UD) following radical cystectomy (RC). The kind of UD that develops after RC greatly affects a variety of dimensions of quality of life (QOL), including physical, sexual, psychological, daily activities, and distress connected to body image. Different civilizations have quite different ideas of what quality of life is significantbetween cultures, countries, and races **(Moeen, et al., 2018).**

A urinary diversion created during a radical cystectomy carries several risks and potential consequences because of the size and intricacy of the operation. The risks associated with anesthesia are similar to those associated with most major procedures and include bleeding, blood clots, heart attack, stroke, pneumonia, and other respiratory issues. Additionally, infections of the gastrointestinal, urinary, and reproductive systems are possible. Moreover, following the closure of the surgical incision sites, there is a possibility of infection. (**Wieder, 2018**).

Quality of life (QQL), as opposed to financial or material well-being, has been defined as "contentment with everyday life: the degree of happiness and satisfaction experienced in everyday

life." There are numerous further definitions, but each centers on the theme of satisfaction with everyday life as a whole **(Mahmoud et al., 2019).**

The concept of quality of life is multidimensional and incorporates aspects of social, emotional, mental, and physical health. It focuses on the effect that health status has on quality of life rather than only the direct metrics of population health, life expectancy, and causes of death. Well-being, which evaluates the good aspects of a person's life, such as positive feelings and life satisfaction, is a term connected to health-related quality of life (HRQoL). HRQoL and well-being have been used by clinicians and public health officials to assess the effects of chronic illness, therapies, and both short- and long-term disability. Although there are numerous HRQoL and well-being measures currently available, procedural progress in this field is continually ongoing **(Jung, et al., 2020).**

Significance of the study:

Bladder cancer is the 10th most common global lethal disease, killing 3% of cancer patients worldwide and rising quickly, especially in developed nations. Squamous cell carcinoma accounts for 30% of bladder cancer cases, the second-most common malignancy in men in Egypt. (**Bray, et al., 2018).**

Nowadays, clinical trials for cancer consider the quality of life to be a key objective. There is evidence to support that evaluating a patient's quality of life can help with treatment and can have predictive value comparable to that of medical indicators. Particularly, investigations of quality of life can point out additional needs for more effective treatment of cancer patients **(Moghalu, et al., 2021). Therefore, the study aimed to** evaluate the effect of teaching packages on awareness and quality of life among patients with cystectomy. This aim was achieved through:

1- Assessing patients' Awerness regarding cystectomy pre and post-teaching package.
2- Assessing patients' quality of life pre and post-teaching package.
3- Determining the effect of the teaching package on patients' Awerness regarding cystectomy and their QOL**.**

Research hypothesis:

The teaching package is expected to have a positive effect on improving patients' awareness and QOL regarding cystectomy**.**

Subjects and Methods:

Research design:

A quasi-experimental with (a one-group, pre-post-test) design was used to achieve the aim of this study.

Setting:

This study was conducted in the males and females surgical departments at Oncology Center,Mansoura University. The surgical outpatient clinic is situated on the first floor and has a large room with two desks and four chairs, an abdominal ultrasound machine, one stretcher for

patient to be examined, and curtains surrounding it.

Subjects:
A purposive sample consisted of (70) adult patients, who were admitted into the previously mentioned setting at the time of data collection and were engaged in this study.

Sample size
This sample was selected by using the following equation according to (Steven and Thompson, 2012):

$$n = \frac{N \times p(1-p)}{\left[N-1 \times \left(d^2 \div z^2\right)\right] + p(1-p)}$$

N = total patient population size who attended the previously selected settings
Z = confidence levels is 0.95 and is equal to 1.96 D = the error ratio is = 0.05
P = the property availability ratio and neutral = 0.70
Adults of both genders with bladder cancer whose recovery after surgery has lasted at least six months are eligible for inclusion. Whereas, Patients with no other metastatic illness who did not receive any other adjuvant therapy (Radiotherapy or Chemotherapy) were excluded from the research.

Data collection tools:
The first tool was a Patient Interview Assessment Questionnaire:
The researchers created it after examining relevant recent literature **(Smeltzer, et al., 2018; Cathrine et al., 2020)**. It was employed to gauge the patient's level of awareness regarding radical cystectomy. It was divided into two sections:

Part (1): Patient's demographic data:

It was written in simple Arabic and filled out by the researchers from the patient's chart to obtain demographic information, including age, gender, education level, and residence.

