IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 4, Issue 3 Ver. II (May. - Jun. 2015), PP 42-50
www.iosrjournals.org

The Impact of Implementing Educational Modules on Quality Of Life of Patients with Permanent Colostomy

Sohier Wahida, Sanaa Ibrahim , and Gehan Abd El-fatah
Medical – Surgical, Nursing, Faculty of Nursing, 1Alexsansria ,2,3 Menofia Universities,

Abstract: Aim*: This study aimed to evaluate the outcomes of educational guidelines on quality of life among patients with permanent colostomy.*
Subjects and Methods*: A quasi-experimental **design** was utilized in this study, which was conducted in the surgery departments at El- Menofia and Alexandria university Hospitals. A purposive **sample** of (60) adult patients from both genders with permanent colostomy were taken from the above mentioned settings. The study **tool** was: Interviewing was used in order to fill The Translated Arabic format of quality of life index for patients with cancer, Sociodemographic data sheet.*
Results: *Improvement of levels of quality of life among patients who received educational guidelines.*
Conclusion **:***On the light of the current study results, it can be concluded that, educational guidelines had a positive effect on quality of life among Patients with Permanent Colostomy* **.**
Recommendations: *Further studies should be carried out on a large number of patients with colostomy for evidence of the results and generalization .*
Keywords*: Permanent colostomy, educational guidelines and quality of life .*

I. Introduction

Colostomy formation has been a standard surgical procedure for more than 100 years. A well-functioning colostomy may not negatively affect the patient's quality of life (QoL) [(1)] .This can only be said if the stoma is well functioning and if complications are kept to a minimum. The complication rates after stoma formation are considerable of 21-70% [(2)]. Patients with colostomy have different quality of life when compared to others who do not have colostomy. Some patients with colorectal carcinoma are advised to undergo colostomy and they have to be educated properly and the care to be provided to them by the relatives and the society. Patients with colorectal cancer have a special need to be provided with appropriate information regarding their disease, surgical intervention which may result in the formation of either a temporary or permanent stoma, because they will be embarked on a journey with physical and functional impairment[(3,15)]. A colostomy is not a disease; rather, it is a change in anatomy. This results in a change of normal body function to allow elimination of bowel contents. The real change is the experience of having a bowel movement from an opening made in the abdomen and adjustment to this new condition is possible once a colostomies has learned the necessary techniques .Quality of life is individuals' perception of their position in life in the context of the culture and value system in which they live, in relation to their goals, expectations, standards and concerns affecting complex ways by the person's physical health, psychological state, level of independence, social relationships to salient features of their environment[(4)].Quality Of Life(QOL) is increasingly becoming an important outcome measure in surgery, it is a multidimensional construct, representing an individual's subjective perception of physical, social and psychological well-being, as well as satisfaction with the balance between disease control and adverse effects of treatment [(8)] Stoma patients have a surgically created opening on the abdomen involving parts of the gastrointestinal tract. In colostomy surgery, normal bowel function is interrupted and waste is passed through the abdominal wall through an opening called a stoma into an appliance that must be emptied periodically. If the distal rectum and anorectal sphincter mechanism are removed, the colostomy is permanent. Colostomy may be the best and safest form of treatment for a number of conditions including acute diverticulitis, rectal cancer ,trauma, or inflammatory bowel disease [(4,5)] **.**It is estimated that there are approximately 95,000 people lived with a colostomy in the UK and that around 7,400 had permanent colostomies which carried out each year. In the future, the number of colostomies may increase [(6)].The incidence of colostomy in National Cancer Institute in Egypt approximately represents 600/year. [(7)]. Patients with colostomy face many difficulties both physical and psychological, added to the long term problems and impact of colostomy on patient's condition and interference with day-to-day living. In such circumstances, it is worthwhile to assess life style in the evaluation of the outcomes of various therapeutic procedures along with their final impact on patients 'lives. Making good decisions to control disease complications, treatment, and improving life style is a very important goal in treating and caring for patients with colostomy [(9,15)]. Furthermore, the bowel alteration such as diarrhea, constipation, impaction of stool and/or excessive gases is

