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ORIGINAL CONTRIBUTION

Spirituality and Social Support as Predictors of Resilience among Elderly Cancer Patients' Informal Caregivers in Punjab, Pakistan

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Abstract— In the context of informal caregiving studies, the use of resilience as a coping mechanism for mitigation of informal care burden is regarded as crucial. More than half of the caregivers of elderly cancer patients experience at least one suspected psychiatric symptom, including depression, anxiety, alcohol abuse/dependence, and post traumatic stress disorder. Besides this, various studies have supported the role of social support and spirituality as predictors of resilience in protecting and maintaining the physical and psychological health of informal caregivers. But, by analyzing previous literature, there is a dearth of empirical research in the Pakistani context which may examine spirituality and social support as predictors of resilience among informal caregivers of elderly cancer patients. To fill this research gap, the current study aimed to analyze spirituality and social support as predictors of resilience among informal caregivers of elderly cancer patients. In this regard, the current study was conducted using a quantitative research design. By using a purposive sampling technique, the data was collected from 200 informal caregivers of elderly cancer patients from the following hospitals: In mol Cancer Hospital, Cancer Care Hospital Lahore, the Oncology ward of Mayo Hospital Lahore, and the Oncology ward of Jinnah Hospital Lahore. An interview schedule was used as a tool of data collection by adopting the following scales: Caregiver's Resilience Scale, Caregiver's Spirituality Scale, and MOS Social Support Scale. The study results were analysed using SPSS software, and the descriptive section of the results indicated that the larger proportion of informal caregivers were male, dependent upon their families, aged between 24 and 29, and had only a secondary level of education. Furthermore, when the inferential statistics of the study's correlation and regression analysis tests were used, the results revealed that caregiver spirituality and social support had a significant and positive effect on the care giver's resilience to caregiving burden.

Index Terms— Resilience, Care burden, Informal caregiver, Spirituality, Social support

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Introduction

In contemporary times, the focus on resilience research has been growing substantially. In the context of formal and informal caregiving studies, the use of resilience as a coping mechanism toward informal care burden is critical (Shin, J. Y., & Choi, S. W., 2020; Matthews et al., 2022). Resilience is described as' positive adaptation to adversity, adaptability, psychological well-being, strength, a healthy lifestyle, stress alleviation, social network, and satisfaction from social support' (Steptoe, 2009). Cancer caregivers and experts agreed that resilience is comprised of both individual and interpersonal characteristics, such as the caregiver's ability to cope and adapt, as well as the

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caregiver's connection with the care receiver (Wang et al., 2020; Bailey, J. 2020). The terms "informal caregiver" and "family caregiver" refer to a relative or "family-like" individual who provides unpaid and ongoing assistance to the care recipient (Sun et al., 2021; Magid et al., 2021).

Positive aspects of cancer caregiving have been reported in research, including rewarding experiences of being with recipients, feeling closer to recipients, personal satisfaction, and personal growth (Pysklywec, A et al., 2020). Caregivers may feel overwhelmed, have sentiments of unacceptance, and experience loss as a consequence of the ongoing effort of caring for patients (Tuomola et al., 2016). To handle their stress and duties, caregivers adopt a number of ways (O'Connell et al., 2004). Over time, spirituality and religion have been predominantly employed by carers of chronic diseases to cope with the load and stress, therefore improving their psychological well-being (Scheinfeld et al., 2021). Montgomery et al. (2013) define caregiver load as the perceived effect of caregiver responsibilities on the emotions and resources of carers. Multiple aspects of this entity are identified objectively. Subjective loads include subjective demand burdens (relational burdens) and subjective stress burdens (Hiseman et al., 2017).

