



Caregiver Stress, Marital Adjustment and Psychological Well-being in Caretakers of Older Adults

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Abstract

The current research identifies the relationship between caregiver stress, marital adjustment, and psychological well-being in adult men and women. It is a cross-sectional study in which 100 married participants (50 males and 50 females) were taken for the survey living in intact families with at least one old parent. It was hypothesised that demographic variables are likely to be associated with study variables, and there is expected to be a relationship among study variables. It was also hypothesised that caregiver stress is expected to predict psychological well-being, and marital adjustment is likely to mediate the impact of caregiver stress on psychological well-being. Kingston Caregiver Stress Scale (Kilik & Hopkins, 2019), Couple Satisfaction Index (Funk & Rogge, 2007), and Psychological Well-being Scale (Stavraki et al., 2022) were used. Pearson product-moment correlation, mediation, and t-test analysis were employed. Results of this study showed that caregiver stress is negative, while marital adjustment positively correlates with psychological well-being. T-test revealed that men were found to have lower caregiver stress, higher marital adjustment, and higher psychological well-being than women. Mediation analysis showed that caregiver stress predicts psychological well-being and marital adjustment, which partially mediated the relationship between the other two variables, which was confirmed through the Sobel z-test. The research explains the possible solutions to caregiving problems and how married couples can balance out different roles in daily life to maintain their psychological well-being.

Keywords: Caregiver stress, Marital adjustment, Psychological well-being

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1 Introduction

The pace of population ageing around the world is increasing dramatically. People worldwide live longer (Gu et al., [2021](#); Li et al., [2019](#)). Today, for the first time in history, most people can expect to live into their sixties and beyond. By 2050, the world's population aged 60 years and older is expected to total 2 billion, up from 900 million in 2015 (WHO). Close family members and other unprofessional caregivers occupy a significant role in providing life-long care to elderly parents as well as other people with chronic severe disabilities or sickness (Green, [2020](#)). Care providers are usually bound by the social responsibilities of kinship to take on specific tasks and duties that are typically linked with family members at a particular stage (Gostoli & Silverman, [2020](#)).

Borelli et al. ([2020](#)) concluded that despite the encouraging feature of caregiving, which includes thoughts of warmth and contact in these relationships and the feeling of one's happiness and meaning of life that may result from it, the caregiving process had been identified as having adverse effects for caregivers' psychological functioning. This is considered normal in our culture, where the men are known for breadwinning and economic aid to the family as usually they are lone bread earners. At the same time, females are responsible for caring for the household, children, and other relatives. So, the most common process of care-giving in the family is associated chiefly with the obligations of women (Chappell et al., [2023](#)).

Caregiver stress is the experience of physical and affective strain due to providing care (Jadalla et al., [2020](#); Liu et al., [2020](#)). Liu et al. ([2020](#)) are the beginners in introducing the concept of caregiver stress. Western majority cultures emphasise individualism and perceive caregiving as a burden because it disrupts the caregiver's life (Dijkxhoorn et al., [2019](#)). They are more likely to utilise formal support services and report fewer health problems. In Asian societies, the family is the first line of support for older persons. Families value filial responsibility greatly (Vangen & Herlofson, [2023](#)). Caregiver burnout refers to physical, psychological, and affective fatigue resulting from caregiving long-lasting and devastating stress (Waddill-Goad, [2023](#)). There are many rewards as well as stressors in caring for loved ones. Since caregiving is usually a prolonged challenge, it can leave caregivers with significant damage. One may spend many years providing care responsibilities without hoping that the recipient will ever get better. It can indeed be disheartening that the condition of a deceased person becomes worse despite all the efforts of the caregiver (Burns et al., [2015](#)). In caregiving, marital quality can be critical (Williamson & Shaffer, [2021](#)).

The marital adjustment is a continuous process of adapting and modifying oneself in conjugal life (Priyadharshini & Gopalan, [2020](#)). In a well-adjusted marriage, the attitudes and behaviours of husband and wife produce an environment where each partner can perform appropriately according to their personality structures (Goyal & Nakra, [2023](#)). Women are mostly socialised to fulfil the responsibility of providing care to their family members, which impacts their psychological well-being (Mott et al., [2019](#)). Psychological well-being refers to well-being in which people know how to deal with typical life stressors, work effectively and usefully, and improve their community (Seff et al., [2021](#)). Additionally, in the context of the caregiver role, a role relationship creates a difference in care provided and its psychological outcome between caregiving, marital quality, and well-being of the caregiver and its gender and also the well-being of the care recipient (Quinn & Toms, [2019](#)).