considered sources of problems for colostomy patients. In addition, other sources of problems include skin irritation, irrigation of colostomy and application of pouching system correctly, problems of leakage and/or presence of bad odour. Additionally ,the presence of colostomy itself is considered as a big problem which affects the body image of those patients, reduction in pleasurable activities and creates psychological problems as depression and anxiety [10 ,11]. People undergoing ostomy challenge with multiple physical, psychological and social complications. Caring for colostomy patients have an important role to play in relation to information provision and reassurance. Management of those patients has become increasingly significant within the healthcare provision due to increased incidence and prevalence of this condition. It is important to understands the impact that colostomy can have upon patients ` life to help them. Teaching the patients how to care for ostomy can be a challenging experience, added to, they needs encouragement, support and counseling to learn how to integrate self ostomy care into daily activities [12, 13]. QOL was scored at several levels of aggregation providing: physical and physiological scores; psychological and spiritual scores; social scores; and stomal scares. These dimensions influence the overall quality of life and vary in its importance among individuals (Grant, et al [25]**&**. Ferrans [30]**)** mentioned that quality of life is composed of four domains; health and functioning; psychological and spiritual; family and social, and economic. The four domains are not independent, but are interrelated and overlapping. Elimination, which is a subcomponent of these dimensions, if any problem arise it will cause alteration in performing the activities of daily living and in turn affects the quality of life for these persons. This agree with these results of our present in which the study group who received the designed educational guidelines demonstrated higher QOL then the control group who received flu? Traditional/ hospital diet.

Significance of the study :

Colostomy surgery saves many lives and returns patients to better health and full productive life. It complex physical, psychological, social and spiritual issues, even if the surgery is a complete success [14,18]. Various studies have shown that, the colostomy patients were facing many problems after colostomy operation due to lack of knowledge, those patients were suffering from direct and indirect complications, which may be related to colostomy itself as stenosis, prolapse, retraction, stomal necrosis ,laceration, bleeding and parastomal hernia, or related to profound changes in their life: physical damage disfigurement, loss of bodily function, changed personal hygiene, restrictions in social and sexual activities , functioning impairment),which in turn will affect their quality of life therefore an investigation which provides information about the quality of life of those patients support the nurse`s role in helping patients to attain better QOL through helping patients to manage side effects of treatment and adjust psychologically to the permanent changes[16, 17,19]

Aim of the Study:

This study aimed to determine impact of educational guidelines on quality of life of patients with permanent colostomy. This aim was achieved through the following: :

- Developing and implementing the educational guidelines for the studied patients .
- Evaluating its effect on, added to quality of life .

Hypothesis:

It was hypothesized that, patients attend educational guidelines exhibited a positive effect on quality of life than patients who did not attend

Operational Definitions : Educational Guidelines: means theoretical and practical sessions

Quality Of Life (QOL): was defined was the degree of satisfaction with present life circumstances as perceived by the individual it influenced by present as well as future experiences .

Subjects And Methods:

Research Design:

A quasi-experimental research design was utilized to conduct this study.

Setting: The present study was conducted in the at Menofia and Alexandria university Hospitals .

Subjects:

A convenient sample of 60 adult male and female patients was selected their ages were ranged between 20 -60 years old, the following criteria was selected 1) Conscious patients with newly permanent colostomy 2) a definite diagnosis of coloreal cancer had been.3) agree to participate in the study,4) no post-operative complications (surgical site infection, anastomotic leakage) and no critical or co-morbid conditions.
Patients were divided alternatively into 2 equal groups:

- Group I: the study group received educational guideline plus routine hospital care.
- Group II: control group received routine hospital care.

Exclusion criteria 1the patients with a permanent physical immobility, 2) patients who needed special diet such as cardiac, hepatic and renal patients 3) patients with gastrointestinal problems 4) those who schedules for chemotherapy and /or radiotherapy.

Tools of data collection :

Patients 'interviewing questionnaire that was written in simple Arabic language. Data obtained were related to:

1- Demographic characteristics of the studied Patients which included (age, sex, marital status, educational level, residence, employed status and income/month and causes of colostomy.
2- Translated Arabic Format of Quality Of Life Index For Patients With Cancer (Padilla &Grant 1985).which includes 23 items /statements covering the following four dimensions physical and physiological (11), psychological and spiritual (5 items); social (3items) and stoma aspects (4 items).seventeen items statements are phrased positively and the rest are phrased negatively to control for acquiescence each items was rated on 10-point scale .totaling 230 scores.

Technique for data collection

Sampling and data collection was started and completed within one year Purpose of the study was simply explained to the patients who agreed to participate in the study prior to any data collection, the researchers started to collect data from the studied patients at the two sitting using the pre constructed tools , The data were collected by the researchers 3 days/week, at morning shift .once the permission was granted to proposed study to proceeded study , names of the potential patients who were admitted to hospitals with colorectal cancer and listed for permanent colostomy as well met the inclusion criteria ,the purpose and the nature of study was explained , the investigator emphasized to the subjects that their participation is voluntary and anonymity and confidentiality of responses was assured ,Structured interview technique was used to fill the translated modified Arabic format of Quality of life index .

