

Effectiveness of an instructional Program on Nurses Knowledge Concerning the Care Plan for Patient with Ulcerative Colitis in Al-Hussein Teaching Hospital at Al-Nassiryah City

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Abstract- Background: Ulcerative colitis is a highly prevalent gastrointestinal disorder. It is a most common worldwide disease afflicting human beings because of the associated morbidity, mortality, the cost of society and an important public health challenge over the past several decades. UC remains a major risk and powerful predictor when poorly compliance or if left untreated, It is a form of [inflammatory bowel disease](#) that causing ulcer in the [colon](#). This situation considered dangerous because it leads to malabsorption of water, vitamins, and other substances and result more problems such as diarrhea mixed with blood, lower abdominal pain, anemia and weight loss, the ulcerative colitis usually happening gradually and start in the rectum and moves in a continuous pattern toward the scum

Objectives: The study aims to Assess nurses knowledge about nursing care for patient with ulcerative colitis. To find out the relationship between pre _ post instructional program with (age, gender, level of education, years of experience in nursing and participated in training of course). Design of the study: A descriptive design study was carried out through the application of pre-test and post-test approach for the case and control groups, from the period of October, 26th 2015 to the June , 24th 2016.

The study Sample: A non- probability (purposive) sample of (50) nurses who are working in medical and surgical wards. The sample is divided into two groups; (25) nurses (case group) are exposed to the instructional program and (25) nurses (control group) are not exposed to the program, they are considered as the control group. The study Instrument: The study instrument was composed of three parts which as socio demographic information was included; age group, gender, level of education, years of experience in nursing and participated of training in courses, part two consist of medical information was comprised of (7) items, and part three contain nursing care plan and intervention. Validity and Reliability: The content validity of the instrument was established through a panel of (16) experts, the reliability of the items was based on the internal consistency of the questionnaire was assessed by calculating Cronbach s' Coefficient alpha which as= 0.73. Statistical Analysis: The researchers used the appropriate statistical methods for data analysis which include the descriptive data analysis, and inferential data analysis. Result: the findings revealed that presented that 56% of nurses were females 13 (52%) of nurses in at age group (20–29) years, Regarding level of educational the study shows that 40% of nurses were graduated from secondary

school nursing . In relation to the number of years of experience in nursing that 56% of nurses 52% have (1-10) year of experiences. The participation of nurse in training courses concerning nursing care plan for ulcerative colitis, the findings of present study revealed that 76% of nurses had training courses..

Index Terms- ulcerative colitis, instructional program, nursing care plan.

I. INTRODUCTION

Ulcerative colitis (UC) is a form of [inflammatory bowel disease](#) that causing ulcer in the [colon](#). It is a most common worldwide disease afflicting human beings because of the associated morbidity, mortality, the cost of society and an important public health challenge over the past several decades. UC remains a major risk and powerful predictor when poorly compliance or if left untreated. This situation considered dangerous because it leads to malabsorption of water, vitamins, and other substances and result more problems such as diarrhea mixed with blood, lower abdominal pain, anemia and weight loss, the ulcerative colitis usually happening gradually and start in the rectum and moves in a continuous pattern toward the scum. (Ruthruff, 2015). Roberts (2014) refer to the inflammation and ulceration take place in the mucosal layer of the bowel wall and Capillaries become friable and hemorrhage. With healing and the natural formation of scar tissue, the colon may lose elasticity and amalgamation capability. Ulcerative colitis that can source high morbidity and a reduction in health related quality of life, recognized as important causes of gastrointestinal disease in children and adults. These diseases appear more often in women, and in the nonwhite population; there seems to be a familial tendency. It's more common in northern countries of the world, rates tend to be higher in more affluent countries, the country more use irritation substance which may indicate the enlarged prevalence is due to bigger rates of diagnosis. It may also show that an industrial or western diet and lifestyle increases the event of this disease, the ulcerative colitis therefore impacts on the formative years of life throughout adulthood.

