Foundation University Journal of Psychology
Vol 9, No.1 (January, 2025)

FUJP Open Access Journal

Research Article 10.33897/fujp.v9i1.773

Anxiety, Depression and Coping Mechanisms in Caregivers of Psychiatric Patients

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Abstract

Background. Many caregivers that serve mentally ill patients suffer from depression and anxiety and can use maladaptive coping strategies that necessarily worsen their outcomes. To gain some understanding of these psychological issues caregivers of psychiatric patients were assessed.

Method. With a systematic random sampling technique 56 male and 111 female caregivers (N = 167) were drawn that completed Beck Depression Inventory-Second Edition (Beck et al., 1996), Beck Anxiety Inventory (Steer et al., 1993) and Brief COPE inventory (Carver et al., 1989) along with demographic variables.

Results. About half (50%) or 84 caregivers suffered from mild to severe depression, and less than half (~46%) or 76 had mild to severe anxiety. Most patients utilized Problem-Focused coping, followed by Emotion-Focused and Dysfunctional coping.

Conclusion. The study replicates prevalence of depression and anxiety in caregivers in Pakistan and other countries.

Keywords. Caregivers, anxiety, depression, coping strategies, problem-focused coping, emotion-focused coping, dysfunctional coping, psychiatric patients.

Foundation University Islamabad

Introduction

Recent recommendations propose, psychiatric patients ought to be managed within the community instead of long-term institutional care (Cabral et al., 2014). Therefore, the role of caregivers has become critical in the lives of psychiatric patients (Imtiaz et al., 2021). A caregiver helps the patient with their needs and provides companionship. However, this companionship is demanding and burdensome, which can be "… emotional, physical and financial (WHO, 2019)" in nature. Caregivers are usually family members, friends or other individuals and are considered outside the health care system (Nasir et al., 2022). They provide care to psychiatric patients, which can be extremely stressful, subjecting caregivers to encumber emotional problems. In most cases, caregivers focus on the needs of the patient at the cost of their own their health. This usually results in depletion of a variety of resources, causing depression, anxiety, and burnout (Mishra & Shakya, 2021). Moreover, caregivers can experience stigmatization that degrades the situation, further (Bademli, 2017). Several studies report depression and anxiety in caregivers that care for patients with psychiatric illness is higher than in the general population, for example, Rodrigo et al. (2013) report ~38% (30 out of 80) caregivers that served psychiatric patients, suffered from depression. This is not different from a study carried out in Pakistan that reported about 41% caregivers of psychiatric patients were clinically anxious or depressed (Alvi et al., 2014). Of these about 20% of caregivers generally tend to suffer from severe depression (Thunyadee et al., 2015). However, most caregivers report elevated levels of depression (85%) and anxiety (86%) above the threshold of normalcy (Imran et al., 2010). In a systematic review, depression occurred in about half (46%) of caregivers serving patients with chronic mental illnesses (Steele et al., 2010). Greater severity of anxiety and depression were found among caregivers that cared for schizophrenic (57%) and bipolar (50%) patients; and that female caregivers were significantly ($p < .01$) more anxious and depressed than male caregivers (Steele et al., 2010). Goldstein et al. (2002) suggest depression and anxiety in caregivers in not only because they render services, but other factors also play significant role, like caregivers experience social isolation, economic difficulties, and stigmatization. Younger and less educated caregivers experience greater depression (Magaña et al., 2007), caregivers that spend more time with patients and are non-religious (Rodrigo et al., 2013), and have poor social support system (Murray-Swank et al., 2006) experience more depression.

A defensive response to depression and anxiety is coping, to cope, means to make a conscious effort to manage, buffer, and tolerate the adverse effects of stressful situations. Various coping strategies exist some can be adaptive and others maladaptive. Generally divided into three (Carver, 1997), they include problem-focused, emotion-focused and dysfunctional coping strategies. The first two strategies are considered adaptive, the last one, a maladaptive strategy. We do not know if any study has been carried out on coping strategies in Pakistani caregivers that suffer from depression and anxiety. Therefore this study is important to find this connection and come up with appropriate interventions can support caregivers (Alqutub et al., 2021).