The subjective demand load is calculated as the perception of the manipulativeness of a caregiver-care recipient connection that arises as a result of an existing interpersonal relationship (Mayo, M. 2013). Subjective stress, on the other hand, is a consequence of an individual's feeling of emotional suffering. The burden on a caregiver is evident (Honea et al., 2008). When caregiver obligations become unbearable, the objective load is perceived as a hindrance to other aspects of the carer's life, such as leisure activities, privacy, and job responsibilities (LeSeure, P., & Chongkham-Ang, S., 2015). To deal with these pressures, carers of people with a range of chronic diseases use a number of coping techniques, the most effective of which is spirituality (Brugnoli, M. P. 2016). Individuals live in close proximity to one another in collectivistic civilizations such as Pakistan. Additionally, spiritual and religious meetings provide an opportunity for companionship and support (Aman, J. et al., 2021).

Additionally, numerous studies have established the importance of social support as a predictor of resilience in promoting and maintaining the physical and mental health of informal caregivers (Ong et al., 2018). For example, social interaction and effective support can help caregivers of cancer patients alleviate psychological distress (Wagen et al., 2011). According to a study (Zohng et al., 2020), informal social support, but not formal social support, was associated with a lower caregiver burden than formal social support. Apart from social support, research indicates that spirituality plays a significant role in providing comfort and resilience for individuals who rely on their faith to cope with the stress associated with chronic and serious illness. According to research (Prazeres et al., 2021), spirituality is a significant factor in coping with stress and anxiety.

However, a review of the existing literature reveals a dearth of empirical research in the Pakistani context that examines spirituality and social support as predictors of resilience in informal caregivers of elderly cancer patients (Zeeshan, Shaikh, et al. 2021). To address this gap in the literature, the current study examined spirituality and social support as predictors of resilience among informal caregivers of elderly cancer patients. The significance of conducting research on this subject is that the findings regarding spirituality and social support as resilience factors for easing the care burden in informal caregiving will aid in the formulation of informal caregiving policies in the Pakistani context. The government can take preventative measures to safeguard informal caregivers by sensitising the public about the importance of social support and also by initiating spiritual-based training to alleviate informal caregivers' care burdens. Additionally, this study will benefit healthcare professionals who interact with informal caregivers of elderly cancer patients. In this regard, the current study employed a quantitative research design in the setting of Lahore, Pakistan. Additionally, the theoretical significance of conducting research in this study is that the current study model was not examined in earlier studies in the Pakistani setting. In this regard, current study findings will enhance the contribution of the existing body of scientific knowledge.

Literature Reflection

Caregiving has been shown to have a detrimental effect on caregivers' work productivity, including lost work hours, diminished effectiveness, absenteeism, and job loss owing to hospital visits and care activities (Coumoundouros, Ould Brahim et al. 2019). Based on particular research, caregivers suffered higher levels of distress, depression, and anxiety than cancer patients (Palacio Gonzalez, Roman Calderón, et al. 2021). Caregivers, on the other hand, were less likely to discuss their own mental health concerns with healthcare providers, owing to a low priority for self-care (Grato, Brigola, et al. 2019). Attributed to the fact that resilience appears to be a predictor of adequate adaptability to adverse life experiences, it may add to the burden-bearing capacity of informal caregivers (Shehzad, Zahid et al. 2015).

Quantitative research has proven that resilience is connected with decreased anxiety, improved health, and positive social support in informal caregivers of advanced cancer patients and may act as a buffer against caregiver stress (Hwang et al., 2018; Palacio C et al., 2018). Additionally, previous research has established the critical role of social support in creating and maintaining the health and wellbeing of informal caregivers as a determinant of resilience (Yuan, Tan et al. 2020). Besides social support, spirituality has been demonstrated to be a major source of solace and resilience for individuals who rely on their belief to deal with the prevalence of chronic and severe diseases (Swain, Konrath et al. 2012, Delgado-Guay, Parsons et al. 2013).

Objectives of the study

The objectives of this study were:

- To see the level of spirituality and social support among informal caregivers of elderly cancer patients.
- To analyze extent of relationship among spirituality and social support with resilience toward informal care burden of elderly cancer patients.

