

Understanding predictors of caregivers' treatment-seeking behavior for mental health: the roles of stigma, motivation, relationship, and literacy

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ABSTRACT

Introduction: Caregivers play a crucial role in seeking timely treatment for individuals with mental disorders. However, reliance on traditional healing practices often leads to delayed medical care. This study aims to identify predictors of caregivers' treatment-seeking efforts, focusing on the role of stigma, motivation, relationship with the patient, and mental health literacy.

Methods: A cross-sectional study involving 301 caregivers of patients with mental disorders was conducted in two mental hospitals using cluster sampling. Variables studied include sociodemographic factors, caregiving burden, stigma, social support, motivation, mental health literacy, and treatment-seeking behavior. The data were collected through validated questionnaires as instruments. Multivariate regression analysis was performed to identify significant predictors of treatment-seeking behavior.

Results: The study revealed that caregivers' relationship with the patient, perceived stigma, caregiving motivation, and mental health literacy significantly predicted treatment-seeking behavior ($p < 0.05$). Mental health literacy emerged as the strongest predictor ($\beta = 0.349$), followed by motivation ($\beta = 0.202$), stigma ($\beta = -0.125$), and relationship with the patient ($\beta = -0.108$). Together, these variables explained 23.4% of the variance in treatment-seeking efforts.

Conclusions: Mental health literacy is the most influential factor in caregivers' efforts to seek medical treatment. Interventions aimed at increasing mental health literacy and reducing stigma are critical to enhancing caregivers' engagement with formal healthcare services. Findings support the development of culturally appropriate education and support programs to improve mental health outcomes.

Keywords: caregiver, mental disorder, mental health literacy, stigma, treatment-seeking behavior

Introduction

Mental disorders are characterized by disturbances in thoughts, feelings, and behavior that cause functional disorders in performing daily activities (Ministry of

Health, 2020). Globally, more than 300 million people experience mental disorders (World Health Organization, 2022). In Indonesia, the prevalence of severe mental disorders has risen significantly, from 1.3 to



7 cases per 1000 population (Ministry of Health, [2018](#)). Despite this rise, many individuals with mental disorders do not receive appropriate or timely care. As of 2019, over 70% of Indonesians with mental disorders had not accessed formal treatment, often due to delays in seeking care (Munira, Liamputtong, and Viwattanakulvanid, [2023](#)).

Indonesia continues to encounter significant obstacles in the provision of mental health services, including a shortage of specialized mental hospitals, an insufficient number of mental health professionals, and an underdeveloped community-based mental health system (Putri *et al.*, [2021](#); Basrowi *et al.*, [2024](#)). Although mental health hospitals, such as the one involved in this study, are generally well-organized and integrated, many families still face financial challenges in accessing care. Despite the existence of national policies, such as BPJS (National Health Insurance) and Health Law No. 17 of 2023, specific support for caregivers remains inadequately implemented. A significant concern is the burden of indirect costs, including transportation, daily living expenses, and income loss due to family members acting as full-time caregivers. These expenses are not covered by insurance, adding significant stress to caregivers (Munira, Liamputtong, and Viwattanakulvanid, [2023](#)). While the hospital in question has provided health education to families, the efforts are sporadic, not sustained, and often not adjusted to the literacy level of the community. This low mental health literacy has resulted in delayed decision-making, limited awareness of the necessity of long-term treatment, and an increased risk of patient relapse due to poor treatment adherence (Kusumawaty and Yunike, [2023](#); Munira, Liamputtong, and Viwattanakulvanid, [2023](#); Marthoenis *et al.*, [2024](#)).

Delays in treatment are influenced by numerous factors, including sociocultural beliefs, stigma, negative community attitudes, and limited knowledge among families and caregivers about mental health conditions (Dutta *et al.*, [2018](#); Fitryasari *et al.*, [2025](#)). Caregivers play a critical role as seekers of medical assistance (Nuzuluuni'mah and Huda, [2019](#); She *et al.*, [2021](#)). Caregivers, who are typically responsible for facilitating access to care, are often hesitant to seek professional help. Many caregivers initially turn to traditional healers or spiritual advisors, delaying medical intervention until the patient's condition deteriorates (Subu *et al.*, [2017](#); Rostina *et al.*, [2020](#)).

