Journal of Policy Research, 9(2), 724-731.
https://jprpk.com
https://doi.org/10.5281/zenodo.8348277

Mediating Role of Coping Styles in the Relationship Between Caregivers' Burden of Cancer Patients and their Psychological Well-being

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Abstract

This study is aimed to investigate the mediating role of coping styles between the relationship of caregivers' burden and psychological well-being of cancer patients. Correlational research design was used to accomplish this study. Survey was conducted to collect the data. Sample of 319 caregivers was selected through purposive sampling technique. Data were collected from Combined Military Hospital Multan and Multan Institute of Nuclear Medicine and Radiology Hospital situated in the city of Multan, Pakistan. Three research instruments were used to measure study variables. The Caregiver's Burden Scale (Shroff, 2014); The Caregiver Well-Being Scale (Berg-Weger et al., 2000) and the brief COPE Scale (Carver, 1997). Results reveal that psychological well-being of caregivers was negatively correlated with caregivers' burden. Moreover, psychological well-being was negatively predicted by caregivers' burden. Furthermore, study suggested that problem-focused coping style significantly mediates the relationship of caregivers' burden and psychological well-being. Female caregivers feel more burden of care as compared to male. Comparatively, male caregivers showed the higher level of psychological well-being than females. In addition, results reveal that married caregivers of cancer patients were found with more burden of care than unmarried. Psychological well-being was reported greater among unmarried caregivers than married.

Keywords**:** caregivers' burden, psychological well-being of cancer patients, Multan

1. Introduction

In recent years, there has been a dramatic rise in the cancer burden all across the world. At this time, cancer perceives as the world's first greatest cause of mortality (Fauziyyah et al., 2023). According to recent figures, more than 50 million people lose their lives to cancer each year all over the world. Even more concerning is the fact that 80 percent of these deaths take place in countries with low or middle incomes (Akpan-Idiok et al., 2020). In recent years, there have been a lot more new cancer cases, which has led to a big rise in the number of people who care for cancer patients (Onyeneho & Ilesanmi, 2021). Since cancer is a long-term illness, both patients and their caregivers have to deal with the long process of treatment and care. This can lead to a number of social and mental health problems (Kaimal et al., 2019). A significant majority of those providing care are relatives of cancer patients, fulfilling a notable function in aiding patients in facing the challenging circumstances of a cancer diagnosis and providing them with practical and emotional assistance. After a person is diagnosed with cancer and starts treatment, his or her family feels responsible for taking care of that person (Onyeneho & Ilesanmi, 2021).

In point of fact, family members are expected to play a significant role in the care that is provided for cancer patients because they are the primary source of emotional and financial support. Previous research has shown that caregivers of patients who have been diagnosed with cancer are more likely to experience significant levels of negative emotions and psychological discomfort, such as despair and anxiety (Geng et al., 2018). It is common for people who care for people with cancer to use different ways to deal with problems that cause anxiety and sadness. On the other hand, some ways to deal with these problems can make them worse (Aydogan et al., 2016).

1.1. Coping Styles

The term coping refers to the various methods or styles in which a person may respond, behave, or perform in order to deal with psychological suffering or mental obstacles (Long et al., 2021). The process of coping requires individuals to make consistent adjustments to their lives in order to be successful (Hawken et al., 2018). Previous research has shown that caregivers of cancer patients in a variety of settings adopt a wide variety of coping mechanisms in order to deal with the stressful situations that they come into contact with (Papastavrou et al., 2012). People seem to like problem-focused coping better than emotion-focused coping (Long et al., 2021). When viewing it in the context of culture, society, and environment, one of the most important factors that plays a part in determining the influence of the stressor on an individual's mental health status is the coping strategies that they use (Teixeira et al., 2018). Furthermore, the implementation of suitable and efficient coping mechanisms allows individuals who provide care for cancer patients to alleviate the weight of their caregiving responsibilities, decrease psychological stress, and ultimately enhance their overall quality of life (Faronbi, 2018).

1.2. Caregiver Burden

Caregiver burden is perceived by the caregiver while caring for his/her family member and/or a loved one over time (Askaryzadeh Mahani et al., 2023). It is a reaction to physical, mental, emotional, social, and financial stressors on

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many levels (Liu et al., 2020). The global incidence of chronic diseases is on the rise, hence potentially impacting the functioning of families (Varaei et al., 2013). The individuals responsible for providing care to others, commonly referred to as caregivers, often find themselves in a position where they are unable or unwilling to prioritize their own health needs (Kazemi et al., 2021). The cultural standards that have been passed down through generations in Asian households, certain members of these families take up the role of informal caregiver (Ebadi et al., 2021). The informal caregiver pertains to an individual who is not remunerated and is typically a family member, friend, or neighbour, who offers unpaid assistance to an individual who is ill (Alshammari et al., 2023).

