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Burden of Care, Psychological Distress, Resilience and Quality of Life in Caregivers of Patients with Renal Disease

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Abstract

The caretakers of a patient with chronic renal disease are often under a lot of stress. Their mental, emotional, and even physical health may suffer significantly as a result (Perveen et al., 2026). This study aimed to investigate burden of care, psychological distress, resilience and quality of life in caregivers of patients with renal disease. A quantitative, cross sectional research design was employed, utilizing a correlational approach. A sample of 300 renal patient caregivers across Bhakkar was selected by Purposive sampling. Standardized psychological measures including Zarit Burden Interview, DASS-21, Resilience Scale-14 (RS-14) and WHOQOL-BREF, were used for evaluation of Burden of Care, Psychological Distress (Depression, Anxiety, Stress), Resilience and Quality of Life respectively. Descriptive statistics were used to compute the mean and standard deviation of study variables. Correlation, regression analysis and gender differences were also examined through SPSS-25. Results showed that burden of care was negatively correlated with resilience and quality of life, while burden of care was positively related to psychological distress. Independent-samples t-test analysis showed that female caregivers reported a high level of burden of care, psychological distress and low level of quality of life as compare to male caregivers. The study concludes that higher burden of care is associated with greater psychological distress and lower resilience and quality of life among caregivers of patients with renal disease. These findings highlight the need for comprehensive social, financial, physical, and psychological support to address caregivers' needs and promote their well-being.

Keywords: Burden of Care, Resilience, Psychological Distress, Quality of Life, Renal Disease, Pakistan.

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Introduction

Kidneys are essential for maintaining the body's homeostasis because they regulate blood pressure, preserve acid-base balance, balance electrolytes, and produce hormones needed for the production of red blood cells. Renal function may decline temporarily or permanently as a result of inflammatory diseases that affect these organs' ability to perform these essential functions (Ghassabi et al., 2022). When the kidneys are injured and unable to filter waste, excess fluid, or toxins from the blood, a medical condition known as renal disease develops. Renal diseases can be caused by a variety of factors, such as genetics, infections, immunological disorders that damage the kidneys, diabetes, high blood pressure, and renal response mechanisms. Although there are numerous causes for renal disorders, they are all fundamentally connected to an individual's physical vulnerability to disease. Genetic factors play a major role in many kidney diseases that can lead to renal failure. Renal disease also has various types, such as acute and chronic. A kidney transplant or dialysis might be the best course of action. For those whose renal function has substantially deteriorated, dialysis is often the first option among several therapy options. It serves as a synthetic replacement for impaired kidney function by aiding in the removal of waste products, excess fluid, and toxins from the bloodstream (Al-Hwiesh et al., 2018).

Dialysis is required for the remainder of a person's life or until they receive a kidney transplant if they have end-stage renal disease. Dialysis typically lasts four hours, three times a week, and can be done at home or in a facility center (hospital). Financial, physical, psychological, emotional, and social repercussions for the caregiver are all included in the complicated idea of burden of care (Vatter et al., 2018). A caregiver is a person who provides care for someone who has a physical or mental illness that prevents them from performing daily tasks. Caregivers often advocate for the person's personal and medical needs in addition to offering social and emotional support. They are essential in maintaining the health and standard of living of those they care for, which frequently necessitates tolerance, compassion, and patience. When caregivers take on extra responsibilities, like helping with daily tasks, managing medication, and going to doctor's appointments, the mental and physical strain can become intolerable (Jose et al., 2022).

This continuous stress is often referred to as the burden of care; health problems, fatigue, anxiety, and depression can result from providing care all the time without help or enough sleep. Physical problems like fatigue and exhaustion may result from the care recipient's ravenous needs (Akcin & Cubukcu, 2025). Caregivers need to understand this burden so they can get the help they need and continue to care for their loved ones without endangering their own health. The difficulties that caregivers face directly affect the standard of care that they provide to patients. If the psychological health of caregivers is not protected, care coordination and management responsibilities may become burdensome (Jose et al., 2022). Tension, worry, and unhappiness are common signs of psychological distress, an emotional state triggered by a specific situation or cause (Viertiö et al., 2021). It is transient, varies in intensity, and might disappear if the person adapts to the stressor or their surroundings change. Distress can take many different forms, ranging from everyday concerns, anxiety, and melancholy to crippling illnesses like severe depression, panic attacks, loneliness, or existential or spiritual crises (Grassi et al., 2017).

Resilience has been associated with a number of personality traits such as optimism, openness, extraversion, agreeableness, mastery, self-efficacy, self-esteem, internal locus of control and cognitive appraisal (positive interpretation of events and coherent integration of adversity into self-narrative). Resilience has been associated with intellectual functioning, cognitive flexibility, social

attachment, positive self-concepts, emotional regulation, positive emotions, spirituality, active coping, hardiness, optimism, hope, resourcefulness, and adaptability (Joseph & Linley, 2006).

