

Comparative study: quality of life between Assiut university hospital & Umulj hospital for patients with end stage renal disease undergoing hemodialysis

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Abstract

The present study **aimed** to; determine the quality of life of hemodialysis patients and to compare the quality of life of hemodialysis patients at Assiut University hospital and at Umulj hospital, Tabuk. Data were collected from the hemodialysis center at Assiut University hospital and at Umulj hospital, Tabuk. The study was conducted on 80 adult patients, having the following criteria; age between 18 – 65 years, both male and female patients with end stage renal disease on hemodialysis, 40 patients from each dialysis center. Data were collected through the following **tools**; Tool (I): Sociodemographic data sheet; including age, gender, marital status, educational level, occupation, residence, family number, duration of hemodialysis...etc. and Tool (II): World Health Organization Quality Of Life (WHOQOL); including 5 domains which are physical, social, psychological, environment, and perceived QOL. **Results** of this study; near half of the studied sample their age has ranged from 50 - 65 years in both groups, and more than half of the studied samples in both hospitals were having a moderate score in their quality of life. **Conclusion**; there was no statistically significant difference between both studied samples regarding their quality of life level, also a statistically significant relation was found between the studied groups regarding their quality of life and both patient's gender and occupation. **The study recommended** that; providing counseling for patient with end stage renal disease on hemodialysis will play an important role in improving the QOL of those patients.

Key words: *quality of life, end stage renal disease & hemodialysis.*

Introduction

Chronic renal failure, or end – stage renal disease (ESRD) is a progressive, irreversible deterioration in renal function in which the body's ability to maintain metabolic and fluid and electrolyte balance fails, resulting in uremia or azotemia (Brunner, 2010).

End-stage renal disease (ESRD) is a life-threatening condition and survival can be maintained only with renal replacement therapy. Treatment options for the disease often involve either long-term dialysis or kidney transplantation. Furthermore, the complications of ESRD, its treatment and co-existing diseases have been found to have a significant impact on the physical health of patients. It is well documented that the health status of the hemodialysis population is worse than that of the general healthy population (Tel, 2011).

Hemodialysis (HD) is a life-saving treatment for the patients with end-stage renal disease (ESRD) requiring renal replacement therapy (Kusleikaite, Bumblyte, Kuzminskis, & Vaiciuniene, 2010). The health-related quality of life (HRQOL) is lessened in patients with ESRD as expected in those with chronic illness (Turkmen, Yazici, Solak, Guney, Altintepe, & Yeksan, 2011), because these patients have many fears and various necessities (De Santo, Perna, El Matri, & Cirillo, 2012).

The effectiveness of health care and development of health policies are often determined by HRQOL

assessments (Braga, Peixoto, Gomes, de Assis Acurcio, Andrade, Cherchiglia, 2011). HRQOL is also an important predictor of HD patient's outcomes that should be frequently assessed (Germin-Petrovic, Mesaros-Devic, Lesac, Mandic, Soldatic, & Vezmar, 2011).

The HRQOL measurement indicates the impact of illness on the patient's physical, mental, and social performance (Kusleikaite, et al 2010). Since hemodialysis is an expensive treatment modality for chronic renal failure patients, it is very essential to assess the outcome of therapy in terms of quality of life (Abraham & Ramachandran, 2012).

QOL is used to evaluate the general well being of individuals and societies. It may vary according to the patient as well as the disease condition. The World Health Organization defines Quality of life as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment"(Oort, 2005)

Aim of the study

To determine the quality of life of end-stage renal disease patients undergoing hemodialysis.

To compare the quality of life of end-stage renal disease patients undergoing hemodialysis at Assiut University hospital and Umulj hospital, Tabuk.

Research question

Is there a difference in the quality of life of patients with end stage renal disease undergoing hemodialysis in Assiut University hospital and Umulj hospital?

Subjects and method

Study design

Descriptive study design was utilized in this study.

Setting:

The study was conducted in the hemodialysis unit at Assiut university hospital and Umulj hospital, Tabuk.

Sample

A convenience sample of 40 adult patients attending the hemodialysis unit, at Assiut University Hospital, and 40 other patients undergoing hemodialysis in Umulj hospital, Tabuk at Kingdom Umulj both male and female, and their age from 18 to 65 years were included in this study.

