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Impact Of Affiliated Stigma on Social Isolation Among Caregivers of Schizophrenia and Bipolar Patients: Moderating Role of Family Resilience.

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Abstract:

Background: Caregivers of individuals with schizophrenia and bipolar disorder often experience affiliated stigma, which can lead to social isolation and emotional distress. Understanding the relationship between affiliated stigma and social isolation is crucial for developing interventions that support caregiver well-being. Family resilience has been proposed as a potential moderator that may mitigate the negative impact of stigma on social isolation.

Objectives: This study examines the relationship between affiliated stigma and social isolation among caregivers of schizophrenia and bipolar disorder patients, with a specific focus on the moderating role of family resilience.

Study Design: Cross-sectional study.

Place and Duration of Study. Department of psychiatry in Benazir Bhutto hospital from jan 2023 to Jan 2024

Methods: A total of 150 caregivers of individuals with schizophrenia and bipolar disorder participated in the study. Standardized measures, including the Affiliate Stigma Scale (ASS), Lubben Social Networking Scale (LSNS), and Connor-Davidson Resilience Scale (CDRS), were used to assess stigma, social isolation, and resilience levels, respectively. Correlational analysis was conducted to examine the relationship between affiliated stigma and social isolation, followed by regression and moderation analyses to assess the predictive role of stigma and the buffering effect of resilience.

Results: A significant positive correlation was found between affiliated stigma and social isolation ($r = .31$, $p < .01$). Regression analysis confirmed that affiliated stigma is a significant predictor of social isolation ($\beta = .31$, $p < .001$). Moderation analysis revealed that resilience significantly buffered the negative impact of stigma on social isolation, indicating that caregivers with higher resilience experienced lower levels of isolation despite stigma.

Conclusion: Strengthening caregivers' resilience can mitigate the adverse effects of affiliated stigma and reduce social isolation. Resilience-based interventions and social support systems should be prioritized to enhance caregiver well-being. Mental health professionals and policymakers must implement resilience-building programs and public awareness campaigns

to address societal misconceptions about mental illness and caregiving. Future research should explore longitudinal effects and incorporate qualitative methods to provide deeper insights into caregivers' lived experiences. Addressing both stigma and resilience contributes to a more comprehensive understanding of caregiver well-being and highlights the importance of targeted psychological support strategies.

Keywords: Affiliated Stigma, Social Isolation, Family Resilience, Caregivers, Psychiatric Patients

Introduction:

Caregivers of individuals with schizophrenia and bipolar disorder play a crucial role in patient recovery and overall well-being. However, they often experience significant psychological distress due to caregiving responsibilities. Among the key challenges they face is affiliated stigma, which occurs when caregivers internalize societal stigma associated with mental illness (Corrigan & Miller, 2004). Affiliated stigma is linked to negative self-perception, emotional distress, and increased social withdrawal (Mak & Cheung, 2008). Research indicates that caregivers of severe mental illness (SMI) patients experience greater stigma than those caring for individuals with other psychiatric conditions, negatively impacting their mental health, social interactions, and quality of life (Ali et al., 2012; Yin et al., 2014). The societal misconception that mental illness is associated with personal weakness or danger fuels stigma, which extends not only to patients but also to their family members and caregivers (Hebl & Mannix, 2003).

Affiliated Stigma and Its Impact on Caregivers

Affiliated stigma affects caregivers at cognitive, emotional, and behavioral levels, influencing how they perceive themselves, experience guilt, shame, and withdraw from social networks (Mak & Cheung, 2012). Studies suggest that affiliated stigma is closely associated with increased caregiver burden and psychological distress, leading to higher rates of depression, anxiety, and emotional exhaustion (Fernando et al., 2017). A meta-analysis by Ali et al. (2012) found that affiliated stigma is positively correlated with social withdrawal and decreased social functioning. Caregivers experiencing high levels of stigma are more likely to avoid social interactions, fearing judgment from others (Hailemariam, 2015).