Quality of life, a multifaceted concept that encompasses social, mental, and physical well-being, is a major factor in determining general health. A person's "perception of their position in life in relation to their goals, expectations, standards, and concerns, as well as the culture and value systems in which they live" is known as their "quality of life" (WHO, 2024). Accordingly, quality of life is a complex, multicultural concept that depends on a person's level of autonomy, social networks, personal beliefs, physical and mental health, and interactions with relevant environmental factors (Pedro Costa et al., 2025). A person's overall assessment of their own life is based on their quality of life, which is the culmination of all of their thoughts, feelings, and perceptions.

Combining burden of care, psychological distress, resilience and quality of life in caregiver of patients with renal disease is a complex mixture of all variables. Many studies have been done before at these variables but not combined as in current study on unique population. This is also gives the concept of variation in context of gender.

Literature Review

The caretakers of any chronic or critical disease face substantial time and financial stresses, social disturbances that prevent them from socializing, and prone to the physical and mental problems (Khanna et al., 2015). Primary caregivers are affected physically, psychologically, socially, and financially by health and life concerns (Cejalvo et al., 2021). Caregiving directly affects the caregiver's life. Ishran et al. (2025) found that caregivers of renal disease usually exhibit low life satisfaction, high rates of anxiety and/or depression, poor physical health, and feelings of burden. Another statistically significant predictor of physical quality of life was the existence of health issues. The burden of care for caregivers is a strong predictor of their quality of life. A study (Farajzadeh et al., 2020) found that primary caregivers' quality of life suffers when they take on a greater care burden for loved ones. Physical fatigue and declining health can lead to depression, worry, and psychological distress (Akcin & Cubukcu, 2025). Increased financial hardship brought on by treatment expenses, income loss, and societal constraints may be the reason of this increased susceptibility to poor life quality. These factors together decrease the quality of life of caregivers (Üzar-Özçetin & Dursun, 2020; Hastert et al., 2020). Alnazly et al., (2022) conducted a study and concluded that family members often are willing to volunteer to help patients with chronic illness at home. This imposes extra duties on caregivers, requiring them to learn new abilities and have the ability to cope with the demanding nature of caregiving to perform their duties. However, these extra responsibilities and challenges have an adverse effect on the quality of life of caregivers, and they may also die at a higher rate than those who do not care.

Maqbali et al. (2024) found that there is a strong positive correlation between burden of care and psychological distress. Similarly, Sharma et al., (2022) examined the impact of anxiety and depression on the quality of life of family caregivers. This study demonstrated the significant detrimental effects that emotional distress, particularly anxiety and depression symptoms, may have on the overall health of caregivers. The psychological pressure has a detrimental effect on their emotional health as well as their physical health, social engagement, and sense of life satisfaction. Khalil and colleagues (2021) assert that there is a strong correlation between the stressors of caregiving and the mental health problems that caregivers encounter.

Khatiban et al. (2019) found that caregivers who scored higher on resilience had significantly lower levels of psychological distress. This implies that resilience acts as a protective barrier against the emotional stress associated with caregiving. Similarly, Hussain et al. (2021) concluded that resilience was negatively correlated with caregiver strain and depressive symptoms in family members of hemodialysis patients. These findings are supported by Alnazly et al. (2022), who discovered that resilience reduced the negative impacts of caregiving stress, lowering psychological distress and improving caregivers' overall well-being. Collectively, these studies demonstrate how enhancing caregivers' resilience may be a helpful strategy to reduce psychological distress and improve quality of life for individuals who provide care for patients with renal disease. To sum up the present study was design to find out the relationship between burden of care, psychological distress, resilience and quality of life in caregivers of patients with renal disease.

Research Methodology

Participants

The sample of the current study comprised 300 participants (25.7 % males and 74.3% females), selected using a convenient sampling technique. Data was collected from District Head Quarter (DHQ) Hospital, Bhakkar. The persons who were providing primary care to the patients of renal disease they may be children, siblings, or spouses, aged between 20 to 40 years were included in the present study. Furthermore, Participants may be living in joint or nuclear family system and can be employed, or unemployed. Both male and female caregivers were included. People who are not primary caregivers such as relatives other than parents, siblings, or spouses, e.g. friends, colleagues, or visitors of the patients were excluded from the study. Additionally, individuals younger than 20 years or older than 40 years were also excluded.

Instruments

Following instruments were used in the study

The Zarit Caregiver Burden Interview (ZBI-22)

First developed by Zarit et al. (1980). This is a validated, internationally used instrument for assessment of caregiver burden. Items are rated on a 5-point Likert scale (0–4, “never” to “nearly always”), and total scores range from 0 to 88. Burden levels are categorized into four levels: little to no burden (0–19), mild burden (20–39), moderate burden (40–59), and severe burden (≥ 60). The scale demonstrated good internal consistency (Cronbach’s $\alpha = .87$).