Clinical observation of caregivers that attend psychiatric patients at Heavy Industries Taxila-Institute of Medical Sciences (HIT-IMS) Hospital, Taxila Cantonment suggest similar prevalence of depression and anxiety as reported in above literature. However, to empirically validate these observations and reveal coping mechanisms this study was designed to assess caregivers of patients that were attending this hospital. This would help in gauging prevalence of depression and anxiety, coping mechanisms and scope for interventions that would improve mental health and quality of life of caregivers.

Method

This study aimed to determine the incidence of anxiety and depression in mental patient caregivers and their coping techniques. This cross-sectional study was conducted at the Department of Psychiatry and Behavioral Sciences, HIT-IMS, Taxila Cantonment and study was approved by the Ethics Committee. Primary caregivers of the patients identified by psychiatrists, were approached by assistants of the investigators who explained the nature of the study. All those that consented

verbally were asked to complete three scales and a demographic sheet that collected information on the age, education, occupation, marital status, and relationship of caregivers to the patient. Information about the psychiatric illness of a patient, duration of caregiving, and medical and psychiatric history of the caregiver was also obtained. All data was kept confidential and anonymous, and participants were told that they could quit the study anytime if they need to with any penalty. The data were analyzed by SPSS version 28.

Sample

The sample size was calculated on estimated (19%) population for depression and anxiety in caregivers. A total of 56 male and 111 female (66.47%) caregivers (N = 167) was sampled at 90% confidence interval using systematic random sampling. Psychiatric illnesses of patients were diagnosed using ICD-11 (WHO, 2019) diagnostic criteria by psychiatrists working in the Psychiatric Outpatient Department of the hospital.

Assessment Measures

Beck Depression Inventory-Second Edition (BDI-II). BDI-II has 21 self-evaluative items that can be scored from 0 to 3, higher scores indicating greater severity of depression. Composite scores range from 0 to 63. A score of 0-10 is considered minimal or normal, 11-19 as mild, 20-28 is moderate, and 29-63 severe depression. One-week test-retest stability of BDI-II is high (.93) and so is internal consistency (coefficient alpha = .92-.94) depending on the sample (Beck et al., 1996). Construct validity is also high (r = .93) when compared to the BDI (Beck et al., 1996).

Beck Anxiety Inventory (BAI). Developed by Steer et al. (1993) BAI is a self-report inventory that measures severity of anxiety in psychiatric populations and is appropriate for use in ages 17 and above. The scale consists of 21 items, each describing a common symptom of anxiety. Each item is responded over a 4-point scale (0-3) with higher scores measuring higher anxiety. The BAI has high internal consistency (alpha = .92) and test-retest reliability over 1 week, (r = .75) and has mild to moderate convergent validity with revised and regular Hamilton Anxiety Rating Scales (Beck et al., 1988). A score below 8 is no anxiety, between 8-15 depicts mild, 16-25 moderate, and a score of 30-63 severe anxiety.

Brief Coping Orientation of Problems Experienced (Brief-COPE) Inventory. Brief version of the COPE (Carver et al., 1989) contains 28 items. Each item is ranked on a 4-point scale, ranging from 0 (*I haven't been doing this at all*) to 3 (*I've been doing this a lot*), with higher scores represent greater coping style. The 14 subscales are divided into three domains, Problem Focused Coping (8 items), Emotion Focused Coping (12 items). Dysfunctional Coping (8 items) were higher scores represent greater use of that strategy (Carver, 1997). Internal consistency of Brief-Cope ranges between (Cronbach alpha = .72-.84) reported by DeDios-Stern et al. (2017) and acceptable construct validity (Wise et al., 2023).