(Reid, 2005) It's an idiopathic inflammatory bowel disease that affects the colonic mucosa and is clinically characterized by diarrhea, abdominal pain and hematochezia. The extent of disease is variable and may involve only the rectum (ulcerative

proctitis) the left side of the colon to the splenic flexure, or the entire.(Rejler, et.al. 2007)

II. METHODOLOGY

- 1- **Objectives of the study:** Assess nurses knowledge concerning care plan for patients with ulcerative colitis
- 2- Find out the effectiveness of the instructional program on nurses knowledge toward care plan of ulcerative colitis
- 3- Find out the relationship between nurses demographic characteristics and effectiveness of instructional program

The study Sample: A non- probability (purposive) . The sample is divided into two groups; (25) nurses (case group) are exposed to the instructional program and (25) nurses (control group) are not exposed to the program, they are considered as the control group.

The study Instrument: The study instrument was composed of three parts which as socio demographic information was included; age group, gender, level of education, years of experience in nursing and participated of training in courses, part two consist of medical information was comprised of (7) items, and part three contain nursing care plan and intervention..

Validity and Reliability: The content validity of the instrument was established through a panel of (16) experts, the reliability of the items were based on the internal consistency of the questionnaire was assessed by calculating Cronbach 's Coefficient alpha which as= 0.73.

Statistical Analysis: The researchers used the appropriate statistical methods for data analysis which include the descriptive data analysis, and inferential data analysis

III. RESULTS

Table(1)Distribution of the Study Sample by Demographic Data for Case and Control Groups (N=50)

variable	group	case		control		C.S.
		Fr.	Pr.	Fr.	Pr.	
Gender	Male	11	44.0	9	36.0	t-test p=0.840 NS
	Female	14	56.0	16	64.0	
	Total	25	100.0	25	100.0	

Continuos Table 1

Table (2): Comparison between the pre case and pre control Groups regarding Instructional program on Nurses' Knowledge concerning Care Plan for Ulcerative Colitis

Main Domain	Nurses' knowledge	Pre- test (Case)			Pre -test (Control)		
		M.S.	S.D.	Ass.	M.S.	S.D.	Ass.
information of ulcerative	1- Type of UC	1.12	0.332	L	1.12	0.332	L
	2- Age group affected UC	1.12	0.332	L	1.08	0.277	L
	3- Risk of	1.12	0.332	L	1.20	0.408	L

Age group	20-29 years	15	60.0	13	52.0	t-test p = 0.840 NS
	30-39 years	6	24.0	9	36.0	
	≥ 40 years	4	16.0	3	12.0	
	Total	25	100.0	25	100.0	
	X± S.D	1.60 ± 0.7641		1.64 ± 0.700		
Level of Education	Secondary Nursing School	10	40.0	11	44.0	t-test p= 0.862 NS
	Institute	8	32.0	6	24.0	
	College	7	28.0	8	32.0	
	Total	25	100.0	25	100.0	
in Years experience in Nursing	1-10	14	56.0	13	52.0	t-test p= 0.703 NS
	11-20	5	20.0	7	28.0	
	≥ 21	6	24.0	5	20.0	
	Total	25	100.0	25	100.0	
Participation in training courses	No	6	24.0	8	32.0	FEPT P= 0.570 NS
	Yes	19	76.0	17	68.0	
	Total	25	100.0	25	100.0	

Table 1: presented that 14(56%) of nurses in the case group were females and 16 (64%) of nurses in the control group were females and 15 (60%) of nurses in the case group and 13 (52%) of nurses in the control group at age group (20–29) years. Regarding level of educational the study shows that 40% of case group and 44% of nurses in a control group were graduated from secondary school nursing . In relation to the number of years of experience in nursing that 56% of nurses in the case group and 52% of nurses in a control groups have (1-10) year of experiences. The participation of nurse in training courses concerning nursing care plan for ulcerative colitis, the findings of present study revealed that 76% of nurses in the case group and 68% of nurses in the control groups had training courses. Statistically, there is no significant dissimilarity between case and control groups regarding socio-demographic characteristics

