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ASSOCIATED FACTORS OF FAMILY RESPONSE TO PATIENTS WITH SEVERE PSYCHIATRIC DISORDERS IN SANGATTA UTARA

Rame Sitorus[1], Irfansyah B Pakki[1], Ike Anggraeni[1*]

[1]Departemen Ilmu Kesehatan Masyarakat, Fakultas Kesehatan Masyarakat, Universitas Mulawarman, Kota Samarinda 75119

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ABSTRACT

Background: Mental disorders affect approximately 20% of Indonesia's population, with East Kalimantan reporting 2,679 cases, including 130 in the Sangatta Utara area. Despite the growing awareness of the critical role families play in supporting individuals with mental disorders, there is a still lack of studies that specifically explore family responses, particularly in Indonesia. This study aims to fill this gap by examining the factors that are associated with family responses to individuals living with severe mental disorders in Sangatta Utara, East Kalimantan.
Methods: This observational and cross-sectional study targeted 130 families of individuals diagnosed with severe mental disorders. Data were collected using structured questionnaires. Statistical analysis was performed using chi-square tests and binary logistic regression. This statistical model aimed to identify the factors most influential on family responses.
Results: Significant associations were found between family burden, social support, and family responses to individuals with severe mental disorders. The analysis revealed that family burden was strongly associated with positive family responses (Exp(B) = 24.22, p = 0.002), indicating that higher caregiving burden significantly increased the likelihood of positive family responses. Similarly, social support showed a significant positive association with family responses (Exp(B) = 5.19, p = 0.040).
Conclusion: Family burden and social support are important factors that influence family responses to severe mental disorders. This study emphasizes and suggests the importance of targeted family counseling and community-based support programs in North Sangatta.

Keywords: Severe Mental Disorders; Family Response; Family Burden; Social Support; Family Attitudes

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*Corresponding Author: ikeanggraeni@fkm.unmul.ac.id

Introduction

Mental disorders are an important and increasing public health concern worldwide, with substantial social and economic consequences.[1,2] The World Health Organization reports that approximately 970 million people live with mental disorders, with depression and anxiety being the most prevalent.[3] In Indonesia, data from the National Basic Health Survey (Riskesdas) 2018 indicates an increase in the prevalence of emotional mental disorders, rising from 6% in 2013 to 9.8% in 2018, affecting more than 19 million people.[4] This raises for strengthened mental health interventions at both the national and local levels.

In East Kalimantan, there were 2,679 reported cases of mental disorders in 2022, with the highest concentration in the Sangatta Utara area, where 130 cases were recorded.[5,6] The increasing prevalence of mental health issues, combined with limited mental health services, worsens the situation.[7] Challenges such as stigma, inadequate healthcare access, and the lack of community support systems further hinder effective care.[8–10]

The family plays a important role in supporting individuals with severe mental disorders.[11] However, caregiving can impose emotional, physical, and financial burdens on family members, which can affect their overall well-being and ability to provide care effectively.[12]

Factors such as family burden, social support, coping strategies, and family attitudes play a significant role in shaping family responses to mental health challenges.[13] The Stress-Coping theory suggests that the way individuals perceive and manage stress directly influences their emotional and psychological responses. Furthermore, the availability of social support can mediate caregiving stress and improve coping mechanisms, thereby enhancing the quality of care provided.[14]

Although various studies have explored the role of family in the care of individuals with mental disorders,[8,15–21] there is lack of analytical studies focusing on family responses especially in severe mental disorders in Indonesia's eastern regions, such as East Kalimantan. This gap highlights the need for research that focuses on family burden, social support, and coping strategies in this underserved area, which has unique social and healthcare challenges.

The research will investigate the family burden, social support, coping, and family attitudes, and their relation to the family response to severe mental disorders. By understanding these factors, the study aims to provide insights into effective strategies for supporting caregivers and improving the quality of care for individuals with mental health conditions in this underserved region. This study aims to analyze the factors associated with family responses to severe mental disorder patients in Sangatta Utara Furthermore, the study seeks to develop a statistical model using binary logistic regression to predict the likelihood of positive or negative family responses.