Methods

This study was conducted through survey and cross-sectional research methods using a quantitative research design. The data was collected from informal caregivers of elderly cancer patients who were providing care to elderly cancer patients for the last three months or more and were visiting Lahore-based cancer hospitals for treatment from September 2021 to November 2021. In this regard, the respondents were approached in the elderly cancer wards of the following hospitals: Inmol Cancer Hospital, Cancer Care Hospital Lahore, the Oncology ward of Mayo Hospital Lahore, and the Oncology ward of Jinnah Hospital Lahore. The data was collected by using a purposive sampling technique from 200 respondents. The tool of data collection was adopted by using an existing scale regarding the variables of the study. In this regard, instrument items were divided into four sections: a) the demographics of the informal caregivers; b) the caregiver's resilience scale c) Caregiver's Spirituality Scale and MOS Social Support Scale. It is because these tools were reliable in the context of our study and they were used in previous studies regarding informal caregivers of elderly patients. After conducting a response from the respondent, the data was entered and analysed in SPSS Software. To predict the frequency and percentage of the socio-demographic characteristics of the respondents, descriptive analysis was applied. A reliability analysis test was used to assess the usefulness of the tool. Additionally, Pearson correlation and regression analysis tests were applied to assess the inferential response of the study. The rationale behind applying Pearson correlation is that Pearson's correlation coefficient is used to determine whether two quantitative variables have a linear relationship or not so forth in our study we have assessed the relationship between spirituality and social support toward resilience from informal care burden. Moreover, the logic behind using the regression analysis was that the researcher wants to analyze the effect of predictor variables I-e spirituality and social support on a dependent variable resilience from informal care burden.

Table I
Demographic Table of Informal Caregivers

Sr	Variables	Categories	Frequency	Valid percentage
1	Age	18-23	47	12.9
		24-29	60	16.4
		30-35	43	11.8
		36-40	45	12.3
		41-46	2	0.5
		47 and above	3	0.8
2	Qualification	Illiterate	30	8.2
		Primary	20	5.5
		Middle	17	4.7
		Secondary	30	8.2
		Higher secondary	48	13.2
		Undergraduate	36	9.9
		Post graduate	19	5.2
3	Profession	Farming	5	1.4
		Public Servant	16	4.4
		Own Business	19	5.2
		Labour	5	1.4
		Housewife (for female)	39	10.7
		Not Working/ Dependent on family	116	31.8

Table 1 Continue.....

Sr	Variables	Categories	Frequency	Valid percentage
4	Gender of Informal Caregiver	Male	112	30.7
		Female	88	24.1
5	Current marital status of Informal Caregivers	Married	130	35.6
		Unmarried/single	62	17.0
		Divorced/Widow	6	1.6
		Separated	2	0.5
6	Monthly household income of Informal Caregivers	Less than - 30,000	80	21.9
		31,000-50000	60	16.4
		51000-70000	40	11.0
		71000-90000	20	5.5
7	Locale Area of residency	Urban	65	17.8
		Rural	85	23.3
		Semi-Urban	50	13.7
8	Caregiving Role	Sole caregiver	140	38.4
		Assisted by any other family member(s)	60	16.4
9	Relationship of Informal Caregiver with the care recipient	Father/mother	120	32.9
		Father-in-law/mother-in-law	60	16.4
		Close relative	20	5.5