2 Literature Review

Roy's adaptation model was studied by Abdolahi et al. ([2020](#)) and used as groundwork to consider the possible relationship between an individual's stressful outcomes and their caregiver role. Caregiver stress is usually influenced by several demographic aspects, such as a load of providing care, stressful life experiences, social norms, and support. Long-term process caregiving

significantly affects the caregiver's physical health, self-esteem, marital adjustment, and role gratification (Prakobchai, [2021](#); Zygouri et al., [2021](#)).

Bookwala et al. ([2007](#)) investigated the impact of shifting into the role of parent care on married life quality. Adults providing care for a long time reported having less marital quality than recent adult caregivers. They found a significant interaction between caregiving transition and gender (Xiong et al., [2020](#)). Follow-up tests found that recent and current female caregivers felt their lives more stressfully affected than men if separation in couple occurred. Similarly, Choi and Marks ([2006](#)) concluded that transitioning into a caregiving role has an impact on psychological health for caregivers of female biological parents and male spouses who also stated a significant high level of marital differences.

According to the study by Greif and Woolley ([2019](#)), men living with their mother-in-law have more chances to report psychological consequences such as disturbance in social lives, family holiday plans, private time with wife and kids, and other relationships with relatives. Moreover, Kumar ([2015](#)) found that marital adjustment is more likely to be perceived by new couples as an empty shell stage of life. As a result, marital adjustment was better among aged couples who have gone through the parenting stage of life by practice. Psychological well-being is better at a young age and gradually decreases as the age increases among aged couples after the parenting stage of life (Delle Fave et al., [2018](#)). So, the increase in psychological well-being also elevates marital adjustment and vice versa among aged couples in the late years of their lives.

Liu et al. ([2019](#)) found that adult female caregivers who admit the presence of marital issues show an essential association between more time spent on the role of caregiver and an increase in depressive symptoms. Similarly, there is also a significant association between time in a caregiving role for old parents and less depressive signs for adult female caregivers who report a high level of marital satisfaction (Williams et al., [2018](#)). However, male caregivers do not show any interaction between marital satisfaction and parent care.

Wan and Wong ([2019](#)) conducted an investigation and stated that psychological distress was found to be in the majority of people who are caring for patients with Schizophrenia. The age of the caregiver has been statistically associated with the level of psychological distress. Another study by Bom et al. ([2019](#)) revealed that caregiving significantly impacts caregivers' daily routine; almost 65% of caregivers reported struggling with sleep disturbance and changes in eating habits. Repeated analyses were applied about physical and psychological health outcomes resulting from caregiving, and it inferred that caregivers are more likely to experience high levels of depressive symptoms and physical health issues than non-caregivers.

In Pakistan, it has been believed that close family members should provide care and aid to their older adults at home. There is a lack of professional facilities for caring for older adults, such as rehabilitation centers and social welfare organisations, to help this part of the population, making the situation more burdensome. Most healthcare frameworks focus only on the individual patient and do not adequately educate, train, or support their family and other unprofessional caregivers. Most caregivers are married, and many live in extensive joint family systems. They have to struggle with further issues in marital relationships, which ultimately leads to adverse effects on psychological well-being. People who are performing multiple responsibilities tend to fall easily into psychological health issues. It is the time requirement to explore such causes of long-term caregiving processes to better caregivers' psychological well-being.

Considering the literature in hand and theoretical perspective, this research aimed to investigate how caregiver stress and marital adjustment have a role in the psychological well-being of caretakers of older adults. The key objectives of this study were: 1) to find the association between

demographic variables and study variables, 2) to find the association among caregiver stress, marital adjustment, and psychological well-being of caregivers, and 3) to find whether caregiver stress predicts psychological well-being and to find whether marital adjustment mediates the impact of caregiver stress on psychological well-being.

2.1 Hypotheses

The following hypotheses are investigated in this study

- There is likely to be an association between demographic variables and study variables.
- There is likely an association between caregiver stress, marital adjustment, and caregivers' psychological well-being.
- Caregiver stress is likely to predict psychological well-being
- Marital adjustment is expected to mediate the impact of caregiver stress on psychological well-being.

3 Methodology:

3.1 Research Design

A cross-sectional research design was applied to this research.

3.2 Sample

The sample of 100 adult participants (50 males and 50 females) taken for the study were married and living in intact families with at least one old parent to whom they provide care independently. The participants were taken through personal contacts such as adults in the family and parents of friends. The data was collected from Lahore, Pakistan, through a convenient non-probability sampling strategy.