Part (2): Patient's awareness questionnaire:

It addressed bladder cancer forms, causes, radical cystectomy difficulties, and post-cystectomy treatment, to measure patients' information on post-radical cystectomy therapy for patients with bladder cancer. Two sections were created from the 11 multiple-choice questions (MCQ):

Section 1 had five multiple-choice questions. It aimed to assess the patient's awareness of bladder cancer (causes, symptoms, stages, complications, and diagnostic procedures).

Section 2 had six multiple-choice questions to ascertain how much the patient understood about radical cystectomy. It addressed issues such as taking care of the stoma, difficulties following radical cystectomy, avoiding complications after radical cystectomy, the size of the ostomy pouch, different kinds of ostomy equipment, and follow-up after radical cystectomy. Each

question got one grade for the right answer, and zero for the wrong. The patient scored an overall 11 on the awareness test.

Patients were divided into dichotomous groups based on their overall Total scores. **A satisfactory** level ofawareness for those taken "≥ 60%". However, an **unsatisfactory** levelof awareness for < 60%.

The second tool was the Functional Assessment of Cancer Therapy – Bladder (FACT-Bl):

It consisted of **five** aspects to assess the quality of life for patients who had radical cystectomy. This scale was adapted from **(Degboe A., et al., 2019).**

1. In terms of the physical aspect, it consists of a total of five components (pain, lack of energy, physical condition, time in bed, and nausea). All components were graded on a five-point Likert scale. very much"4", quite a bit"3", somewhat"2", a little bit"1" and Not at all"0". The maximum score was 20 whereas, the minimum was 0, a high score denotes high quality. The summation scores were categorized into A high quality of life rating of (more than 15), a score (of 6 – 15) is a moderate quality of life whereas, whereas Low life quality if scored (0- 5)

2. Social/family dimensions: Seven items included "feeling connected to friends, receiving emotional support from friends and family, having my family understand my disease, finding family communication regarding my sickness to be satisfactory, feeling close to my spouse, and being content with my sex life" to assess overall Family and social dimension. All components were graded on a five-point Likert scale. very much"4", quite a bit"3", somewhat"2", a little bit"1" and Not at all"0", respectively. A high score indicates a high quality of life. The range of scores is from 0 to 24. Depending on the summation scores of each item, the patient quality of life will be either high (>21), moderate (8–21), or low (0 - 7)

3. Emotional dimensions: It had six items "anxiety, feeling sad, fear of death, coping with illness, losing hope in the fight against my illness, and worrying about my condition will get worse". Total emotional dimension items scored on the five-Likert Scale. very much"4", quite a bit"3", somewhat"2", a little bit"1" and Not at all"0". A high score indicates high quality. It ranged from 0 to 24.

Depending on the summation scores of each item, the patient's quality of life will be either high (<18), moderate (7-18), or low (0 - 6).

4. Functional dimensions include seven items "able to work, accepting illness, adequate sleep, my work is fulfilling, ability to move and enjoy, enjoying the things, I usually do for fun, satisfied with the quality of my life now). Total functional dimension items scored on the five-Likert Scale. very much"4", quite a bit"3", somewhat"2", a little bit"1" and Not at all"0". A high score indicates high quality. It ranged from zero to twenty-eight. Depending on the summation scores of each item, the patient's quality of life will be either high (<21), moderate (8-21), or low (0 - 7)

5. Additional concerns dimension included seven items "bowel control, having diarrhea, like the appearance of my body, losing weight, appetite, embarrassed by my ostomy appliance, Caring for my ostomy appliance is difficult). Each item scored on the five-point Likert Scale

including very much"4", quite a bit"3", somewhat"2", a little bit"1" and Not at all"0". The maximum score was 28 whereas, the minimum was zero. Depending on the summation scores of all dimensions, the patient's QoL will be either high (>18), moderate (10-18), or low (0 - 9)

Total quality of life Scoring

The maximum score of all dimensions was (140) whereas, theminimum was (0). The high scores mean a high QoL. The patient's QoL was categorized as high (106-140), moderate (36-105), or low (0 - 35) :

I. Operational design:

The Preparatory Phase, tool validity, reliability, pilot research, and fieldwork were all included.

A- The Preparatory Phase:

Constructing the instruments for data collecting required assessing prior and current, national and international, related literature as well as conceptual Knowledge of several study-related concerns

B- Tools Validity and Reliability:

Testing validity referred to how well a scientific test measures what it is intended to measure of the proposed tools by using content validity.