Methods

This study employed an observational analytical design with a cross-sectional approach. The research was conducted in the working area of the Sangatta Utara Community Health Center, located in Sangatta Utara District, East Kutai Regency, East Kalimantan, Indonesia. Data collection was carried out between September and December 2024.

The population refers to the families of individuals diagnosed with severe mental disorders who are within the Sangatta Utara Community Health Center working area.

The sample size for this study was determined to be 130 families, selected using a total sampling technique. This sample size was considered sufficient to provide reliable and valid results based on the general guidelines for cross-sectional studies in a relatively small population. According to common statistical recommendations for studies with a population of a few hundred or fewer participants, a sample size between 100 and 150 is typically adequate for obtaining meaningful results, particularly when using regression models to assess relationships between variables.

Participants were family members (both male and female) of individuals diagnosed with severe mental disorders, confirmed by medical professionals. Inclusion in the study was based

on voluntary participation, and only those who signed an informed consent form were included.

Inclusion criteria: Family members of individuals diagnosed with severe mental disorders, who have been providing care for at least 6 months. The family must live in the same household as the individual with the disorder.

Exclusion criteria: Families of individuals diagnosed with mental disorders but not residing in the same household or those who did not consent to participate.

All participants received a detailed informed consent form explaining the study's objectives, procedures, and potential risks and benefits. Only those who voluntarily signed the consent form were included in the study. Ethical considerations were upheld throughout the research process, by established principles for human subject research (Ethical Clearance Approval no.163/KEPK-FK/2024).

The study included the following independent variables:

1. Family burden
2. Social support
3. Caregiver coping strategies
4. Family attitudes

The dependent variable was the family's response toward caring for individuals with severe mental disorders, which was dichotomized into positive and negative response categories.

Primary data were collected using structured questionnaires administered through direct interviews. The instruments consisted of items measuring:

- Demographic characteristics: age, gender, occupation, educational background, relationship to the patient, and preferred healthcare facility.
- Psychosocial measures: including coping strategies, emotional involvement, communication practices, burden of care, social support, and family attitudes.

Responses were recorded on a 5-point Likert scale:

5 = Strongly Agree
4 = Agree
3 = Not sure
2 = Disagree
1 = Strongly Disagree

The score for each respondent on each variable is calculated by multiplying the Likert scale score by the number of questions in the respective questionnaire.

Family burden refers to the impact experienced by family members while caring for a relative with a severe mental disorder, such as schizophrenia. It includes factors like the distance to healthcare services and the family's understanding of the patient's condition. Family burden was measured using a 12-item questionnaire, categorized into three levels: High (76-100%), Moderate (56-75%), and Poor (≤55%).

Social support represents the assistance provided by the family's social network, including emotional, instrumental, and informational support. A 10-item questionnaire assessed this variable, categorized into Good Support (76-100%), Sufficient Support (56-75%), and Lack of Support (≤55%).

Family coping involves the strategies used by family members to manage caregiving stress. This was measured with a 15-item questionnaire, categorized as Good Coping (76-100%), Sufficient Coping (56-75%), and Poor Coping (≤55%).

Family attitudes reflect the family's willingness to accept and care for a member with a severe mental disorder. This was measured through a questionnaire with responses categorized as Good Attitude (76-100%), Sufficient Attitude (56-75%), and Poor Attitude (≤55%).

Family Response refers to the actions and behaviors of family members in response to caring for a relative with a severe mental disorder. This variable measures how family members accept, manage, and engage with the caregiving process. Each response is scored as 0 or 1, based on the level of engagement and support demonstrated. Family response is assessed using a 12-item questionnaire, with responses categorized as: Positive Response (score 8-12), indicating a supportive and engaged approach to caregiving, and Negative Response (score 0-7), indicating a disengaged or resistant approach.

