

The Relationship between Psychosocial Burdens among Caregivers of patients with Renal Failure and their demographic attributes in Al-Diwaniyah Government

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ABSTRACT

Background: A patient's deteriorating medical state, the inability of families to finance therapy, medication, blood transfusions, or the hospitalization of patients may also be a genuine reason for this burden. There are several ways chronic renal failure affects the patient's physical, psychological, functional, lifestyle, and independence status because of the disease's long-term persistence and lengthy treatment procedure.

Objective : Assess the overall Psychosocial Burden among caregivers for patients with renal failure, and find out the relationship between the overall psychosocial burden of caregiver and their demographic characteristics

Methods: A descriptive correlation study design had been applied with the use of a non-probability convenience sample of (210) caregiver to identify the relationship between Psychosocial Burdens among Caregivers of Patients with Renal Failure and their demographic attributes in Al- Diwaniyah Government. The study instruments consist of the demographic information and Zarit Burden Interview (ZBI) scale that used to measure the degree of caregivers burdens during the caring of the patients with renal failure. The data were analyzed using (SPSS) version 20 application of statistical analysis system. The information was evenly distributed. Frequencies, Percentages, Mean and Standard Deviation, Pearson's Correlation Coefficients, T-test (Independent t-test, and) To assess the significance difference between overall Caregivers burden.

Results: The results of the study included that (74.8%) of the caregivers of patients with renal failure suffered from moderate to severe burden levels towards caring for their patients. The findings indicate that there is a statistically significant relationship between the psychosocial burden of the caregivers and their sociodemographic characteristics. The findings indicate that caregiver work, accommodation type, monthly income, and residency have an effect on their psychosocial burden level on the caregivers.

Conclusions: Renal failure has negative effect on the caregiver for patient with renal failure. Psychosocial burdens for caregivers are influenced by caregivers' demographic characteristics of the work of the caregiver, accommodation type, monthly income, and residency.

Keywords: Psychosocial Burdens, Renal Failure, caregivers

INTRODUCTION

Chronic diseases are a big problem for public health that can lead to increased morbidity and mortality. According to the 2010 Global Status Report on Non communicable Diseases, 80% of all deaths from chronic diseases happen in low- and middle-income countries. End-stage renal disease (ESRD) is a serious global problem. It is a chronic disease that increases morbidity and death rates, adds to the healthcare system's burden, and lowers quality of life (QOL). Nephrology and urology contribute to the worldwide burden of disease, according to the World Health Organization's Global Burden of Disease Project, with roughly 850,000 deaths and disability-adjusted life years per year⁽¹⁾.

End-stage renal disease (ESRD) is a progressive deterioration in kidney function that is irreversible, and the body's ability to maintain metabolic balance is impaired. Electrolytes and fluids fail, and this is a sufficient reason that leads to blood urination or azotemia. The level of glomerular filtration rate (GFR) is what determines the stages of chronic kidney disease, with higher stages indicating lower GFR levels⁽²⁾.

Hemodialysis, or HD, is a way to clean someone's blood when their kidneys aren't working right. When the kidneys are failing, this type of dialysis removes waste products like creatinine and urea, as well as free water, from the blood outside of the body. Hemodialysis is one of three ways that the kidneys can be replaced (the other two being kidney transplantation and peritoneal dialysis). Apheresis is another way to separate blood components like plasma or cells outside of the body⁽³⁾.

Patients who are unable to care for themselves due to physical or mental impairments need a caregiver to take on the bulk of that responsibility. The burden of family caregivers, on the other hand, has a detrimental impact on patients, other family members, and the health care system, all of which are affected. Burden also has a negative impact on caregivers' physical, emotional, and financial well-being⁽⁴⁾. The patient's primary

caregiver is the family member who is closest to them. As a result, he/she may feel the strain of long-term care. This, in turn, may have a more detrimental effect on the emotional and social lives of caretakers⁽⁵⁾.

Treatment with hemodialysis or kidney transplantation for the majority of the people who need it may create a financial burden. When treatment is not effective, it may lead to death for over one million patients annually from untreated conditions. Many studies show that the quality of life for patients undergoing hemodialysis when compared with the general population is located in a knowledge deficit related to proper diet and the exact amount of fluid that may cause numerous problems and complications. Lack of awareness may lead to reduced quality of life and decreased life span⁽⁶⁾.

Over 2 million people worldwide undergo dialysis or a kidney transplant to survive. However, this may only represent 10% of those who truly need care. The bulk of the 2 million people treated for renal failure live in only five countries: the US, Japan, Germany, Brazil, and Italy. These five countries have 12% of the world's population. Only 20% are treated in over 100 developing countries with over 50% of the world's population. Dialysis and kidney transplantation are quite costly in middle- income nations. In another 112 nations, many individuals cannot afford therapy, resulting in nearly 1 million untreated kidney failure deaths annually⁽⁷⁾.