Assisting patients with their daily chores, administering medications, transporting patients to medical facilities, assisting patients with eating, and providing emotional and psychological support are some of the tasks that are the responsibility of informal carers (Rioux et al., 2012). Due to the significant role they play in helping chronically sick patients, informal carers of these patients may experience high levels of carer strain (Hekmatpou et al., 2019). Consequences of caregiver burden include the patient's handicap and disease progression, as well as disruptions in the caregiver's everyday activities, recreation, and social communication (Abbasi et al., 2011). Chronic diseases change a person's life, the variety and intensity of their caregiving jobs can cause them to have mental health problems (Kazemi et al., 2021). The mental well-being of carers may be further compromised when the demands of providing care surpass their capacity to do so (Hinkle & Cheever, 2018). An increase in the amount of work that informal caregivers have to do could lead to family isolation, a loss of hope for social support, problems in family ties, poor care for the patient, and, in the end, the patient being left alone (Rahmani Anaraki et al., 2013).

Caregiver burden also known as the challenge that is encountered when giving care (Kuipers et al., 2010). There are many different ways to conceptualize the stress placed on caregivers; nonetheless, the words objective burden and subjective burden are used the most frequently. The concept of objective burden pertains to discernible and confirmable disturbances arising from the act of caregiving, while subjective burden pertains to individualized sentiments of burden. As caregiver burden incorporates a variety of caregiving challenges, the psychological health of caregivers has also been examined. Psychological functioning encompasses the capacity of individuals to attain their desired goals within their external surroundings (Karambelas et al., 2022).

The mental health challenges that caregivers may encounter, such as anxiety, depression, and carer distress. Anxiety and depression are commonly evaluated by the observation of symptoms such as anxious thoughts, feelings of low self-esteem, reduced engagement in everyday activities, and disturbances in sleep and energy levels (Vahia, 2013). Caregiver distress refers to the experience of emotional anguish, which is typified by feelings of loss, hopelessness, or restlessness, in reaction to particular stressors that impact individuals providing care (Stanley et al., 2017). The high expenses associated with cancer care and treatment contribute to the financial burdens faced by carers. For instance, within the population of medically insured patients, certain health insurance plans may impose substantial financial burdens in the form of out-of-pocket fees, encompassing deductibles, co-payments, and co-insurance. Furthermore, Xiang et al. (2022) highlight that cancer care treatment entails several services that necessitate copayments, including healthcare and drugs, nutritional supplements, and hospital meals. These copayments can exacerbate the financial challenges faced by those seeking cancer care. More importantly, the absence of social support and the excessively stringent steps used by insurance companies in the process of releasing reimbursements for medical bills might make the burden even larger (Cejalvo et al., 2021).

It has already been established that there is a substantial positive link between the burden of caregiving and the family distress index in the case of carers of cancer patients who are also patients themselves. According to Mirsoleymani et al. (2017), there is a strong correlation between elevated scores on the family distress index and various characteristics, including the gender of the patient and the length of time since the cancer diagnosis. These parameters are major predictors of the level of burden experienced by family carers. In recent years, there has been a lot of study done on the burden that cancer patients place on their families and friends who provide care for them. This research has generated some fascinating conclusions about the numerous elements that contribute to carer burden. According to Maguire et al. (2018), some of these factors may be related to the qualities of the carer (such as age, gender, and relationship to the patient), while others may be related to the characteristics of the patient (such as patient health status) and the activities that are associated with providing care. According to Unsar et al. (2021), there is a suggestion that several characteristics, including the deterioration of functional status in cancer patients, a younger age of carers, being female, and longer periods of caring, are significant predictors of the burden experienced by carers.