The educational guidelines were presented in theoretical and practical sessions. Subjects were divided into small groups including 5 – 6 patients and repeated sessions included all Patients, each group obtained 4 sessions (2 theories and 2 practices). In addition, each patient was guided by simple written instructions, and then orientation about objectives outline and expected outcomes was done The theoretical part was conducted through lectures and group discussions, using data show and poster as a media. It was taken in 2 sessions, each session for 45 minutes •

The practical part was conducted through demonstration, re-demonstration. It was taken in 2 sessions, each session for one hour and covers the following items: measuring stoma size ,emptying and changing stoma pouch, stoma irrigation periosteal skin care, hygienic and exercises measures .Patients were informed to be in contact with the researchers by telephone for any assistance Evaluating the effect of intervention guidelines on QOL of the studied patients at the end of the first, and second week post-operative.

Statistical Design

The collected data were organized, categorized tabulated and analyzed using the Statistical Package for Social Sciences (SPSS). Data were presented in tables and charts using numbers, percentages, means ,standard deviations and t – test. Level of significance was threshold at 0.05.

II. Results

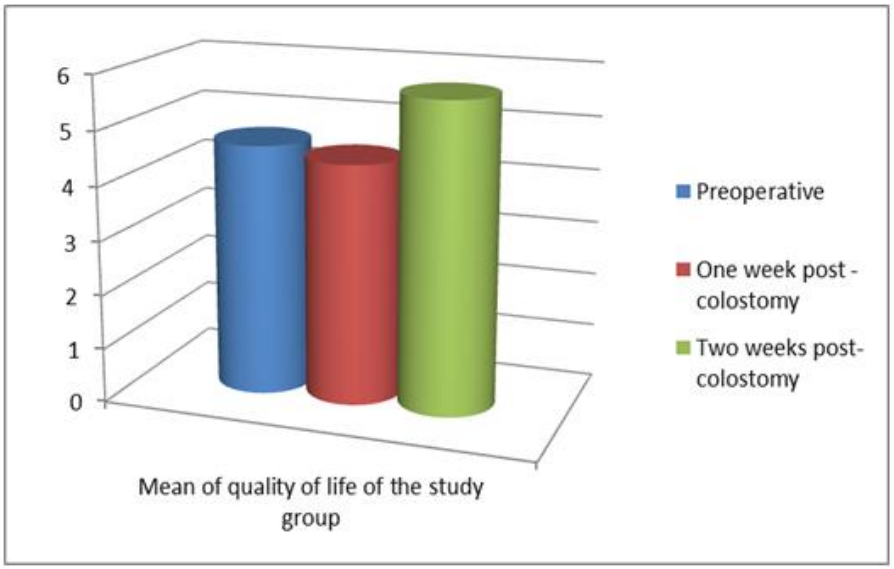
Table 1: Socio-demographic Characteristics of both groups (n= 60)

Sociodemographic characteristics	Study (30)		Control (30)		Total (n= 60)		Test statistics	P value
	No	%	No	%	No	%		
Age								
***<40years(30-<40)**	12	40.0%	13	43.3%	25	41.7%	X^2	
***>40 years (40-45)**	18	60.0%	17	56.7%	35	58.3%	=0.278	0.598
Gender								
***Males**	21	70.0%	22	73.3%	43	71.7%	X^2	
*** Females**	09	30.0%	8	26.7%	17	28.3%	=0.089	0.766
Residence								
***Urban**	12	40.0%	9	30.0%	21	35.0%	X^2	
***Rural**	18	60.0%	21	70.0%	39	61.6%	=0.635	0.425
Educational state								
***Literate**	06	20.0%	06	20.0%	12	20.0%		
-Primary	03	10.0%	04	13.4%	07	11.7%	X^2	
-Secondary	03	10.0%	02	06.6%	05	08.3%	=0.111	0.738

*** Illiterate**	24	80.0%	24	80.0%	49	80.0%		
Employment								
***Employed**	23	76.6%	20	66.7%	43	71.7%		
-Farmer	11	26.7%	09	30.0%	20	33.4%	X^2	0.572
-Laborer	08	25.7%	07	23.3%	15	25.0%	=0.317	
-Private	04	13.3%	04	13.4%	07	11.6%		
***'Unemployed**	07	11.6%	10	33.3%	17	28.3%		
Income /month								
***<500**	12	40.0%	8	23.7%	20	33.3%	X^2	0.317
*** 500-1000**	18	60.0%	22	73.7%	40	66.7%	=0.541	

Table 2: Means, Standard Deviation, and T-test of Quality of Life for Subjects in the Study and Control Groups (n=30 in each group).