The variable age of informal caregivers reveals that 12.9 percent of informal caregivers were between the ages of 18–23, 16.4 percent were between the ages of 24-29, and 11.8 percent are between the ages of 30-35. Additionally, 12.3 percent of informal caregivers are between the ages of 36 and 40,.5 percent are between the ages of 41 and 46, and.8 percent are between the ages of 47 and above. According to the caregivers' varying levels of education, 8.2 percent of patients were illiterate, 5.5% had a primary education, 4.7% had a middle education, and 8.2 percent had a secondary education. In addition, 13.2 percent of caregivers held a high school certificate, 9.9 percent held an undergraduate certificate, and 5.2 percent held a postgraduate certificate. The results of the variable working occupations of informal caregivers indicate that 1.4% were farmers, 4.4% were public servants, 5.2% ran their own businesses, and 1.4% performed labor. Furthermore, 11.7 percent of those in charge of household chores were females. Finally, 31.8 percent of caregivers were unemployed and financially reliant on their families. The gender disparity of caregivers reveals that 30.7 percent of them were male and 24.1% were female. The variable result for caregivers' marital status indicates that 35.6 percent were married, 17.0 percent were unmarried or single, 1.6 percent were divorced or widowed, and 0.5 percent were separated. According to informal caregivers' monthly household income from all sources, 21.9 percent earned less than 30,000, 16.4 percent earned between 31,000 and 50,000, 11.0 percent earned between 51,000 and 70000, and (5.5 percent) earned between 71,000 and 90,000. Informal caregivers lived in urban areas at a rate of 17.8%, in rural areas at a rate of 23.3%, and in semi-urban areas at a rate of 13.7%. The outcome regarding caregivers' caregiving roles reveals that 38.4 percent of caregivers provided care exclusively for their care recipient and 16.5 percent of caregivers received assistance from another family member. Moreover, the variable about the relationship of caregivers with care recipients showed that 32.9 percent of care givers cared for their father or mother, 16.4 percent for their father-in-law or mother-in-law, and (5.5 percent) for their close relatives.

Table II
Reliability Analysis of the tool

Cronbach's Alpha	N of Items
0.814	3

The reliability analysis explains the reliability of the tool in which the statistics of the aforementioned table explain the collective response of Cronbach's Alpha value of the scales that were used in the study, which means that the value of.814 is higher than 0.7, which means that the tool is reliable for conducting the research.

Table III
Reliability Analysis of the variables

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CRS	7.3404	2.543	0.648	0.768
CSS	7.2770	1.830	0.677	0.767
SSS	7.3416	2.469	0.721	0.706

The aforementioned table explains the Cronbach's Alpha value of the scales that were used in the study, in which the data shows that the value of the Caregiver Resilience Scale (CRS) is.768 which is higher than 0.7, which means that the tool is reliable for conducting the research. Likewise, the value of the Caregiver Spirituality Scale (CSS) is.767, which is higher than 0.7, which means that the tool is reliable for conducting research. Moreover, the value of the Social Support Scale (SSS) is.706, which is higher than 0.7, which means that the tool is reliable for conducting research.

Table IV
Correlation Matrix

	CRS	CSS	SSS
CRS	1		
CSS	0.567**	1	
SSS	0.623**	0.654**	1

** Correlation is significant among variables at the level of 0.01

The statistics regarding the above table show that there is a significant and positive correlation between caregiver resilience and caregiver spirituality because the r value is.567** and the sig value is 0.001. Furthermore, the value of r is less than 0.80, which means that there is no issue of multicollinearity between the variables. Moreover, there is a significant and positive correlation between caregiver resilience and social support as the r value is.623** and the sig value is 0.001, which is lower than.80 and the sig value is 0.001, which means that there is no issue of multicollinearity between the variables. Furthermore, the r value between caregiver spirituality and social support is.654** and the sig value is 0.001, indicating a positive, significant correlation between these two variables and no issue of multicollinearity in the study.

Table V
Regression Model Summary

R	R square	Adjusted R square	Sig. *F* Change
0.658a	0.432	0.427	0.000

Correlation is shown by the R value in the table. The R square value indicates that a unit change in one of the independent variables would affect the same independent variable by the same unit. According to the table, the R square value is 0.432, which indicates that when an independent variable changes, the dependent variable changes by 0.432. Thus, a variance of 0.658a in caregiver resilience is explained by independent factors, namely caregiver spirituality and social support supplied to the caregiver. The modified R square indicates the population implications of the sample finding. The slight difference between R sq and adjusted R sq indicates that the sample result has a stronger effect on the population. Additionally, the sig value of 0.000 indicates that the independent and dependent variables have a strong association.