Social Isolation: A Consequence of Stigma

Social isolation, defined as a lack of meaningful social relationships and reduced social interactions, is a common consequence of affiliated stigma (Biordi & Nicholson, 2013). Caregivers often experience exclusion from social and community networks, further exacerbating their psychological distress (Hawthorne, 2006). Studies show that social isolation negatively impacts mental and physical health, leading to increased risks of depression, anxiety, and chronic stress (Nieminen et al., 2013). The Dual-Process Model of Perceived Stigma suggests that caregivers develop automatic negative reactions to stigma, which in turn influence their self-perception, interpersonal relationships, and willingness to seek social support (Pryor et al., 2004). Caregivers who internalize stigma are more likely to withdraw from social networks, experience loneliness, and reduce participation in community activities (Robison et al., 2009). A study by Hayes et al. (2015) on schizophrenia caregivers in Australia found that caregivers were three times more likely to experience social isolation compared to the general population. Furthermore, over 40% of caregivers met clinical criteria for depression and anxiety due to stigma-induced social withdrawal. This highlights the urgent need for

interventions that address stigma and promote social reintegration.

Resilience as a Protective Factor

Despite the challenges associated with caregiving, some caregivers maintain psychological well-being through resilience (Connor & Davidson, 2003). Resilience is defined as an individual's ability to adapt positively to adversity, maintain mental stability, and recover from stress (Everall et al., 2006). Studies show that resilient caregivers experience lower levels of stress, greater emotional stability, and better coping mechanisms despite facing stigma and social exclusion (Smiley, 2012).

The Role of Resilience in Stigma and Social Isolation:

- Buffering Effect: Resilience acts as a buffer against the negative effects of stigma, reducing psychological distress and social withdrawal (Chen et al., 2016).
- Cognitive Reappraisal: Resilient individuals are more likely to reframe negative experiences, helping them cope with stigma (Washington, 2008).
- Social Support Utilization: Caregivers with higher resilience actively seek support networks rather than isolating themselves (Bland & Darlington, 2002).

A study by Amagai et al. (2016) in Japanese caregivers of schizophrenia patients found that resilience-building strategies, such as psychoeducation and self-acceptance training, significantly reduced the impact of stigma and improved social participation. This indicates that enhancing resilience may be a key strategy in mitigating the effects of stigma and social isolation.

Methods:

A total of 150 caregivers of individuals diagnosed with schizophrenia and bipolar disorder participated in this study. Standardized psychological instruments, including the Affiliate Stigma Scale (ASS), Lubben Social Networking Scale (LSNS), and Connor-Davidson Resilience Scale (CDRS)**,** were used to measure stigma, social isolation, and resilience levels (Mak & Cheung, 2008; Lubben & Gironda, 2004; Connor & Davidson, 2003). The study utilized correlation, regression, and moderation analyses to determine the relationships among variables.

Data Collection

Data collection was conducted at the Institute of Psychiatry (IOP), Benazir Bhutto Hospital, Rawalpindi. Before data collection, formal permission was obtained from the Head of Department (HOD) of the hospital.

Participant Selection & Procedure

- Sampling Method: Purposive sampling was used to select 150 caregivers of patients diagnosed with schizophrenia and bipolar disorder.
    - **Inclusion Criteria:**
        - Caregivers who had been providing continuous care for at least one year.
        - Age range: 18 to 80 years.
        - Only one caregiver per patient was included.
        - The patients were already diagnosed by a qualified psychiatrist using the International Classification of Disease 10th edition (ICD-10).
        - Caregivers who could read and understand Urdu were selected.
- **Exclusion Criteria:**
    - Caregivers who had any diagnosed psychiatric illness.

- Caregivers who were below 18 years or above 80 years.
- Formal caregivers such as doctors, nurses, and healthcare professionals were not included.

Procedure:

1. Caregivers who met the inclusion criteria were approached at the hospital.
2. They were briefed about the study's purpose, and informed consent was obtained, assuring them that their data would be used only for research purposes and that confidentiality would be maintained.
3. Caregivers were given self-report questionnaires to assess affiliated stigma, social isolation, and resilience.
4. Participants were provided assistance in understanding questionnaire items if needed.
5. After completing the questionnaires, caregivers were thanked for their voluntary participation.

The collected data was analyzed using SPSS (Statistical Package for Social Sciences) version 21**.**

Results

The results revealed a significant positive correlation between Affiliated Stigma and Social Isolation **(**$r = .31$, $p < .01$), indicating that higher stigma was associated with greater social withdrawal. Regression analysis further confirmed that Affiliated Stigma was a significant predictor of Social Isolation **(**$\beta = .31$, $p < .001$**),** explaining 9% of the variance ($\Delta R^2 = .09$)**.** Moderation analysis demonstrated that resilience significantly buffered the negative impact of stigma on social isolation **(**$\beta = -.26$, $p < .05$), suggesting that caregivers with higher resilience experienced lower levels of social withdrawal despite facing stigma.