3.3 Assessment Measures

Demographic Information Sheet. The demographic information sheet included age, gender, education, years of marriage, children, regional information, and other related information about care recipients.

Kingston Caregiver Stress Scale (KCSS). Kilik and Hopkins developed an assessment measure for caregiver stress (Kilik & Hopkins, [2019](#)) known as the Kingston Caregiver Stress Scale. KCSS has good reliability, as given by author $\alpha=.85$, and reliability of $\alpha=.90$ has been assessed in the current study. The scale comprises ten items clustered into three portions: caregiving procedures, family support, and economic issues. The scale works on a 5-point Likert scale that ranges from '1' as least stress to '5' as very high stress.

Couples Satisfaction Index (CSI). It is an assessment developed to evaluate the extent of satisfaction in a marital relationship, which was made by (Funk & Rogge, [2007](#)). The scale has 32 items that differ in response formats and rating patterns. CSI-16 is used in the present study, which initially had the reliability of $\alpha = 0.96$ and turned out to be $\alpha = 0.95$ in the current study. This scale is based on a 0 – 5 Likert scale where scores can vary from zero to 81. Higher scores mean that a person is delighted with their spouse.

Psychological Well-being Scale (PWBS). Stavradi et al. ([2022](#)) developed the measurement of psychological well-being as consisting of 6 dimensions: environmental mastery, self-acceptance, autonomy, positive relations with others, purpose in life, and personal growth. Using these six dimensions, she has designed self-report measures to evaluate an individual's well-being at a

specific moment. In the present study, an 18-item version of PWBS (Urdu version) is used, and each dimension has three items.

3.4 Procedure

The Kingstone Caregiver Stress Scale and Couple Satisfaction Index needed to be translated into Urdu. Permissions were obtained from the original authors for the translation of the tools. After the permissions were granted, the formal translation process followed standardised forward-backward translation procedure guidelines. After translation, the instruments were taken to the participants for administration. The researcher explained the nature and purpose of the study before obtaining written consent from those who met the said criteria for this research. The questionnaires were distributed to the sample personally, and were asked to complete the questionnaires with honesty and attention. Participants were assured about the confidentiality of their responses. Each questionnaire took around 10-15 minutes to administer owing to the pass.

4 Results

The reliability coefficients of the scales and the descriptive statistics, as well as the actual and potential range of variables, are shown in Table 1.

Table 1: Reliability Coefficients and Descriptive Statistics of Study Variables (N=100)

Variables	K	M	SD	α	Range	
					Actual	Potential
Caregiver stress	10	21.60	8.11	.93	10-36	10-50
Marital adjustment	16	64.33	12.70	.95	38-81	0-81
Psychological well-being						
Environment	3	13.02	2.93	.60	6-18	3-18
Self-acceptance	3	13.57	3.14	.68	5-18	3-18
Relations	3	12.14	3.87	.74	4-18	3-18
Purpose in life	3	12.54	3.80	.75	5-18	3-18
Personal growth	3	12.67	3.99	.76	4-18	3-18
Autonomy	3	12.31	3.62	.76	3-17	3-18

Note. M=Mean; SD=Standard Deviation; Mini=Minimum value; Max= Maximum value; α = Chronbach's alpha

The result showed that the caregiver stress scale is highly reliable, with an average response rate. Marital adjustment has the highest reliability value among all study scales and has a high response rate, which means its mean is close to the total possible score. Among the subscales of psychological well-being, personal growth and autonomy showed the highest reliability in the present study, while environmental mastery had the lowest reliability.

Pearson Product Moment Correlation was used to calculate the relationship between demographic characteristics and study variables, as shown in Table 2

Table 2: Pearson Correlation among Demographics and Research Variables (N=100)

Variables	Caregiver stress	Marital adjustment	Psychological well-being					
			Mastery	Purpose	Relation	Growth	Autonomy	Self-accept
Age	-.05	.14	.14	.18	.14	.10	.24*	.22*
Education	-.08	.20*	.00	.12	-.01	-.01	.02	.29**
Years of marriage	-.03	.09	.11	.20*	.16	.09	.22*	.17