The content validity of the questionnaire was assessed by consulting a panel of experts in mental health, psychology, and family care.

These experts reviewed each item to ensure that it adequately represented the constructs of family burden, social support, coping strategies, and family attitudes. Based on expert feedback, revisions were made to improve clarity and relevance.

Reliability testing was conducted using Cronbach's alpha to assess the internal consistency of the measurement instrument. The overall Cronbach's alpha for the entire instrument was 0.85, indicating excellent internal consistency. Subscales for Family Burden, Social Support, Coping Strategies, and Family Attitudes also showed satisfactory reliability, with Cronbach's alpha values of 0.82, 0.78, 0.80, and 0.84, respectively. These results suggest that the items within each construct are consistently measuring the intended variables, demonstrating the reliability of the instrument for this study.

Data collected were coded, cleaned, and entered into a database for statistical analysis. Descriptive statistics were used to summarize the respondent characteristics and distributions of variables. Chi-square tests were used to examine associations between independent variables and the dependent variable. Binary logistic regression analysis was conducted to further determine the strength and direction of associations, especially to predict the probability of a positive or negative family response. Variables with a p-value <0.25 in bivariate analysis were included in the multivariate model to identify the most strenght predictors.[22] All statistical tests were conducted at a significance level of 0.05.

In binary logistic regression, the strength and direction of associations between independent variables and the dependent variable are assessed through coefficients (β), odds ratios (OR), and p-values. A positive coefficient (β>0) indicates a positive association, meaning an increase in the independent variable raises the likelihood of the positive outcome, while a negative coefficient (β<0) suggests a decrease in likelihood. [22–24] The data analysis was performed using R software (version 4.1.0).

Result

Respondens Characteristics

A total of 130 respondents—family members of individuals with severe mental disorders—participated in the study in East Kutai Regency.

Table 1. Sociodemographic Characteristics of Respondents Caring for People with Mental Disorders

Variable	Category	Frequency (n=130)	Percent (%)
Gender	Male	54	41.5
	Female	76	58.5
Education	Junior High School	14	10.8
	Senior High School	116	89.2
Occupation	Housewife	27	20.8
	Private Employee	48	36.9
	Entrepre-neur	42	32.3
	Farmer/ Fisherman	13	10.0
Relation-ship with People with Mental Disorders	Father	39	30.0
	Mother	13	10.0
	Sibling	44	33.8
	Younger Sibling	22	16.9
	Spouse	12	9.2
Health Facility Used	Public Health Center	98	75.4
	Hospital	32	24.6

The majority of the respondents are female (58.5%), with male respondents comprising 41.5%. Regarding educational background, the vast majority (89.2%) have completed senior high school, while only 10.8% have junior high school education. In terms of occupation,

private employees represent the largest group (36.9%), followed by entrepreneurs (32.3%) Housewives account for 20.8%, and a small proportion are farmers/fisherman (10%).

The relationship of the respondents to the individual with a severe mental disorder is predominantly through being siblings (33.8%), followed by fathers (30%) and mothers (10%). The respondents who are younger siblings and spouses constitute 16.9% and 9.2%, respectively. Regarding healthcare facility usage, 75.4% of the respondents prefer the public health center.

Family Response, Burden, Support, Coping, and Attitude

Most respondents had a positive response toward caring for people with mental disorders (82.3%), although half experienced caregiving as a heavy burden (50.8%).

In terms of family burden, 50.8% reported experiencing a high burden, while the remaining 49.2% experienced a moderate burden. When examining social support, 59.2% respondents reported receiving sufficient support, while 40.8% felt that their support was lacking. For family coping strategies, 53.1% respondents employed sufficient coping mechanisms, while 46.9% respondents employed poor coping strategies. Family attitudes were predominantly poor among 52.3% respondents, showing resistance or limited acceptance of the caregiving role. Only a small percentage of caregivers (5.4%) exhibited a good attitude toward caregiving, while 42.3% showed sufficient attitude. Further details are provided in Table 2.