More than 2.5 million patients were undergoing renal replacement therapy (RRT) in 2010, and the number is expected to rise to 5.439 million (3.899–7.640) by 2030⁽⁸⁾. Patients with end-stage renal disease (ESRD) in the world reached 3.37 million in 2014, up from 2.3 million in 2008, while the number of patients on renal replacement therapy (RRT) grew from 1.77 to 2.67 million between 2008 and 2014. An increasing number of patients are undergoing renal replacement therapy (RRT) due to a widening of the RRT acceptance criteria, improved general survival, a

decrease in dialysis patient mortality, and an increase in the incidence of CKD⁽⁶⁾.

METHODOLOGY

A descriptive correlation study design had been applied with the use of a non-probability convenience sample of (210) caregiver to identify the relationship between Psychosocial Burdens among Caregivers of Patients with Renal Failure and their demographic attributes in Al- Diwaniyah Government.

Study instrument: The Study adopted of a self-reported questionnaire.

The study instruments consist of the demographic information and Zarit Burden Interview (ZBI) scale that used to measure the degree of caregivers burdens during the caring of the patients with renal failure.

Content validity is determined by talking to a group of 20 experts with at least five years of experience in the medical and nursing fields. These experts were asked to look at the current study's questionnaire to see if it was accurate, relevant, and clear enough to reach the chosen goals. All experts were given hardcopies of the questionnaire and they were asked to review that copy to determine the content clarity, and adequacy of the tool. Their responses indicate that the instrument is qualified to be a clear, consistent, and adequate measure for the phenomena underlying the present study. Reliability refers to the consistency and reliability of the research tool to measure the variables; the reliability of the questionnaire depends on the reliability of the Cronbach's alpha. The standards showed complete confidence in significant convergence levels.

The data were analyzed using (SPSS) version 20 application of statistical analysis system. The information was evenly distributed. Frequencies, Percentages, Mean and Standard Deviation, Pearson's Correlation Coefficients, T-test (Independent t-test, and) To assess the significance difference between overall Caregivers burden level and demographic characteristics, and Analysis of variance (One Way-ANOVA) to determine the association between the caregivers psychosocial burden and their demographic characteristics. Statistical significance was defined as a probability-value <0.05

RESULTS

Table 1 This table represents the distribution of the patient's caregiver their Demographic characteristics in term of frequencies and percentage. The caregiver's ages in study ranged from 19 to 29 years it composes (30.5 %)., while the Gender related to results showed that male caregiver predominated in the sample , accounting for 56.7 % of the total. In terms of education, 22.4 percent who are Read and write in study results . In regards with the number of family members , the showed that majority (59 %) of study sample were contains from 3 to 6 members in the family. Marital status related to the findings, caregiver were demonstrated as married and constituted the higher percentage (71.4 %). The most the of study finding unemployed or house wife (33.8 %) with Hardly enough of monthly income (60%). Were more half of the study sample living in city (70%), in which (63.8) of them Permanent Accommodation.

Findings indicate that the (74.8 %) of caregiver were moderate to severe burden level towards caring patients with renal failure, followed by those who were mild to moderate burden (23.3 %), and followed by those who were severe burden (1.9 %).

This table shows that there is statistical significant between caregiver type of the work, monthly income and accommodation type with caregiver psychosocial burden level at p value equal or less than 0.05. and there is no statistical significant between caregiver age, the number of the family members , Marital Status, educational level and who is the caregiver with caregiver psychosocial burden level at p value equal or less than 0.05.

This table shows that there is no statistical significant between caregivers gender and their psychosocial burden level at p value equal or less than 0.05, while, that there is statistical significant between caregivers residency and their psychosocial burden level at p value equal or less than 0.05.

Table (1): Descriptive Statistic of Socio-Demographic Characteristic of the caregiver for Patients with Renal failure