Type of marriage	-.04	.07	.10	.11	.09	.13	.03	.07
Monthly income	.02	.05	.17	.06	.15	.15	.20*	.12
Financial contribution of a spouse	-.34*	.32**	.03**	.28**	.24*	.20*	.17	.37**
Family system	.13	-.15	-.03	.03	.01	.02	.01	-.05
Gender of parent	-.17	.13	.09	-.02	.07	.08	.01	.01
Age of parent	.04	.02	-.00	.07	.03	-.04	.01	.04
Work status of parent	.14	-.09	-.15	-.12	-.12	-.16	-.15	-.11
Income of parent	.03	-.04	-.15	-.17	-.21*	-.05	-.14	-.03
Health status of parent	-.06	.04	.03	-.12	-.01	-.05	-.01	-.06

As Table 2 shows, age significantly correlates with autonomy and self-acceptance. Level of education has a significant positive correlation with marital adjustment and self-acceptance. Years of marriage were positively associated with purpose in life and independence. The financial contribution of a spouse had a high negative correlation with caregiver stress. Furthermore, the spouse's financial contribution showed a significant positive correlation with marital adjustment, environmental mastery, purpose in life, relations with others, personal growth, and self-acceptance. The source of income was negatively correlated with relations with others. The highest negative correlation was found between the financial contribution of spouses and caregivers' stress.

Pearson product correlation was used to calculate the relationship among study variables, as shown in Table 3

Table 3: Pearson Product Correlation of Study Variables (N=100).

Variables	1	2	3	4	5	6	7	8
Caregiver stress	-	-.69***	-.70***	-.68***	-.63***	-.61***	-.71***	-.62***
Marital adjustment	-	-	.67***	.64***	.78***	.63***	.65***	.63***
Psychological well-being								
Environment	-	-	-	.78***	.78***	.89***	.90***	.85***
Purpose in life	-	-	-	-	.80***	.82***	.81***	.79***
Self-acceptance	-	-	-	-	-	.76***	.81***	.79***
Relations	-	-	-	-	-	-	.85***	.87***
Personal growth	-	-	-	-	-	-	-	.88***
Autonomy	-	-	-	-	-	-	-	-

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

As shown in Table 3, caregiver stress has a significant negative correlation with marital adjustment and all domains of psychological well-being. The higher the caregiver stress, the lower the marriage adjustment and psychological well-being. Marital adjustment has a significant positive correlation with all domains of psychological well-being. The marriage adjustment has the highest positive correlation with self-acceptance. All subscales of psychological well-being have a highly significant positive correlation. The highest correlation in this result was between environmental mastery and personal growth, which was a positive correlation. Correlation among demographics and study variables showed that gender was significantly correlated with all study variables. To find the gender difference among caregivers, an independent sample t-test was employed, as shown in table 4.

Table 4: Independent Sample T-Test Showing Difference between Male and Female Caregivers in Caregiver Stress, Marital Adjustment and Subscales of Psychological Well-being (N=100)

Variables	Male (n= 48)		Female (n=52)		t(98)	P	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Caregiver stress	17.81	4.76	25.09	8.99	-5.11	.00	-10.11	-4.44	1.01
Marital adjustment	70.66	7.81	58.48	13.57	5.55	.00	7.81	16.55	1.10
PWBS ^a									
Environment	14.77	1.56	11.00	2.97	7.15	.00	2.43	4.30	1.58
Purpose	14.20	2.75	11.00	4.00	4.69	.00	1.84	4.56	0.93
Self-accept	15.27	1.83	12.00	3.29	6.19	.00	2.22	4.32	1.22
Relations	14.14	2.86	10.28	3.78	5.77	.00	2.53	5.18	1.15
Growth	14.60	2.66	10.88	4.19	5.33	.00	2.33	5.10	1.06
Autonomy	14.18	2.13	10.57	3.85	5.85	.00	2.38	4.83	1.16

Note: **p*<.05; ***p*<.01; ****p*<.001; M= Mean; SD= Standard Deviation; CI= Confidence Interval; LL= Lower Limit; UL= Upper Limit; a = PWBS Psychological well-being scale

Results showed that female caregivers have reported more caregiver stress than male caregivers. The marital adjustment also presented significant gender differences, with males showing higher marital adjustment than females.

The third hypothesis has two parts. The first part hypothesised that caregiver stress is likely to predict psychological well-being. Secondly, it was hypothesised that marital adjustment is expected to mediate the impact of caregiver stress on psychological well-being. Baron and Kenny's (1986) mediation steps were followed with a series of regression analyses to test the hypothesis.