Table 2. Distribution of Family Response, Family Burden, Social Support, Coping, and Attitude

Variable	Category	Frequency (n=130)	Percentage (%)
Family Response	Positive	107	82.3
	Negative	23	17.7
Caregiving Burden	High	66	50.8
	Moderate	64	49.2
Social Support	Sufficient	77	59.2
	Lacking	53	40.8
Coping	Sufficient	69	53.1
	Poor	61	46.9
Attitude	Good	7	5.4
	Sufficient	55	42.3
	Poor	68	52.3

Chi-square tests showed significant associations between family response and the following factors: caregiving burden ($p < 0.001$), social support ($p = 0.001$), and attitude ($p = 0.011$). Coping was not significantly associated ($p = 0.212$). The results are presented in Table 3.

Table 3. Bivariate Analysis of Factors Associated with Family Response

Variable	Family Response	n (%) Negative	n (%) Positive	p-value
Family Burden	Moderate	22 (34.4)	42 (65.6)	<0.001*
	High	1 (1.5)	65 (98.5)	
Social Support	Lacking	2 (3.8)	51 (96.2)	0.001*
	Sufficient	21 (27.3)	56 (72.7)	
Coping	Poor	9 (13.0)	60 (87.0)	0.212
	Sufficient	14 (23.0)	47 (77.0)	
Attitude	Poor	7 (10.3)	61 (89.7)	0.011*
	Sufficient	16 (29.1)	39 (70.9)	
	Good	0 (0.0)	7 (100)	

**Significant at p value < 0.05*

Chi-square tests (Table 3) showed significant associations between family response and the following factors: caregiving burden ($p < 0.001$), social support ($p = 0.001$),

and attitude (p = 0.011). Coping was not significantly associated (p = 0.212).

Multivariate Logistic Regression Analysis

Three steps of binary logistic regression were conducted. In the final model, caregiving burden and social support were significantly associated with family response. Coping and attitude were excluded due to their non-significance. Results are summarized in Tables 4 and 5.

Table 4. Final Multivariate Logistic Regression Model (Step 3)

Variable	β	Wald	p-value	Exp(β)	95% CI (Lower–Upper)
Burden	3.187	9.197	0.002 *	24.220	3.088 – 189.993
Social Support	1.646	4.214	0.040 *	5.185	1.077 – 24.957
Constant	0.354	1.505	0.220	1.220	–

**Significant at p < 0.05*

The final multivariate logistic regression model (Table 4) highlighted family burden and social support as significant predictors of positive family responses. The analysis showed that higher family burden (Exp(B) = 24.22, p = 0.002), indicating that higher family burden significantly increases the likelihood of a positive family response. This suggests that for every unit increase in the caregiving burden, the odds of a positive family response are 24 times higher, reflecting the substantial influence of family burden on caregiving engagement.

Similarly, social support showed a positive association with family response (Exp(B) = 5.19, p = 0.040). This implies that for every unit increase in perceived social support, the likelihood of a positive family response is more than five times greater, emphasizing the importance of support networks in enhancing caregiving outcomes.

The model's fit was confirmed by the Hosmer-Lemeshow test (p = 0.121), indicating an acceptable fit. The Nagelkerke R^2 = 0.381 suggests that 38.1% of the variability in family responses was explained by the model, and the classification accuracy was 82.3%, demonstrating a strong predictive capacity.

Thus, the statistical models of Family Response become :

g(x)= 0.354 + 3.187 (Burden) + 1.646 (Social Support)

or the transformed probability (P) of a positive family response would be:

$$P(\text{Positive Response}) = \frac{1}{1 + e^{-(0.354 + 3.187 \times \text{Burden} + 1.646 \times \text{Social Support})}}$$

Model fit Hosmer-Lemeshow test showed p = 0.121 (model fit acceptable), indicates that there is no significant difference between the observed and predicted values, suggesting that the model fits the data adequately. Since the p-value is greater than the typical threshold of 0.05, it implies that the model provides a good fit, and there is no evidence of poor model performance.