Effective caregiving for people with mental disorders (PMDs) requires early recognition of symptoms and timely engagement with healthcare services. Previous research has described factors that inhibit caregivers' treatment-seeking behavior. However, persistent beliefs in supernatural causes of mental illness, combined with intense social stigma, low levels of social support, and inadequate mental health literacy, often result in caregivers favoring traditional healing practices

(Marthoenis, Aicberger, and Schouler-Ocak, [2016](#); Nortje *et al.*, [2016](#); Ali, Yuliadi, and Setyowati, [2023](#); Anbesa *et al.*, [2024](#)).

The role of caregivers, especially those with a family relationship to the patient, is particularly complex. Not only must they manage the emotional and practical demands of caregiving, but they must also navigate societal stigma and misinformation (Muralidharan *et al.*, [2016](#)). Therefore, understanding the factors that influence caregivers' decisions to seek treatment, such as access to psychotherapy services, psychopharmacological medications, and community-based services, is crucial to improving access to and utilization of mental health services. In this context, psychiatric nurses play a vital role as both care providers and advocates. They are uniquely positioned to educate caregivers, provide emotional support, and bridge the gap between families and mental health services. By understanding the key factors that influence caregivers' access to healthcare, they can effectively address these needs and prevent delays in patient care.

Various mental health services have been developed in Indonesia, such as family psychoeducation, family support therapy, family therapy, and health education has been provided to families (Tristiana *et al.*, [2018](#); Muttaqin *et al.*, [2022](#); Nugroho DS, Pujiastuti and Widowati, [2022](#); Susanti *et al.*, [2024](#)). However, utilization remains low due to various barriers at the individual and family levels. Interviews with several caregivers and nurses at the research site revealed that caregivers' understanding of the importance of emotional support remains low. Some caregivers feel ashamed or afraid of being ostracized. They experience emotional exhaustion or mistrust in treatment, and they lack sufficient knowledge about the symptoms of mental disorders, the types of services available, or how to access them. A significant gap remains between the need for mental health services and caregivers' actual treatment-seeking behavior. The personal, social, and structural factors that influence treatment-seeking behavior are not yet fully understood and addressed. This study aims to examine the factors associated with caregivers' treatment-seeking behavior for PMDs. This research is necessary because it can identify key predictors of treatment-seeking behavior, which will ultimately help develop educational strategies, interventions, and policies to increase caregiver engagement in utilizing mental health services.

Materials and Methods

Research Design and Setting

This study employed a cross-sectional correlational design to identify factors associated with caregivers' treatment-seeking behavior. Data were collected over three months at two government-owned mental hospitals in Indonesia.

Respondents and Sampling

The respondents in this study were primary caregivers of individuals diagnosed with mental disorders. The sampling technique used was cluster sampling. The clusters selected as study locations were two mental hospitals in Central Java and East Java, Indonesia. The two hospitals were chosen purposively, based on the consideration that they are mental health service centers with a high number of patients with mental disorders, are referral centers in their respective provinces, and actively involve families or caregivers in the care process. After the clusters were determined, sampling was conducted by involving all caregivers who met the inclusion criteria from each hospital. The inclusion criteria used in this study included: (1) being the primary caregiver of a patient with a mental disorder for at least one year, (2) being 20 years of age or older, (3) living in the same household as the patient, and (4) having cared for a patient diagnosed with a mental disorder for at least three years, thus ensuring that they have experience caring for and learning about diagnosis, relapse, treatment adaptation, stigma, and interactions with health services. Through this process, a total of 301 respondents met the criteria and agreed to participate in the study. The minimum number of samples in this study has been determined based on sample size calculations, with a total of at least 150 respondents per hospital, taking into account the research objectives and sampling methods used.