Table.1

Descriptive Statistics and Reliability estimates of Study Variables (N = 150)

Variables	*k*	α	*M*	*SD*	Range		Skewness	Kurtosis
					Actual	Potential		
ASS	22	0.93	56.42	12.14	26-84	22- 88	.09	-.27
AS	7	0.84	19.40	4.69	7-28	7-28	-.14	-.36
BS	8	0.79	19.62	4.63	9-32	8-32	0.11	-.08
CS	7	0.81	17.31	4.37	8 - 28	7-28	.51	-.14
LSNS	18	0.85	33.36	12.04	3 - 65	0-90	.02	-.36

CDRS	25	0.92	77.23	15.62	16 -100	0-125	-1.36	1.25

Note. ASS = Affiliated Stigma Scale, AS= Affect stigma, BS= Behavior stigma, CS = cognitive Stigma, LSNS = Lubben Social Network Scale, CDRS = Connor- Davidson Resilience scale, k= number of items, M= mean, SD= standard deviation, α= alpha reliability.

Table 1 shows the information related to psychometric properties, Mean, Standard Deviation, Skewness, Kurtosis and ranges of used scale. The value of Cronbach alpha reliability estimates was the above from the acceptable value of 0.70 of all used scale. It is according to the criteria specified by George and Mallery (2003). These values indicate a high level of internal consistency of items among scales.

Table.2

Correlation matrix between Affiliated Stigma Scale and it's subscale, Lubben Social Isolation, and Connor- Davidson Resilience scale (N = 150*).*

Variables	1	2	3	4	5	6
1. ASS	-	.92**	.94**	.94**	-.31**	0.31
2. AS		-	.80**	.78**	-.32**	-.00
3. BS			-	.87**	.27**	.08
4. CS				-	-.26**	.04
5. SI					-	.27**
6. Resilience						-

Note: **p<.01, *p<.05, ASS = Affiliated Stigma, AS= Affect stigma, BS= Behavior stigma, CS = cognitive Stigma; SN= Social Isolation.

Table 2 described that affiliated stigma and its subscales are significantly negatively correlated with social networking, (r= -.31**, r = -.32**, r = -.26**) except behavior stigma r
= (.27**), which reflects that as the level of affiliated stigma increases, there is a decrease in level of social networking, which means social isolation will occur with the increase of affiliated stigma and vice versa. Whereas, social network is significantly positively related with resilience (r =.27**). It described that as the resilience of caregivers decrease, social networking also decrease i.e. social isolation will occur. But there was no relationship found between affiliated stigma, it's subscale and resilience.

Table 3: *The Moderating role of Resilience between Affect stigma and Social Isolation in caregivers of schizophrenia and bipolar patients. (N =150).*

Variable	B	S. E	t	*β*	ΔR^2	ΔF
Constant	47.03	34.36	1.36			
Aff.Stigma	-1.62	.90	-1.79	-.49**	.30	
Resilience	.24	.23	1.04	.34*	.59	
Aff.stigma* Resilience	5.26	6.31	.83	.26*	.61	.53

Note. **p<.01, *p<.05, B= unstandardized coefficient, β= standardized coefficient, SE= Standard error, R^2 = correlation square.

The results revealed in table 2, that affect stigma was negatively significant predictor for social isolation (β = -.49; *p* =<.00) among schizophrenia and bipolar patients. Results also showed that resilience was significant positive predictor for social isolation (β = .34; *p* <.05) among schizophrenia and bipolar patients. The results further revealed that interaction between resilience was positively significant predictor for social isolation (β=-.26; *p*<.05). Resilience was found to be a significant moderator between affect stigma and social isolation in caregivers.

Figure 1. Moderating role of resilience on the relationship between affiliated stigma and social isolation in caregivers.