Nagelkerke R^2: 0.381 means that the model explains 38.1% of the variation in family responses, indicating moderate explanatory power. Furthermore, the model's classification accuracy was 82.3%, indicating that the predicted family responses (positive or negative) matched the actual observed responses.

Discussion

A. Association Between Family Burden and Family Response

One of the primary challenges faced by family caregivers is the emotional and social burden associated with stigma. Stigma by association, or the experience of social prejudice due to being connected with someone suffering from mental illness, may result in isolation and increase psychological distress for family caregivers.[25,26] Family members often report

feeling excluded from broader social networks and receiving less support from friends and the community.

One of the main findings of this study was the strong association between family burden and family response, where higher caregiving burden significantly increased the likelihood of positive family responses. The Stress-Coping Theory may explain this [27], which suggests that as family members experience greater stress from caregiving responsibilities, their coping mechanisms might involve becoming more emotionally involved and engaged in caregiving, potentially leading to more positive family responses. Conversely, social support also showed a positive association with family responses, indicating that greater social support can alleviate caregiving stress, which supports the Social Support Theory, which posits that social networks play a buffering role in managing stress.

Family members who perceive higher levels of stigma often experience feelings of "anti-mattering" a term describing the perception of being insignificant or invisible to others.[28] This sense of social rejection increases emotional tension, particularly when families lack sufficient support from friends or community networks. As such, stigma can weaken the potential for social support, which might otherwise alleviate the caregiving burden.[29,30]

Family burden frequently encompasses physical, emotional, and financial stressors. Research indicates that nearly 70% of families caring for individuals with chronic mental illness experience substantial caregiving strain, which includes managing daily activities, ensuring medication adherence, and providing emotional support.[31,32] These responsibilities may lead to caregiver burnout and are associated with risks to the caregivers' own mental health. [15]

Family dynamics significantly influence how families cope with caregiving challenges. Family burden in the context of mental health refers to the physical, emotional, and financial stress experienced when supporting a loved one with a mental disorder. Understanding the connection between family response and burden provides insights into how support mechanisms and intervention strategies can reduce the family's strain. Effective family responses, marked by cohesion and support, help mitigate stress, whereas fragmented or inadequate responses intensify caregiving challenges.[33] Responsibilities such as organizing care routines and managing health services contribute to the phenomenon of family burden, which can result in heightened levels of anxiety, depression, and exhaustion among caregivers.[34]

Another important component is the financial cost associated with mental illness. Long-term care often involves therapy, medication, and sometimes hospitalization. These expenditures financially strain families, especially when primary caregivers are forced to reduce their work hours or leave employment altogether. [35] Financial burden affects the family's quality of life and contributes to additional mental health challenges. Families with limited financial resources or access to healthcare face even greater difficulties in securing appropriate care, thereby intensifying their burden.[14]

B. Association Between Social Support and Family Response

The way families respond to mental illness significantly shapes the level of family burden and available social support, ultimately influencing the well-being of both caregivers and the individuals with mental illness.[14,36] Supportive family responses, characterized by emotional, practical, and informational support, help reduce caregiving-related stress.

However, social support and family attitudes did not exhibit a statistically significant relationship with family responses, which may be attributed to several factors. The lack of significant findings for social support ($p = 0.212$) suggests that although caregivers report receiving social support, the type or quality of that support may not be sufficient to influence caregiving outcomes in a statistically significant way. It is possible that the support is not effectively utilized or that the support network is limited in terms of scope or consistency, particularly in rural or underserved regions like Sangatta Utara.

