

Psychological Stress Among Caregivers of Chronic Kidney Failure Patients Attending Ramallah Government Hospital

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ABSTRACT:

Objectives: This study examines the levels of psychological stress among caregivers of chronic kidney failure patients at Ramallah Government Hospital, with a focus on how gender, age, and place of residence influence stress levels.

Methodology: A descriptive approach was employed, using a convenience sample of 75 caregivers. The study utilized a 27-item Psychological Stress Scale, which was validated and demonstrated high reliability (Cronbach's Alpha = 0.92).

Results: The findings revealed significant differences in psychological stress levels based on gender, age, and place of residence. Female caregivers reported higher levels of general psychological, behavioral-physiological, and emotional stress compared to male caregivers. Additionally, older caregivers and those living in rural areas experienced higher stress levels compared to their younger and urban counterparts.

Conclusions: The study underscores the need for psychological support programs tailored to the specific needs of caregivers, particularly females, older individuals, and those living in rural areas. These programs should address the distinct stressors faced by these groups to improve their overall well-being.

Keywords: psychological stress, caregivers, chronic kidney failure

Introduction:

Chronic kidney failure is a disease that requires continuous and complex medical care, such as dialysis and frequent hospital visits, significantly impacting patients' quality of life. However, this burden does not rest solely on the patients; it extends to their caregivers, who bear the responsibility of providing daily care and psychological support. These ongoing responsibilities generate significant psychological stress for the caregivers, extending beyond physical care to include psychological, social, and financial challenges that negatively affect their mental and physical health.

Psychological stress has become an integral part of modern life, with individuals facing daily pressures due to rapid social, economic, and health changes. This increase in stress has led to the current era being described as the "age of psychological stress" (Salah, 2020). Among the diseases closely linked to psychological stress is chronic kidney failure, which forces patients to confront significant psychological challenges such as anxiety and depression—challenges that also affect their caregivers. Whether this stress arises from work, social life, or health

issues, its profound impact on individuals' mental health cannot be denied (Lazarus & Folkman, 1984).

The relationship between psychological stress and physical health is increasingly recognized in scientific and medical circles. It is now well-known that many chronic diseases are closely related to the patient's psychological state, affecting not only the patients themselves but also their caregivers and family members who share the burden of care (Schulz & Sherwood, 2008).

Chronic kidney failure is a prominent example of diseases accompanied by immense psychological stress. This disease requires continuous and intensive care, which increases the stress on both patients and their caregivers. These caregivers often face psychological challenges that exceed their capacity to bear, leading to negative effects on their mental and physical health (Cohen et al., 2007).

With growing awareness of the importance of mental health, it has become necessary to investigate the factors contributing to the escalation of psychological stress, especially those related to continuous healthcare. Understanding these factors may help develop effective strategies to mitigate the effects of stress on both caregivers and patients (Bennett, 2000).

Psychological stress affects individuals not only personally but also socially. When a person is overwhelmed by psychological stress, their ability to participate in social activities diminishes, leading to isolation and social withdrawal. This is particularly evident among caregivers of chronic kidney failure patients, who often find themselves forced to withdraw from their social lives to care for their loved ones (Given et al., 2004).

Studies indicate that caregivers of chronic kidney failure patients suffer from high levels of anxiety and depression due to the ongoing burden of patient care. A recent study found that approximately 57% of caregivers experience symptoms of stress, alongside psychological symptoms such as anxiety and depression, which are common among them (Alshammari, et al., 2021). Furthermore, another study showed that financial pressures associated with treatment costs exacerbate caregivers' psychological burdens (Chari et al., 2015).

In addition to psychological and financial stress, caregivers suffer from social isolation due to their dedication to patient care, which deprives them of participating in regular social activities and confines their lives within the healthcare domain (Given et al., 2001). These combined factors lead to a deterioration in caregivers' mental health, highlighting the need for effective interventions to support them. The findings of a study by Pinqart and Sörensen (2006) revealed that women experience higher levels of depression and psychological burden along with poorer physical health compared to men. Similarly, a study by Bueno and Chase (2020) indicated that women face greater psychological stress than men, especially in the later stages of the disease. On the other hand, a study by Jennifer et al. (2007) suggests that psychological stress in older adults may be less severe than that faced by younger individuals, and a study by Bonnell et al. (2022) suggests that rural residents may have better mental health conditions compared to their urban counterparts. The study by Lin et al. (2012) indicates that geographic location can significantly affect the mental health of informal caregivers, with those in rural areas bearing a greater psychological burden compared to urban residents.

Studies have shown that caregivers of chronic kidney disease patients experience significant psychological stress, with 57.1% exhibiting symptoms of stress, where psychological symptoms are more prevalent than physical ones. These studies highlight the importance of psychological and social support in alleviating this stress and improving the caregivers' quality of life (Pereira et al., 2017; Tong et al., 2008; Fuertes et al., 2021).