Variables and Measures

Sociodemographic data included age, education level, and relationship to the patient. Additional independent variables were caregiving burden, stigma, social support, motivation, and mental health literacy. The dependent variable was treatment-seeking behavior. The caregiving burden was measured using an 8-item questionnaire based on the Caregiver Strain Index, which evaluates subjective and objective burden on a 5-point Likert scale, with a low value range of 8 and a high value of 40 (Thornton and Travis, 2003; World Health Organization, 2008). Stigma was assessed using a 10-item questionnaire, which is explained by indicators of labeling, discrimination, stereotyping, and social distancing, using a 5-point Likert scale. The questionnaire has a minimum value of 10 and a maximum of 50 in its interpretation (Goffman, 1963; Link and Phelan, 2001). Social support was measured using the Social Support Index Questionnaire, consist of 10 item questionnaire which includes emotional, informational, instrumental, and appraisal support dimensions and interpreted with a range of lowest values of 10 and highest of 50 (McCubbin, Paterson and Glynn, 1987).

Motivation was evaluated using a 12-item questionnaire based on the Information-Motivation-Behavioral Skills (IMB) model (Fisher, 2011) and caregiver motivation theory and interpreted based on values ranging from 12 to 48 (Dombestein, Norheim, and Lunde Husebø, 2020). Mental health literacy was assessed using the Public Perceptions of Mental Illness Questionnaire (Sadik *et al.*, 2010). This 33-item questionnaire measures knowledge, attitudes, and understanding of care and management, with a range of values from 33 to 165. Treatment-seeking behavior was calculated using the Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS), which assesses openness to seeking help, help-seeking propensity, and indifference to stigma. It has a minimum value of 24 and a maximum of 120 in its interpretation (Mackenzie *et al.*, 2004). Each statement was assigned a score based on a 5-point Likert scale. All questionnaires used were initially developed in English, and in the process of adapting them to the Indonesian context, we carried out a forward-backward translation process by a professional translator, and each instrument was tested for validity and reliability with a trial involving 30 respondents. Validity coefficients ranged from 0.715 to 0.892. Cronbach's alpha values for internal consistency ranged from 0.876 to 0.921, indicating strong reliability.

Data Collection Procedures

Data collection was conducted from August to October 2024 at the two mental hospitals. The process began with the selection of respondents, assisted by nurses in charge of the outpatient units at each hospital, who were selected according to the established inclusion criteria. After potential respondents were identified, the researcher approached them directly by introducing themselves and explaining the purpose, procedures, and benefits of the study. Respondents were then given time to consider their participation. Those who agreed to participate were asked to complete and sign an informed consent form, which served as a formal agreement to participate voluntarily. Next, respondents were given a structured questionnaire to complete independently. Throughout the process, the researcher assisted the respondents to ensure a comfortable and smooth data entry process. If respondents had any questions or did not understand any sections of the questionnaire, the researcher provided direct explanations without influencing their answers. This approach was used to maintain data validity and ensure that respondents understood the contents of the instrument. During data collection, the researcher also involved a data collection team that had reached a common understanding of the purpose and procedures of data collection.

Data Analysis

Descriptive statistics were used to summarize participant characteristics and describe the distributions of variables. Pearson correlation analysis was used to

Table 1 Respondents' characteristics

Variable	Frequency	Percentage
Age (years)		
20–29	45	15.00
30–39	76	25.02
40–49	87	28.09
50–59	53	17.06
> 60	40	13.03
Education Level		
No	4	1.03
Elementary school	43	14.03
Junior high school	60	19.09
Senior high school	142	47.02
University	52	17.03
Relationship with patient		
Parent	114	37.09
Child	48	15.09
Spouse	33	11.00
Sibling	7	2.03
Relative	92	30.06
Not relative	7	2.03

examine bivariate relationships between variables. Multivariate linear regression identified significant predictors of treatment-seeking behavior. Variables with a p-value > 0.25 in bivariate analysis (age, education level, and caregiving burden) were excluded from the final model. Model assumptions, including normality, multicollinearity, homoscedasticity, and independence of residuals, were tested and met. Statistical significance was set at $p < 0.05$.