Tools of data collection:

Data was collected through use of the following tools:

Tool (I): Sociodemographic data sheet:

It was developed by the researchers including age, gender, marital status, educational level, occupation, residence, family number, duration of hemodialysis, number of hemodialysis sessions, and number of hemodialysis hours per week

Tool (II): World Health Organization Quality Of Life (Whoqol):

The (Whoqol): developed by WHO (2004). (King & Hinds) The tool contains 54 questions over 5 broad domains of QOL within which 18 facets are covered to determine the quality of life. These 5 domains include physical, social, psychological, environment, and perceived QOL. Within each domain, several sub domains (facets) of QOL Summarized that particular domain of QOL. The 5 main domains are:

- 1-**Physical health** including: Activities of daily living, pain and discomfort, energy and fatigue, sleep and rest, work capacity, mobility and dependence on medication.
- 2-**Psychological** including: Negative feeling, positive feeling, self esteem, spiritual, religion and personal beliefs.
- 3-**Social relationships** including: Personal relationships, social support and sexual activity.
- 4-**Environment** including: Physical environment, safety and security, health and social care.
- 5-**Perceived quality of life.**

6-Distribution of the scores in QOL tool

Domain	Items	Score
Physical	7	63
Psychological	4	36
Social	3	27
Environmental	3	27
Perceived QOL	1	9
Total score QOL	18	162

7-The scoring for these variables, a 3-point Lickert scale on tables was adopted for the answer low QOL=0-3, moderate QOL=4-6, and high QOL =7-9

Quality of life scoring system

The tools used for data collection in this study were all previously validated the initial reliability analyses showed a correlation coefficient of more than 0.4-0.8. The validity of the tool ranged from $r=0.244$ and 0.676 by (kuyken et al., 1994), This Arabic version (translated by Professor Mohamed Abraham kamel, faculty of medicine, Alexandria, Assiut) was used in this study tool in Assiut by Mahmud, 2001 and modified by the researcher. The content validity of this tool was checked by expert professors in fields of medicine and nursing and correction was carried out accordingly for scoring for these variables, 3-points Lickert scale was adopted for the answer of each questions, which ranged from never (1)= low QOL, (2)= moderate QOL, much(3)= high QOL. For pain and discomfort, the range in the sheets was from never (1), moderate (2), much (3). Each facet comprised 3 questions, i.e., the highest score for every facet was 0-9.

Results

Table (1): Distribution of the biosociodemographic hemodialysis patient characteristics in Assiut university hospital and Umulj hospital (n = 80).

Variable	Country			
	Assiut (n=40)		Umulj (n=40)	
	No.	%	No.	%
Age groups				
18 - 29 years	6	15.0	9	22.5
30 - 39 years	11	27.5	2	5.0
40 - 49 years	10	25.0	10	25.0
50 - 65 years	13	32.5	19	47.5
Mean ± SD	42.0±11.9		44.4±14.6	
Gender				
Male	21	52.5	21	52.5
Female	19	47.5	19	47.5
Marital status				
Single	5	12.5	9	22.5
Married	32	80.0	20	50.0
Divorced	0	0.0	5	12.5
Widowed	3	7.5	6	15.0
Education level				
Illiterate	13	32.5	14	35.0
Reading and writing	5	12.5	10	25.0
Basic education	4	10.0	12	30.0
Secondary school	15	37.5	0	0.0
University	3	7.5	4	10.0
Occupation				
Not working	15	37.5	19	47.5
Worker	2	5.0	3	7.5
Employee	6	15.0	6	15.0
Student	2	5.0	0	0.0
House wife	14	35.0	12	30.0
Others	1	2.5	0	0.0
Residence				
City	16	40.0	33	82.5
Rural	24	60.0	7	17.5
Family number				
1 - 3 person	7	17.5	6	15.0
4 - 6 person	20	50.0	11	27.5
7+ person	13	32.5	23	57.5
Range	2 - 9		1 - 18	
Mean ± SD	5.6±2.1		7.8±3.9	
Duration of hemodialysis				
6 months < 1 year	4	10.0	7	17.5
1 year < 3 years	10	25.0	5	12.5
3 years & more	26	65.0	28	70.0
Number of hemodialysis sessions				
Two	1	2.5	0	0.0
Three or more	39	97.5	40	100.0

Variable	Country			
	Assiut (n=40)		Umulj (n=40)	
	No.	%	No.	%
Number of hemodialysis session hours /week				
Four	39	97.5	12	30.0
Five	1	2.5	28	70.0

Table (2): Distribution of the studied sample as regards to physical domain (n=80).