Table 5: Hierarchical Multiple Regression Analysis Predicting Subscales of Psychological Well-being from Caregiver Stress (N=100)

Predictors	Environmental mastery		Purpose in life		Self-acceptance		Relations with others		Personal growth		Autonomy	
	ΔR ²	β	ΔR ²	β	ΔR ²	B	ΔR ²	β	ΔR ²	β	ΔR ²	β
Step 1 Control variables ^a	.33***		.18***		.28***		.25***		.22***		.26***	
Step 2 Caregiver stress	.25***	-.56***	.29***	-.61***	.19***	-.49***	.19***	-.50***	.32***	-.64***	.21***	-.52***
Total R ²	.58***		.48***		.47***		.44***		.55***		.48***	

Note. **p*<.05; ***p*<.01; ****p*<.001; β = Standardized Coefficient; R²= R Square; ^a = Control variables include gender and financial contribution of spouse.

Caregiver stress negatively predicted environmental mastery F (3, 96) = 44.94, *p*<.001. The model explained 58% of the variance. Moreover, caregiver stress negatively predicted purpose in life, F (3, 96) = 29.66, *p*<.001. The overall model of purpose in life explained 48% of the variance. The independent variable reported a pessimistic prediction of self-acceptance F (3, 96) = 28.89, *p*<.001. The model of self-acceptance explained 47% of the overall variance. Caregiver stress F (3, 96) = 25.88, *p*<.001 also negatively predicted relations with others. The overall model of relations explained 44% variance. The pessimistic prediction of personal growth by caregiver stress explained 55% of variance F (3, 96) = 39.18, *p*<.001. Lastly, autonomy is also negatively predicted by caregiver stress F (3, 96) = 30.09, *p*<.001. This model has explained an overall variance of 47%. Hence, the first assumption of mediation is fulfilled.

The second assumption of mediation assumes that IV must predict the mediator. For this purpose, hierarchical regression was run between the independent variable (caregiver stress) and mediator (marital adjustment), as shown in Table 6

Table 6: Hierarchical Multiple Regression Predicting Marital Adjustment from Caregiver Stress

(N=100)

Predictor	ΔR^2	Marital adjustment β
Step 1	.23***	
Control variables		
Step 2	.28***	
Caregiver stress		-.60***
R^2	.52***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; β = Standardized Coefficient; R^2 = R Square; a = Control variables include gender and financial contribution of spouse.

Analysis 2 showed that caregiver stress is a negative predictor of marital adjustment $F(3, 96) = 35.08, p < .001$. The model explained 52% of the overall variance. Hence, the second assumption of mediation is fulfilled. The third assumption of mediation was that the mediator (marital adjustment) must predict DV (psychological well-being). Multiple hierarchical regression was employed in which the mediator (marital adjustment) was analysed one by one with the dependent variables (environmental mastery, purpose in life, self-acceptance, relations with others, personal growth, and autonomy), as shown in Table 7

Table 7: Multiple Hierarchical Regression Analysis Predicting Subscales of Psychological Well-being from Marital Adjustment (N=100)

Predictors	Environmental mastery		Purpose in life		Self-acceptance		Relations with others		Personal growth		Autonomy	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.33***		.18***		.28***		.25***		.22***		.26***	
Control variables												
Step 2	.21***		.25***		.36***		.20***		.24***		.21***	
Couple-satisfaction		.52***		.57***		.68***		.51***		.57***		.52***
Total R^2	.54***		.43***		.64***		.45***		.47***		.47***	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; β = Standardized Coefficient; ΔR^2 = R square change; R^2 = R Square; n = number of the participants; Control variables include gender and financial contribution of spouse.

Marital adjustment showed a significant optimistic prediction of all domains of psychological well-being. The overall model of environmental mastery is significant $F(3, 96) = 38.33, p < .001$, and it explains 54% of the total variance. Purpose in life is also positively predicted by marital adjustment $F(3, 96) = 24.43, p < .001$. The overall model of purpose in life explained 43% of the variance. Likewise, self-acceptance model $F(3, 96) = 58.16, p < .001$, explained 64% of the variance. Relations with others also presented high positive predictability by marital adjustment $F(3, 96) = 26.87, p < .001$, and this overall model explained 45% of the variance. Personal growth $F(3, 96) = 28.61, p < .001$ has represented 47% of total variance. Lastly, autonomy was also reported to be positively predicted by marital adjustment $F(3, 96) = 29.40, p < .001$. The model of autonomy explained 47% of the total variance. Hence, the third assumption of mediation is also fulfilled: the mediator significantly predicts the dependent variable. The fourth assumption was that IV must not predict DV while controlling the mediator. For this purpose, a multiple hierarchical regression was employed as shown in Table 8

