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Original Article

Learning needs and self- care assessment among patients' undergoing ileal conduit

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1.ABSTRACT

Background: An ileal conduit urinary diversion is a frequently implemented procedure, which influences physiologic social, and psychological functions. Patients' learning needs and self-care deficit assessment can help in fulfilling patien needs and improving their lifestyle. **Aim of the study:** Assess learning needs and self-care among ileal conduit patie **Method:** This study was descriptive research with 50 ileal conduit patients. Three tools were used to collect da sociodemographic data sheet, patients' knowledge questionnaire and the urostomy education scale **Results:** the ileal condu patients' learning needs were high as the mean total knowledge score was 24.12 ± 12.09 and the total self-care mean sco was 3.56 ± 2.23. **Conclusion**: The studied ileal conduit patients had high learning needs as their total mean knowledge sco and self-care score were low. So, designing a systematic educational program based on patient learning needs to ensure th such basic needs are fulfilled, and patients have received the needed self-care enhancement program is very critical for th group of patients.

Keywords: Ileal conduit, Self-care, Learning needs

2.Introduction:

An ileal conduit urinary diversion is a frequently implemented procedure. this type of urinary diversion does not store urine, but transfer it quickly via an abdominal stoma, so an external pouching system is used to hold urine effluent (Zhou et al. 2019). The ileal conduit may be accompanied by a set of health problems, like infection, leak of urine, cutaneous papilla, pyelonephritis, and wound contamination, even dehiscence (Ishida and Okabe 2013) Furthermore, it alters the original style of urination by causing the loss of normal micturation ability, resulting in psychological and social issues such as anxiety, despair, low self-esteem, and a lack of attention and support from family/ friends. So, obtaining the required information and skills for making decisions and addressing disease-related difficulties is crucial and rewarding for patients. (Shi et al. 2020). Learning needs evaluation can aid in meeting those needs and have an impact on the patients' lifestyle. For this purpose, all factors should be explored, and learning content should be created based on the patients' abilities and learning needs. (Parizad et al. 2015).

Aim of study:

The aim of the study was to assess learning needs and self-care for ileal conduit patients.

3. Method

Research design

This study was descriptive research.

Setting of the study:

This study was performed at Urology and Nephrology center, Mansoura University.

Sampling:

A purposive sample of 50 ileal conduit patients were recruited for the conduction of this study. Patient aged 20- 60 ys old, able to speak, and agree to engage in the study were included. Psychiatric patients and patient with chronic diseases that interfere with their self-care activities as (cerebral stroke, paralysis, handicapped) were excluded from the current study.

Study Tools

The researcher used three tools for data collection as follow study

Tool I: Sociodemographic and health relevant data sheet

Which include demographic characteristics such as the participants' age, sex, marital status, level of educational, job, and place of residence.

Tool II: Patients' knowledge questionnaire.

The researcher produced this tool after reviewing related literature(Berti-Hearn and Elliott

2019)(Azhar et al. 2016)(Lee et al. 2014) to evaluate patients' knowledge regarding their general knowledge about bladder cancer and urinary diversion, pre- and post-operative care provided for urinary diversion patients, ileal conduit urinary diversion and post discharge self-care. The questionnaire was designed in the form of multiple-choice questions, each question was consisted of a group of answer points and each answer point was given one grade while unknown and missed answer were given zero. The scores obtained for each question was summed up to get the total score for the patients' knowledge. The questionnaire total score was 181. A higher score indicated better knowledge.

Tool III: The Urostomy Education Scale

The urostomy education scale (UES) is a standardised, validated, and evidence-based measure used to assess patients' stoma SC abilities. It was taken from Kristensen et al., 2013, Kristensen and Jensen, 2016. The scale is a numerical measure designed to assess individual urostomy SC skills in individuals who are undergoing UD. It comprises of seven categories of abilities required to change a urostomy pouch system. Each ability was graded on a four-point scale, with values ranging from 0 to 3.

Items	Score
Patient totally dependent on the nurse	0
Patient needs assistance from the nurse	1
Patient requiring verbal guidance from the nurse	2
Patient can complete the skill independently	3
total score	ranges from 0 to 21
Higher values indicating greater self-care skill.	

Study procedure

1. Formal approval to conduct the research was obtained from the Faculty of Nursing - Mansoura University to carry out the study.
2. Formal letter to carry out the study was taken from the hospital (Urology and Nephrology Center- Mansoura University) administrative authority after sending an official letter from the faculty and explanation of the aim and nature of the study.
3. The Patients' knowledge questionnaire was established by the researcher after reviewing related literature. Initially, very broad questions were asked then became progressively more focused.