The tools' content validity was assessed to determine if they met the goals of the study. A jury of five experts from different academic disciplines, including three professors and one assistant professor from the Medical-Surgical Nursing department of the Faculty of Nursing in Mansoura, Zagazig, and Menofuia universities made the decision. Minor adjustments were made after the experts reviewed the tools for impartiality, completeness, clarity, relevance, simplicity, and usefulness. The final form was produced last.

Testing reliability of the proposed tools was done statistically by Cronbach alpha test forthe total items and was 0.89 for part 2 of the first tool and 0.92 for the second tool. It was used to examine whether the questionnaire had internal consistency.

Pilot Study:

Before conducting the actual study, a pilot study was conducted on seven Patients (10 %) of the study subjects to assess the tools' clarity, applicability, viability, and relevance as well as the time they would need to be applied. According to the findings of the pilot study, the appropriate tool modifications were made. Patients enrolled in the pilot trial were excluded from the study's sample.

Field of work:

This stage aimed to assess the quality of life after radical cystectomy for patients with bladder cancer by collecting the data using the study tools after confirming its validity and reliability and explaining thepurpose of the study simply to the patients. Seventy- patients with the previously mentioned criteria were included in the study.

The study was conducted through initial assessment, planning, implementation, and evaluation phases.

In the initial assessment phase:

The researchers reviewed the current and past available literature the available textbooks, articles, magazines, and internet searches to develop the tools for data collection and prepare the teaching package.

The planning phase:

The researchers designed the teaching package based on initial assessment information and pertinent literature. The teaching package addressed Caring for the stoma, Complications from radical cystectomy, Treatment after radicalcystectomy to avoid complications, Size of ostomy pouch, Types of ostomy appliances, and following up after radical cystectomy.

The implementation phase:

Six months, from January 2022 to June 2022, where required for data collection. The patients who decided to participate in the study were merely informed of the goal of the research before beginning data collection. The material was prepared in simple Arabic language and followed the pertinent literature to match the patient's level of comprehension. The researchers gathered the data twice a week (on Saturday and Sunday) for at least 60 minutes, during the morning shift from the previously allocated area. A demographic and clinical data sheet was first compiled from the patient's medical records and occasionally from the patient's family. This lasted for about 5-10 minutes for each patient.

Then the interview questionnaire sheet was filled out by the researchers from the patients postoperatively forcollecting data regarding patients` Awarenessand it took about 15-20 minutes. lastly, the quality oflife sheet was filled out by the researchers from the patients. It took about 20-30 minutes as a pretest. Later the researchers distributed the booklet to the participants in the pre-test. The researchers used appropriate videos, PowerPoint presentations, and posters to help patients understand cystectomy. Moreover, the researchers followed the participants after discharge from the hospital with reminder messages.

The evaluation phase:

The effect of the teaching package was assessed through a posttest using the same tools used in the pretest after two months.

III Administrative design:

Official permission was obtained from the Faculty of Nursing Mansoura University to the director ofthe previously selected settings to conduct the study and request permission for data collection from the studied sample.

Ethical considerations:

The researchers explained the study's aim to the patients who signed up for the research. The

researchers made sure that the subject's data was kept private and anonymous. Patients were informed that they may decide whether or not to participate in the study, at any time, and without having to provide a reason. The researchers assured them that their ethics, values, beliefs, and culture would be respected and made it clear that all information would be utilized purely for scientific study.

IV. Statistical design:

The researchers used Microsoft Excel software to code, process, and analyze data obtained from earlier tools and outcome measurements. For data analysis and graphical presentation, data were imported into SPSS version 25 (the Statistical Package for the Social Sciences). Quantitative variables were described by mean and Stander Deviation (SD), while qualitative categorical variables were described by frequencies and percentages. Chi-squared test of independence was used for categorical variables. The correlation by Pearson's correlation linear correlation coefficient (r) was used for the detection of correlation between two quantitative variables in one group. The significance (p-value) was considered Non-significant (NS) P-value < 0.05, Significant (S) P-value ≤ 0.05, and Highly significant (HS) P-value ≤ 0.001.

Results:

Table 1 displays that the mean age of the studied patients was 43.7±5.57and half of them were aged above 50 years. Likewise, half of them were males. Regarding their level of education, 45% of them were illiterate. Moreover, 63% of them lived in rural areas.