	UC						
	4- Most symptoms of UC	1.08	0.277	L	1.12	0.332	L
	5- Main cause of UC	1.16	0.374	L	1.08	0.277	L
	6- Chief investigation for UC	1.12	0.332	L	1.08	0.277	L
	7-What are complications of UC	1.20	0.408	L	1.08	0.277	L
	8- Treatment of UC	1.04	0.200	L	1.28	0.458	L
	9- How to reduce the severity of UC	1.04	0.200	L	1.16	0.374	L
	10- In which types of disease the UC	1.20	0.408	L	1.20	0.408	L
	11. Difficulties of UC	1.16	0.374	L	1.04	0.200	L
	12- Site of UC	1.24	0.436	L	1.04	0.200	L
	Nursing Care plan (diarrhea)	1. Onset of diarrhea and nature	1.44	0.507	M	1.20	0.408
2. Observe and record the amount and frequency of diarrhea and its contents		1.08	0.277	L	1.12	0.332	L
3. Control the abdominal pain, and blood with diarrhea,		1.12	0.332	L	1.24	0.436	L
4. Provide foods and fluids that reduce diarrhea		1.08	0.277	L	1.08	0.277	L
5. Note signs of dehydration		1.08	0.277	L	1.12	0.332	L
6. Give the patient intravenous fluids		1.16	0.374	L	1.04	0.200	L
7. Monitor the vital signs		1.04	0.200	L	1.12	0.332	L
8. Patient rest in bed and comfortable		1.04	0.200	L	1.12	0.332	L

Nursing care plan (fluid deficit)	1-Measure and record signs and symptoms	1.12	0.332	L	1.24	0.436	L
	2- Treatment of patient	1.08	0.277	L	1.08	0.277	L
	3- Provided patient needs	1.08	0.277	L	1.12	0.332	L
	4- Check bowel movement	1.16	0.374	L	1.04	0.200	L
	5- Measuring fluid loss:	1.04	0.200	L	1.12	0.332	L
	6- Necessary tests	1.00	0.000	L	1.16	0.374	L
Nursing care plan (Anxiety)	1-Identify the patient's physiological factors that affected the condition.	1.20	0.408	L	1.12	0.332	L
	2-Observe the behavior of the patient	1.24	0.436	L	1.08	0.277	L
	3-Help patients to adapt	1.20	0.408	L	1.04	0.200	L
	4- Encouraging the patient verbal expression	1.08	0.277	L	1.04	0.200	L
	5-provide a quiet comfortable environment	1.04	0.200	L	1.12	0.332	L
	6-Provide moral and psychological support	1.00	0.000	L	1.16	0.374	L
	1-Encourage the patient to describe pain	1.20	0.408	L	1.12	0.332	L
	2- report cramping and pain in the	1.24	0.436	L	1.08	0.277	L

Conscious Table 2

Nursing care (acute pain)	3- comfort measures	1.20	0.408	L	1.04	0.200	L
	4-Give the patient pain relievers	1.08	0.277	L	1.04	0.200	L
	5-Evaluated the factors that alleviate pain	1.16	0.374	L	1.12	0.332	L

	6-Prevent the patient from eating foods that irritate the	1.24	0.436	L	1.08	0.277	L
	7- Best position to relieve abdominal pain	1.16	0.374	L	1.08	0.277	L
	8- Take care to prevent the anal area	1.20	0.408	L	1.12	0.332	L
Nursing care plan (Nutrition Imbalance)	1. Bed rest and limited activity	1.20	0.408	L	1.16	0.374	L
	2. provide suitable foods	1.08	0.277	L	1.16	0.374	L
	3. Avoid foods that cause spasms and flatulence	1.20	0.408	L	1.12	0.332	L
	4. Need to medication anti-cramps	1.12	0.332	L	1.00	0.000	L
	5.Documentation and record changes in the symptoms	1.12	0.332	L	1.16	0.374	L
	6-Instruct the patient to use sufficient fluids, proteins and vitamins	1.08	0.277	L	1.16	0.374	L
lack knowledge	1-Explain the disease for patient	1.20	0.408	L	1.04	0.200	L
	2-Explain to the patient the treatment	1.08	0.277	L	1.04	0.200	L
	3-Provided patients need	1.16	0.374	L	1.12	0.332	L
	4 Recommendation patient	1.24	0.436	L	1.08	0.277	L

Table (2) The results revealed that there are no clear improvement in nurses knowledge between case and control groups at pre test for instructional program .