Physical domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean±SD	Low		Moderate		High		Mean±SD
	No	%	No	%	No	%		No	%	No	%	No	%	
1- Doing daily activities:														
- How do you able to do daily activities?	10	25.0	23	57.5	7	17.5	1.9±0.7	6	15.0	31	77.5	3	7.5	1.9±0.5
- How far do you feeling difficulty in doing your usual activities?	16	40.0	12	30.0	12	30.0	1.9±0.8	8	20.0	29	72.5	3	7.5	1.9±0.5
- How far do you upset failure in doing activities?	12	30.0	16	40.0	12	30.0	2±0.8	10	25.0	25	62.5	5	12.5	1.9±0.6
2- Pain and discomfort:														
- How often do you suffer from Pains?	0	0.0	21	52.5	19	47.5	2.5±0.5	5	12.5	25	62.5	10	25.0	2.1±0.6
- Do you worry about Pains or discomfort?	0	0.0	12	30.0	28	70.0	2.7±0.5	0	0.0	28	70.0	12	30.0	2.3±0.5
- How much don't you do your works when you feel pain?	29	72.5	11	27.5	0	0.0	1.3±0.5	10	25.0	29	72.5	1	2.5	1.8±0.5
3- Energy and fatigue:														
- Do you have enough energy for daily activities?	7	17.5	27	67.5	6	15.0	2±0.6	12	30.0	24	60.0	4	10.0	1.8±0.6
How far do you satisfy/pleased with your energy?	19	47.5	14	35.0	7	17.5	1.7±0.8	4	10.0	32	80.0	4	10.0	2±0.5
How far do you upset your pain?	20	50.0	9	22.5	11	27.5	1.8±0.9	17	42.5	21	52.5	2	5.0	1.6±0.6
4- Sleep and rest														
Do you sleep well?	5	12.5	31	77.5	4	10.0	2±0.5	2	5.0	30	75.0	8	20.0	2.2±0.5
Do you suffer from difficulty sleeping?	7	17.5	25	62.5	8	20.0	2±0.6	14	35.0	24	60.0	2	5.0	1.7±0.6
How far do you worry about sleeping problems?	18	45.0	15	37.5	7	17.5	1.7±0.8	16	40.0	21	52.5	3	7.5	1.7±0.6
5- The capability to work														
Do you able to work?	19	47.5	16	40.0	5	12.5	1.7±0.7	21	52.5	17	42.5	2	5.0	1.5±0.6

Physical domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean±SD	Low		Moderate		High		Mean±SD
	No	%	No	%	No	%		No	%	No	%	No	%	
		5		0					.5					
Do you feel capability in doing duties?	17	42.5	17	42.5	6	15.0	1.7±0.7	7	17.5	28	70.0	5	12.5	2±0.6
How far do you satisfy your capability to work?	20	50.0	15	37.5	5	12.5	1.6±0.7	11	27.5	25	62.5	4	10.0	1.8±0.6
6- Movement														
How far do you satisfy your movement?	2	5.0	26	65.0	12	30.0	2.3±0.5	4	10.0	30	75.0	6	15.0	2.1±0.5
How far do you upset difficulties in movement?	19	47.5	14	35.0	7	17.5	1.7±0.8	7	17.5	28	70.0	5	12.5	2±0.6
Does movement difficulty affect your life style?	14	35.0	23	57.5	3	7.5	1.7±0.6	12	30.0	25	62.5	3	7.5	1.8±0.6
7- Dependency on medications														
How far do you depend on medicines?	12	30.0	24	60.0	4	10.0	1.8±0.6	18	45.0	20	50.0	2	5.0	1.6±0.6
How far do you need medicines in doing your daily activities?	13	32.5	18	45.0	9	22.5	1.9±0.7	17	42.5	20	50.0	3	7.5	1.7±0.6
How far does your life quality depend on medicines?	12	30.0	22	55.0	6	15.0	1.9±0.7	19	47.5	18	45.0	3	7.5	1.6±0.6

Table (3): Distribution of the studied sample as regards to psychological domain (n=80).