Studies show that associative stigma, where families feel socially isolated or judged because

of a relative's condition, increases caregiver stress. Families who perceive themselves as socially stigmatized often endure heightened emotional strain and a sense of anti-mattering, perceiving their lives as inconsistent with those of others[37,38] This perception leads to loneliness and diminished social support, emphasizing the importance of strong support networks in alleviating the burden.

Social support, particularly from family and close friends, acts as a buffer against caregiver stress. It includes emotional encouragement, shared responsibilities, and financial assistance. According to Acoba et al., family support reduces perceived stress and fosters positive affect, thereby diminishing symptoms of anxiety and depression in both caregivers and individuals with mental disorders.[14] The presence of support improves coping mechanisms, allowing caregivers to better manage stress and thus lowering the overall family burden.

Furthermore, social support functions as a protective factor, reducing anxiety and enhancing emotional well-being among caregivers. [15,39] Support networks offer practical assistance, emotional validation, and a channel to relieve stress, mitigating the sense of sole responsibility for a family member's care. The role of perceived stress mediation is also important. Lazarus and Folkman's stress and coping theory posits that social support moderate's caregiver stress by helping caregivers reframe stressors as manageable challenges rather than overwhelming burdens. Therefore, the availability of support from family and friends improves caregivers' mental health outcomes.

The social and cultural context of Sangatta Utara plays a significant role in shaping caregiving dynamics. In this region, the stigma surrounding mental illness is still pervasive, and healthcare services are often limited, which may contribute to the high levels of caregiving burden observed. Stigma by association, where family members feel marginalized or excluded due to their association with a mentally ill relative, worsens the caregiving burden. The lack of community-based support programs in Sangatta Utara further hinders caregivers' ability to manage caregiving stress effectively.

C. Association Between Coping and Family Response

Family members are often the closest companions to individuals experiencing mental health challenges. Anxiety may affect both patients and their families, particularly during hospitalization. Hence, effective family coping mechanisms are essential to address these stressors. Delayed decision-making, often due to anxiety, can compromise timely medical intervention.[40,41] Family coping, shaped by cultural background, past experiences, environmental context, personality, and social factors, significantly influences how individuals address problems.

The current study found no statistically significant relationship between family coping and family response. This suggests that while coping may play a role in the caregiving process, it is not independently associated with how families respond to mental illness within the study sample.[38]

This study's findings can be understood through the Stress-Coping Theory[13], which emphasizes how stress from caregiving can affect caregivers' emotional and psychological well-being. According to this theory, caregivers' coping mechanisms, whether positive or negative—can play a important role in their responses to the challenges they face. The lack of significance for family coping may indicate that the coping strategies employed by family members in Sangatta Utara may not effectively address the emotional and psychological demands of caregiving, or that they may be underutilized due to social or cultural factors. The Social Support Theory [42]further complements these findings, suggesting that while support can buffer the negative effects of caregiving, it is not always enough to overcome the stresses associated with caring for individuals with severe mental disorders.

D. Association Between Attitude and Family Response

Families serve as vital sources of social support in the recovery process of individuals with mental disorders. Although not always fully understood, their involvement often plays a important role in the healing process. Nurses and mental health professionals are encouraged

to engage families and leverage their strengths, such as love and care, to support recovery. [15]

Furthermore, family attitudes did not show a significant effect on family responses which could be due to the complex nature of family dynamics in caregiving. Negative attitudes toward mental illness may be deeply ingrained in certain cultural or societal norms, which cannot be easily mitigated by the mere presence of supportive attitudes.

However, family members may become disengaged due to personal commitments or a lack of understanding about the illness. [43] A study reported that lack of familial attention contributed to patient relapse rates at a psychiatric hospital.[44] Despite their central role, this study found no significant association between family attitudes and responses.

E. Combined Effects of Burden and Social Support on Family Response

The use of binary logistic regression in this study facilitated the identification of significant predictors of family response. The final model showed that both family burden and social support were strong predictors, with family burden having the highest Exponential (β).