Validity:

4. The tool was tested for content related validity by Five expert professors from Mansoura University; two from Faculty of Nursing, two professors of urology from Faculty of Medicine, and one in biostatistics specialist from Faculty of Medicine., were revised the tools for clarity, significance, understanding, and suitability for implementation. All comments and criticisms were taken into account and the tool was rewritten and revised.
5. The created tool's reliability was assessed using the Cronbach's alpha reliability test, which revealed a strong positive significance (r =.79 %) for all tool's competences.

Pilot study:

6. Before data collection a pilot study was implemented on 10 patients who met the research requirements to test the probability, clarity, and application of the created instrument, and any required modifications was made. Those patients were not included in the research.
7. Patients were informed verbally about the aim and nature of the study, in addition, it is written at the beginning of the tool. They were asked if they were agreed to participate or not.
8. Each patient was interviewed individually in order to collect the required data using tool I& II. Tool III was completed by observing the patient performance during stoma self-care.

Ethical consideration:

9. The researcher emphasized participation is absolutely and confidential. Anonymity, privacy, safety and confidentiality absolutely were assured throughout the study. Every

patient has the right to leave the research at any time.

12. Patients had the chance to direct any questions regarding the study. In addition, for educated patients they were asked to read the instruction given carefully and answer the knowledge questionnaire. For illiterate patients the researcher read the questionnaire and was marked on the answers that choose it.
13. Data was collected using interview questionnaire during a period of 6 months from the beginning of April 2018 to September 2018.
14. The researcher began collecting data on a specific schedule of three days each week, from 9 a.m. to 1 p.m.

4. Results

Table1 Shows the distribution of studied subjects regarding their demographic characteristics; this table show that the majority of studied patients (88%, 80%) were males and their age group ranged from 50 to 60 years old respectively. 48% were illiterate, 30%, 26% work as craftsman and farmer respectively, finally the majority of them (90%, 76%) were married and come from rural area.

Table2 illustrates the mean score of studied ileal conduit patients related to their knowledge and selfcare. This table showed that the ileal conduit patients' learning needs were high as the mean total knowledge score was 24.12 ± 12.09. The highest learning needs was that regarding Patients' knowledge about ileal conduit diversion and knowledge about self- care post discharge with mean knowledge score (0.04 ± 0.20, 5.38 ± 3.39) respectively. Also, this table clarified that the studied ileal conduit patients learning needs regarding stoma self-care was high as the total self-care mean score was 3.56 ± 2.23.

Table 3 shows Correlation between ileal conduit patients' knowledge and self-care with demographic data (n= 50). This table displayed that ileal conduit patients' age correlates negatively with their knowledge and self- care. This means that the older the patients age, the lower their level of knowledge and self-care. On the other hand, a strong positive correlation was found between the ileal conduit patients' level of education and their knowledge and self- care. This implies that the higher the patient's level of education, the higher their level of knowledge and self- care.

Table (4) emphasized that ileal conduit patients' knowledge and self- care were positively correlates to each other, this indicates that the higher the knowledge level the better self- care practice.

Table (1) sociodemographic data for ileal conduit patients (n= 50).

Demographic data for ileal conduit patients	No= 50	%
Sex		
Male	44	88
Female	6	12
Age (years)		
From 40 to 50 year	10	20
From 50 to 60 year	40	80
Level of education		
Illiterate	24	48
Reads & writes	8	16
Basic education	4	8
High school	9	18
University education	5	10
Occupation		
Not work	5	10
Housewife	5	10
An employee	5	10
Crafts man	15	30
Farmer	13	26
Business	7	14

Marital status		
Married	45	90
Divorced	2	4
Widow	3	6
Residence		
Rural	38	76
Urban	12	24

Table (2) the mean score of studied ileal conduit patients' knowledges and self-care (n=50).

Items (Total score)	Min. – Max.	Mean± SD	Median
Total knowledge score	**5.0 – 54.0**	**24.12 ± 12.09**	**23.0**
1. General knowledge about urinary diversion.	2.0 – 12.0	5.94 ± 2.08	6.0
2. Patients' knowledge about ileal conduit diversion.	0.0 – 1.0	0.04 ± 0.20	0.0
3. Patients' knowledge about pre and post-operative care.	1.0 – 31.0	12.76 ± 7.87	11.0
4. Patients' knowledge about self- care post discharge.	2.0 – 15.0	5.38 ± 3.39	4.0
Self- care total score (Stoma education)	**0.0 – 10.0**	**3.56 ± 2.23**	**3.0**
1. Reaction to the stoma	0.0 – 1.0	0.90 ± 0.30	1.0
2. Removing the stoma appliance	0.0 – 2.0	0.66 ± 0.52	1.0
3. Measuring the stoma diameter	0.0 – 2.0	0.14 ± 0.40	0.0
4. Adjusting the size of the urostomy diameter in a new stoma appliance	0.0 – 1.0	0.04 ± 0.20	0.0
5. Skin care	0.0 – 2.0	0.48 ± 0.58	0.0
6. Fitting a new stoma appliance	0.0 – 2.0	0.38 ± 0.60	0.0
7. Emptying procedure.	0.0 – 2.0	1.0 ± 0.64	1.0

Table (3) Correlation between ileal conduit patients' knowledge and self-care with demographic data (n= 50).