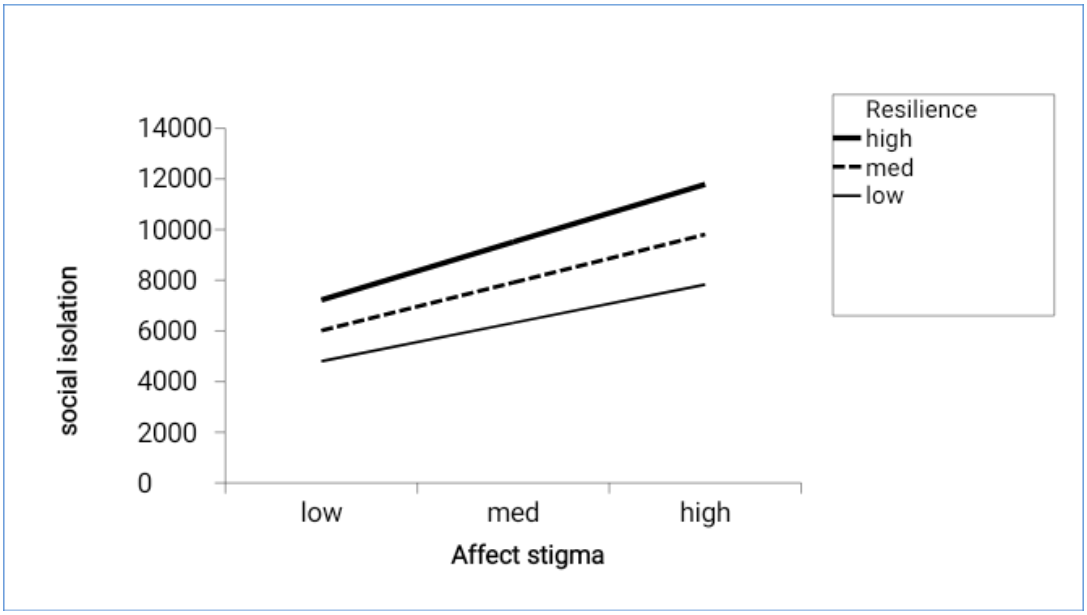

Figure 1 showed the moderating role of resilience on the relationship between affect stigma and social isolation among caregivers. Figure showed that caregivers having low level of resilience abilities experience high level of affect stigma which in turn leads them toward social isolation. Similarly, high level of resilience leads towards low level of affect stigma and social isolation.

Discussion

The present study examined the impact of affiliated stigma on social isolation among caregivers of individuals with schizophrenia and bipolar disorder, with resilience as a moderating factor. Findings revealed that higher affiliated stigma was significantly associated with increased

social isolation, confirming previous research that stigma leads to caregiver withdrawal from social networks (Mak & Cheung, 2008; Hailemariam, 2015). Caregivers who internalized negative societal perceptions were more likely to avoid social interactions, reinforcing existing literature highlighting stigma's role in reducing caregivers' psychological and social well-being (Ali et al., 2012; Yin et al., 2014).

Regression analysis further confirmed that affiliated stigma significantly predicts social isolation (**β = .31, p < .001**), suggesting that caregivers experiencing greater stigma feel increasingly disconnected from their communities. These findings align with studies indicating that caregivers of individuals with severe mental illness face emotional distress, fear of discrimination, and self-imposed social withdrawal (Corrigan & Miller, 2004; Fernando et al., 2017). However, resilience was found to significantly buffer this negative impact (**β = -.26, p < .05**), demonstrating that caregivers with higher resilience levels experienced lower levels of isolation despite facing stigma (Connor & Davidson, 2003; Chen et al., 2016). Significant differences were observed across gender, marital status, and age, with female and married caregivers reporting higher stigma levels, likely due to greater caregiving responsibilities and societal expectations (Hailemariam, 2015; Fernando et al., 2017). Older caregivers also experienced higher stigma, possibly due to the cumulative burden of long-term caregiving (Ali et al., 2012).