Demographic Data	Groups	Freq.	%
Age in years	19 to 29	64	30.5
	30 to 40	56	26.6
	41 to 51	55	26.2
	52 to 62	31	14.8
	63 to 73	4	1.9
	Total	210	100.0
Gender	Male	119	56.7
	Female	91	43.3
	Total	210	100.0
the number of family members	3 to 6	124	59.0
	7 to 10	82	39.1
	11 to 14	4	1.9
	Total	210	100.0
Marital Status	Single /unmarried	51	24.3
	Married.	150	71.4
	Divorced.	2	1.0
	Widow	7	3.3
	Total	210	100.0
educational level	neither can read nor write	12	5.7
	Read and write	47	22.4
	Primary school	20	9.5
	Middle school.	30	14.3
	Secondary school	27	12.9
	Institute	37	17.6
	College/ Master's Degree	37	17.6
Total	210	100.0	
the work	Employee.	69	32.9
	Freelance / work at home.	70	33.2
	House wife/ unemployed	71	33.8
	Total	210	100.0
monthly income	Enough	26	12.4
	Hardly enough	126	60.0
	Not enough	58	27.6
	Total	210	100.0
Living	City.	147	70.0
	Countryside	63	30.0
	Total	210	100.0
accommodation type	Permanent Accommodation	134	63.8
	Rent.	28	13.3
	Other	48	22.9
	Total	210	100.0
who is the caregiver	Father	10	4.8
	Mother	27	12.8
	Brother	23	11.0
	Sister	9	4.3
	Husband	26	12.4
	Wife	36	17.1
	Son.	60	28.6
	Daughter	19	9.0
	Total	210	100.0

f.: Frequency, No.: Number, %Percentage, M= mean, SD= stander deviation

Table (2): Overall Psychosocial Burden among care giver for patients with renal failure

Overall	Rating	Frequency	Percent	Total mean	Std.	Evaluation
Psychosocial Burden	mild to moderate burden	49	23.3	45.80	6.642	moderate to severe burden
	moderate to severe burden	157	74.8			
	severe burden	4	1.9			
	Total	210	100.0			

N (210) , 0 - 20 little or no burden, 21 - 40 mild to moderate burden, 41 - 60 moderate to severe burden 61 - 88 severe burden)

Table (3): Mean Differences (ANOVA) between overall psychosocial burden of caregiver and their demographic characteristics

Demographic Data	Groups	Psychosocial Burden			F	Sig.
		mild	moderate	severe		
Age in years	19 to 29	20	43	1	.938	.563 NS
	30 to 40	14	41	1		
	41 to 51	10	44	1		
	52 to 62	3	27	1		
	63 to 73	2	2	0		
	Total	49	157	4		
the number of family members	3 to 6	27	95	2	.699	.877 NS
	7 to 10	20	60	2		
	11 to 14	2	2	0		
	Total	49	157	4		
Marital Status	Single /unmarried	19	31	1	1.069	.380 NS
	Married.	30	117	3		
	Divorced.	0	2	0		
	Widow	0	7	0		
	Total	49	157	4		
educational level	neither can read nor write	3	8	1	1.126	.309 NS
	Read and write	8	38	1		
	Primary school	4	15	1		
	Middle school.	4	26	0		
	Secondary school	6	20	1		
	Institute	9	28	0		
	College/ Master's Degree	15	22	0		
	Total	49	157	4		
the work	Employee.	22	47	0	1.536	.047 S
	Freelance / work at home.	18	51	1		
	House wife/ unemployed	9	59	3		
	Total	49	157	4		
monthly income	Enough	13	13	0	2.005	.003 S
	Hardly enough	30	95	1		
	Not enough	6	49	3		
	Total	49	157	4		
accommodation type	Permanent Accommodation	34	100	0	1.549	.044 S
	Rent.	9	18	1		
	Other	6	39	3		
	Total	49	157	4		
who is the caregiver	Father	2	8	0	.890	.634 NS
	Mother	3	23	1		
	Brother	6	16	1		
	Sister	2	7	0		
	Husband	7	19	0		
	Wife	6	29	1		
	Son.	17	43	0		
	Daughter	6	12	1		
	Total	49	157	4		

M = Mean of score, S.D=Standard Deviation, Eva=evaluation level, P = poor (0 – 0.33), M= Moderate (0.34 – 0.66), G = Good (0.67 - 1), Sig. = Significance, N.S=Non Significant at p>0.05, S= Significant at p<0.05, H.S: High Significant at p<0.001.

Table (4): mean differences (t-test) between the overall psychosocial burden of caregiver and their Gender and Residency

psychosocial burden		N	Mean	Std. Deviation	T	df	Sig.
Gender	Male	119	45.4790	6.64327	-.824	208	.411 NS
	Female	91	46.2418	6.65389			
Residency	Urban	147	45.136	6.31766	-2.266	208	.024
	Rural	63	47.381	7.15368			

P=probability value, NS: Non-Significant at P > 0.05, S: Significant at P < 0.05, HS: Highly Significant at P < 0.01.

DISCUSSION

Table (2) shows the level of psychosocial burden among caregiver's ranges between no, mild, moderate and severe. The majority of participants (74.8%) have a moderate to severe burden level of psychosocial burden, followed by those who were mild to moderate burden (23.3 %), and followed by those who were severe burden (1.9 %). through the total scores concerning Likert scale.

This result is consistent with study which showed that 45 (11.8%) caregivers had mild, 214 (56%) moderate, and 123 (32.2%) high caregiver burden⁽⁹⁾.