Demographic data		Knowledge	Self- care
Age (years)	r	-0.049	-0.069
	p	0.734	0.635
Level of education	r	0.811*	0.714*
	p	<0.001*	<0.001*

Table (4) Correlation between ileal conduit patients' knowledge and self-care n= (50).

knowledge		
Self-care	**R**	0 .558*
	P	< 0.001*

r: Pearson coefficient *: Statistically significant at $p \leq 0.05$

5. Discussion

Regarding socio-demographic characteristics, according to the findings of this study the highest percentage of the studied ileal conduit patients were males and old adult in the age group between 50- 60 years, married, illiterate, their work varied between farming and manual work, and came from rural area. These characteristics were related to each other as it is considered predisposing factors to bladder cancer. This point of view is supported by the American cancer society, (2019) that pointed to a range of socio-demographic characteristics as risk factors that make a person more likely to develop bladder cancer. Furthermore, Saginala et al. (2020) confirmed that factors that increased the risk of bladder cancer include gender, age, and environmental and occupational exposure. Fernánde et al. (2019) added that communities with a low education level, low-income families and retain jobs with a higher susceptibility to carcinogens were found to have a higher risk of developing bladder cancer.

Likewise, the finding of the study conducted at Alexandria University by Omar, Alaa, El Abadi and El Shatby (2018) and the result of Mohamed & Fashafsheh (2019) at National Cancer Institute-Egypt revealed that most of the clients were falling

in the age group 50- 60 years old, males, married, illiterate and most patients were housewives and manual workers and come from rural area. Along the same line the study conducted by Mansour (2017) and Mahdy, Ameen, and Mousa (2018) found that the age of the study participant ranged between 40- 60 years old and the majority of them were males, illiterate or just read and write, married, work as farmers and come from rural area. Furthermore, this may be considered similar to the result of Heyes and Bond (2020) who found that the majority of participants were male, married, retired and their modal category for education was secondary schooling.

Regarding patients' knowledge, the finding of the present study reported that there were a high learning needs among studied ileal conduit patients reflected in the total mean score of knowledge. This is congruent with the results of Fouad and Belal (2017) who found unsatisfactory knowledge about urinary diversion and stoma care among the studied urinary diversion patients pre application of an educational intervention. In the same line (Omar et al.,2018; Mohamed, Leung, Mehrazin, Sfakianos, and Knauer ,2018) reported a decreased total mean score of knowledge among their studied urinary diversion patients before application of their educational programs.

By looking to ileal conduit patient self-care, the current study showed a high learning need among studied ileal conduit patients related to stoma care which reflected in the total mean score of self-care. This result supported by (Giordano etal.,2020; Faury, Koleck, Foucaud, M' Bailara, and Quintard, 2017; Seo, 2019), how found a decreased total self-care mean score for their studied urinary diversion patients which mean high learning needs regarding self-care practice.

Regarding to the current study correlations, the results showed that ileal conduit patients' age correlates negatively with their knowledge and self-care. This means that the older the patients age, the lower their level of knowledge and ability to self-care. On the other hand, a strong positive correlation was found between the ileal conduit patients' level of education and their knowledge and self- care. This implies that the higher the patient's level of education, the higher their level of knowledge and the ability to self-care.

Also, the finding found positive correlations between urinary diversion patients' knowledge and self-care practice. This result is in harmony with the study performed by Mohamed and Fashafsheh. (2019) who concluded that knowledge and self-care practice was correlates positive to each other. At the same line, Mahdy et al., (2018) illustrated in his study that there were positive significant correlations between patients' knowledge, and practice.

6. Conclusion:

Based on the results of the current research we can be assumed that: The studied ileal conduit patients require high learning needs as their total mean knowledge score and self-care total mean score were low.

7. Recommendation:

The following recommendations are proposed in the light of the results of the present study:

1. Patients learning needs should be assessed by nurses constantly and progressively.
2. Designing a systematic program and investigating the clients before leaving the hospitals to ensure that such basic needs are fulfilled, and patients have received the needed self-care programs.
3. Illustrated coloured booklet about self- care practice and healthy lifestyle should be given for all ileal conduit patients on admission to motivate patients learning.

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