Psychological domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean ± SD	Low		Moderate		High		Mean ± SD
	No	%	No	%	No	%		N	%	No	%	No	%	
1- Negative feelings														
Do you feel quick-Tempered, desperate and have anxious?	9	22.5	28	70.0	3	7.5	1.9±0.5	16	40.0	12	30.0	12	30.0	1.9±0.8
How far does your sadness prevent you from daily activities?	21	52.5	15	37.5	4	10.0	1.6±0.7	13	32.5	21	52.5	6	15.0	1.8±0.7
Do you upset depression ?	17	42.5	13	32.5	10	25.0	1.8±0.8	11	27.5	21	52.5	8	20.0	1.9±0.7

Psychological domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean ± SD	Low		Moderate		High		Mean ± SD
	No	%	No	%	No	%		N	%	No	%	No	%	
2-Positive feelings														
Do you satisfy and enjoy life?	20	50.0	12	30.0	8	20.0	1.7±0.8	6	15.0	26	65.0	8	20.0	2.1±0.6
Do you feel optimistic about future?	6	15.0	21	52.5	13	32.5	2.2±0.7	2	5.0	21	52.5	17	42.5	2.4±0.6
How do you feel sharing in your life?	12	30.0	15	37.5	13	32.5	2±0.8	5	12.5	26	65.0	9	22.5	2.1±0.6
3- Self esteem														
Do you trust yourself?	1	2.5	24	60.0	15	37.5	2.4±0.5	2	5.0	18	45.0	20	50.0	2.5±0.6
How far do you satisfy your capabilities?	7	17.5	22	55.0	11	27.5	2.1±0.7	4	10.0	30	75.0	6	15.0	2.1±0.5
How do you evaluate yourself?	6	15.0	21	52.5	13	32.5	2.2±0.7	0	0.0	35	87.5	5	12.5	2.1±0.3
4- Personal beliefs														
Do personal beliefs give a meaning to your life?	4	10.0	26	65.0	10	25.0	2.2±0.6	5	12.5	29	72.5	6	15.0	2±0.5
How far do you think your life is important?	8	20.0	17	42.5	15	37.5	2.2±0.7	2	5.0	26	65.0	12	30.0	2.3±0.5
How far do personal beliefs give you power to face	5	12.5	24	60.0	11	27.5	2.2±0.6	1	2.5	26	65.0	13	32.5	2.3±0.5

Psychological domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean ± SD	Low		Moderate		High		Mean ± SD
	No	%	No	%	No	%		N	%	No	%	No	%	
difficulties?														

Table (4): Distribution of the studied sample as regards to social domain (n=80).

Social domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean ± SD	Low		Moderate		High		Mean ± SD
	No.	%	No.	%	No.	%		No.	%	No.	%	No.	%	
1- Personal relationship:														
- How far do you feel alone in life?	20	50.0	17	42.5	3	7.5	1.6±0.6	10	25.0	12	30.0	18	45.0	2.2±0.8
- Do you feel happy with your family?	5	12.5	17	42.5	18	45.0	2.3±0.7	1	2.5	17	42.5	22	55.0	2.5±0.6
- How far do you satisfy your personal relationships?	1	2.5	20	50.0	19	47.5	2.5±0.6	6	15.0	22	55.0	12	30.0	2.2±0.7
2- Help social support														
- How far can you depend on your friends in need?	11	27.5	19	47.5	10	25.0	2±0.7	10	25.0	23	57.5	7	17.5	1.9±0.7
- Do you satisfy the help which you get from family?	4	10.0	16	40.0	20	50.0	2.4±0.7	5	12.5	23	57.5	12	30.0	2.2±0.6
- How far do you satisfy your friends' help?	11	27.5	10	25.0	19	47.5	2.2±0.9	9	22.5	25	62.5	6	15.0	1.9±0.6
3- Sexual activity														
- How do you evaluate your life quality?	9	22.5	25	62.5	1	2.5	1.6±0.7	6	15.0	32	80.0	2	5.0	1.9±0.4
- How far do you satisfy your sexual life?	17	42.5	16	40.0	2	5.0	1.4±0.8	16	40.0	21	52.5	3	7.5	1.7±0.6
- How far do you upset your sexual life?	3	7.5	18	45.0	14	35.0	2±1	2	5.0	24	60.0	14	35.0	2.3±0.6

Table (5): Distribution of the studied sample as regards to environmental domain (n=80).