Resilience

The Resilience Scale-14 (RS-14) is used to assess psychological resilience. It comprises two subscales: personal ability and acceptance of self and life. The 14 items of this questionnaire were rated on a seven-point Likert-type scale ranging from 1 to 7. The total score ranged from 0 to 98, with higher scores representing greater levels of resilience.

Psychological Distress

The DASS-21 was used to assess psychological distress which includes depression, anxiety, and stress subscales. Items are rated on a 4-point Likert scale with seven items for each of the three variables, scoring from 0 (*Did not apply to me*) to 3 (*Applied to me very much, or most of the time*).

Quality of Life

Quality of life was assessed using the WHOQOL-BREF scale, a self-report 26-item questionnaire and a short version of the WHOQOL-100 scale. It measures six areas of quality of life: physical health, psychological health, level of independence, social relationships, environment and spirituality. The scale has shown good psychometric properties. Coefficient alpha values have shown good reliability.

Procedure

The Government College University Faisalabad Board of Studies approved the research proposal. Following approval from the authorities, the data were collected from DHQ Hospital Bhakkar. Those who indicated an interest in participating were asked to sign an informed consent form prior to filling out the questionnaire after building a rapport with them through conversation and a brief explanation of the study's goals. Participants were assured that their information would be kept private and used exclusively for research. It was requested that participants fill out the questionnaire completely and without omitting any questions. They may depart whenever they wanted.

Statistical Analysis

Descriptive and inferential statistics were used in the statistical analysis process to examine the data using the SPSS program. The Pearson Product Moment correlation was used to determine the extent of a linear relationship between variables. Regression analysis was used to determine how much a variable contributes to change. Gender differences were analyzed by using independent sample T test.

Results

Table 1: Frequency and percentage of participants (N=300)

<i>Demographic variable</i>	<i>f</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Age	300	100%	67.6	17.0	10	40
Gender						
Male	91	25.7%	—	—	—	—
Female	209	74.3%	—	—	—	—
Education						
Educated			—	—	—	—
Uneducated	222	74.0%	—	—	—	—
Employment Status	78	26%				
Employed			—	—	—	—
	172	57.3				

Unemployed	128	42.7%	—	—	—	—
Family System						
Joint	195	65.0%	—	—	—	—
Nuclear	105	35.0%	—	—	—	—

Note. *M*=Mean; *SD*= Standard Deviation

Table 2: Descriptive statistics, Reliability coefficients, and Pearson correlation among variables.

Variables	No. of Items	Min	Max	M(SD)	α	1	2	3	4
BOC	22	11	72	43.4(13.2)	0.78	--	.134*	-.134*	-.200**
PD	21	9	52	39.1(10.1)	0.89	--	--	-.165**	-.219**
R	14	14	56	30.2(10.2)	0.89	--	--	--	.146*
QOL	26	46	130	95.5(18.4)	0.86	--	--	--	--

Note. $P^* < .05$, $p^{**} < .01$. *M* = Mean; *SD* = Standard Deviation; α = Cronbach's alpha, BOS=burden of disease, PD= psychological distress, R=resilience, QOL= quality of life.

Table 3: Burden of care as a predictor of psychological distress, resilience, and quality of life. (N=300)

Outcome Variables	Predictors	<i>B</i>	<i>SE</i>	<i>T</i>	<i>P</i>	β	95%CI	<i>R</i> ²
Psychological Distress	Model 1							.018
	Constant	34.70	1.98	17.4	.000		(30.79, 38.6)	
	BOC	.102	.044	2.33	.000	.134	(.016, .188)	
Resilience	Model 2							.018
	Constant	34.71	2.02	17.17	.000		(30.73, 38.69)	
	BOC	-.104	.044	-2.33	.0	-.134	(-.191, -.016)	
Quality of Life	Model 3							.040
	Constant	107.6	3.59	29.97	.000		(100.5, 114.7)	

BOC	-.279	.079	-3.52	.000	-.200	(-.434,- .123)
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Note. BOC= *Burden of care*.

Table 4: *Gender differences in burden of care, psychological distress, resilience and quality of life*

Variable	Gender	M(SD)	T	P	95%CI of mean difference
BOC	Male	41.8(11.4)	1.49	.008	[-.73,5.34]
	Female	44.1(13.9)			
PD	Male	37.1(11.2)	-6.38	.000	[-7.66,-4.05]
	Female	43.2(4.2)			
R	Male	30.0(9.8)	-.402	.046	[-3.22, 2.13]
	Female	30.5(11.1)			
QOL	Male	95.8(18.9)	.485	.008	[-3.44, 5.69]
	Female	94.7(17.4)			

Note. $p < .05(*)$, $p < .01(**)$, $p < .001(***)$.