Figure 1 illustrates that 52% of the studied patients reported that the main source of their awareness regarding cystectomy was doctors followed by 33% from nurses.

Table 2 shows that the participants' level of awareness regarding cystectomy (Causes, Symptoms, Stages, Complications, Types, Caring) increased after the teaching package by showing a highly statistically significant difference between pre and post-teaching package. (P<0.001).

According to **Table 3**, the minority of the investigated patients (28.57%) had a satisfactory total awareness score regarding cystectomy in the pre-teaching package. However, after receiving the teaching package the majority (92.85%) of them had satisfactory total awareness scores with a high statistical significance at (P<0.001).

Table 4 highlights that the high level of the total quality of the subjects' life was improved from 44% in the pre-teaching to 66% in the post-teaching with a high statistical significance at (P<0.001). Furthermore, there was an improvement in (Physical, Family/Social, Emotional, Functional, and Additional concerns) dimensions of the quality of the subjects' life in post-teaching compared to pre-teaching.

Table (5): showed that there was a high statistically significant correlation between the total level of awareness and total quality of Subjects' life at (p-value <0.001**).

Table (1): Distribution of the Studied subjects regarding their demographic Characteristics (n. =70).

Demographic Characteristics	No.	%
Age		
20- < 35	10	14.0
35- < 50	24	34.0
≥ 50	36	52.0
Mean (SD)	43.7(5.57)	
Patients 'education		
Illiterate	32	45.0
Basic	10	15.0
Secondary	14	20.0
High education	14	20.0
Gender		
Male	37	52.9
Female	33	47.1
Residence		
Rural	44	63.0
Urban	26	37.0

The distribution presented in frequency and percentage, Mean (SD)

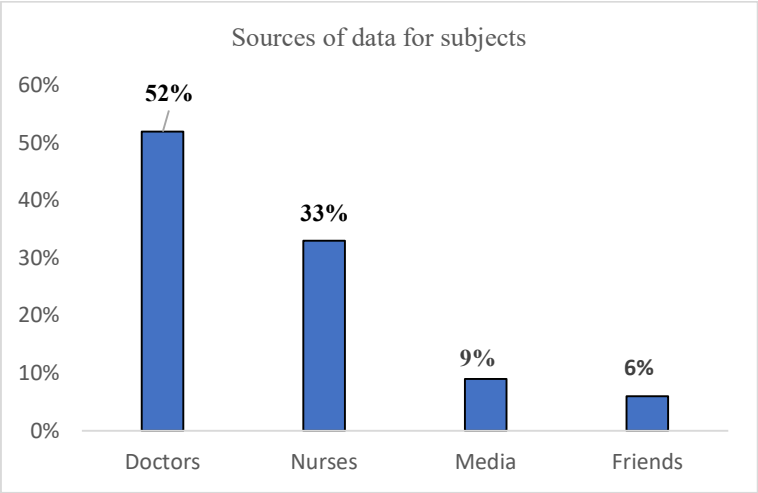

Figure (1): Percentage distribution of the studied' subjects regarding their source of awareness about cystectomy (n=70)

Table (2): Distribution of the studied subjects' awareness level regarding cystectomy pre and post-teaching package

Patients' awareness	No =(70)		X^2	P-value
	Pre-teaching	Post-teaching		

	package (No/%)	package (No/%)		
Causes of cystectomy	22(31.42)	67(95.7)	78.39	<0.00 1*
Symptoms of cystectomy	20(35.72)	65 (92.85)	136.43	<0.001*
Stages of cystectomy	10 (14.28)	62 (88.57)	157.162	<0.001*
Complications of cystectomy	19 (27.14)	60 (85.71)	149.456	<0.001*
Methods of diagnosis of cystectomy	32.85)(23	91.42)(64	157.33	<0.001*
Types of ostomy appliances	20(35.72)	60(85.71)	162.313	<0.001*
Size of the ostomy pouch	18 (25.71)	66 (94.28)	106.50	<0.001*
Following up after radical cystectomy	12 (17.14)	63 (90)	158.45	<0.001*
Caring of stoma	17 (24.28)	67 (95.71)	168.374	<0.001*
Complications from radical cystectomy	34.28)(24	92.85)(65	147.315	<0.001*
Treatment after radical cystectomy to avoid complications	27(38.57)	60(85.71)	108.507	<0.001*

***highly significance at 0.001 levels** -Chi-square test

Table (3): The total Awareness score of the studied patients' regarding cystectomy pre and post-teaching package

Total Awareness	Pre-teaching package		Post teaching package		X^2	P-value
	No	%	No	%		
Satisfactory	20	28.57	65	92.85	9.034	<0.001*
Unsatisfactory	50	71.42	5	7.15		

***highly significance at 0.001 levels** -Chi-square test

Table (4): Total quality of life dimensions among the studied subjects pre and post-teaching package (n. =70).