Ethical Consideration

The study received ethical approval from the ethics committees of the participating mental hospitals (Approval No.0009.2/6615/102.8/2024 and 420/7250). Informed consent was obtained from all participants following a detailed explanation of the study's purpose, procedures, and potential risks and benefits.

Results

Respondents' Characteristics

A total of 301 caregivers participated in the study. The age distribution showed that most respondents were between 40 and 49 years (28.9%) and 30 and 39 years (25.0%). Nearly half (47.0%) had completed senior high school, while 17.0% held a university degree or higher. Regarding their relationship with the patients, 37.1%

Table 2 Variable description

Variables	Mean	SD
Dependent		
Caregiving burden	17.49	6.545
Stigma	22.77	6.013
Social support	29.82	5.828
Motivation	31.09	5.214
Mental-health literacy	93.81	12.290
Independent		
Treatment-seeking effort	73.23	10.953

were parents, 30.1% were other relatives, 15.1% were children, 11.0% were spouses, and the remaining 6.7% included siblings and non-relatives. Details of participant characteristics are presented in [Table 1](#).

Descriptive Statistics

Descriptive statistics of the study variables are presented in [Table 2](#). The average caregiving burden score was 17.49 (SD = 6.55). Caregivers' average stigma score was 22.77 (SD = 6.01), social support 29.82 (SD = 5.83), motivation 31.09 (SD = 5.21), mental health literacy 93.81 (SD = 12.29), and treatment-seeking effort 73.23 (SD = 10.95).

Bivariate Correlation

Pearson correlation analysis results are presented in [Table 3](#). Mental health literacy ($r = 0.296$, $p < 0.01$), stigma ($r = 0.218$, $p < 0.01$), and motivation ($r = 0.148$, $p < 0.05$) were significantly positively correlated with treatment-seeking behavior. Social support had a weaker positive correlation ($r = 0.116$, $p < 0.05$). Relationship with the patient was negatively correlated ($r = -0.124$, $p < 0.05$). Age, education level, and caregiving burden were not significantly associated with treatment-seeking efforts.

Predictor of Treatment-seeking Effort

Multivariate linear regression analysis identified four variables that significantly predicted treatment-seeking behavior, as shown in [Table 4](#). These were the caregiver's relationship with the patient, stigma, motivation, and mental health literacy. The overall model accounted for 23.4% of the variance in treatment-seeking efforts ($R^2 = 0.234$).

Among these, mental health literacy was the most influential predictor ($\beta = 0.349$, $p < 0.001$), indicating

Table 3 Inter-correlation of the variables

	Education Level	Relationship with patient	Caregiving Burden	Stigma	Social support	Motivation	Mental health literacy	Treatment-seeking effort
Age	-0.154**	-0.293**	-0.051	0.045	0.048	-0.069	0.029	0.030
Education Level		0.151**	0.040	-0.092	0.100	0.334**	0.108	0.017
Relationship with patient			0.014	0.091	-0.142	-0.011	0.027	-0.124*
Caregiving burden				0.501**	0.115*	0.031	0.213**	0.112
Stigma					0.082	-0.228**	0.272**	0.218**
Social support						0.269**	0.196**	0.116**
Motivation							0.187**	0.148**
Mental-health literacy								0.269**

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Table 4 Regression of treatment-seeking effort on stigma, motivation, and mental-health literacy

Independent Variables	Dependent Variable Treatment-seeking effort	
	Beta (β)	p-value
Relationship with patient	-0.108	0.035
Stigma	0.125	0.022
Motivation	0.202	0.000
Mental-health literacy	0.349	0.000

