



EFFECTIVENESS OF A SELF-INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING REHABILITATION AMONG PATIENTS WITH ILEAL CONDUIT AT AIMS, KOCHI

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ABSTRACT

Ileal conduit is the most common surgical procedure performed for individuals after surgical removal of the bladder for severe trauma or malignancy, a congenital defect of the urinary tract, and neurogenic non-functioning bladder in which other methods to maintain urinary flow are unsatisfactory. This urinary diversion being permanent, knowledge and skill in the self care and rehabilitation is very important. The present one group pretest-posttest study on "Effectiveness of a self-instructional module on knowledge regarding rehabilitation among patients with ileal conduit" conducted through telephonic interview among 30 patients selected by purposive sampling showed a statistically significant improvement in knowledge regarding rehabilitation ($t_{(29)}=16.279$, $p<0.05$). Problems with personal relationship (76.7%), body image disturbance (76.7%), constipation (63.3%), foul smelling urine (26.7%) and infection (20%) were the major problems faced by the patients with ileal conduit. The study report that the self-instructional module is an effective means to improve the knowledge and useful as subjects could read and clear their doubt at their own pace.

KEY WORDS: Knowledge, effectiveness, ileal conduit, self-instructional module, rehabilitation.



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INTRODUCTION

Urinary diversion can be temporary or permanent, depending on the reason for the procedure. Temporary urinary diversion reroutes the flow of urine for several days or weeks. Permanent urinary diversion requires surgery to reroute urine flow to an external pouch through an opening in the wall of the abdomen, called a stoma, or to a surgically created internal reservoir. It is usually used in conjunction with radical cystectomy in order to control invasive bladder cancer¹. Szymanski KM, St-CurD, Alan T, Kassouf W² (2010) conducted a study regarding external stoma and peristomal complications following radical cystectomy and ileal conduit. The study aimed to describe and compare external stoma and peristomal complications and complication rates among out-patients with ileal conduit diversion following radical cystectomy. The study reported that the external peristomal complications affect more than 50% of patients with ileal conduits after radical cystectomy and often go unrecognized. A pilot investigation of the care needs of patients with ileal conduit urinary diversion reported a high rate of ileal conduit related complication, which increased with the time since surgery. Although most of the complications were minor and can be managed in the community, there is a substantial need for further specialist care and variation in satisfaction levels regarding access to appropriate care. Formulation of guidelines regarding long term follow up may be of benefit³. A retrospective study conducted by Khalil el-SA⁴ of National Cancer Institute, Cairo University among 36 patients (28 males and 8 females) with invasive bladder cancer with the aim to determine the long term complications following ileal conduit after radical cystectomy reported that 22(61%) patients developed complication and, surgical re-intervention was needed in 14(39%) patients. Stoma related complications developed in 7(19%) patients, bowel related in 4(11%), urinary tract infection and pyelonephritis in 9(29%). This suggests the need for longer follow-up. Self-care management is an essential component of the successful rehabilitation programme. Xinxun M, Liwen B Mingxiu Z⁵ conducted an evidence based utilization project among the colorectal surgery patients of Fudan University, Shanghai Cancer Centre with 61 patients and their caregivers. The aim of the study was to implement the best available evidence of stoma management into practice and to improve the self-care of patients with a stoma. The Joanna Brigg's Institute's Practical Application of Clinical Evidence System (PACES) and its Getting Research into Practice (GRIP) module were used to examine compliance with the criteria before and after the implementation of best practice. Daily stoma assessment, stoma care education, appliance selection, self-care ability assessment and discharge planning achieved 100% compliance. However, pre-operative education had the lowest compliance (58%)⁵. Study conducted to determine the stoma care after ileal conduit among 65 patients from Israel reported that only half of the patients could take care of their urostomy independently. Female gender, better patient education and early proficiency in stomal care predict long-term self-stomal care⁶. The available literature and clinical observation give evidences that patients with ileal conduit experience

many complications and daily care is a major concern for all. Ileal conduit being a permanent diversion, knowledge on different aspects of ileal conduit and self care is important. No written information or guideline regarding the care of ileal conduit is available for the patients. So, a self-instructional module would help the patients to gain knowledge regarding identification of problems related to ileal conduits and self care aspects including rehabilitation at their own pace.

MATERIALS AND METHODS

A quantitative approach using one group pretest-posttest design was adopted for the present study. The setting selected for the study was Urology OPD of a selected hospital in Kerala. As the patients were widely distributed across the state, telephonic interview technique using a structured interview schedule used to collect data from the 30 purposively selected subjects. Areas of knowledge assessment included were fluid intake, diet, stoma care, physical, psychological and social aspects, work, rest, play, and follow up care with a total score of 26. Level of knowledge was categorized as poor (0-9), average (10-18) and good (19-26). Patients who were 18 years and above with an ileal conduit of three years and more were included for the study. Whereas, patients with cognitive impairment and critically ill were excluded from the study.

