

Effect of Tailored Counseling for Patients Undergoing Hemodialysis upon Their Self-Care

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Abstract: End-stage renal disease (ESRD) is considered as a public health problem. The incidence and prevalence are reportedly increasing all over the world. Kidney failure is considered as a medical, social and economic problem to patients and their family. The present study **aimed** to evaluate the effect of counseling program on patient's self-care. The research **hypothesis**; counseling will affect positively on self-care for patients with hemodialysis. **Methods:** The study was conducted at the artificial kidney unit of Minia University Hospital. The sample of this study comprised 80 adult patients including both sex, their age ranged from 20-55 years old, They were selected by convenience randomly assigned two equal groups control (group1) and interventional group (group2) (40 in each). **Three tools** were used to collect the data in this study, tool one: Interview questionnaire were included biosocial demographic data and knowledge assessment sheet. Tool two: Patients practices checklist. Tools three: Counseling program according to patient's needs. **Results** The results revealed that there were highly statistically significant differences for patients under study in relation to patient's level of knowledge, performance skill and self-care between pre and post counseling program. In **conclusion**; the counseling program implementation improved patients' knowledge, skill performance and self-care. Counseling program should be available in a form of illustrated booklet in hospitals as a reference for patients and reapplication of this study on larger probability sample are **recommended**.

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1. Introduction

Renal failure (RF) defined as kidney fails to perform the normal excretion of metabolic wastes namely (urea, creatinine, uric acid etc.) with resultant retention of their products in the blood and fluids. Consequently, abnormalities occur in every body system and threaten the individual's life. ⁽¹⁾ End-stage renal disease is the loss of renal function requiring treatment with any form of chronic dialysis or transplantation, while incidence of renal failure is increasing. ⁽²⁾

World-Health Organization (WHO), reported that, incidence of end-stage across Europe rose from 79 to 117 patients per million populations per year. And there are more than 500,000 dialysis and renal transplant recipients in the United States in 2005 and more than 100,000 patients were newly diagnosed ⁽³⁾.

While Egypt, the estimated prevalence is 300 patients per million populations and the incidence of chronic renal failure was increased in last years in many parts of Egypt as in Daquahlia, Aswan, Assiute and El-Minia ⁽⁴⁾.

While the incidence of kidney failure patients from October 2000 to November 2004 who was admitted at artificial kidney dialysis unit in El Minia University hospital are 3175 patients, and the number of chronic hemodialysis patients was 658 during one year 2009 ⁽⁵⁾.

Dialysis to the layperson is at first frightening, seemingly dangerous procedure. Once the procedure has been initiated these patients find themselves facing the prospect of two or three dialysis sessions a week for approximately six hours per session on the machine at the rest of their lives. In addition, they have a subject to strict adherence of dietary and fluid restrictions as well as an intense daily regimen of medication and the curtailing of certain physical activities ⁽⁶⁾.

Rehabilitation for end stage renal disease patients has changed significantly over the last 40 years. Initially, the concept focused on return to employment. Today renal rehabilitation is defined broadly, in terms of optimal functioning for individual patients and restoration to productive activities-not simply employment to faster renal rehabilitation and guide program development ⁽⁷⁾.

The Life Options Rehabilitation Advisory Council (LORAC) identified five core principles called the "5Es". Encouragement, Education, Exercise, Employment and Evaluation. Considerable progress has been made in measuring outcomes of care and in establishing a connection between rehabilitation interventions and improved outcomes ⁽⁸⁾.

The professional nurse is playing a vital role for improving the physical and psychological condition.

She can also support the family by letting them know the negative feelings of distress and helps to provide verbal and written instructions and to inform them of resources that are available for assistance and support (9),(10).

Aim of study

To evaluate the effect of counseling program on patient's self-care.

Subjects and Method

Setting:

The study was conducted at artificial kidney Unit of Minia University Hospital.

Subjects:

The sample of this study comprised 80 adult patients including both sexes, their age ranged from 20-55 years old, with chronic renal failure and undergoing hemodialysis, they were assigned two equal groups control(group1) and interventional group(group2) (40 in each).