There were significant differences was observed in psychological distress regarding to gender but burden of care, resilience, and quality of life have no difference between male and female participants.

Discussion

The current research explored the correlation among burden of care, psychological distress, resilience, and quality of life in caregivers of patients with renal disease, with a further emphasis on gender differences. The findings indicated a positive correlation between burden of care and psychological distress, but burden of care negatively correlated with resilience and quality of life in the caregivers. As for concern the significant positive correlation between burden of care and psychological distress our results are consistent with the existing literature (Cheng et al., 2024), which indicated that burden of care is strongly and positively correlated with depression, anxiety and stress, and this may be due to the physical fatigue, financial liabilities, stage of disease, hemodialysis demands, and relationship of the caregiver with the patient. Our study showed a significant negative correlation between burden of disease and psychological resilience. These finding supports the conceptual model that due to the high level of stress in form of burden of care people showed low level of resilience which hinder their psychological resources (e.g. adaptive coping to tackle the stress) our findings are line with previous literature that also support our results (Yu et al.,2018; Li et al. 2019). Results also indicated that burden of care negatively predicted the quality of life among caregivers of CKD. Our results are line with Stress Process Model which also suggests that prolong burden of care acted as stressor which can affect the quality of life of caregivers. Pearlin et al. (1990), stated that responsibilities of caregiving increase stress and worsen physical health as well as psychological well-being until a person uses adequate coping and available social support.

The majority of participants in the current study were female. In Asian cultures, a greater proportion of women than men serve as caregivers for patients with renal disease, as well as for other conditions like stroke. The high percentage of women may result from the perception that women are more sensitive to patients than men. We explore the gender differences at the level of burden of care, resilience, psychological distress and quality of life. The findings showed that female caregivers reported a high level of burden of care, psychological distress, and a low level of quality of life compared to male care givers. Thus, no difference was found in the level of resilience in males and females. Our findings indicated that in forming the psychosocial experiences of caregivers of patients with renal disease gender plays an important role. Previous literature (Pacheco et al., 2024) also supports our findings by indicating that females are able to perform more intensive caregiving responsibilities due to their helping nature and emotional bonding in caregiving tasks. This might be because females are primary care givers and have the ability to balance the responsibilities of caregiving and household chores. Our findings are supported by a study (Bueno et al., 2023) which stated a significant difference in burden of care in caregivers of patients with renal disease. Thus few studies (Kumar et al., 2022; Pacheco et al., 2022) indicated no difference that can be because of cultural and contextual factors that may affect the responsibilities related to experiences of care giving depends on nature and stage of disease and physical health, age and socio economic condition of the caregivers.

To sum-up our study showed a significant positive correlation between burden of care, psychological distress, and significant negative correlation between burden of care, resilience and quality of life in caregivers of patients with renal disease. Females reported high burden of care, psychological distress and poor quality of life as compare to males. However, no gender difference was found in the level of resilience. Our study can help the caregivers to understand the mechanism behind these relationships to increase the resilience so that they can cope with the burden of care, psychological distress and enhance their quality of life. Findings will help the clinicians to deal effectively with the psychological factors of caregivers to promote their wellbeing. Regarding the limitations, there are a few limitations in our study. First, the sample size is insufficient to extrapolate its findings. Second, the study is cross-sectional. Large sample sizes can be used for future research, and longitudinal studies ought to be used.

Conclusion

The present study examined the relationship between quality of life, psychological distress, resilience, and burden of care, particularly among caregivers of patients with renal disease. Results showed that the burden of care had a negative correlation with resilience and quality of life, while burden of care was positively correlated with psychological distress. Females expressed significant burden of care, psychological distress and poor quality of life as compare to males. However, no gender difference was identified in the amount of resilience.

Implications

The results of this study have important ramifications for our knowledge of the connection between burden of care, psychological distress, resilience, and quality of life particularly for those who care for patients with renal disease. By emphasizing the significance of addressing positive factor such as resilience in mental health treatment and well-being programs, this research may influence psychological practices in the future. The results of the study may also help medical facilities create support networks that help caregivers deal with the emotional and psychological difficulties they encounter, which will ultimately enhance their mental well-being and standard of living. The findings aided in the creation of metrics for assessing the strain and standard of living associated

with family member care. This study gives the pathways to next researchers to explore more factors in this realm and going towards the interventions related to these variables.

Limitations

There are a few problems with our study in terms of limitations. First, the results cannot be extrapolated due to the small sample size. Secondly, the research is cross-sectional. Future research can make use of large sample sizes, and longitudinal studies should be employed.

Conflict of Interest

The authors showed no conflict of interest.

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