In addition, this result comes along with study which reported that the majority of caregivers of patients with renal failure suffered from moderate to severe burden, That included the mean total score of care burden was 57.9±20.1. Totally, 23.1%, 51.9% and 25% of the subjects had mild, moderate and severe level of burden respectively⁽¹⁰⁾.

From the researcher's point of view, renal failure disease is the biggest source of burden for both patients and caregivers. This could have something to do with the patients' needs, which could include physical, mental, and emotional support. This means that caregivers need to know a lot more and have more skills, as well

as take on more responsibilities. These responsibilities can cause a lot of stress, both socially and financially. So, the person who takes care of someone always has the most responsibility and doesn't take care of themselves.

Table (3) The current study finds there is no statistical significant between caregiver's age with caregiver psychosocial burden level, This result is consistent with study that included no statistical significant between caregiver's age and caregiver psychosocial burden level⁽¹¹⁾.

Concerning caregiver's gender the current study finds no significant relationship among the gender of the caregiver and caregiver psychosocial burden level. The current finding is reinforced by the research that included no significant relationship among caregiver's gender with caregiver psychosocial burden level⁽¹²⁾.

In terms of caregiver's educational level the current study finds no significant relationship among the educational level of the caregiver and caregiver psychosocial burden level. This result comes along with study which showed that there no significant relationship among the educational level of the caregiver and caregiver psychosocial burden level⁽¹³⁾.

Regarding marital status of the caregiver the current study finds there is no statistical significant between marital status of

the caregiver with caregiver psychosocial burden level. This result is supported by the study that included no statistical significant between marital status of the caregiver with caregiver psychosocial burden level⁽¹⁰⁾.

Concerning of who is the caregiver or (caregiver relationship to patient) the current study finds there is no statistical significant between caregiver relationship to patient and caregiver psychosocial burden level. The current finding is reinforced by research that showed no significant relationship among caregiver relationship to patient with caregiver psychosocial burden level⁽¹⁴⁾.

In terms of number of the family members the current study finds there is no statistical significant between number of the family members with caregiver psychosocial burden level, this result is disagree study that included significant relationship among number of the family members with caregiver psychosocial burden level⁽¹⁵⁾.

But it reported a reveals that there is a highly significant association between the caregivers (psychosocial burden) and their type of the work (occupation) . The current finding is reinforced by research conducted and included highly significant association between the caregivers psychosocial burden and their occupation⁽¹⁶⁾.

According to the researcher's point of view, this is due to the fact that the caregiver spends a lot of time with the patient with kidney failure, and also finds it difficult to balance work and care for the patient or is unable to commit to work due to the patient's many needs, which include home care for the patient and also bringing the patient to The dialysis center three times a week, and this process only needs approximately 6 hours or more each time the caregiver and the patient come to the dialysis center. Therefore, the occupation has a statistical significant on the level of psychosocial burden on the caregiver.

Regarding monthly income the current study finds there is a significant association between the caregivers psychosocial burden and their monthly income. This result is consistent with study that showed there is a high significant association between the caregivers psychosocial burden level and their monthly income⁽¹⁶⁾.

In the researcher's point of view, That because of the economic situation of Al-Diwaniyah Governorate and weak government financial support for families of patients with Renal failure, Because of the many financial needs of the kidney failure patient, which includes buying medicines, weekly transportation to the dialysis center, and seeing a specialist doctor. Therefore the monthly income of the family of a patient with kidney failure is significantly influential on the level of psychosocial burden for the caregiver.

In terms of residence (caregivers living) the current study finds there is a significant association between the caregivers psychosocial burden and their residence. The current finding is reinforced by research that showed there is a significant association between the caregivers psychosocial burden and their residence⁽¹⁷⁾.

According to the researcher, the place of residence of the patient and the caregiver greatly affects the caregiver, due to the distance from the dialysis center and the large amount of time that the caregiver needs to bring the patient to the center, and in some cases and times the difficulty of obtaining a means of transportation.

Concerning accommodation type the current study finds there is a significant association between the caregivers psychosocial burden and their accommodation type. The researcher did not find a study that supports this result.

The researcher believes that, the type of housing affects the caregiver, because it increases the financial burden, which affects his ability to manage and care for the patient's condition. It also affects the psychological state of the caregiver.

CONCLUSION

Renal failure has negative effect on the caregiver for patient with renal failure.

Psychosocial burdens for caregivers are influenced by caregivers' demographic characteristics of the work of the caregiver, accommodation type, monthly income, and residency.

Ethical Clearance: All experimental protocols were approved by the Al-Diwaniya Health Directorate in Iraq, and all experiments followed the permitted procedures.

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