Research Design:

A Quazi experimental research design will be utilized to fulfill the aim of the study.

Research Hypothesis

Counseling will affect positively on self-care for patients with end stage renal disease (ESRD).

Tools:

Three tools were used to collect the data for this study

First Tool:

An Interview Questionnaire Sheet, it included two parts

- 1st part covering biosocial and demographic data of the patient as age, sex, level of education, marital status, occupation.
- 2nd part included Pre/Post knowledge assessment sheet covering the following items: renal failure disease, its signs, symptoms, complication and treatment, also contains patient's knowledge about diet, fluid intake, exercise, diagnostic test and measures to minimize the complication.

Second Tool:

This tool was used pre counseling ,immediately after application of the counseling ,and after three months latter to assess the patient's attitude toward self care related to hemodialysis complications, this tool was consists of nine sections :follow up diet regimen ,fluid intake, perform exercises, skin care, fistula care, medication regimen and avoidance and management of complication.

Third Tool:

Involve counseling program according to patient's needs.

Methods

Permission to conduct the study was obtained from the responsible authorities of dialysis unit after explanation of the aim of the study.

Development of the tools after reviewing the related literature was done

The tools were reviewed by a jury for clarity, feasibility, applicability, and the content validity of the tools and all the necessary modifications were done, the Jury members were three experts. professional medical-surgical nursing and nephrology and appropriate modification was done.

A pilot study was conducted on a number of 10% from patient's size to test the clarity and feasibility of assessment sheet and tools accordingly, the necessary modifications were done.

Data pertinent to the study will be collected through interview and a direct observation will be utilized for data collection.

Limitations of the study:

Some patients refused to participate in the study and others refused to continue follow-up.

Procedure:

The volunteers read a detailed description of the protocol and provided a written informed consent was obtained from each participating patients to be included in study clarification of the nature and purpose of the study was done on initial interview with each patients. The investigator emphasized that the participant is voluntary and confidentially .All patients undergoing clinical evaluation and investigation in order to facilitate implementation of the tools, the following aid were designed:

A manual booklet in simple language to every patient for study group was to complement and aid, teaching the manual which was developed by the researcher .Pictures illustrating the importance points were visible for illiterate patients.

The Contents of the Booklet (Teaching Model):

The booklet was designed to meet patients' needs and his or her interest according to their levels of understanding. It included the following: providing knowledge related to renal failure disease, also information and instructions related to diet and fluid need, vascular access, its care and certain precautions, and type of exercise for dialysis patient, its benefits and precautions. Lastly the booklet contains instructions related to patient's practices on his health condition and encourage patient to change his behavior from negative behavior to positive behavior.

The contents of the teaching model were given on three sessions, which were conducted on three meetings every meeting was carried out on the same day of the patients dialysis session and the time spent in these sessions with each patient ranged between 45 – 60 minutes.

The Three Sessions Were:

The First Session:

Included information about the anatomy and physiology of the kidney, meaning of renal failure, its symptoms and management, also provided information about therapeutic diet, practice of measuring body weight, fluid intake per day, and how to measure the daily intake and output.

The Second Session: Provided information related to problems of chronic dialysis and management for each problem, also contains demonstrations related to management of skin care, care for the vascular access, common problems of the access and how to deal with these problems.

The Third and Last Session: Provided information about exercise and daily activity that can help the chronic renal failure patient to solve his or her problems through exercise.

Evaluation of Group:

The researcher assess patient's practices before application of the counseling, the second evaluation immediately after application of counseling, and last evaluation three months (follow-up tests) after application of the counseling, the researcher was used patient's practices checklist.

Statistical Analysis:

The collected data were coded, analyzed using Statistical Package for Social Sciences (SPSS) software, and tabulated.

- Descriptive statistics: number and percent, mean and standard deviation were used.
- Statistical comparison between both groups was performed with paired t-test, unpaired t-test.
- Test was considered significant when P value (< 0.05).

3. Results

Table (1): Shows the socio-demographic characteristics of the studied groups (control group and study group). It was found that the majority of sample in experimental & control group were male, married & worker with a percentage of 62.5%, 75%, 87.5%, 75%, 87.5%, 75% respectively. However, majority of the study and control group subjects 62.5% were in the age ranged of 40-55 years. No statistically significant difference was found.