Table 8: Hierarchical Multiple Regression Analysis Predicting Subscales of Psychological Well-being from Caregiver Stress and Marital Adjustment (N=100)

Predictors	Environmental mastery		Purpose in life		Self-acceptance		Relations with others		Personal growth		Autonomy	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1 Control variables ^a	.33***		.18***		.28***		.25***		.22***		.26***	
Step 2 Caregiver stress	.25***		.29***		.19***		.19***		.32***		.21***	
		-.39***		-.43***		-.12		-.29**		-.48***		-.33**
Step 3 Couple-satisfaction	.03**		.04**		.17***		.05**		.03**		.04**	
		.28**		.30**		.61***		.33**		.27**		.31**
Total R^2	.62**		.52**		.65***		.50**		.58**		.53**	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; β = Standardized Coefficient; ΔR^2 = R square change; R^2 = R Square; n = number of the participant; a = Control variables include gender and financial contribution of spouse.

In the last mediation analysis, controlling variables were entered in the first block, caregiver stress in the second block, and marital adjustment entered the third block. In contrast, dependent variables were entered one by one in hierarchical regression. In the first domain of psychological well-being, the overall model explained 62% of the variance in environmental mastery $F(4, 95) = 39.0, p < .001$. Model 1 has control variables such as gender and financial contribution of a spouse, which explains the variance of 33%; model 2 of caregiver stress explains 25% of the variance, and model 3 of marital adjustment explains 3% of variance. Hence, environmental mastery is predicted by caregiver stress while controlling the mediator (marital adjustment).

In the analysis of purpose in life, the overall model explained 52% of total variance $F(4,95) = 26.24, p < .001$. Model 1 has a control variable that explains a variance of 18%, model 2 of caregiver stress explains 29%, and model 3 of marital adjustment explains 4% of the variance. Hence, caregiver stress predicts life's purpose while controlling the mediator. In self-acceptance, the overall model explains 65% of total variance $F(4, 95) = 44.61, p < .001$. The first model of control variables explains 28% of the variance, model 2 of caregiver stress explains 19%, and model 3 of marital adjustment explains 17% of the variance. Hence, caregiver stress is predicting self-acceptance while controlling the mediator.

The overall model of relations with others explains 50% of the total variance $F(4,95)=23.75, p < .001$. The first model of control variables concerning others explains 25% of the variance, model 2 of caregiver stress explains 19%, and model 3 of marital adjustment explains 5% of the variance concerning others. Hence, caregiver stress still predicts relations with others while controlling the mediator.

The overall model of personal growth explains 58% of total variance $F(4,95)=33.55, p < .001$. The first model of control variables in personal growth explains 22% of the variance, model 2 of caregiver stress explains 32%, and model 3 of marital adjustment explains 3% of the variance in personal growth. Hence, caregiver stress is still predicting personal growth while controlling the mediator.

The overall model of autonomy explains 53% of the total variance $F(4, 95) = 27.11, p < .001$. The first model of control variables in autonomy explains 26% of the variance, model 2 of caregiver stress explains 21%, and model 3 of marital adjustment explains 4% of the variance in autonomy. Hence, caregiver stress is still predicting autonomy while controlling the mediator.

As the analyses showed, IV still predicts DVs while controlling the mediator. The beta value is compared from the first analysis of IV and DV with the last analysis of IV, mediator, and DV. It was found that the beta value of the dependent variable is reduced while controlling the mediator in the previous step, which shows partial mediation. The Sobel z test was employed to investigate

the significance of mediation. The result showed that marital adjustment mediated the relationship between caregiver stress and all domains of physiological well-being. In environmental mastery, $a = -1.09$, $b = .08$, $sa = .11$ and $sb = .02$, $p = .00$. In purpose of life, $a = -1.09$, $b = .09$, $sa = .11$ and $sb = .02$, $p = .00$. In self-acceptance, $a = -1.09$, $b = .16$, $sa = .11$ and $sb = .02$, $p = .00$. In relations with others, $a = -1.09$, $b = .12$, $sa = .11$ and $sb = .03$, $p = .00$. In personal growth, $a = -1.09$, $b = .09$, $sa = .11$ and $sb = .03$, $p = .00$. In autonomy, $a = -1.09$, $b = .11$, $sa = .11$ and $sb = .03$, $p = .00$. Hence, result showed that marital adjustment partially mediated the relationship between caregiver stress and physiological well-being. So, the hypothesis was approved.