Table (3) Comparison between the post- case and post-control Groups regarding Instructional program on Nurses' Knowledge concerning Care Plan for Ulcerative Colitis

Main Domain	Nurses' knowledge	Post- test (Case)			Post-test (Control)		
		M.S.	S.D.	Ass.	M.S.	S.D.	Ass.
of information ulcerative	1- Type of UC	1.88	0.332	H	1.16	0.374	L
	2- Age group affected UC	1.88	0.332	H	1.16	0.374	L
	3- Risk of UC	1.88	0.332	H	1.16	0.374	L
	4- Most	1.76	0.436	H	1.04	0.200	L

	symptoms of UC						
	5- Main cause of UC	1.84	0.374	H	1.08	0.277	L
	6- Chief investigation for UC	1.84	0.374	H	1.08	0.277	L
	7-What are complications of UC	1.84	0.374	H	1.12	0.332	L
	8- Treatment of UC	1.92	0.277	H	1.08	0.277	L
	9- How to reduce the severity of UC	1.92	0.277	H	1.12	0.332	L
	10- In which types of disease the UC	1.88	0.332	H	1.08	0.277	L
	11.Difficulties of UC	1.76	0.436	H	1.08	0.277	L
	12- Site of UC	1.60	0.500	H	1.00	0.000	L
	Nursing Care plan (diarrhea)	1.Onset of diarrhea and nature	1.72	0.458	H	1.20	0.408
2. Observe and record the amount and frequency of diarrhea and its contents		1.80	0.408	H	1.04	0.200	L
3. Control the abdominal pain, and blood with diarrhea,		1.80	0.408	H	1.04	0.200	L
4. Provide foods and fluids that reduce diarrhea		1.80	0.408	H	1.04	0.200	L

Continuous table 3

	5. Note signs of dehydration	1.76	0.436	H	1.08	0.277	L
	6.Give the patient intravenous fluids	1.80	0.408	H	1.20	0.408	L
	7. Monitor the vital sings	1.84	0.374	H	1.08	0.277	L
	8. Patient rest in bed	1.72	0.458	H	1.12	0.332	L

	and comfortable						
Nursing care plan (fluid deficit)	1-Measure and record dehydration	1.72	0.458	H	1.12	0.332	L
	2- Treatment of patient	1.64	0.490	M	1.08	0.277	L
	3- Provided patient needs	1.84	0.374	H	1.04	0.200	L
	4- Check bowel movement	1.88	0.332	H	1.04	0.200	L
	5- Measuring fluid loss:	1.76	0.436	H	1.08	0.277	L
	6- Necessary tests	1.76	0.436	H	1.08	0.277	L
Nursing care plan (Anxiety)	1-Identify the patient's physiological factors that affected the condition.	1.92	0.277	H	1.12	0.332	L
	2-Observe the behavior of the patient	1.76	0.436	H	1.20	0.408	L
	3-Help patients to adapt	1.96	0.200	H	1.12	0.332	L
	4- Encouraging the patient verbal expression	1.84	0.374	H	1.12	0.332	L
	5-provide a quiet comfortable environment	1.72	0.458	H	1.12	0.332	L
	6-Provide moral and psychological support	1.64	0.490	M	1.08	0.277	L
Nursing care for acute pain	1-Encourage the patient to describe pain	1.84	0.374	H	1.04	0.200	L
	2- report cramping and pain in the	1.88	0.332	H	1.04	0.200	L
	3- comfort measures	1.76	0.436	H	1.08	0.277	L

	4-Give the patient pain relievers	1.76	0.436	H	1.08	0.277	L
	5-Evaluated the factors that	1.80	0.408	H	1.20	0.408	L

	alleviate pain						
	6-Prevent the patient from eating foods that irritate the	1.84	0.374	H	1.08	0.277	L
Nursing care plan (nutrition imbalance)	1. Bed rest and limited activity	1.75	0.442	H	1.08	0.277	L
	2.provide suitable foods	1.75	0.442	H	1.04	0.200	L
	3. Avoid foods that cause spasms and flatulence	1.83	0.381	H	1.04	0.200	L
	4. Need to medication anti-cramps	1.79	0.415	H	1.16	0.374	L
	5.Documentation and record changes in the symptoms	1.62	0.495	M	1.04	0.200	L
	6-Instruct the patient to use sufficient fluids, proteins and vitamins	1.54	0.509	M	1.08	0.277	L
lack knowledge	1-Explain the disease for patient	1.71	0.464	H	1.12	0.332	L
	2-Explain to the patient the treatment	1.79	0.415	H	1.04	0.200	L
	3-Provided patients need	1.92	0.282	H	1.08	0.277	L
	4 Recommendation patient	1.75	0.442	H	1.12	0.332	L