These findings strongly motivate the study and development of interventions aimed at providing psychological support to caregivers, including cognitive-behavioral programs that have shown effectiveness in reducing stress levels among them (White & Black, 2021; Brown et al., 2021).

Methodology and Procedures:

Study Design

To achieve the study's objectives, a descriptive method was used as it suits the nature and goals of the study. This method allows for the study of a current phenomenon or event, enabling the collection of information to answer research questions without researcher interference. The descriptive method aims to describe the phenomenon under study and analyze its data, forming a structured scientific analysis that focuses on describing, classifying, and accurately analyzing the problem.

Study Population and Sample

The study population consisted of caregivers of chronic kidney failure patients attending Ramallah Government Hospital. The study sample included 75 questionnaires, selected using the convenience sampling method.

Table 1 shows the distribution of the study sample according to the study variables:

Variable	Level	N	Percentage
Gender	Male	36	48.0%
	Female	39	52.0%
Age	20 or less	6	8.0%
	21 -to 30 years	20	26.7%
	31 -to 40 years	29	38.7%
Residence	41and above	20	26.7%
	Village	26	34.7%
	City	37	49.3%
	Camp	12	16.0%

Study Tools

After reviewing educational literature and previous studies related to the study topic and the measures used in them, the study tool was developed based on the study by Mousa (2022). The final version of the scale contained 27 items. Responses in the study on psychological stress were recorded using a three-point Likert scale, resulting in response levels classified as low (from 1 to <1.66), medium (from 1.67 to <2.33), and high (from 2.34 to 3).

Validity and Reliability of the Study

The validity of the tool was verified by calculating the Pearson correlation coefficient for the questionnaire items with the overall tool score, revealing a statistically significant correlation for all items, indicating internal consistency. The reliability of the tool was also confirmed using the Cronbach's Alpha reliability equation, with an overall score of 0.92, indicating suitable reliability for the study's purposes.

Statistical Processing

After collecting the questionnaires and ensuring their suitability for analysis, the data were coded for entry into the computer for appropriate statistical analysis using the SPSS program. The statistical analyses included extracting means and standard deviations for each item, as well as using the t-test, one-way ANOVA, Pearson correlation coefficient, and the Cronbach's Alpha reliability equation.

Results

The analysis of the study results will be presented in relation to the study topic "Psychological Stress Among Caregivers of Chronic Kidney Failure Patients Attending Ramallah Government Hospital" and the impact of various variables based on the responses of the study sample to the study tool, as well as the statistical data obtained.

Table 2: T-test Results for Responses on Psychological Stress Among Caregivers of Chronic Kidney Failure Patients Attending Ramallah Government Hospital Based on Gender

Field	Age	N	M	SD	T Value	Sig. Value
Psychological Stress	Male	36	1.95	425.	5.65	0.00
	Female	39	2.52	446.		
Behavioral-Physiological Stress	Male	36	1.52	398.	4.68	0.00
	Female	39	2.04	545.		
Emotional Stress	Male	36	1.77	362.	2.22	0.02
	Female	39	2.04	616.		
Overall Score	Male	36	1.74	341.	5.08	0.00
	Female	39	2.22	450.		

The independent samples t-test results indicate statistically significant differences in psychological stress levels among caregivers of chronic kidney failure patients based on gender, with females experiencing higher levels of general, behavioral-

physiological, and emotional stress compared to males. These differences were evident across all dimensions, with t-values ranging from 2.22 to 5.65 and a p

-value less than 0.05, indicating that females are exposed to higher levels of psychological stress overall compared to males.

Table 3: One-Way ANOVA Results for Responses on Psychological Stress Among Caregivers of Chronic Kidney Failure Patients Attending Ramallah Government Hospital Based on Age Group

Field	Age	N	M	SD	F Value	Sig. Value
Psychological Stress	20 or less	6	1.53	.20	7.740	.00
	21 -to 30 years	20	2.10	.56		
	31 -to 40 years	29	2.32	.43		
	41and above	20	2.50	.43		
Behavioral-Physiological Stress	20 or less	6	1.26	.10	3.836	.01
	21 -to 30 years	20	1.70	.53		
	31 -to 40 years	29	1.81	.54		
	41and above	20	2.04	.51		
Emotional Stress	20 or less	6	1.90	.26	2.586	.06
	21 -to 30 years	20	1.71	.40		
	31 -to 40 years	29	1.88	.60		
	41and above	20	2.15	.49		
Overall Score	20 or less	6	1.53	.05	5.316	.00
	21 -to 30 years	20	1.85	.44		
	31 -to 40 years	29	2.01	.44		
	41and above	20	2.15	.49		

41and above	20	2.24	.43
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The one-way ANOVA results indicate statistically significant differences in psychological stress levels among caregivers of chronic kidney failure patients based on age group. The "41 years and above" age group exhibited the highest levels of general psychological stress (M 2.50, SD 0.43), behavioral-physiological stress (M 2.04, SD 0.51), and emotional stress (M 2.15, SD 0.49) compared to younger age groups. These differences were particularly significant for general psychological stress (F 7.740, Sig 0.00) and the overall stress score (F 5.316, Sig 0.00). These findings suggest that older caregivers experience higher levels of psychological stress overall compared to younger age groups.