Education also has a significant positive correlation with marital adjustment and self-acceptance. The financial contribution of a spouse showed a significant negative correlation with caregiver stress and a positive correlation with marital adjustment and all domains of psychological well-being. Caregiver stress significantly correlates negatively with marital adjustment and all domains of psychological well-being. The marriage adjustment has a significant positive correlation with all domains of psychological well-being. The T-test concluded that female caregivers experience more caregiver stress than males. And male caregivers reported more marital adjustment and psychological well-being than female ones. By following the mediation, the first three assumptions of Baron and Kenny were fulfilled, but the fourth assumption was not fulfilled. When the Sobel z test, the result showed that marital adjustment partially mediated the relationship between caregiver stress and psychological well-being.

5 Discussion

The current study focused on the relationship between caregiver stress, marital adjustment, and psychological well-being among adult caregivers. This research considers close family members to provide care to their old parents or parents-in-law. Caregivers face many difficulties in marriage due to caregiver stress, which leads to problems in their psychological well-being (Haley et al., [2020](#)).

The first hypothesis was that there is likely to be an association between demographic variables and study variables. For this hypothesis, the Pearson product-moment correlation was run between demographic and study variables. The results supported the theory that the caregiver's age was significantly correlated with autonomy in psychological well-being. This conclusion was confirmed in past research by Bermejo-Toro et al. ([2020](#)), where the study showed that the caregiver's age has been statistically associated with the level of psychological well-being. The theory of caregiving explains that younger caregivers will experience more stress than older caregivers (D'Amen et al., [2021](#)). Another reason is that older caregivers have more life experiences and opportunities to use and fine-tune their coping skills.

Furthermore, gender was correlated with caregiver stress, psychological well-being, and marital adjustment in the present research. This association is similar to the previous findings. A study reported that the gender of the caregiver has a vital role in the perception of the caregiving process Hernández-Padilla et al. ([2021](#)), and there was a significant interaction between caregiving transition and gender of the caregiver (Blinka et al., [2022](#)). The theory of caregiver stress also suggests that women will experience higher levels of stress than men. This may be because more women than men are more likely to become significant caregivers than men and are more involved with caregiving activities. As our culture promotes that providing care to elderly parents is the obligation of close family members, especially females, these results are confined to our cultural values and social roles.

The second hypothesis was that there is likely to be an association between caregiver stress, marital adjustment, and psychological well-being. Results showed that caregiver stress negatively

correlates with marital adjustment and psychological well-being. These results were previously found in past research where the long-term care-providing process was associated with low marital quality (Karimi et al., 2019). Another study indicated that changes in marital satisfaction of females depend on how their husbands' emotional support change and obstruction in caregiving efforts (Lee & McKinnish, 2018). According to the caregiving theory, the caregiver's stress experience impacts four types of responses: physical function, self-esteem/mastery, role enjoyment, and marital satisfaction. Physical functioning also includes neurological/psychological functioning (White et al., 2021). Hence, a prolonged process of caregiving may cause a disturbance in marital quality as partners are not able to spend enough time with each other, which gradually increases the problems and arguments that result in depression and poor psychological well-being (Jacob & Ahmed, 2018).

The present research's results identified a high positive correlation between marital adjustment and psychological well-being. These findings are similar to previous research, which showed that increased psychological well-being elevates marital adjustment and vice versa among aged couples in the late years of their lives (Kumar, 2015). Similarly, there was also a significant association between hours spent in a caregiving role for old parents and less depressive signs for adult female caregivers who reported a high level of marital satisfaction (Lee et al., 2020). The theory of caregiving explains that marital satisfaction is seen as the caregiver's most important relationship with their significant other in which they are loved, valued, and respected. High levels of marital satisfaction promote an effective adaptive response, which enhances caregivers' psychological well-being (Milani et al., 2020). Hence, a better-adjusted marriage leads to fewer problems in partners and better psychological well-being of individuals.

The results also showed significant gender differences, as expected in the hypothesis. Male caregivers are less likely to experience caregiver stress and scored more on marital adjustment and psychological well-being. In comparison, female caregivers reported high caregiver stress and scored low on marital adjustment and psychological well-being. The results are similar to those of past studies to some extent. A study has explored that long-term parent care may impact marital happiness and that, compared to those sons, daughters who are caregivers for a parent or parent-in-law report more negative outcomes in life (Bookwala et al., 2007).