$R^2 = 0.234$; Adjusted $R^2 = 0.484$; $p < 0.000$

that higher levels of knowledge and understanding about mental health were strongly associated with more proactive efforts to seek treatment. Motivation was the next strongest predictor ($\beta = 0.202$, $p < 0.001$), suggesting that caregivers who were more intrinsically or extrinsically motivated were more likely to pursue formal mental health services. Stigma also had a significant effect, but in the opposite direction ($\beta = -0.125$, $p = 0.022$), with higher perceived stigma being associated with reduced treatment-seeking behavior. Finally, the caregiver's relationship with the patient showed a negative association ($\beta = -0.108$, $p = 0.035$), implying that non-parental caregivers were less likely to engage in treatment-seeking compared to parental caregivers. All assumptions for the regression model were met, including normality, linearity, homoscedasticity, and the absence of multicollinearity ($VIF < 10$; Durbin-Watson = 1.925).

Discussions

This study explored the predictors of caregivers' treatment-seeking behavior for persons with mental disorders in Indonesia. The findings highlight the critical roles of mental health literacy, motivation, stigma, and the caregiver-patient relationship in shaping caregivers' decisions to seek professional help.

The caregiver's relationship with the patient was significantly associated with treatment-seeking efforts. Parental caregivers, who comprised the largest group in the study, demonstrated a greater tendency to seek timely medical intervention. This finding aligns with previous research indicating that parents often feel a stronger sense of responsibility and emotional connection to the patient, prompting them to act more proactively in response to signs of relapse or distress (Ong, Fernandez, and Lim, 2021). In the Indonesian cultural context, caring for a sick family member is not simply a social obligation. Still, it is often viewed as a spiritual "calling" or a form of devotion that promises blessings, promising that caring for the mentally ill will be rewarded and that one will receive a place in heaven (Shiho *et al.*, 2025). This religious value increases the commitment and determination of caregivers, especially parents, to proactively seek mental health services. In other contexts of Indonesian culture, public understanding of mental disorders is often shaped by

various cultural models, such as the influence of black magic, possession, or curses, which are usually the initial explanations for psychotic symptoms (Marthoenis, Aicberger, and Schouler-Ocak, 2016). However, over time and with increasing severity of symptoms, some caregivers begin to accept medical explanations and seek formal healthcare. Parental caregivers, due to emotional closeness and moral responsibility, are more likely to transition to professional care than other caregivers. These caregivers are also more likely to trust formal healthcare systems and utilize services to stabilize their family members' condition.

Stigma emerged as a significant barrier to treatment-seeking. Caregivers often experience "stigma by association," wherein they are judged or socially excluded due to their connection with someone with a mental illness (Van Der Sanden *et al.*, 2015). Caregivers often feel ashamed, anxious about being judged negatively by their environment, or even experience social exclusion because they have a family member with a mental disorder. This stigma can lead to delays in accessing care and medication, either due to shame, fear of discrimination, or internalized negative perceptions of mental health conditions (Corrigan, Druss, and Perlick, 2014; Warsini *et al.*, 2024). Interestingly, the findings also suggest that stigma may, paradoxically, motivate some caregivers to seek care to reduce their family's social burden and reintegrate the patient into society (Corrigan and Miller, 2004; Fitryasari *et al.*, 2024). Addressing the various stigmas experienced by families requires expanding mental health services to primary health facilities, conducting local culturally based anti-stigma campaigns, providing counseling services and support groups for caregivers, and involving religious leaders and key local figures to strengthen educational messages and accelerate social acceptance.