Environmental domain	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean±SD	Low		Moderate		High		Mean±SD
	No	%	No	%	No	%		No	%	No	%	No	%	
1- The surrounding environment (Pollution and Noise):														
- How healthy is the surrounding environment around you?	5	12.5	24	60.0	11	27.5	2.2±0.6	3	7.5	35	87.5	2	5.0	2±0.4
- Does the surrounding noise upset you?	14	35.0	20	50.0	6	15.0	1.8±0.7	8	20.0	25	62.5	7	17.5	2±0.6
- Do you satisfy climate?	8	20.0	17	42.5	15	37.5	2.2±0.7	5	12.5	34	85.0	1	2.5	1.9±0.4
2- Safety and security:														
- How far do you feel safe in daily life?	0	0.0	28	70.0	12	30.0	2.3±0.5	1	2.5	21	52.5	18	45.0	2.4±0.5
- Do you feel as you live in a safe and secure environment?	4	10.0	18	45.0	18	45.0	2.4±0.7	2	5.0	18	45.0	20	50.0	2.5±0.6
- How far do you worry about your safety and security?	19	47.5	16	40.0	5	12.5	1.7±0.7	10	25.0	21	52.5	9	22.5	2±0.7
3- Medical care and social services:														
- How far do you easily get a good medical care?	3	7.5	25	62.5	12	30.0	2.2±0.6	0	0.0	23	57.5	17	42.5	2.4±0.5
- How do you evaluate the available social services quality?	3	7.5	19	47.5	18	45.0	2.4±0.6	1	2.5	23	57.5	16	40.0	2.4±0.5
- How far do you satisfy getting medical care?	10	25.0	13	32.5	17	42.5	2.2±0.8	1	2.5	22	55.0	17	42.5	2.4±0.5

Table (6): Distribution of the studied sample according to perceived quality of life in Assiut and Umulj group (n=80).

perceive d quality of life	Assiut (n=40)							Umulj (n=40)						
	Low		Moderate		High		Mean±SD	Low		Moderate		High		Mean±SD
	No .	%	No .	%	No .	%		No .	%	No .	%			
- How do evaluate your life?	17	42.5	9	22.5	14	35.0	2.2±0.6	4	10.0	30	75.0	6	15.0	2.4±0.5
- How far do you satisfy your life quality?	16	40.0	10	25.0	14	35.0	2.4±0.6	10	25.0	24	60.0	6	15.0	2.4±0.5
- How far do you satisfy your health?	17	42.5	10	25.0	13	32.5	2.2±0.8	6	15.0	31	77.5	3	7.5	2.4±0.5

Table (7) Distribution of the studied sample according to all domains of quality of life domain in Assiut and Umulj group (n = 80).

Variable	Assiut (n=40)		Umulj (n=40)		P. value
	Range	Mean±SD	Range	Mean±SD	
1. Physical domain (score=63)	32 - 48	39.7±4.3	32 - 49	38.8±4.3	0.337
2. psychological domain (score=36)	19 - 33	24.3±3.3	17 - 34	25.4±3.8	0.164
3. Social domain (score=27)	13 - 24	17.9±2.7	13 - 25	18.8±3.2	0.178
4. Environmental domain (score=27)	15 - 23	19.2±2.1	15 - 24	19.9±1.9	0.120
5. Perceive quality of life (score=153)	92 - 116	101±7.4	83 - 123	102.8±9.7	0.355

Table (8) : Distribution of the studied sample according to quality of life level in Assiut and Umulj group (n = 80).

Quality of life level	Country				P. value
	Assiut (n=40)		Umulj (n=40)		
	No.	%	No.	%	
High	15	37.5	16	40.0	0.500
Moderate	25	62.5	24	60.0	

Table (9): Relationship between biosociodemographic hemodialysis patient's characteristics and quality of life level in Assiut and Umulj group (n = 80).