Table 4: One-Way ANOVA Results for Responses on Psychological Stress Among Caregivers of Chronic Kidney Failure Patients Attending Ramallah Government Hospital Based on Place of Residence

Field	Residence	N	M	SD	F Value	Sig. Value
Psychological Stress	Village	26	2.44	.34	3.37	.04
	City	37	2.17	.58		
	Camp	12	2.05	.53		
Behavioral-Physiological Stress	Village	26	2.12	.51	8.55	.00
	City	37	1.61	.51		
	Camp	12	1.66	.38		
Emotional Stress	Village	26	2.13	.56	3.68	.03
	City	37	1.79	.51		
	Camp	12	1.80	.30		
Overall Score	Village	26	2.24	.40	6.68	.00
	City	37	1.86	.48		
	Camp	12	1.84	.27		

The one-way ANOVA results indicate statistically significant differences in psychological stress levels among caregivers of chronic kidney failure patients based on place of residence. The results showed that village residents suffer from higher levels of general psychological stress, behavioral-physiological stress, and emotional stress compared to those residing in cities and camps. The differences were most pronounced in behavioral-physiological stress, with the highest F value of 8.55 and a Sig value of 0.00. These findings suggest that village residents are exposed to higher levels of psychological stress overall compared to city and camp residents.

Discussion:

The results indicate a clear relationship between gender and psychological stress levels among caregivers of chronic kidney failure patients, with females experiencing higher levels of psychological stress compared to males across all dimensions, including general psychological stress, behavioral-physiological stress, and emotional stress. This difference may be attributed to traditional social roles in which women bear greater responsibilities in patient care within the family, adding to their psychological burden. Gender differences in emotional response may also play a role, as women may be more emotionally affected by challenging situations such as caregiving for a chronic patient, which increases their stress levels in various dimensions. Social and cultural factors also amplify these differences, as women face greater social pressures due to high expectations related to their caregiving roles, reinforcing their sense of psychological stress. The study's findings align with those of Pinquart and Sörensen (2006), who found that women experience higher levels of depression and psychological burden, along with poorer physical health compared to men. These results are also consistent with those of Bueno and Chase (2020), who reported that women face greater psychological stress compared to men, especially in the advanced stages of the disease.

The one-way ANOVA analysis results indicate statistically significant differences in psychological stress levels among caregivers of chronic kidney failure patients based on age groups, with the "41 years and above" age group experiencing higher levels of psychological stress compared to younger age groups. These findings reflect specific challenges faced by older caregivers, who may be more affected by psychological stress due to various factors. Older caregivers may bear greater responsibilities in patient care, increasing their psychological stress. They may also feel a greater sense of responsibility toward their sick family members or find it more difficult to cope with the psychological and physical changes that come with caring for a chronic patient. This can increase their levels of general psychological stress, behavioral-physiological stress, and emotional stress. This result aligns with the findings of Jennifer et al.(2007) .

The results also indicate statistically significant differences in psychological stress levels among caregivers of chronic kidney failure patients based on place of residence. Village residents suffer from higher levels of general psychological stress, behavioral-physiological stress, and emotional stress compared to those residing in cities and camps. These differences may be explained by the additional challenges faced by village residents compared to city and camp residents. The healthcare infrastructure in villages may be less developed, making access to necessary medical care more difficult and increasing the psychological stress on caregivers. Social support available in villages may also be less effective compared to cities, where urban residents typically have better access to psychological and social support services. Village residents may also experience greater social pressure due to the strong social ties in rural communities, where the sense of responsibility toward family and community members is stronger. This social cohesion may increase psychological stress due to the perceived need to provide perfect care for patients, which amplifies behavioral-physiological stress as the differences observed in this

study suggest. These findings are consistent with the studies of Bonnell et al. (2022) and Lin et al. (2012), which indicate that geographic location can significantly affect the mental health of caregivers.

conclusions:

The study's findings reveal that women, village residents, and older caregivers of chronic kidney failure patients experience higher levels of psychological stress compared to men, city residents, and younger caregivers. These differences are attributed to traditional social roles, age-related challenges, and limited access to healthcare and social support in rural areas. These results highlight the need for the development of psychological and social support programs specifically targeted at these groups to alleviate the psychological stress they face.

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