1.3. Psychological Well-being of Caregivers

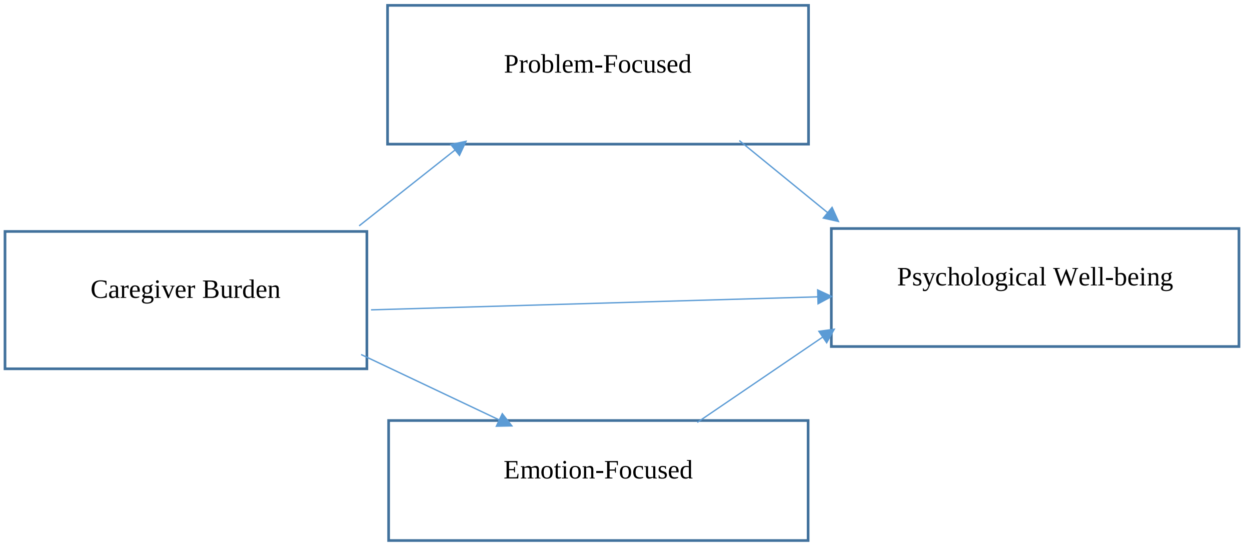
Psychological wellbeing, part of psychological functioning, is rarely regarded in caregivers (Marino et al., 2017). There is evidence to suggest that the negative effects of caregiver burden on psychological well-being are significant, particularly for individuals in caregiving roles. This evidence indicates that caregivers may have an elevated risk of experiencing a decline in their psychological well-being (Aneshensel et al., 2013). According to research that was published by the National Academies of Sciences in 2016, it has been found that carers run the greatest risk of experiencing negative psychological consequences when they live in the same household as the person for whom they are providing care. The examination of the effects of assuming caregiving responsibilities on the psychological well-being of caregivers, as well as the subsequent psychological consequences, has consistently been a central area of inquiry in relation to the mental health of caregivers. According to the research that has previously been conducted (Given et al., 2012), the act of providing care can have a variety of psychological effects on the life of caregivers, including stress, anxiety, depression and isolation. Families must learn to strike a balance between the needs of their loved one's cancer trajectory and the rest of their lives when one of their own is diagnosed with a terminal illness (Coppetti et al., 2019).

Moreover, because the need for caregiving frequently arises unexpectedly and carers lack adequate prior guidance and preparation, physical and psychological changes may occur (Coppetti et al., 2019). The magnitude of these consequences may be greater among individuals who provide treatment, surpassing that of the patients themselves. For example, previous studies have established that carers of individuals with head and neck cancer and haematological cancer experience higher levels of psychological distress compared to both the general population and the patients themselves (Kassir et al., 2021). Previous research has indicated a correlation between elevated levels of stress and psychological discomfort experienced by family caregivers who must navigate the delicate equilibrium between their occupational responsibilities and household obligations (Gupta et al., 2022). Furthermore, the assumption of the caregiver role places a significant strain on individuals providing care, impacting several facets of their lives such as their psychological well-being, emotional well-being, physical well-being, and financial circumstances (Given et al., 2012).

1.4. Role of Gender

Moreover, the role of gender is a significant factor in shaping caregiving experiences (Revenson et al., 2016). Extensive research has consistently demonstrated that women, as caregiver, face higher levels of stress compared to men. This disparity is attributed to the fact that female caregivers often report a heavier burden of care and have limited access to coping resources, in contrast to their male counterparts (Swinkels et al., 2019). Multiple studies indicate that there are variations in the nature of caring and its impact on the well-being of carers according on their gender (Pinquart & Sorensen, 2006). According to McDonnell and Ryan (2013), female caregiver are more likely to experience feelings of burden as a result of their responsibilities than male caregivers. According to Uccheddu et al. (2019), it is probable that women experience higher levels of caregiving stress compared to males. Consequently, the negative impact on psychological well-being resulting from caregiving responsibilities may be more pronounced among women than men. Scarcity of studies that explain the mediating role of coping styles (problem-focused and emotion-focused) between the relationship of caregivers' burden and their psychological well-being. This study was conducted to address this knowledge gap.