Variable	Quality of life level									
	Assiut					Umulj				
	Moderate(n=25)		High (n=15)		P. value	Moderate(n=24)		High (n=16)		P. value
	No.	%	No.	%		No.	%	No.	%	
Age groups										
18 - 29 years	3	12.0	3	20.0	0.546	4	16.7	5	31.3	0.670
30 - 39 years	7	28.0	4	26.7		1	4.2	1	6.3	
40 - 49 years	8	32.0	2	13.3		6	25.0	4	25.0	
50 - 65 years	7	28.0	6	40.0		13	54.2	6	37.5	
Gender										
Male	18	72.0	3	20.0	0.003	14	58.3	7	43.8	0.520
Female	7	28.0	12	80.0	**	10	41.7	9	56.3	
Marital status										
Single	3	12.0	2	13.3	0.982	4	16.7	5	31.3	0.604
Married	20	80.0	12	80.0		12	50.0	8	50.0	
Divorced	0	0.0	0	0.0		4	16.7	1	6.3	
Widowed	2	8.0	1	6.7		4	16.7	2	12.5	
Education level										
Illiterate	6	24.0	7	46.7	0.105	9	37.5	5	31.3	0.305
Reading and writing	2	8.0	3	20.0		8	33.3	2	12.5	
Basic education	3	12.0	1	6.7		5	20.8	7	43.8	
Secondary school	13	52.0	2	13.3		0	0.0	0	0.0	
University	1	4.0	2	13.3		2	8.3	2	12.5	
Occupation										
Not working	12	48.0	3	20.0	0.038*	15	62.5	4	25.0	0.129
Worker	1	4.0	1	6.7		1	4.2	2	12.5	
Employee	6	24.0	0	0.0		3	12.5	3	18.8	
Student	1	4.0	1	6.7		0	0.0	0	0.0	
House wife	5	20.0	9	60.0		5	20.8	7	43.8	
Others	0	0.0	1	6.7		0	0.0	0	0.0	
Residence										
City	9	36.0	7	46.7	0.368	20	83.3	13	81.3	0.592
Rural	16	64.0	8	53.3		4	16.7	3	18.8	
Family number										

Variable	Quality of life level									
	Assiut					Umulj				
	Moderate(n=25)		High (n=15)		P. value	Moderate(n=24)		High (n=16)		P. value
	No.	%	No.	%		No.	%	No.	%	
1 - 3 person	6	24.0	1	6.7	0.071	3	12.5	3	18.8	0.853
4 - 6 person	14	56.0	6	40.0		7	29.2	4	25.0	
7 & more	5	20.0	8	53.3		14	58.3	9	56.3	
Duration of hemodialysis										
6 months- 1 year	2	8.0	2	13.3	0.772	4	16.7	3	18.8	0.621
1 years - 3 years	7	28.0	3	20.0		4	16.7	1	6.3	
3 years & more	16	64.0	10	66.7		16	66.7	12	75.0	
Number of hemodialysis										
Two	1	4.0	0	0.0	0.433	0	0.0	0	0.0	NA
Three or more	24	96.0	15	100.0		24	100.0	16	100.0	
Number of hours /week of hemodialysis										
Four	25	100.0	14	93.3	0.191	7	29.2	5	31.3	0.888
Five	0	0.0	1	6.7		17	70.8	11	68.8	

Table (1) show that, more than quarter of the studied sample in Assiut university hospital and in Umulj hospital; their age had ranged from 50 - 65 years (32.5 %, 47.5% respectively), more than half of the studied patients were male (52.5 %), More than two thirds of them were married (80.0 %, 50.0 % respectively), regarding educational level; more than one third in Assiut (37.5%) were having secondary school education and in Umulj (35.0 %) were illiterate. As regard occupation in both groups most of them were not working and house wives.

The data reveals that the patients' in Assiut more than half live in rural area 60.0%, while in Umulj more than two third live in city 82.5%. As regard family number half of patient were 4 - 6 person in Assiut 50.0 % while in Umulj more than half were 7 & more person 57.5 %.