Table VI
ANOVA[b]

	Model	Sum of Squares	df	Mean	Square	*F*	Sig.
1	Regression	49.890	2	24.945	75.021	0.000a	
	Residual	65.504	197	0.333			
	Total	115.394	199				

a. Predictors: (Constant), SSS, CSS
b. Dependent Variable: CRS

An ANOVA table is used to determine whether or not the model fits the data well. When F exceeds 5 and the significance threshold is less than 0.05, the model is considered to be well fitted. As we can see from the ANOVA table, the F value is larger than 5, or 75.021, and the significance level is less than 0.05, or 0.0001, indicating that the model is fit and has a good fit.

Table VII
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.212	0.206	5.872	0.000	
	CSS	0.210	0.054	0.279	3.933	0.000
	SSS	0.453	0.073	0.440	6.209	0.000

a. Dependent Variable: CRS

The above table is used to calculate the influence of independent factors on the dependent variable, i.e., the effect of caregiver spirituality and social support on the dependent variable, caregiver resilience. The first independent variable, caregiver spirituality, shows a positive and statistically significant link with caregiver resilience, with a coefficient of 0.279 and a significance level of 0.000. As a result, caregiver spirituality is positively associated with caregiver resilience. The second independent variable, caregiver social support, also has a positive and significant relationship with the dependent variable caregiver resilience, as the coefficient value is 0.440 and the significance value is 0.000, indicating that the independent variable caregiver social support has a positive and significant relationship with the dependent variable caregiver resilience. Thus, based on the table data above, it is inferred that both independent factors have a positive and significant link with the dependent variable caregiver resilience.

Disscussion

Our study findings depict that caregiver's spirituality provided to informal caregivers has significant relationship toward resilience of informal caregivers. However, findings of Chappell and Reid (2002) and Stuckey et al. (1996) indicated that only two spiritual areas (self-discipline and Meanness–generosity) moderated the relationship between caregiver strain and psychological well-being in which their results were supporting to our study findings that spirituality has protective role toward stress mitigation of informal caregivers. Moreover, our study results discovered that social support provided to informal caregivers has significant relationship toward resilience of informal caregivers in which previous study of Kuscu, (2009) had supported our study results regarding the link between social support and strong resilience. Findings of Zimmerman et al (1999) depict that by mitigating the harmful effect of distress, resilience acts as a protective factor in which our study findings also support that social support and spirituality of informal caregivers can be resilient factors for the caregivers. The study of Maqsood, A. (2021) found that in Pakistan, the joint family arrangement is more prevalent, with two or three generations cohabiting. With more family members in the home, the likelihood of emotional disclosure is greater than in nuclear family structures, which may result in increased resilience, although big families living in the same house have diverse demands. In relation to these results, descriptive findings of our study found that major proportion of resilient caregivers were married male in age group of 24-29 having higher secondary education, sole caregivers and were dependent upon their families.

Conclusion

Keeping in view the findings of our study, it has been concluded that independent variables, caregiver's spirituality and social support provided to informal caregivers, have a positive and significant relationship with caregiver's resilience. Additionally, descriptive findings of the study suggest that a major proportion of resilient caregivers were married males in the age group of 24-29, had higher secondary education, were sole caregivers and were dependent upon their families.

Limitations and Future Directions

The limitations of the study highlight the constraints that the current study faced while conducting the research. In this regard, the current study has certain limitations. The current study was conducted among informal caregivers of elderly cancer patients in Lahore, Pakistan, in which informal caregivers were shortlisted to participate in the study if they had reached the age of 18, were engaged in caregiving for the previous six months, and were receiving no benefits from their caregiving role. However, another study could be conducted on formal caregivers or health professionals who have dealt with chronic disease patients to see how they manage caregiving stress.

Implications of the Study

The findings of the current study indicated that social support and spirituality provided to caregivers had fruitful results in the stress mitigation of caregivers. Keeping this in view, the role of spirituality and social support should be highlighted among the masses to deal with stress and depression. Moreover, there is a dire need to formulate caregiving policies in the Pakistani context.

Recommendation

Taking into consideration the conclusions of our research, it is recommended that government can take preventative measures to safe-guard informal caregivers by sensitising the public about the importance of social support and also by initiating spiritual-based trainings to alleviate informal caregivers' care burdens.

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