Results

Most caregivers, i.e., 60 (39.5%), falling within the age range of 40-49 years, followed by 35(21%) caregivers falling within the age range of 30-39 years, 33(19.8%) caregivers within the age range of 50-59 and 30 (18%) within the age range of 19-29 years. Out of 167 participants recruited in the study, 56 (33.5) were males, and 111(66.5%) were females. On BDI, 84 caregivers were diagnosed with Depression, while on BAI, 76 caregivers were diagnosed with Anxiety. The levels of Depression and Anxiety are shown in Table 1.

Table 1

Frequencies and percentages of Demographic variables of the study

Variables	Categories	*f*	Percentage %
Age Range			
	19-29	30	18.0 %
	30-39	35	21.0 %
	40-49	60	35.9 %
	50-59	33	19.8 %
	60-69	9	5.4 %
Gender			
	Male	56	33.5 %
	Female	111	66.5 %
Education			
	Illiterate	26	15.6 %
	Middle	31	18.6 %
	Matric	15	9.0 %
	FA	42	25.1 %
	BA	35	21.0 %
	Masters	18	10.8 %
Relationship with Patient			
	Housewife	68	40.7 %
	Laborer	16	9.6 %
	Officer	12	7.2 %
	Guard	10	6.0 %
	Technician	32	19.2 %
	Teacher	27	16.2 %
	Student	2	1.2 %
Total		167	100 %

Table 2
Descriptive Statistics of Levels of Depression & Anxiety

BDI Scores			BAI Scores		
Level of Depression	Number of Caregivers	Percentage	Level of Anxiety	Number of Caregivers	Percentage
No Depression	83	49.7%	No Anxiety	91	54.5%
Mild Depression	20	12.0%	Mild Anxiety	25	15.0%
Moderate Depression	35	21.0%	Moderate Anxiety	35	21.0%
Severe Depression	29	17.4%	Severe Anxiety	16	9.6%

It can be seen from Table 2 that the majority of caregivers had moderate Depression and moderate Anxiety.

Table 3
Chi-square test of independence of Levels of Anxiety and Depression among Caregivers according to Gender

Gender Distribution in Terms of Levels of Depression					
Gender	No Depression n (%)	Mild Depression n (%)	Moderate Depression n (%)	Severe Depression n (%)	*p*
Male	23 (41.1%)	12 (21.4%)	8 (14.3%)	13 (23.2%)	0.012
Female	60 (54.1%)	8 (7.2%)	27(24.3%)	16 (14.4%)	
Total	83 (49.75%)	20 (12.9%)	35 (21%)	29 (17.4%)	
Gender Distribution in Terms of Levels of Anxiety					
Gender	No Anxiety n (%)	Mild Anxiety n (%)	Moderate Anxiety n (%)	Severe Anxiety n (%)	*p*
Male	33 (58.9%)	7 (12.5%)	7 (12.5%)	9 (16.1%)	0.065
Female	58 (52.3%)	18 (16.2%)	28 (25.2%)	7 (6.3%)	
Total	91 (54.4%)	25 (15%)	35 (21%)	16 (9.6%)	

The chi-square test of independence showed a significant correlation between gender and depression levels ($\chi 2 = 10.9$, df = 3, p = 0.012). Male carers had greater rates of severe depression (23.2% vs 14.4%) and female carers of moderate depression (24.3%). No significant correlation was found between gender and anxiety levels ($\chi 2 = 7.22$, df = 3, p = 0.065).

Table 4

Comparison of Coping Mechanisms: One-way repeated measures ANOVA of the three coping mechanisms

Coping Mechanisms	M	SD	p
Problem Focused Coping	55.4	13.1	0.001
Emotion Focused Coping	38.8	9.5	
Dysfunctional Coping	34.7	8.7	

The Table 4 shows that the maximum number of patients used Problem Focused Coping, followed by Emotion-Focused Coping and Dysfunctional Coping.