As regard the duration of hemodialysis two third of patients' in Assiut and more than two third in Umulj were had 3 years & more. The data illustrate that, majority of patient in Assiut and all of patient in Umulj the number of hemodialysis per week three once or more (97.5 %, & 100.0 % respectively).

Table (2): This table illustrates that according to doing daily activities items in Assiut the most patients were moderate able to do daily activities and upset failure in doing activities (57.5% & 40.0 % respectively). 40.0 % with low feeling difficulty in doing usual activities. While doing daily activities items in Umulj more than two third of patients were with moderate able to do daily activities, feeling difficulty in doing usual activities, and upset failure

in doing activities (77.5 %, 62.5 %, & 62.5% respectively).

According to pain and discomfort items in Assiut the most patients were 52.5 % with moderate suffer from pains, 70.0% with high worry about pains or discomfort and 72.5 % with low don't do works when feel pain. While in Umulj most patients were moderate suffer from pains, worry about pains or discomfort, & don't do works when feel pain (62.5 %, 70.0 %, & 72.5 % respectively).

According to energy and fatigue items in Assiut the more than half of patients were 67.5 % with moderate have enough energy for daily activities, more than one third 47.5 % with low satisfy/pleased with energy and half of the sample 50.0% with low upset pain. While in Umulj more than half of the patients were moderate have enough energy for daily activities and upset pain (60.0 % & 52.5 % respectively), and more than two third 80.0 % with moderate satisfy/pleased with energy.

As regards to sleep and rest this table revealed that, in Assiut and Umulj more than two third of patients were moderate sleep well (77.5 % & 75.0 % respectively). More than half of sample were moderate suffer from difficulty sleeping (62.5 % & 60.0 % respectively) in both countries Assiut and Umulj. As regard worry about sleeping problems in Assiut more than one third of patients 45.0 % were low, while in Umulj more than half of patients 52.5 % were moderate.

For the capability to work items the most patients were (47.5% & 52.5 % respectively) with low able to

work in Assiut and Umulj, (42.5 % & 70.0 % respectively) with moderate feel capability in doing duties in both countries and half of patients 50.0 % with low satisfy capability to work in Assiut, while in Umulj more than two third 62.5 % were moderate satisfy capability to work.

According to movement items in Assiut and Umulj the most patients were with moderate satisfy movement, upset difficulties in movement and movement difficulty affect life style.

For dependency on medications items in Assiut the most patients were (60.0%, 45.0 %, & 55.0 % respectively) with moderate depend on medicines, need medicines in doing daily activities and life quality depend on medicines. While in Umulj half of patients were moderate depend on medicines and need medicines in doing daily activities (50 %), 47.5 % with low life quality depend on medicines.

Table (3): This table shows that, according to negative feelings items in Assiut more than two third of patients were 70.0 % with moderate feel quick-Tempered, desperate and have anxious, (52.5 % & 42.5 respectively) with low sadness prevent from daily activities and upset depression. In Umulj more than one third of patients were 40.0 % with low feel quick-Tempered, desperate and have anxious, and equally moderate 52.5 % in both sadness prevent from daily activities and upset depression

As regards to positive feelings items in Assiut half of patients were 50.0 % with low satisfy and enjoy life, with moderate feel optimistic about future and feel sharing in life (52.5 % & 37.5 % respectively). In Umulj most of patients were moderate satisfy and enjoy life, feel optimistic about future and feel sharing in life (65.0 %, 52.5 %, & 65.0 respectively). For self-esteem items in Assiut and Umulj the most patients were with moderate trust himself, satisfy capabilities and evaluate himself. As regards to personal beliefs items the most patients in Assiut and Umulj were moderate personal beliefs give a meaning to life, think life is important and personal beliefs give power to face difficulties.

Table (4): This table stated that according to personal relationship items in Assiut the half of patients were 50.0 % with low feel alone in life, more than one third 42.5% with moderate feel happy with his family and half of patients 50.0 % with moderate personal satisfy personal relationships. In Umulj most of patients were moderate feel alone in life, feel happy with his family, and personal satisfy personal relationships (30.0%, 42.5%, & 55.0 % respectively). As regards to help social support items in Assiut and Umulj the patients were moderate in all items except satisfy friends help 47.5% with high in Assiut.

According to sexual needs items in Assiut and Umulj the patients were moderate in all items.