Figure (1) illustrated that; diabetes mellitus and hypertension constituted 50 % of the experimental group 37.5% of the control group

Figure (2) Illustrated that 50 % of the experimental group had between 4-7 years while 25% of the same group had 1-3 years. As regard the control group, it was found out that 37.5% 4-7 years had constituted 37.5%.

I not understand what you mean Table (2): Illustrated that there was a significant statistical differences in patient's knowledge in area of meaning of renal failure ,signs and symptoms of chronic renal failure ,routine diagnostic test ,type of diet, type of

fluid intake ,medication ,and complication related to disease and hemodialysis between control and experimental group after teaching program.

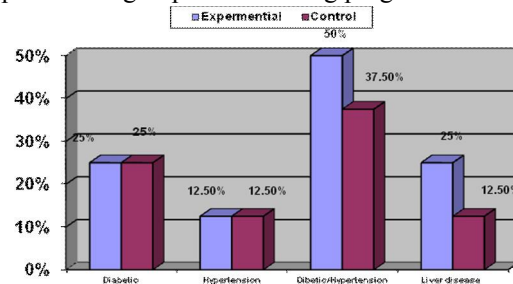


Figure (1): Distribution of Patients According to Associated Disease

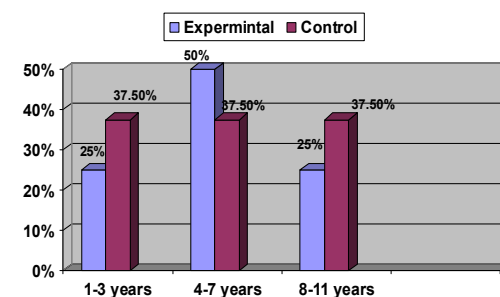


Figure (2): Distribution of Patients According to Years of Renal Disease

The highest mean score as regard the control group (10.350) for diet while the lowest mean score as regard control group (3.475) routine diagnostic test. As regard experimental group the highest mean score as regard complication it was (55.22) while the lowest mean score as regard medication, it was (31.750).

Table (3): This table illustrated that: Improvement of mean score in patients practices in area of diet regimen, measure fluid intake and output, done exercises, skin care, fistula care, medication regimen, activity of daily living, measuring of daily body weight and management of complication post program and in follow-up.

Also this table illustrated that; there were statistical significance differences between mean score of patients practices in preprogram, and follow-up tests in area of diet, fluid intake, skin care, medication, fistula care, sexual activities and blood pressure during hemodialysis session. Also; there were statistical significance differences between mean score of patients practices preprogram and post program tests in area of fistula care and blood pressure during hemodialysis session.

P₁= Comparison between Pre-test and Post-test.

P₂= Comparison between Pre-test and Follow-up test

Table (1) Distribution of Patients According to Socio Demographic Characteristics

Character	Experimental group		Control group	
	No	%	No	%
Sex				
Female	15	37.3%	10	25%
Male	25	62.5%	30	75%
Age				
20 < 30	5	12.5%	10	25%
30 < 40	10	25%	5	12.5%
40 – 55	25	62.5%	25	62.5%
Education				
Illiterate	15	37.5%	10	25%
Read & Write	5	12.5%	10	25%
Primary	5	12.5%	5	12.5%
Secondary	5	12.5%	5	12.5%
High	10	25%	10	25%
Occupation				
Worker	35	87.5%	30	75%
Not work	5	12.5%	10	25%
Marital Status				
Married	35	87.5%	30	75%
Single	5	12.5%	10	25%

Table (2) Paired Sample Statistics of the Patients Knowledge Mean Scores for Control and Experimental Group After Teaching Program.