2. Conceptual Framework



This model represents caregivers' burden as the predictor of psychological well-being. Coping styles (problem-focused and emotion-focused) were considered as mediators between the relationship of independent variable (caregiver burden) and dependent variable (psychological well-being).

2.1. Objectives

- To explore the relationship between caregivers' burden and psychological well-being
- To examine the effect of caregivers' burden on psychological well-being
- To investigate the mediating effect of coping styles between the relationship of caregivers' burden and psychological well-being
- To compare the level of caregivers' burden and psychological well-being with the respect of caregivers' gender and marital status

3. Methodology

The nature of study is quantitative that was completed through correlational research design. Survey was conducted to collect the data. Sample of 319 caregivers was selected through purposive sampling technique. Data were collected from Combined Military Hospital Multan and Multan Institute of Nuclear Medicine and Radiology Hospital situated in the city of Multan, Pakistan. Demographic variables were considered the gender and marital status of caregivers. Three research instruments were used to measure the study variables. The Caregiver's Burden Scale (CBS) is a 22-item scale that assess subjectively experienced burden by caregiver's to chronically disabled persons. The caregiver is asked to tick one of the four boxes (not at all, seldom, sometimes, often) score 1 to 4 for each question (Shroff, 2014). The Caregiver Well-Being Scale (CWBS) is a 43-item instrument. The Caregiver Well-Being Scale measures caregiver well-being from a strengths based perspective by assessing caregivers' basic human needs and satisfaction with activities of daily living (Berg-Weger et al., 2000). The brief COPE Scale is a 28-item self-report measure of problem-focused versus emotion-focused coping skills (Carver, 1997).

4. Results

Table 1: Relationship between Caregivers' Burden, and Psychological Well-being.

	Mean	Std. Deviation	CB	PW
Caregivers' Burden	22.5047	4.51334	1	-.779**
Caregivers' Psychological Well-being	41.4765	15.29619		1

Table 1 shows the relationship of caregivers' burden and psychological burden. Findings reveal that negative relationship between caregivers' burden and psychological well-being was found (r=-.779**).

Table 2: Effect of Caregivers' Burden on Psychological Well-being

Model	Unstandardized Coefficient B	Std. Error	Standardized Coefficients Beta	T	p-value
(Constant)	100.873	2.741		36.806	.000
CB	-2.639	.119	-.799	-.22.103	.000

R^2 = .606, Adjusted R^2 =.605.

Table 2 describes the effect of caregivers' burden on their psychological well-being. Results depict that caregivers' psychological well-being was influenced by their level of burden during providing care to cancer patient.

Table 3: Mediating role of Problem-Focused Coping Style between the relationship of Caregivers' Burden and Psychological Well-being

Model	Unstandardized Coefficient B	Std. Error	Standardized Coefficients Beta	T	p-value
(Constant)	103.559	2.610		39.676	.000
CB	.127	.439	.037	.289	.773
PFCS	-1.932	.297	-.844	-6.515	.000

R^2 = .653, Adjusted R^2 =.651.

Table 3 represents the mediating effect of problem focused coping style between the relationship of caregivers' burden and their psychological well-being. Findings reveal that problem-focused coping style significantly mediates the relationship of caregivers' burden and psychological well-being.

Table 4: Mediating role of Emotion-Focused Coping Style between the relationship of Caregivers' Burden and Psychological Well-being

Model	Unstandardized Coefficient B	Std. Error	Standardized Coefficients Beta	T	p-value
(Constant)	104.899	2.611		39.676	.000
CB	.119	.435	.038	.283	.761
EFCS	-1.938	.291	-.271	-1.515	.061

$R^2 = .131$, Adjusted $R^2 = .201$.

Table 4 represents the mediating effect of emotion focused coping style between the relationship of caregivers' burden and their psychological well-being. Findings reveal that the relationship of caregivers' burden and psychological well-being was not significantly mediated by problem-focused coping style.