Time / Group	Study group	Control group	P-value
Preoperative	4.65+ 0.66	4.46+0.74	0.294
One week post -colostomy	4.44+ 0.56	3.82±0.86	0.002
Two weeks post-colostomy	5.70+0.92	4.19+0.91	< 0.0001



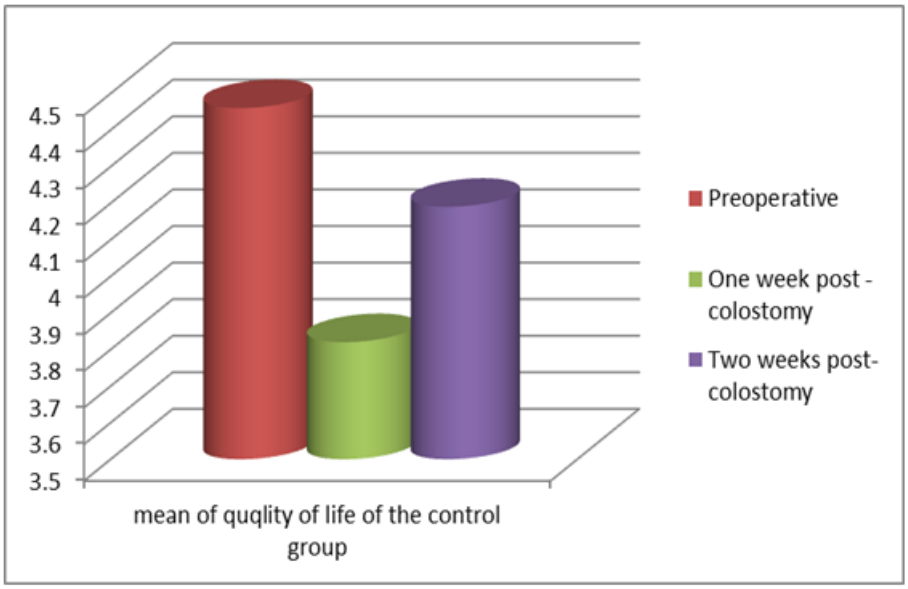


Table 3: Frequency Distribution of Findings Related to QoL Level within the Study and Control Groups Of 3 different intervals (n= 30 in each group)

Group	Study group		Control group	
Level	No	%	No	%
Pre operative				
*Low (0-<5)	20	66.7%	23	76.7%
*High(5-10)	10	33.3%	07	23.3%
One week post colostomy				
* Low (0-<5)	24	80.0%	25	83.4%
*High (5-10)	06	20.0%	05	16.6%
Two weeks post colostomy				
*Low (0-<5)	05	16.6%	24	80.0%
*High (5-10)	25	83.4%	06	20.0%

Table 4: Distribution of Patients of both study and control groups according to the four dimensions of quality of life at two different interval (the Least Scores in Each of the Four Quality of Life Dimensions) *(n= 30 in each group).

Group	Study group		Control group	
Dimensions	One week post-colostomy	Two weeks post-colostomy	One week post-colostomy	Two weeks post-colostomy
Physical & physiological				
No	**04**	**12**	**07**	**01**
%	**13.3%**	**40.0%**	**23.3%**	**03.3%**
Psychological & spiritual				
No	**12**	**13**	**11**	**12**
%	**40.0%**	**43.4%**	**36.7%**	**40.0%**
Stomal aspects				
No	**08**	**03**	**10**	**12**
%	**26.6%**	**13.3%**	**33.3%**	**40.0%**
Social				
No	**06**	**02**	**02**	**05**
%	**20.0%**	**6.7%**	**6.7%**	**16.7%**

Table 5: Distribution of Patients with the Highest Scores in Each ofthe Four Quality of Life Dimensions (n= 30 in each group).