Another study analysed that the adult female caregivers who admitted the presence of marital issues showed a significant relationship between more hours spent on the role of caregiver and an increase in depressive symptoms. Thus, there is a considerable difference in the experience of male and female caregivers in various dimensions, such as stress, marriage, and well-being (Haley et al., 2020). In our cultural context, females are mostly socialised to fulfill the responsibility of providing care to family members, and they usually perform more demanding and intensive care than males. As a result, female caregivers score more on caregiver stress than male caregivers, as men are typically bound to limited complementary tasks such as financial contribution and helping in households.

The third hypothesis has two parts: first is that caregiver stress is likely to predict psychological well-being, and second is that marital adjustment is expected to mediate the relationship of caregiver stress with psychological well-being. Regression analyses were employed to investigate the first tentative statement following the mediation steps. The results proved the hypothesis right; it showed that caregiver stress is a significant predictor of psychological well-being (Zhou et al., 2021). This finding is also based on previous research. One study revealed that caregiving has a substantial impact on the daily routine of caregivers, such as almost 65% of caregivers reported struggling with sleep disturbance and changes in eating habits. Physical and psychological health outcomes have resulted from caregiving, and it inferred that caregivers are more likely to experience high levels of depressive symptoms and physical health issues than non-caregivers

(Irfan et al., 2017).

Another study supported the results of current research by defining the predictors of caregivers' burden: marital status, anxiety, family income, and depressive symptoms (Ali & Kausar, 2018). This showed that caregiver stress impacts various aspects of the caregiver's life. The depressive symptom is the main component of disturbed psychological health, which makes the caregiving process more troublesome. One more study suggested that caregivers found to have a personal impact on parental care, such as disturbance in social lives, family holiday plans, private time with wife and kids, and other relationships with relatives. These problems lead to low psychological well-being (Matud et al., 2019). In the theory of caregiving, psychological well-being is categorised as physical functioning. Theory suggests that if the bodily function of an individual is not operating appropriately, this indicates an ineffective response to stress. The individual will demonstrate an adaptive stress response if physical function is maintained. The caregiving process predicts psychological well-being in such a way that caregivers overburden themselves with multiple role obligations that contribute to the anxiety of failure, frustration, and depression. They lose their concentration from a specific role while managing family and work side by side; hence, they have to face poor mental functioning, which ultimately leads to low psychological well-being (Spagnoli et al., 2021).

To investigate the second part of this hypothesis, mediation analysis showed a partial mediation effect of marital adjustment on the relationship between caregiver stress and psychological well-being. A small number of studies have found such a conclusion. One of those studies elaborated that psychological distress is predicted by marital discrepancies due to the shifting into the role of caregiving, and models of regression assessed this process. The findings described that transitioning into a caregiving role has an impact on psychological health for caregivers of female biological parents and male spouses who also stated a significantly high level of marital differences. Hence, marital quality mediates the caregiving process's impact on caregivers' psychological outcomes (Choi & Marks, 2006; Yi et al., 2021).

One more study from the literature review describes the impact of caregiver stress on caregivers' psychological health, which would be mediated by the sum of stress and pleasure gained from marital relationships. That research concluded that the adult female caregivers who admitted the presence of matrimonial issues showed a significant relationship between more hours spent on the role of caregiver and an increase in depressive symptoms (Zhong et al., 2020). Thus, the mediated role of marital adjustment can be confirmed through these past findings. In the theory of caregiving stress, perceived caregiver stress leads to depression, which has four adaptive modes in the output section, one of which is marital satisfaction. It has been defined that caregiver stress affects marital satisfaction and psychological well-being.

The mediating role of marital satisfaction between caregiver stress and psychological well-being was not explained in theory but has been reviewed by several researchers. Theory declares that marital satisfaction is essential to the caregiver's physical health (Fauziana et al., 2018). It is observed that caregiving stress has a significant impact on the adjustment of marital relationships and also has a direct link with the caregiver's psychological health. Hence, the marriage adjustment mediated the relationship between caregiver stress and psychological well-being (Singh Solorzano et al., 2021). Caregivers have mixed feelings regarding their satisfaction. They are bound to multiple roles in life, such as caring for old parents, balancing work with private life, having kids, social interactions, and their health and well-being. All of these aspects are interrelated and have an impact on each other. Being able to manage all of these responsibilities while caring for one's health is the primary goal of a caregiver.

Considering the limitations of this study, the small sample size, self-reporting measurement, and non-probability sampling technique hinder the generalisation of the results of this study. The results of this research are beneficial for increasing knowledge of how caregiver stress affects caregivers' psychological health and complicates marital adjustment. The current research also includes how caregivers can balance multiple role obligations and overcome stressful events to achieve a well-adjusted marriage with high psychological well-being.

6 References

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