Levels of quality of life Dimensions	Pre-teaching package						Post teaching package						X^2	P-value
	High		Moderate		Low		High		Moderate		Low			
	No	%	No	%	No	%	No	%	No	%	No	%		
Physical	34	48	21	30	15	22	48	68	15	22	7	10	24.73	<0.001*
Family/Social	31	44	18	26	21	30	41	58	21	30	8	12	13.68	<0.001*

Emotional	28	40	24	34	18	26	46	66	18	26	6	8	24.73	<0.001*
Functional	22	32	27	38	21	30	42	60	21	30	7	10	13.68	<0.001*
Additional concerns	38	54	18	26	14	20	48	68	14	20	8	12	24.73	<0.001*
The total level of quality oflife	31	44	21	30	18	26	46	66	18	26	6	8	24.73	<0.001*

(*) Statistically significant at p<0.05

Table (5): Correlation between subjects' Total level of Awareness and their Total quality of life dimensions

Levels of quality of life dimensions	The total level of Awareness	
	r	P-value
Physical	0.623	<0.001**
Family/Social	0.938	<0.001**
Emotional	0.589	<0.001**
Functional	0.743	<0.001**
Additional concerns	0.816	<0.001**
The total quality of life	0.853	<0.001**

Discussion:

The findings of the current study's analysis of patients' demographics showed that the mean age of the patients was 42.7(4.67), with more than half of the patients being older than fifty. Similarly, The study by **Grimm, et al. (2019**), "Health-related quality of life after radical cystectomy and ileal orthotopic neobladder: effect of detailed continence outcomes," noted that the majority of studied patients were close to sixty-six years old with mean patient age (65.3± 9.3). This outcome might be explained by the fact that being older is linked to an increased chance of developing cancer.

Half of the patients in the current study were males, according to the gender results. Likewise, **Cerruto, et al., (2018**) research entitled "Health-Related Quality of Life after Radical Cystectomy for Bladder Cancer in Elderly Patients with Ileal Orthotopic Neobladder or Ileal Conduit," revealed that three-quarters of the study samples were men. The men's higher exposure

to carcinogens including smoking, stress, and heavy workload may account for this outcome.

More than two-fifths of the patients who were evaluated were illiterate, according to the current result's findings about educational level. Based on the research results, The majority of the study's subjects, from rural, had low levels of education. Similarly, **Mahmoud, et al., (2019**) a study entitled "Quality of Life after Different Types of Ileal Diversions Following Radical Cystectomy," which was conducted in the same culture at Al Hussein and Bab El Sharia Al-Azhar University Hospitals, three-quarters of the analyzed sample was uneducated.

This result is in contrast to a study by **Cathrine, et al. (2020)** titled "Health-related quality-of-life following radical cystectomy among Norwegian men and women compared to the general population," which found that the majority of the analyzed sample was educated. This inequality might be brought about by the different research samples and settings in which it is applied.

Furthermore, current results showed more than half of the patients in the study said that doctors were their primary source of information on cystectomies and the nurses came in second. This outcome emphasizes the significance of medical professionals in supplying patients with accurate information about their illnesses.

Concerning patients' awareness level of cystectomy, The current findings showed that, before the distribution of the educational packages, fewer than three-quarters of the studied patients had unsatisfactory awareness of cystectomy. This illustrated the necessity for carrying out the education package and putting the education package into practice to improve patients' awareness. Thus, this result improved in the post-test. Furthermore, the current result of the present study revealed that post-teaching packages, most of them had satisfactory awareness levels with a highly statistically significant difference regarding awareness of cystectomy pre/post-teaching package. This result may due to the positive effect of the teaching package.

. This finding is consistent with a study conducted in the same environment by **Mahmoud**, **et al., (2019**), which revealed a significant difference between the study group and control group regarding patients' urinary diversion awareness and urostomy self-care after implementing educational intervention and follow-up telephone calls.