Table 3 The findings revealed that the Post test for Case Group was clearly improvement in their knowledge compare with a control group at post test for instructional program

Discussion

Table 1:Throughout the courses of the data analysis of present study, the findings showed that the 14 (56%) in the case group and 16 (64%) in the control group were females. This result support by Kim, et al., 2012. they presented in their study the effectiveness of educational program of nurses knowledge toward nursing intervention for ulcerative colitis patients, they found that 82% of nurses in study sample were females, while disagrees with Mohammed (2012) study which report that 70% were male. The result of present study revealed that 15 (60%) case group,13 (52%) control group at age group 20-29 years this result is supported by Xavier (2007) study ,who reported that the majority of the sample at age group 20-29 years. The result of present study revealed that the 56% of case group, and 60% of control group graduated from secondary school nursing this supported by Alsultani, (2006) presented in their study that the secondary nursing school nurses working in medical and

surgical wards. In relation to experience in nursing field , the result of present study were 14(56%) in case,13(52%) in control group have 1-10 years these result agree with Salah, (2013) who applied the instructional program on nurses knowledge concerning nursing care for client with inflammatory bowel disease) which revealed that the years of experience was >5 years 45.0 in study group, 42.5 in control group. Concerning the number of participation of nurses in training course was 76% of case group and 68% of nurses in the control groups was enjoy in course training. This result disagree with Peeters and other, (2013) who presented that the low training Corus participation can effected on nurses knowledge so the nurses' need more course and participation to improve their knowledge.

Table 2 : The result revealed that there are no clear improvement in nurses knowledge between case and control groups at pre-test instructional program toward nursing care plan for patient with ulcerative colitis. Himmel, et al.,(2008) Stated in their study which conducted in medical and surgical wards to assess knowledge and attitudes of registered nurses regarding nursing care plan for client suffering from problems associated with ulcerative colitis their sample study was 120 participants,

they show that 82.4% from nurses have deficit knowledge about care regarding ulcerative colitis client. Rowe, et al., (2014) a support the present results through their study on 106 register nurses in digestive system center their results referred to the definite effectiveness of educational intervention on the experimental group and the control group were low knowledgeable before attending the training program at pre-test

Table 3: Present study show a highly significant differences between case and control group at post-test in all items of knowledge concerning the nursing care plan for patient with ulcerative colitis. This result agreement with Bernstein, et. al, (2013) they assess 12 hospitals to evaluate the Jordanian staff nurses to nursing care for inflammatory bowel disease ,they presented that all nurses have lack of knowledge about nursing care for IBD but clearly significant after application program. Highly improvement knowledge of nurses in case group because those participate with instructional program than control group not participated concerning (UC). This result support by Danese and Fiocci, (2011). They determine the general information of nurses toward health education around ulcerative colitis for discharge patient in Egypt hospitals, they founded that the nurses have high information after participated in health instruction.

IV. CONCLUSIONS AND RECOMMENDATIONS

High percentage of study sample were females gender at age 20-29 years, Most of study sample graduated from secondary school, high percentage of the study sample have 1-10 years in nursing filled, There was significant association between the nurses knowledge of instructional program at pre and post test ,There was no statistical significant between effectiveness of instructional program and gender, age, level of education, years of experience and training courses

Based on the study conclusions, the study can recommends that: Emphasis should be directed toward the educational aspect at medical and surgical wards by providing educational poster, guidelines pamphlets and manual ,Policy should be initiated to providing a special education courses at medical and surgical wards nurses, Modern instructive facilities for nursing team at medical and surgical wards should be provided to enhance nurses knowledge ,Applying global instructional structure to promote nurses knowledge

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