Group	Study group		Control group	
Dimensions	One week post-colostomy	Two weeks post-colostomy	One week post-colostomy	Two weeks post-colostomy
Physical & physiological				
No	10	08	11	13
%	33.3%	26.7%	36.7%	43.3%
Psychological & spiritual				
No	10	06	07	03
%	33.3%	26.6%	23.3%	10.0%
Stomal aspects				
No	06	10	04	03
%	26.6%	33.3%	13.3%	10.0%
Social				
No	04	06	08	11
%	13.3%	26.6%	26.7%	36.7%

III. Results

Table (1) indicated that patients in the study and control groups were almost similar as regard age , gender, residence, education , and employment status , indicating that there was no statistical significant difference between the study and control groups . The study group comprised 21 males and 9 females compared with 22males and 8 females in the control groups. More patients were from rural areas in both groups (18 and 21, respectively) . They were mostly illiterate (24 for both groups, respectively). Additionally, most patients were employed (23 and 20, respectively).

Quality Of Life: - It was hypothesized that colostomy patients who received the designed guideline will have (positive effect) or higher scores in the QOL. Index than those who did not. Table 2 to 5 represent and support this data

Table (2) : This table illustrated that in both study and control groups there was no statistically significant difference between both groups preoperatively (4.65 + 0.66 vs. 4.46 + 0.74 , respectively , P =0.294) .However, one week post – colostomy , there was a statistical significant difference between the study and control groups (4.44+_0.56 vs. 3.82 +-0.86, p= 0.002) Two weeks post – colostomy , the study group demonstrates a higher QOL than the control group (5.70 +_0.92 vs 4.19 +_0.91,p < 0.0001)

In table (3) comparing results of the study group to those in the control group , it is illustrated that the majority of patients in both groups had low QOL either in the preoperative period and one week post-colostomy (20 patients , 66.7% & 23 patients, 76.7% respectively) & (23 patients , 76.7%& 25 patients , 83.4% respectively) .When comparing these two groups post colostomy , it was observed that the number of patients having low quality of life in the study group dropped to reach 4 patients only compared to 23 patients in the control group .

Table (4) illustrated that in both study and control groups, the most affected dimension one week post – colostomy was the psychological & spiritual one (number of patients = 12&13 respectively) .This was followed by stromal dimension in the control group . At the end of two weeks post- colostomy , stromal dimension in the control group was most affected dimension with the least QOL scores , as well as ,psychological &spiritual dimension which remains the most affected dimension in both groups (number of patients = 13 & 12 respectively). Physical &physiological dimension in the study group occupies the second place. Stomal dimension was less affected in the study group when comparing it with the control group (3 patients & 12 patients).

From Table (5) ,it is evidenced that one week post- colostomy the most affected dimension that occupies the highest QOL scores within the four dimensions in the study and control groups was the physical &physiological dimension (10&11 respectively) . Two weeks post- colostomy, stromal dimension has the highest QOL score in the study group , while physical & physiological dimension remains having the highest QOL scores in the control group .

IV. Discussion

Socio-Demographic Characteristics
Among the Study and Control Groups

Results of this present study revealed that there was no statistical significant difference between the study and control groups regarding socio-demographic data. All the study sample selected was married, the majority of the sample was illiterate, and have an income between 500-1000 Egyptian pounds per month. All these findings are in accordance with the reported Egyptian.

The fact that the majority of the studied sample aged from 40-45 years is consistent with their diagnosis. Watt's study [(34)], stated that colorectal cancer tends to strike in middle age, with the highest incidence found among people in their sixties. El-Ghazawy, et al [28]discussed the relation between colorectal cancer and age indicating that younger patients had a significantly less overall survival than those with older age; they rationalized these results in the light of the fact that younger patients may possess some genetic alterations which are related to more aggressive tumor behavior.

How one responds to an altered body depends on many factors such as: (a) age, sex, and personality; (b) believes and expectations regarding the diagnosis and prognosis; (c) values attached to what is missing or altered; (d) sociocultural background; (e) amount of pre-operative preparation for change; (f) relationships with family, friends, health care providers; (g) amount of physical and psychological support; (h) interventions of health care professionals; and (i) availability and use of resources Kagawa-Singer,[27)]

The fact that patients in this study were predominantly males could be explained in light of the known fact that the majority of males in Egypt are smokers. Wiggers & Wereldsma [(35)] revealed that smoking increase the risk of colorectal cancer and adenomas. The finding is also consistent with Watt's study[23] which revealed that men have a higher incidence of cancer of the rectum and women have a higher incidence of cancer of the colon. The present study revealed that rural inhabitants represented about 2/3 (two thirds) of the sample and the farmers occupies the highest percentage of the study sample (33.4%). The fact that schistosomiasis (Bilharzias is) is the major health problem among Egyptians especially rural inhabitants with an overall prevalence rate of 37-48% ,El-Kabany, et al[29]. Hence, we may consider bilharzias are as a precause of this disease. There is a well-known etiological relationship between bilharzias is and bladder cancer, yet, this relationship still stands to be proven with colorectal carcinoma. A study by Grunewald [26] support this explanation as he stated that colorectal cancer risk increases following infection with schistosormasls such as occurs in China, where the infection is endemic and the colorectal cancer rate is increased. Contrary to this interpretation was the study by El-Kabany, et al, [(29)], they concluded that bilharzias is not carcinogenic to colorectal epithelium and all bilharzia lesions are not precancerous to the colon.