Procedure of data collection

The investigator had obtained the list of patient who satisfied the sample selection criteria and collected the address and contact number. Each of the subjects were telephoned, introduced, explained about the study purpose and fixed an appointment for the interview at their convenience. On the day of the appointment, the pre-test interview was conducted and as per the consent, the interview was recorded and the SIM was sent to the subjects. After seven days of receipt of the SIM, the subjects were again contacted and post-test was administered.

Ethical aspects

The study was conducted after obtaining approval from the Institutional Ethical Committee, Head of the Department of Urology and an informed consent from all the subjects.

RESULTS

The data were analysed using both descriptive and inferential statistics. Description of the sample characteristics and problems of ileal conduit was calculated using frequency and percentage while, effectiveness of the SIM was calculated using paired t-test and association of the pre-test knowledge with selected variables using Fisher's exact. The level of significant set was at 0.05.

Demographic data

All the subjects were between 57-70 years and married, 28(93.3%) were males and 21(70%) educated up to SSLC, majority 28(93.3%) with a monthly income between 5,000 and 15,000/-. Bladder cancer was the indication for ileal conduit for all the patients.

Problems of patients with ileal conduit

Problems with personal relationship and body image disturbance (76.7%), constipation (63.3%) were the main problems faced by the patients with ileal conduit.

Other frequent problems were foul smelling of urine (26.7%), infection (20%) and bleeding (13.3%) and a 10% expressed problems in contacting/reporting to doctor.

Table 1
Description of pretest and posttest knowledge level
n = 30

Variable	Pretest		Posttest	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Knowledge level				
Poor	0	0	0	0
Average	28	93.3	2	6.7
Good	2	6.7	28	93.3

n = 30

The data in table 1 regarding the pretest and posttest knowledge on rehabilitation after ileal conduit show that there were only 2 (6.7%) subjects with good knowledge where as this has increased to 93.3% in the posttest indicating an improvement in knowledge after the administration of the SIM.

Table 2
't' value computed between pretest and posttest knowledge
n = 30

Knowledge	Mean	SD	Mean Difference	t - value	df	p - value
Pretest	14.17	2.198	6.300	16.279	29	0.000**
Pos-test	20.47	1.548				

n = 30, *t*₍₂₉₎ = 16.279, *p* < 0.05; ***p* < 0.001

Table 2 shows that there is a significant difference between the mean pre-test and post-test knowledge, *t*₍₂₉₎ = 6.279, *p* < 0.001, indicating a statistically significant improvement in knowledge of the subjects after the administration of the self-instructional module. Thus the null hypothesis *H*₀₁: there is no significant difference between the mean pretest and posttest knowledge regarding rehabilitation among patients with ileal conduit is rejected and the research hypothesis *H*₁ is accepted.

Association between knowledge and selected variables

Fisher's exact computed indicated that pre-test knowledge is not associated with any of the selected variables like gender, religion, education, income or occupation (*p* > 0.05). Thus the null hypothesis *H*₀₂: There is no significant association between the pretest knowledge of subjects regarding rehabilitation and selected variables is accepted indicating that knowledge is independent of the selected factors.

DISCUSSION

Major problems reported by the subjects were problems with personal relationship (76.7%), body image disturbance (76.7%) and constipation (63.3%). Other problems like foul smelling of urine (26.7%), infection (20%), and bleeding (13.3%) were also reported. Problems like swelling over stoma, pain during activities, ulcers around the stoma and leaking from the urine pouch were also reported by a minority of 6.7% of subjects. Similar problems were reported in a retrospective study conducted at National Cancer Institute, Cairo University where 19% patients developed stoma related complications, 25% had urinary tract infection and pyelonephritis⁴. The study result indicate that SIM was effective in improving the knowledge *t*₍₂₉₎ = 16.279, *p* < 0.001. Quasi experimental study by

Thomas, S, Mohite VR⁷ on the effectiveness of Self Instructional Module on knowledge regarding diabetic diet among diabetic patients also support the finding where the pre-test mean knowledge score and SD of the diabetic patients regarding diabetic diet was 16.025 +/- 4.371, which increased to 20.975 +/- 1.860 in the post-test. In the present study, pre-test knowledge of the subjects has not shown any statistical association with the selected demographic data suggesting that the pre-test knowledge was independent of the factors.

CONCLUSION

Body image disturbance and problems in personal relationship are the common problems of patients with ileal conduit and financial problems add to the burden. Even though all the subjects had attended the counseling session before surgery, they still had doubts regarding stoma care. The present study found that SIM was effective in improving the knowledge of the subjects and the subject felt it very useful as they could read and clear their doubt at their own pace. Moreover, the subjects verbalized that they were more comfortable to ask their doubts and give answers especially those related to their personal issues through a telephonic interview than face to face interview. This gives an idea that collection of data regarding more personal problems could be better collected through telephonic interview as provided by the researcher. The researcher could establish good rapport with all the subjects.

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