Area of Knowledge		X	Sd	Sig
Meaning of RF	Control	4.025	2.081	0.000*
	Experimental	41.325	13.761	
Signs & symptoms of RF	Control	4.125	1.870	0.000*
	Experimental	38.100	11.354	
Routine Diagnostic Test	Control	3.475	1.694	0.000*
	Experimental	44.750	10.033	
Type of Diet	Control	10.350	4.515	0.001*
	Experimental	49.532	8.941	
Type of Fluid Intake	Control	9.700	4.231	0.000*
	Experimental	45.150	14.571	
Medication	Control	4.175	2.396	0.020*
	Experimental	31.750	12.315	
Exercise	Control	9.600	3.524	0.000*
	Experimental	35.025	15.443	
Complications	Control	3.550	1.754	0.030*
	Experimental	55.22	3.724	

Table (3): Comparison Between Patients' Practices Mean Scores in Pre, Post and Follow-up Tests for the Study Group

Variables	Pre-test (n= 40)	Post-test (n= 40)	Follow-up test (n= 40)	P1	P2
Diet Regimen:				0.189	0.000*
Mean ± SD	33.0 ± 33.9	48.0 ± 27.8	87.0 ± 22.7		
Range	0.0 – 100.0	0.0 – 100.0	20.0 – 100.0		
Measure Fluid Intake& out put:				0.061	0.001*
Mean ± SD	44.4 ± 38.8	68.0 ± 20.9	90.6 ± 12.1		
Range	5.6 – 100.0	38.9 – 100.0	66.7 – 100.0		

Exercises:				0.693	0.431
Mean \pm SD	66.7 \pm 27.6	68.6 \pm 21.6	72.8 \pm 17.5		
Range	0.0 – 100.0	22.2 – 100.0	33.3 – 100.0		
Skin Care:				0.258	0.014*
Mean \pm SD	73.8 \pm 41.1	85.0 \pm 24.2	100.0 \pm 0.0		
Range	12.5 – 100.0	37.5 – 100.0	100.0 – 100.0		
Fistula Care				0.000	0.000*
Mean \pm SD	39.7 \pm 14.9	68.4 \pm 11.7	85.9 \pm 6.4		
Range	18.8 – 68.8	50.0 – 93.8	75.0 – 93.8		
Medication Regimen				0.618	0.001*
Mean \pm SD	76.5 \pm 20.8	79.2 \pm 16.5	98.6 \pm 4.4		
Range	36.4 – 100.0	54.6 – 100.0	85.7 – 100.0		
Activities of Daily Living:				0.924	0.074
Mean \pm SD	82.2 \pm 22.3	83.3 \pm 22.9	92.8 \pm 16.6		
Range	33.3 – 100.0	33.3 – 100.0	44.4 – 100.0		
Measuring of Body Weight				0.088	0.017*
Mean \pm SD	66.7 \pm 14.6	70.2 \pm 16.2	79.2 \pm 11.2		
Range	41.7 – 91.7	41.7 – 91.7	50.0 – 91.7		
Management of Complication:				0.001	0.000*
Mean \pm SD	28.9 \pm 12.3	61.1 \pm 12.8	84.4 \pm 12.9		
Range	20.0 – 60.0	40.0 – 80.0	60.0 – 100.0		

Table (4): Comparison Between Patients' Practices Mean Scores in Pre, Post and Follow-up Tests for the Control