In reference to the employment status, thirty percent of the study sample became unemployed, statements that indicated layoff included among many others, "they were working in a private work before being diseased and diagnosed as having colorectal cancer, and because of the disease process they compelled to leave their responsibility to their sons so, they lost their jobs".

Quality of Life among those with Permanent Colostomy

It was hypothesized that colostomy patients who received the designer dietary guidelines will have higher QOL scores than these who did not. This hypothesis was supported by the findings of our study. The study revealed that there was a statistical significant difference between the study and control group.

The objective of any colostomy operation irrespective of its type is to create a stoma that the patient can care for with simple routine and without facing problems related to this stoma. Results of the current study revealed that the study group who followed the designed educational guidelines demonstrated a higher QOL than the control group. Cleveland Clinic in Florida conducted a research to determine the actual impact of the stoma function on the quality of life. They assessed 70 patients using the "stoma scoring system" they have developed. Data revealed that there was a positive relationship between stoma function and the quality of life; i.e. when the stoma functions well, they have a better quality of life **Boarini** [23]

Experiencing pain; giving a diagnosis of cancer: being hospitalized and dependent on the others; loss of income; as well as being worried and anxious about the impeding surgery could provide an explanation for the decreased mean scores of quality of life pre-operatively and one week post-colostomy for both the study and the control groups, as these losses can so overwhelm the person that they became immobilized and even unable to - earn; to share concerns and feelings. These same losses could prevent them from moving toward rehabilitation.

Berry [22], demonstrated that ostomy surgery may delay the attainment of independence and actually regress the person back to a more dependent state, even temporarily. The altered body and diminished body image may interfere with the way the person expresses himself. The final result is regression or delay through the life cycle. Providing support to this explanation, El ghazawy et al [28], who reported that following surgery the patients' quality of life depends on the success or failure of the patient to live with a stoma, some patients may never accept (heir stoma and feel stigmatized continuously.

The results of this present study, which revealed decline or decrease in the mean scores or the quality of life one week post-colostomy for both the study and control groups is also consistent with Cole[32] who pointed out that, patients who are faced with the fact that the are going to eliminate from a stoma for the rest of their life, nave an absolute change in the self concept as well body image and consequently their quality of life would be altered.Quality of life is strongly affected by sexual it and social life in eastern countries, such as ours. In the present study the majority of the sample expressed that they will not be able to return to their normal sex life and activity because of the colostomy surgery and this aspect was anxiety provoking to the majority of the studied sample. According to Trainor ,[33] sexuality and sexual activity are important aspects of every person's life. Colostomy surgery may have altered some aspects of the body, individuals who have a permanent colostomy may experience some alteration in sexual functioning and the sexual feelings experienced. It usually takes three months for colostomy patient to regain his or her strength and physical sense of wellbeing following ostomy surgery.

It is important to note that post-colostomy, patients in the two groups experienced lesser psychological & spiritual scores of QOL. Patients owed that to their fears from the prognosis of the disease and the problem of having a permanent colostomy, which they will live with it forever. Ferrans&Powers[30] emphasized the importance of the psychological care. Speaking in the same line Abd El Aziz, et al [20] recommended that psychosocial needs of ostomates should be emphasized, and nurses should reinforce patient education how cope with the stoma and its reflection on the psychological well being.

At the end of two weeks post-colostomy, the decrease in the stromal and social scores in the control group than the study group as stated by these patients was because of the presence of elimination problems and their fears from being rejected from others. These results was supported by study by Abd El Aziz, et al [(20),] which showed in when patients respond positively to the fear of rejection by others due the presence of stoma, this will have a negative impact on the QOL, and there who are worried about the stoma and unable to look at it are unable to adjust to their new life. The less worries they have, the more adjustment they feel. In the study group, patients followed the educational guidelines showed a positive impact through decreasing the stoned problems which in turn helping these patients in felling that they are not socially rejected and supported by their family members.