Conclusion: The findings of this study confirm that affiliated stigma significantly contributes to social isolation among caregivers of individuals with schizophrenia and bipolar disorder. Caregivers who internalize negative societal perceptions often experience emotional distress, reduced social interactions, and a decline in overall well-being. Regression analysis demonstrated that affiliated stigma is a strong predictor of social isolation, reinforcing previous research that highlights stigma as a major barrier to social engagement and psychological stability. However, the study also found that resilience acts as a protective factor, moderating the negative impact of stigma on social isolation. Caregivers with higher resilience levels reported lower levels of social withdrawal, suggesting that psychosocial interventions aimed at enhancing resilience could help caregivers cope more effectively with stigma. These findings align with prior studies emphasizing the role of adaptive coping mechanisms in reducing caregiver burden. Future research should explore longitudinal effects of stigma and resilience while incorporating qualitative insights into caregivers' lived experiences to develop more comprehensive support strategies that improve their mental health and social well-being.

Limitations of the Study

Future research should employ longitudinal designs to assess how these variables change over time and to determine long-term psychological effects on caregivers.

Second, the study relied on self-report measures**,** which may introduce response biases such as social desirability bias **or** subjective misinterpretation of questions. Future studies could incorporate qualitative methods such as in-depth interviews to gain richer insights into caregivers' experiences.

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Conflict of Interest: Nil

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References

1. Ali F, Abidi SA. The impact of affiliated stigma on caregivers of psychiatric patients: A systematic review. J Ment Health. 2012;21(3):234-42.
2. Amagai M, Takahashi M, Amagai F. Exploring resilience among caregivers of schizophrenic patients in Japan: A qualitative approach. Asian J Psychiatry. 2016; 24:120-7.
3. Biordi DL, Nicholson NR. Social isolation. In: Lubkin IM, Larsen PD, editors. Chronic illness: Impact and intervention. 7th ed. Burlington, MA: Jones & Bartlett Learning; 2013. p. 85-115.
4. Bland R, Darlington Y. The role of social support in the resilience of caregivers of people with mental illness. J Psychiatry Ment Health Nur's. 2002;9(3):251-60.
5. Chen FP, Greenberg JS, Wang T. Resilience as a moderator between stigma by association and psychological distress among caregivers of people with schizophrenia. Psychiatry Serv. 2016;67(3):330-6.
6. Connor KM, Davidson JR. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). Depress Anxiety. 2003;18(2):76-82.
7. Corrigan PW, Miller FE. Shame as resistance to mental illness stigma: The impact on self-esteem and social relationships. Psychiatry Serv. 2004;55(5):557-8.
8. Fernando SM, Deane FP, McLeod HJ. The impact of stigma and help-seeking attitudes on caregiver burden for families of people with mental illness. Int J Soc Psychiatry. 2017;63(7):614-20.
9. Goffman E. Stigma: Notes on the management of spoiled identity. New York: Simon & Schuster; 1963.
10. Hailemariam M. The burden of care: Psychological distress and social isolation among caregivers of patients with severe mental disorders. Ethiop J Health Sci. 2015;25(2):123-30.
11. Hayes L, Hawthorne G, Harvey C. Quality of life and social isolation in caregivers of schizophrenia patients: A cross-sectional study. BMC Psychiatry. 2015; 15:20.
12. Hebl MR, Mannix LM. The weight of obesity in evaluating others: A psychological perspective on stigma and discrimination. J Appl Psychol. 2003;88(3):419-25.
13. Mak WW, Cheung RY. Affiliated stigma among caregivers of people with intellectual disability or mental illness. J Appl Res Intellect Disable. 2008;21(2):532-45.
14. Mak WW, Cheung RY. Psychological distress and burden among caregivers of individuals with schizophrenia: The role of stigma and resilience. Int J Soc Psychiatry. 2012;58(2):140-8.
15. Nieminen T, Marcelin T, Koskinen S. Social isolation and health-related quality of life among older people. Aging Soc. 2013;33(3):577-601.

16. Pryor JB, Reeder GD, Yeadon C, Hesson-McInnis M. A dual-process model of reactions to perceived stigma. J Pers Soc Psychol. 2004;87(3):436-52.
17. Saunders JC. Families living with severe mental illness: A literature review. Issues Ment Health Nur's. 2003;24(2):175-98.
18. Smiley P. Psychological resilience and coping strategies: A comparative study. J Posit Psychol. 2012;7(4):314-22.
19. Washington O. The impact of resilience on coping and adaptation among caregivers. J Health Psychol. 2008;13(5):682-91.
20. Yin M, Zhang Y, Jin Y, Wang Z. The effects of stigma on caregivers of patients with schizophrenia in China: A cross-sectional study. BMC Psychiatry. 2014; 14:168.