Variables	Pre-test (n= 40)	Post-test (n= 40)	Follow-up test (n= 40)	P1	P2
Diet Regimen:				0.527	0.729
Mean \pm SD	24.0 \pm 22.1	22.0 \pm 20.4	22.0 \pm 20.4		
Range	0.0 – 80.0	0.0 – 60.0	0.0 – 60.0		
Measure Fluid Intake & Out Put:				1.000	0.586
Mean \pm SD	28.7 \pm 28.1	28.5 \pm 28.5	25.5 \pm 28.9		
Range	0.0 – 100.0	0.0 – 100.0	0.0 – 100.0		
Exercises:				0.317	0.679
Mean \pm SD	45.8 \pm 27.3	45.0 \pm 26.9	43.1 \pm 24.8		
Range	0.0 – 83.3	0.0 – 83.3	0.0 – 83.3		
Skin Care:				0.317	0.786
Mean \pm SD	71.3 \pm 40.6	70.6 \pm 41.2	71.3 \pm 40.4		
Range	12.5 – 100.0	12.5 – 100.0	12.5 – 100.0		
Fistula Care				0.096	1.000
Mean \pm SD	35.0 \pm 15.4	36.6 \pm 14.7	34.0 \pm 10.4		
Range	6.3 – 75.0	6.3 – 75.0	6.3 – 56.3		
Medication Regimen				0.317	0.458
Mean \pm SD	71.5 \pm 21.8	70.6 \pm 23.1	65.5 \pm 21.8		
Range	36.4 – 100.0	27.3 – 100.0	36.4 – 100.0		
Activities of Daily Living:				0.480	0.827
Mean \pm SD	65.0 \pm 32.1	63.9 \pm 30.3	65.0 \pm 30.2		
Range	11.1 – 100.0	22.2 – 100.0	22.2 – 100.0		
Measuring of Body Weight				0.317	0.683
Mean \pm SD	46.9 \pm 27.2	45.8 \pm 27.0	42.7 \pm 21.1		
Range	0.0 – 100.0	0.0 – 91.7	0.0 – 83.3		
Management of Complication:				0.317	0.408
Mean \pm SD	23.5 \pm 12.7	24.7 \pm 13.3	28.2 \pm 12.4		
Range	0.0 – 60.0	0.0 – 60.0	20.0 – 60.0		

Table (5): Relationship Between Patients' Practices and Years of Disease

Variables	Years of Disease			P-value
	1<4	4<8	8 -11	
Diet regimen:				0.636
Mean \pm SD	31.5 \pm 30.6	25.0 \pm 20.7	20.0 \pm 31.0	
Range	0.0 – 100.0	0.0 – 60.0	0.0 – 80.0	
Measure Fluid Intake& Out Put:				0.963
Mean \pm SD	37.7 \pm 36.5	34.1 \pm 29.7	34.9 \pm 35.7	
Range	5.6 – 100.0	11.1 – 100.0	0.0 – 100.0	
Exercises:				0.532
Mean \pm SD	57.1 \pm 27.4	47.2 \pm 39.1	64.8 \pm 22.4	
Range	0.0 – 100.0	0.0 – 83.3	22.2 – 83.3	
Skin Care:				0.502
Mean \pm SD	77.4 \pm 28.2	68.8 \pm 43.3	56.3 \pm 47.9	
Range	12.5 – 100.0	12.5 – 100.0	12.5 – 100.0	
Fistula Care				0.256
Mean \pm SD	18.8 \pm 75.0	30.5 \pm 14.3	34.4 \pm 18.0	
Range	36.4 – 100.0	6.3 – 43.8	18.8 – 62.5	
Medication Regimen				0.214
Mean \pm SD	77.5 \pm 19.6	72.7 \pm 21.2	60.6 \pm 26.1	
Range	36.4 – 100.0	45.5 – 100.0	36.4 – 100.0	
Activities of Daily Living:				0.956
Mean \pm SD	74.4 \pm 27.7	73.6 \pm 34.1	70.4 \pm 30.4	
Range	11.1 – 100.0	22.2 – 100.0	22.2 – 100.0	
Measuring of Body Weight				0.806
Mean \pm SD	58.3 \pm 26.2	53.3 \pm 24.0	51.4 \pm 19.3	
Range	0.0 – 100.0	25.0 – 83.3	33.3 – 83.3	
Management of Complication:				0.798
Mean \pm SD	27.3 \pm 11.6	25.7 \pm 9.8	23.3 \pm 19.7	
Range	20.0 – 60.0	20.0 – 40.0	0.0 – 60.0	

Table (6): Relationship Between Patients' Practices and Sex

Variables	Sex		P-value
	Male (n= 25)	Female (n= 15)	
Diet Regimen:			0.572
Mean \pm SD	29.7 \pm 30.9	22.9 \pm 13.8	
Range	0.0 – 100.0	0.0 – 40.0	
Measure Fluid Intake& Out Put:			0.424
Mean \pm SD	38.6 \pm 36.8	27.0 \pm 17.7	
Range	0.0 – 100.0	11.1 – 55.6	
Exercises:			0.098
Mean \pm SD	59.8 \pm 29.3	39.7 \pm 23.2	
Range	0.0 – 100.0	11.1 – 83.3	
Skin Care:			0.560
Mean \pm SD	74.2 \pm 39.9	64.3 \pm 44.7	
Range	12.5 – 100.0	12.5 – 100.0	
Fistula Care			0.758
Mean \pm SD	37.7 \pm 13.8	35.7 \pm 21.6	