In a prospective clinical trial studying complications and social well being of 37 and 39 patients with permanent colostomy respectively (randomly assigned comparison). The association between the degree of social restriction and the presence of stoma care problems and complications was assessed. Results demonstrated no relation between stoma type (randomly or colostomy) and the degree of social restriction Furthermore the more stoma problems or complications, the higher the degree of social restriction. Stoma leakage, periosteal skin irritation, dietary prescriptions, retraction, and prolapse of the stoma proven to have a significant impact on the patient's daily life (Gooszen & Geelkerken, [(24)].

Ferrel [(31)], concluded that life satisfaction means having financial success, having a family & friends, being able to work, and having appreciation for life. This indicates that ostinatos should fell physically &

physiologically as well as psychologically & socially to have better adjustment and better perception to their QOL.This present study also revealed that the majority of patients in both groups were their colostomies will be permanent, they stated that "these colostomies are drains and they will be moved with the first dressing". These colostomies are permanent they became shocked, socially isolated, which in turn affects their quality of life.

A study by Ream & Richardson **(36)** revealed that creation and of a stoma is a team approaches, involving the patients, the nurse and the colorectal surgeon. Patients must assume responsibility for their own health and well being. They need to learn about their disease and underhand

What operation is being performed and why. They need to know whether they have a colostomy or ileostomy, whether it is permanent or temporary and how to care for it.

A study was carried out at the National Cancer Institute, Cairo University by Abdel wraith, et al **(22),** revealed that the majority of the patients have the desire to know their cancer diagnosis and the details of their disease and its management.

V. Conclusion

On the light of the current study results, it can be concluded that, the educational guidelines had a positive effect on improving QOL among the colostomy patients in study group

VI. Recommendations

- Awareness programs should be held periodically for such group of patients.
- Patients are in need to a simplified illustrated and comprehensive Arabic booklet about colostomy.
- Teaching family members to participate in such patients' care.
- Further studies should be carried out on a large number of colostomy patients for evidence of the results and generalization

References

[1]. Pachler J, Wille-Jorgensen P(2012): Quality of life after rectal resection for cancer, with or without permanent colostomy. Cochrane Database Syst Rev, 12, CD004323.

[2]. Shabbir J, Britton DC(2010): Stoma complications: a literature overview. Colorectal Dis, 12:958–64

[3]. Marquis P , ; Marrel A; and Jambon, MS. (2003) Quality of Life in Patients with Stomas: The Montreux Study. Ostomy/Wound Management; 49(2): 48 – 55

[4]. .Prieto L, Thorsen H and Juul K. (2005,)Development and validation of a

[5]. quality of life questionnaire for patients with colostomy or Ileostomy. Health and Quality of Life Outcomes 3:62.

[6]. .Kieghley, M. (2009): Surgery of the anus,rectum and colon 2nded.Philadelphia: W. B. Saunders 958–964

[7]. . Pringle, W. & swan, E. (2011): Continuing care after discharge from hospital for stoma patients .British Journal of Nursing, 10(119), 1275-88.

[8]. 7Rafii, F., L Naseh, L. and Parvizy, P. (2013) Self-efficacy and its Dimensions in Patients with Intestinal Stoma. IJN. 26 (83):10-18.

[9]. ,Mohamed,E., Abou-Zeid, A., Hegazy,S. and Hamdi, A.(2012): Assessment of Quality of Life for Patients with Colostomy Post Colorectal Surgery, Master thesis, Ain Shams University.

[10]. National Cancer Institute (NCI) (2012). Incidence Reported. Cairo, Egypt. Available at :http:// www. Your Cancer today. Com/ cancers /Rectal/127. Retrieved on: 23/8/2013.

[11]. Adel, M., Ashoori, E., Moladoost, A. and Aghayi, S. (2008): Psychological experiences of patients with surgical stoma (colostomy): A phenomenological study. Res Behav Sci.; 2 :119-27

[12]. .Cox, J., Rogers, M. and Cox, S. (2011): Treating benign colon disorders using laparoscopic colectomy. AORN Journal, 73(2), 377–82.

[13]. .Hasler,W.andTraber, P. (2008): Handbook of gastroenterology. Philadelphia: Lippincott Williams & Wilkins 1122-34

[14]. .Rondelli, F. (2009): Loop ileostomy versus loop colostomy for fecal diversion after colorectal or coloanal anastomosis: a meta-analysis International Journal of Colorectal (4) 6 .200-20.