Table (5): This table shows that according to physical environmental, safety and security, and medical care and social services the patients were moderate in all items in Assiut and Umulj.

Table (6): this table mentioned that according to perceived quality of life domain low in Assiut while moderate in Umulj.

Table (7): this table illustrated that according to all domains of quality of life near equal in both study groups.

Table (8): This table stated that, less than half of the sample in Assiut and Umulj were high QOL (37.5% and 40.0%) respectively. Also the table mentioned that, more than half of the sample in Assiut and Umulj were moderate QOL (62.5% and 60.0%) respectively.

Table (9): This table shows that in Assiut statistical significant relation between biosociodemographic characteristics and quality of life as regard gender and occupation with (P-value = 0.003** & 0.038*) respectively. While in Umulj no statistical relation between biosociodemographic characteristics and quality of life.

Discussion

Since hemodialysis is an expensive treatment modality for chronic renal failure patients, it is very essential to assess the outcome of therapy in terms of quality of life (Abraham et al. 2012). The study of health related quality of life requires an approach from several perspectives and an in-depth understanding because diseases such as the ESRD affect the quality of life in various areas (Garcia-Viniegras & Rodriguez, 2007).

The present study results revealed that; near half of the studied sample their age has ranged from 50 - 65 years in both groups, more than half of them were male, married, illiterate and not working. As regard residence; in Assiut more than half of the sample was living in rural areas while in Umulj hospital almost the entire sample was living in city.

According to Zhang et al., (2007) in his study results; the demographic profiles revealed that majority of the patients were in the age group of 31-50 years and there exists a male predominance. And regarding the socioeconomic status, upper middle class people were mostly affected.

The present study had revealed that one case of the studied sample had dialyzed one time a week while almost the entire studied sample in both hospitals, the number of hemodialysis sessions was 3 times or more a week, regarding session duration (hours); almost all of the studied sample in Assiut was 4 hours while in

Umulj a little more than half had undergone dialysis session for 4 hours.

In accordance with this study result in a study which was conducted by Albert et al., (2011) had revealed that the mean age was 64 ± 14 (SD) years, 62% of the patients were male, and 93% dialyzed 3 times per week and only 6 % of the sample had dialyzed for 2 times per week and session duration ranged from 3.5 to 4 hours.

Regarding duration of hemodialysis; the present study had shown that more than half of the studied sample in both study hospital their duration of hemodialysis was 3 years or more.

In accordance with the present study results regarding the duration of hemodialysis in a study which was carried out by G. G. Veronica et al. 2014; in their study the majority of their study sample had ranged from 4 years and over, also Abraham et al., 2012; said that the majority of the population had duration of renal failure about 3 years.

Regarding quality of life domains the present study had shown that; there was no statistically significant differences in both the study groups. Regarding physical domain patients from Assiut University hospital were a little bit advanced, while psychological, environmental and social domains patients from Umulj hospital were a little bit also advanced and this could be related to their economically higher level. Generally more than half of the studied samples in both hospitals were having a moderate score in their quality of life.

In a study on the quality of life of hemodialysis patients which was conducted by S. Abraham and colleague 2012; it was found that the QOL of hemodialysis patients were significantly impaired.

Regarding relation between level of quality of life and patient's gender; the present study revealed that; there was a statistically significant relation between level of quality of life and gender as female patients were highly scored on the QOL than males.

This also was in accordance with the study results of Abraham et al. 2012 who stated that; the male patients reported significantly lower QOL scores in all domains compared to female patients. However, the study done by Sathvik et al. (2008); showed that the QOL of females were less than that of males.

Conclusion

The study concluded that; there was a slight clinical relevant difference exist between the studied hospitals dialysis centers in multiple quality of life domains. Also there was a statistically significant relation between the studied groups regarding their quality of life and both patient's gender and occupation.

Recommendations

As most of the ESRD patients were depressed and worrying about their health conditions, providing patient counseling will play an important role in improving the QOL by changing their psychological thinking and leading them towards spirituality by removing their misconceptions about the disease this will increase the positive feelings in the patient, which will increase the spirituality level of the patients thereby their concentration, thinking and learning power will also increase. As a result, patients will be more involved in their self activities without any negative feelings.

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