Moreover, a study by **Bare, et al. (2017)** titled "Implementation of an Evidence-Based and Content-Validated Standardized Ostomy Algorithm Tool in Home Care," found that patients' outcomes can be impacted by a healthcare provider expertise in ostomy management and ostomy appliance care.

This would corroborate the researchers' argument that the study's subjects need the illustrated brochure with guidelines on improving quality of life after radical cystectomy. This will increase their psychological rehabilitation, the possibility of independence, and enhance health-related quality of life.

This result is supported by a study done by **Mahmoud, et al., (2019)** which describes the impact of educational sessions on patients with urinary diversion, who found that significantly

improved in the intervention group immediately after the intervention sessions.

The current finding illustrated the highest level of contribution to the patients' overall quality of life from their additional concerns and physical well-being. Less than three-quarters of the study's patients were free of a chronic disease, which suggests that they might not be subject to health problems or effects that affect the physical component.
Additionally, the social/family and functional dimensions of quality of life were at the lowest levels. This may be related to radical cystectomy, which may have a psychologically negative impact on patients due to difficulties like a protracted recovery or permanent disability. Furthermore, feeling of guilt resulting from the impact of the operation on their family and worry about loss of ability to urinate normally and disturbed body image.

Similarly, **Biggs et al., (2017)** "Lazarus and Folkman's psychological stress and coping theory" found that patients with higher self-efficacy beliefs and perceived social support are more likely to engage in adaptive coping strategies, which may lead to better health-related quality of life outcomes than patients with lower self-efficacy beliefs, lower perceived social support, and thus less engagement. It is essential to take into account a patient's self-efficacy, social support, and coping skills to manage their quality of life as it relates to their health. Correspondingly, a study by **Maydick-Youngberg (2017**) revealed that more than half of ostomy patients experience emotional, psychological, and financial difficulties that lower their quality of life.

Additionally, more than one-quarter of patients had poor quality of life after undergoing a radical cystectomy, according to the results of the current study. Less than three-quarters of them were from rural regions, and half of them were elderly and illiterate, which may help to explain this conclusion. The majority of the study's participants do not earn enough money to cover their basic living expenditures or the drugs they need. According to the **Yu et al., (2019**) study, "Health-related quality of life around the time of diagnosis in patients with bladder cancer" bladder cancer patients who had more comorbid diseases were significantly more likely to experience poor health-related quality of life.

Concerning the total quality of life dimension, the present result illustrated that statistically significant post-teaching package improvements were revealed in all domains and the total quality of life scale. From the researchers' point of view, it confirmed that improvements in the patients' awareness are associated with positive improvements in their quality of life.

Regarding the relationship between patients' overall level of awareness and patients' overall quality of life, the current study found that there was a substantial statistically higher gap between patients' overall level of awareness and patients' overall quality of life. It may be related to this conclusion that these patients receive awareness-based care from trained nurses and doctors. Additionally, there is a specific outpatient clinic available at the hospital where patients who need oral instruction on how to change their ostomy pouch can care.

These findings are consistent with a study by **Moghalu et al. (2021**), "Psychosocial aspects of health-related quality of life and the association with patient-reported bladder cancer," which

discovered a statistically significant increase in quality of life following the implementation of a nursing education package. Additionally **(Shi et al., 2020)** discovered that there was a significant statistical improvement in quality of life following the implementation of an educational nursing package. Additionally, **Yüce and Yurtsever** (**2017**) found that a patients' quality of life is positively impacted by their degree of education. Finally, the current research supports the idea of recommending an effective training program for patients who have had radical cystectomy.

Conclusion:

According to the study's findings, the study concluded that a teaching package has a positive effect on improving awareness and quality of life among patients with cystectomy. There was a significant positive correlation between the patients' total level of awareness and total quality of life dimensions.

Recommendations:

The following recommendations were drawn from the study's conclusions based on its findings.:

- Applying a teaching package for patients post cystectomy to increase their awareness and improve their health-related quality of life.
- Psychosocial support groups should be offered to cystectomy patients to help them feel better about their family, social, and functional lives.
- To ensure that the findings may be generalized, it is advised that the study be replicated in several national locations with a sizable probability sample.
- It is advised that individuals undergoing cystectomy have their quality-of-life dimensions continuously evaluated.

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