Range	18.8 – 68.8	6.3 – 75.0	
Medication Regimen			0.454
Mean \pm SD	75.2 \pm 21.7	68.5 \pm 19.1	
Range	36.4 – 100.0	45.5 – 100.0	
Activities of Daily Living:			0.707
Mean \pm SD	74.4 \pm 29.7	69.8 \pm 24.6	
Range	11.1 – 100.0	22.2 – 100.0	
Measuring of Body Weight			0.453
Mean \pm SD	58.0 \pm 23.0	50.0 \pm 28.5	
Range	0.0 – 91.7	16.7 – 100.0	
Management of Complication:			0.937
Mean \pm SD	26.2 \pm 12.1	26.7 \pm 16.3	
Range	0.0 – 60.0	20.0 – 60.0	

Table (4): show that: there is no any improvement in mean score of patients practices mean scores in preprogram, post program and follow-up tests in the control groups. Also there are no any statistical significance differences between pre program, post program and follow-up tests of patients practices mean scores in any item of patients practices.

Table (5): This table shows that: The mean score of patients practices was decrease with increase years of disease. There is no statistical significance differences between mean score of patients practice in different period of disease.

Table (6): This table shows that: The mean score of patients practices in male group was increase more than mean score of patients in female group. There is no statistical significance difference between mean score of patients practice in male and female group.

4. Discussion

In the present study, the total studied subjects were 40 patients and 40 controls. The majority of the sample size in the study group was males and the minority of the sample size in the same group was female, there finding was supported by Shams El-Deen, 2000⁽²⁾. Males still having a higher risk than females in developing renal failure.

In the present study The main age of the studied patient was 20-55 years the highest affection was observed in the age 40 – 55 while the Shams El-Deen, 2000⁽²⁾ was observed that highest affection in the middle age group (35) years, and the lowest affection was observed in the older age group (65) years.

Ezzat et al., (2008)⁽¹¹⁾ found also that in Alexandria the males were 63% and females were 37% for renal disease. In Qena the least affected group was 60 years old and above and the majority were males in the age group 20 – 40 years.

As regard the occupation of the patients in this study it was found that the majority of patients size in

the experimental group were worker, and the minority of the patients in the same group were not worker. This finding was supported by Ahamed., 2007⁽¹²⁾. The incidence of end-stage renal disease was high in workers' patients than not workers. While the Ezzat et al., (2008)⁽¹¹⁾ found that workers' patient were 39% and no functioning including housewife constituted 46%.

As regard the marital status in this study, the majority of the patients size in the study group was married. The incidence of end-stage renal disease was observed high in married patients than single patients. this results may be related increase age of married patients and the married patients were old age. The same results were found in Esmailia (80% vs. 20%) and El-sharkyea (83.3% vs. 16.7%) respectively⁽³⁰⁾. Mohmoud. (2006),⁽¹⁰⁾ found a similar results that (16.9%) were single and (83.1%) were married.

Ahamed. (2007)⁽¹²⁾ Found that the majority of the studied patients (74%) were married and only (26%) were singled.

Regarding associated disease in the present study was found that diabetes mellitus and hypertension constituted half of the experimental group and more than one third of the control group.

This finding was supported by the finding of Mortons & Fontine., (2009)⁽¹³⁾ where they found that diabetes mellitus was found to be significantly higher in cases of end-stage renal disease than in the control group (12.5% vs 5.8%), where in the same study the percent of hypertension patients with end-stage renal disease is significantly higher than that for controls (32.2% vs 16.7%).

Another studies carried out in Egypt by Ezzat et al., (2008)⁽¹¹⁾ where they found that diabetes mellitus as a risk factor was present only in Qena in upper Egypt and 8% in Alexandria, 11% in Esmailia and 6% in El-Sharkyea, in the some study were found that hypertension was high in cases of end-stage renal disease in same places.