Table 5

Pearson's Correlation of BDI & BAI Score with Type of Coping Mechanism

	Coping Mechanisms	r	p
BDI	Problem Focused Coping	.389	.001
	Emotion Focused Coping	.567	.001
	Dysfunctional Coping	.561	.001
BAI	Problem Focused Coping	.749	.001
	Emotion Focused Coping	.543	.001
	Dysfunctional Coping	.520	.001

Using Pearson's correlation coefficient (r), the associations between depression (BDI-II scores), anxiety (BAI scores), and the three coping strategies measured by Brief-COPE were evaluated. Each correlation was statistically significant—$p < 0.001$. Table 5's correlation coefficients (r) indicate modest to high positive correlations ranging from 0.389 to 0.749. While for BAI scores the highest link was with Problem Focused Coping ($r = 0.749$), for BDI-II scores Emotion Focused Coping ($r = 0.567$) showed the strongest correlation. These findings imply that, with different degrees of connection, the usage of all coping mechanisms also usually increases when depression or anxiety levels rise.

Discussion

A considerable number of the caregivers of psychiatric patients at HIT Hospital Taxila Cantt reported moderate levels of both anxiety and depression. The study's emphasis on the 40–49 age range is consistent with Rodríguez-Agudelo's 2010 results, which named relationship, gender, and educational level as significant demographic characteristics linked to anxiety and depression. (Rodríguez-Agudelo et al., 2010). The study's focus on women also fits with the results of Ahmad and Thaneerat 2016, who discovered a strong correlation between depression and women. (Mohammad Sayeed Ahmad et al., 2023; Thaneerat et al., n.d.). Ahmad 2023's results, which revealed a somewhat positive association between stress and coping state, are compatible with the study's identification of coping mechanisms. These results are in line with earlier studies that have likewise demonstrated a significant incidence of these mental health problems among carers (Mohammad Sayeed Ahmad et al., 2023; Pasquier & Pedinielli, 2010). Problem-focused coping was the most often employed technique, the survey

also revealed, followed by dysfunctional coping and emotion-focused coping. This is consistent with earlier studies showing how crucial coping mechanisms are to controlling carer stress. (Bjørkløf et al., 2017; García-Alberca et al., 2012; Kleinke, 1988; Saeed et al., 2019). The need for efficient coping mechanisms in this population is further shown by the positive link between depression and anxiety scores and all three kinds of coping mechanisms. (García-Alberca et al., 2012). Research has shown that carers frequently deal with moderate to severe stress. (Darlami et al., 2016; Tasmin et al., 2021), and that depression is significantly correlated with age and gender (Idrees et al., 2022). Problem- and emotion-focused coping methods are widely employed (Darlami et al., 2016; Novysedláková et al., 2018). Positive reframing and self-distraction have been linked to reduced psychological discomfort (del-Pino-Casado et al., 2019). Distress can be increased, meanwhile, by using unhealthy coping mechanisms like substance abuse and denial (del-Pino-Casado et al., 2019). Gender plays a part in coping mechanisms as well; men and women employ various coping mechanisms according to how they see mental illness (Kłak & Ozga, 2020).

Conclusion

Family members of people with mental health issues are often also the recipients of stress, worry, and depression experienced by the sufferers themselves. Because of this finding, developing psycho-educational programs to ease the stress on those who care for people with mental illness is crucial. The results of the study add to the expanding body of knowledge, emphasizing the heavy psychological load that middle-aged women who care for psychiatric patients bear. These results support the need for a comprehensive strategy that tackles the underlying mental health problems this vulnerable group faces, in addition to encouraging adaptive coping strategies. In the end, healthcare professionals may improve the standard of care given to people with mental health conditions while promoting the general well-being of caregivers and their families by offering thorough support and giving them useful coping mechanisms.

Declaration

Funding: No funding was received for this study.

Conflict of Interest: The authors declare that they have no conflict of interest.

Acknowledgment: All participants who contributed to this study are acknowledged for their valuable input.

Ethical Approval: Ethical approval was obtained from the relevant institutional review board prior to data collection and informed consent was taken from the participants before data collection.

Competing Interest: The authors declare that they have no competing interests.

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