Family responses to a relative's mental illness strongly influence the extent of family burden and the effectiveness of social support. Supportive and cohesive families characterized by open communication, emotional resilience, and mutual understanding can reduce caregiver stress by fostering a nurturing environment. Conversely, fragmented or dysfunctional dynamics may intensify stress, increase burden, and weaken individuals with mental health disorders. Families significantly influence their members' values, beliefs, attitudes, and behaviors, thereby shaping responses to mental health challenges.[12] Empirical studies have demonstrated that active family participation in mental health care is correlated with improved treatment adherence, reduced relapse rates, and enhanced overall well-being in patients.[45,46]

The global prevalence of mental disorders remains substantial and continues to rise. According to the World Health Organization, approximately 970 million individuals worldwide were living with a mental disorder in 2019, with anxiety and depression being the most common.[47] In Indonesia, data from the 2018 Basic Health Research revealed an increase in the prevalence of mental disorders from 6% in 2013 to 9.8% in 2018, affecting over 19 million people.[48]

Individuals with mental health conditions frequently encounter societal stigma and discrimination, leading to social exclusion and marginalization. Such experiences can increase psychological distress and hinder recovery.[39] Family engagement, characterized by emotional support, presence, and encouragement, plays a pivotal role in mitigating these adverse effects and fostering a conducive environment for recovery.[49]

F. Strengths and Limitations

This study benefits from a large sample size of 130 family caregivers and utilizes robust statistical methods, including chi-square tests and binary logistic regression, to identify significant predictors of family response. These strengths provide valuable insights into the factors affecting family caregiving in mental health contexts.

However, the cross-sectional design limits the ability to establish causality. To mitigate this, we used multivariate logistic regression to account for multiple factors simultaneously, offering a more nuanced understanding of the relationships between variables. Additionally, while the study's geographic focus on East Kutai Regency may limit generalizability, the findings provide important regional insights that can inform local interventions. Future research could adopt a longitudinal approach and diversify the sample to strengthen the evidence base further and enhance generalizability.

G. Implications for Research and Practice

The interrelationship between family response, caregiver burden, and social support confirm the necessity for community and policy-level interventions to enhance mental health care. Despite the proven efficacy of family-based interventions, their accessibility remains limited, particularly in low-income or rural areas due to inadequate mental health infrastructure.[47] Policymakers should prioritize

the development and implementation of community-based support programs that offer affordable mental health services, caregiver support groups, and financial assistance to families affected by mental disorders. Such initiatives are essential to alleviate caregiver burden and improve patient outcomes.

From both research and practice perspectives, this study emphasizes the importance of interventions aimed at reducing family burden and enhancing social support. Future research should explore how various coping strategies, such as emotion-focused and problem-focused coping, interact with family burden and social support to influence caregiving outcomes. Additionally, examining the evolution of family attitudes toward mental illness could provide insights into how these changes affect caregiving.

In practice, integrating family members more effectively into mental health care could enhance treatment adherence and reduce relapse rates. Expanding family-based interventions in community mental health programs, along with efforts to de-stigmatize mental illness and promote positive family involvement, has been shown to improve outcomes for both caregivers and patients.

The statistical model used in this study provides a foundational understanding of the interactions between family response, caregiver burden, and social support. Future research could refine this model by incorporating additional variables, such as family coping mechanisms and cultural factors, to enhance its predictive accuracy.

Conclusion

This study highlights the critical role of family burden and social support in shaping family responses to individuals with severe mental disorders. The findings suggest that targeted interventions aimed at reducing family burden and enhancing social support are essential for improving caregiving outcomes. While the study's limitations, such as its cross-sectional design and regional focus, must be considered, the results underscore the need for community-based support programs and family-centered interventions in mental health care. Future research should explore further the dynamics of family coping mechanisms and attitudes toward mental illness to enhance caregiving support and reduce the burden on families.

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