In the USA States Renal Data System. (2009) ⁽¹⁴⁾. reported that diabetic nephropathy continues to be the most common cause for end-stage renal disease. accounting for 35.7% of cases in the same study was reported that hypertension was the 2nd most common cause for end-stage renal disease and increasing by 9.1% per year

Blake & Meara., (2004) ⁽¹⁵⁾. reported that the traditional goals of rehabilitation have been prevention of physical deformity, maintenance of physical function, restoration of function, client and family education and reintegration of the client into his or her family and society

Oberley & Sadler., (2006) ⁽⁸⁾. defined renal rehabilitation in terms of optimal functioning for individual patients and restoration to productive activities-not simply employment, to faster renal rehabilitation and guide program development, the life options rehabilitation advisory council identified five core principles called the "5E_s". Encouragement, education, exercise, employment and evaluation.

In related to encouragement at this study there was statically significant difference between study and control group, where study group patient were more knowledgeable in the following items (Meaning of renal failure, signs and symptoms ,routine diagnostic test, diet, fluid intake, exercise, medication, Exercises).

Also as regard encouragement related to improved the patient's attitude toward his self care in this study the researcher help patient to educate about his diet and fluid intake through learn them about daily requirements of every one of diet elements, daily amount of fluid intake, and how solving problems resulting from chronic hemodialysis.

Also the present study show that statistical significant difference between patient's practices in preprogram, and follow-up tests in area of diet, fluid intake, skin care, medication care, fistula care, daily weight, measuring to minimize complications.

Tawney. (2005) ⁽¹⁶⁾. found that connecting patients to rehabilitation resources early encouraging employed patients to continue working. As regard counseling, in this stage the researcher help the patients to understanding his disease and its treatment. Counseling was the key of this understanding. The present study's results reported that their were a significant improvement in patient's knowledge in study group after application of the counseling.

As regard diet in the present study, the researcher provided information about nutrition e.g. types of foods and amount of each type for renal failure patient. the present study reported an significant statistical differences in patient's knowledge and patient's practices in area of diet

between preprogram and post program in study group.

Atteya., (2007) ⁽¹⁾.found that eating holds every personal meaning for all of us it is generally considered a pleasurable and satisfying experience. eating provides a means of relieving anxiety. Dialysis patients experience these same kinds of needs However, the dialysis patient must follow certain rigid dietary restrictions and this presents a source of frustration to him.

As regard exercise in counseling, the researcher encourage dialysis patients to perform exercise and educate the patients about types and duration of exercise which can be performed. At this study found that statistical significant differences between patient's knowledge preprogram and post program in study group, there was statistical significance differences between patient's knowledge in study and control group after teaching program but this results don't reflect on patient's practices, so there is no statistical significance differences between patient's practices in preprogram, post program and follow-up tests. This result may be related to good patient's capability to educate and change of his behavior but there was another factors prevent patient to do exercise as muscle deformities, physiological problems related to bone complication and cardiac disease associated with renal failure disease.

In agreement of the present study's results Walid et al., (2008) ⁽¹⁷⁾.found that physiological problems associated with renal failure disease can minimize with daily exercises.

Conclusion

Based on the results of the present study, the following had been concluded:

There were statistically significant difference in patients knowledge between study and control group and their was an improvement in patients knowledge in post program more than pre program in study group & there was statistical significant differences between pre, post program, and follow up test as regard patients practices

Recommendations

- Increase the number of qualified nurses in the artificial kidney unit.
- Make training programs for nurses about information and recent research that specializes in the care of the nursing even improve the level of knowledge and skill nurses.
- Provision professional nurse with a high scientific level to Continuous educate, guidance and training new nurses.

- Provide educational booklet for patients about chronic kidney failure, treatment and its side effects and problems and how to deal with it.
- Educate the patient's friends and family and get them to show up with the patient and his support in the crisis of his illness.
- Awareness and education community regarding the group of individuals who face the risk of exposure to chronic renal failure and cofactors on disease incidence, causes, signs and how to prevent

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