[15]. .Hocevar, B. and Gray, M. (2008): Intestinal diversion (colostomy or ileostomy) in patients with severe bowel dysfunction following spinal International Journal of Colorectal (7) 6 .148-55

[16]. .Potter, P. and Perry, G. (2011): Fundamentals of Nursing: Concepts, Process & Practice, 4th ed U.S.A.: Mosby Co.P.11-13.

[17]. .Hussein, M. and Aboelfadel, S. (2008): Quality of life in Egyptian stoma patients. University of Alexandria, Egypt. Eg Journal of Surgery.(20) 3

[18]. Black, P. (2011): Coping with common stoma problems in care homes. Nursing & Residential Care; 13: 3, 126 – 8.

[19]. Nicol, M. (2010): Stoma Care Essential Nursing Skills ,St., Louis,Mosby Company, 366.

[20]. .Madick,S.(2011):Perioperative care of the patient with Zenker's diverticulum. AORN Journal, 73(5), 904– 13.

[21]. Abd El Aziz, M., El Kateb, N. & Ibrahim, A.S. (2009). Impact of Ostomy on the Quality of Life of Egyptian Cancer Patient. The New Egyptian Journal of Medicine, 12 (1), 143-8.

[22]. Abd El Writh, A., Abd El Moneim, H., Abd El Maksoud, S. & El Atar, I. (2009). Disclosure of Cancer Diagnosis : What is the Egyptian Cancer Patients Opinion?. Journal of the Egyptian Nat. Cancer Inst., 9(4), 339-46.

[23]. Berry,D (2013). Return to Work Experience of People with Cancer. Oncology Nursing Forum, 20 (1), 905-11.

[24]. Boarini, J. (2010). Gastrointestinal Cancer : Colon & Anus, (2nd ed.) Boston : Jones & Bartlett Publishers Co. P. 130-41.

[25]. Gooszen, A.W. & Geelkerken, R.H (2000). Quality of Life with a Permanent Stoma. Ostomy & Wound Management, 43 (5), 650-5.

[26]. Grant, M., Ferrell, B.R., Rivera, L.M. & Lee, J. (2011). Unscheduled Readmission for Uncontrolled Symptoms. Nursing Clinics of North America, 30 (4), 673-82.

[27]. Groenwald, S, (1995). A 10- Year Prospective Aduit of Outcome of Surgical Treatment for Colorectal Carinoma. Br. J. Of Surg., 82(1), 1486-90.

[28]. Kagawa – Singer, M. (2012). Socioeconomic and Cultural Influences on Cancer Care. Seminars in Oncology Nursing, 11 (2), 109-
[29]. El Ghazawy, I.M., Saad EJ Din, S. & El Hattab, M. (2011). Predictors of Outcome of Surgical Treatment for Colorectal Carcinoma: A Follow up Study. Journal of the Egyptian Nat. Cancer Inst., 10(1), 15-23.
[30]. El Kabany, M., El Hossieny, S., Ismael, M. & Mokhtar, N. (2011,2012). P 53 Expression and D-Galactose-B-(l—3)-N-Acetyl-D-Galaclosamine in Coiorectal Bilharziasis, Precancerous Lesions and CYcinoma. Journal of the Egyptian Nat. Cancer Inst., 7(2), 207-214.
[31]. Ferrans, C. & Powers, M. (2013). Quality of Life Index: Development and Psychometric Properties. Advances in Nursing Science, 8 (1), 15-24.
[32]. Ferrel, B. (1992). Meaning of Quality of Life for Bone Marrow Transplant Survivors; The Impact of Bone Marrow Transplant on Quality of Life. Cancer Nursing, 15 (3), 153-160.
[33]. Cole, G. (2011). Fundamental Nursing, (2nd ed.) Toronto : Mosby Year Book Co. 610.
[34]. Trainor, M. (2007). Acceptance of Ostomy in Ostomy Patients. Nursing Research, 38 (3), 140-4.
[35]. Watt, S, (2013). Psycho-Social Adjustment to recurrent Cancer. Oncology Nursing Forum, 17(3), 47-54.
[36]. Wiggers, T. & Wereldsma, J.C. (2009). Association between Age and Local Recurrence of Rectal Cancer: Results from a Retrospective Study of 902 Patients. Int. J. Colored. Dis., 12 (1), 235-9.
[37]. Ream, E. & Richardson, A. (2008). The role of Information in Patients Adaptation to Chemotherapy & Radiotherapy : A Review of Literature. Eur. J. Ca. Care, 5 (1), 132-8.