Table 5: Gender Based Comparison of Caregivers' Burden and Psychological Well-being

Variable	Gender	N	M	Std. Deviation	df	t-test	p-value
Caregivers' Burden	Male Female	191 128	19.3246 27.2500	2.21938 2.39422	317	-30.284	.000
Psychological Well-being	Male Female	191 128	50.9476 27.3438	12.27181 4.93332	317	20.662	.000

Table 5 describes the comparison of the differences of mean scores of caregivers' burden and psychological well-being. Female caregivers showed the greater level of burden of care and social inhibition as compared to male (F=27.2500, M=19.3246 ($p<0.05$). Furthermore, male caregivers were found with better psychological well-being than female during care (M= 50.9476, F=27.3438 ($p<0.05$). Differences were found statistically significant with respect to gender.

Table 6: Marital Status based Comparison of Caregivers' Burden and Psychological Well-being

Variable	MS	N	M	Std. Deviation	df	t-test	p-value
Caregivers' Burden	Married Unmarried	224 95	23.7143 19.6526	4.84269 1.25281	317	8.055	.000
Psychological Well-being	Married Unmarried	224 95	33.6295 59.9789	10.72616 5.08644	317	-22.863	.000

Table 6 describes the level of burden of care and psychological well-being. Results reveal that married caregivers feel more burden of care as compared to unmarried. Unmarried caregivers' showed higher level of psychological well-being than married.

5. Discussion

Cancer is quickly becoming a major source of morbidity and mortality in the modern world, and Pakistan is one of the places where this trend can be seen most clearly. Caregivers of severely ill cancer patients are thus more likely to have emotional, physical, monetary, and social consequences. Caregivers with inadequate resources and/or bad health have an even greater strain (Palos et al., 2011). The identified factor has been determined to be a significant source of stress that impacts the psychological well-being of caregivers and contributes to the manifestation of symptoms associated with depression, stress and anxiety. Preexisting conditions, younger age, closer relationship to the patient, and better educational attainment all contribute to an increased symptom burden for caregivers (Mishra et al., 2021). Findings of study reveal that psychological well-being of caregivers was negatively correlated with their burden of care. Moreover, caregivers' psychological well-being was determined by their level of burden during providing care. There is evidence to suggest that the negative effects of caregiver burden on psychological well-being are significant, particularly for individuals in caregiving roles. This evidence indicates that carers may have an elevated risk of experiencing a decline in their psychological well-being (Pearlin & Bierman, 2013). According to research that was published by the National Academies of Sciences in 2016, it has been found that carers run the greatest risk of experiencing negative psychological consequences when they live in the same household as the person for whom they are providing care. Furthermore, the results of the study suggested that problem-focused coping style significantly mediates the relationship of caregivers' burden and psychological well-being. However, the relationship between caregiver burden and psychological well-being was not mediated by emotion- focused coping strategy. Previous research has shown that caregivers of cancer patients in a variety of settings adopt a wide variety of coping mechanisms in order to deal with the stressful situations that they come into contact with. People seem to like problem-focused coping better than emotion-focused coping (Long et al., 2021). Female caregivers reported greater level of burden of care than male. It reveals that female are more sensitive during the time of extensive care. Comparatively, male caregivers were found with strong psychological well-being than female. The differences were found statistically significant with respect to gender. Moreover, the role of gender is a significant factor in shaping caregiving experiences (Revenson et al., 2016). Extensive research has consistently demonstrated that women, as caregiver, face higher levels of stress compared to men. This disparity is attributed to the fact that female caregivers often report a heavier burden of care and have limited access to coping resources, in contrast to their male counterparts (Swinkels et al., 2019). Multiple studies indicate that there are variations in the nature of caring and its impact on the well-being of caregivers according on their gender (Pinquart & Sorensen, 2006). According to McDonnell and Ryan (2013), female caregiver are more likely to experience feelings of burden as a result of their responsibilities than male caregivers. According to Uccheddu et al. (2019), it is probable that women experience higher levels of caregiving stress compared to males. Consequently, the negative impact on psychological well-being resulting from caregiving responsibilities may be more pronounced among women than men. In addition, results reveal that married caregivers feel more burden of care as compared to unmarried. Unmarried caregivers' showed higher level of psychological well-being than married.

6. Conclusion

The current study was concluded that psychological well-being of caregivers was negatively correlated with their burden of care. Moreover, psychological well-being was predicted through caregivers' burden. Problem-focused coping style significantly mediates the relationship of caregivers' burden and psychological well-being. Female caregivers perceive more burden of care during providing extensive care of their cancer patients as compared to male. Comparatively, male caregivers were reported with strong psychological well-being than females. In addition, results reveal that married caregivers feel more burden compared to unmarried. Unmarried caregivers' showed higher level of psychological well-being than married.

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