Motivation, both intrinsic and extrinsic, was positively associated with treatment-seeking behavior. Caregivers who felt emotionally driven to help their loved ones or who perceived social support and encouragement from others were more likely to access formal mental health services. This finding is consistent with the principles of the Information-Motivation-Behavioral Skills (IMB) theoretical framework, which explains that health behavior, including seeking treatment, is influenced by three main components: information, motivation, and behavioral skills (Fisher, Fisher, and Harman, 2003). It posits that well-informed and motivated individuals are more likely to adopt health-promoting behaviors (Ryan and Deci, 2020). Motivation arises within the caregiver, such as compassion, moral responsibility, and personal satisfaction in caring for family members. Caregivers with high intrinsic motivation tend to be more proactive in treatment-seeking efforts and have a sense of personal responsibility for the patient's recovery, more often accessing formal

health services than alternative treatment (Wilandika, Yusuf, Kurniawati, and Sari, [2024](#)). This is due to their belief in the importance of medical intervention in the patient's recovery process (Setiawan, Sari, and Putri, [2023](#)). Caregivers who receive support from health workers are more likely to participate in rehabilitation programs for PMDs (Nurhidayah and Rahmat, [2022](#)). Extrinsic motivation is also associated with social pressure, stigma, or environmental demands. Encouragement from the extended family, environmental support, and social expectations can raise caregivers' motivation to seek formal health services. Ease of access to information and availability of health services also drive external motivation to seek professional help (Wijaya, [2023](#); Cruz, [2024](#)). A combination of intrinsic and extrinsic motivation fosters commitment, which influences the decision-making process in treatment-seeking efforts (Girma and Tesfaye, [2011](#); Dardas and Simmons, [2023](#)).

Among all predictors, mental health literacy was the most dominant. Caregivers with higher levels of literacy demonstrated greater awareness of mental health symptoms, treatment options, and the benefits of early intervention. These individuals were more confident in navigating the healthcare system and in making informed decisions about the care of PMDs (Jorm, [2019](#); Sampaio, Gonçalves, and Sequeira, [2022](#)). Knowledge about mental illness, such as recognizing the signs and symptoms, and causes of mental disorders, understanding how to behave toward patients, and knowing the appropriate steps in caring for and treating PMDs, supports treatment-seeking efforts. Caregivers with good mental-health literacy are better able to identify changes in patient behavior, emotions, or cognitive function that indicate mental disorders. A caregiver's ability to recognize care needs will motivate them to provide emotional support, accompany patients during care, and assist patients in obtaining treatment (Sherman, [2019](#); Iseselo and Ambikile, [2020](#)). Caregivers can help patients choose the most appropriate services, manage their regular medication, consult a psychiatrist, undergo psychological therapy, or participate in community rehabilitation (Besharat *et al.*, [2017](#); Stoper, Van Doesum, and Steketee, [2022](#)). Mental-health literacy can help caregivers fight stigma through a good understanding of mental health, developing a positive attitude, and being more confident and proactive in seeking professional help (Yang, Li, and Gao, [2023](#); Baklola *et al.*, [2024](#); Wilandika, Yusuf, Kurniawati, Yusuf, *et al.*, [2024](#)).

These findings carry important implications for nursing practice and mental health care strategies. The appropriate mental health literacy aspects for caregivers are essential input for nurses to develop culturally sensitive health education, increasing their willingness and ability to seek proper care. Furthermore, nurse-led initiatives aimed at reducing stigma and providing

psychosocial support to caregivers, especially those outside the immediate family (such as siblings or distant relatives), are essential to improving equitable access to mental health services. These strategies not only empower caregivers but also align with holistic and family-centered nursing care approaches.

The results underscore the critical role of nursing practice in enhancing caregivers' mental health literacy and addressing motivational barriers to treatment-seeking. Psychiatric and community health nurses are in a strategic position to design and implement family-centered education programs that inform caregivers about mental illness, increase their self-efficacy in accessing and navigating health services, and actively work to dismantle societal stigma. Within nursing practice, efforts should focus on empowering caregivers through psychoeducational interventions, supportive counseling, and consistent follow-up. Additionally, equipping nurses and community-based health workers with training to provide early identification, referral, and emotional support can promote timely help-seeking behavior. Collaborative, nurse-led care systems, integrated across primary care and mental health settings, are essential to bridge the treatment gap and foster sustained engagement with mental health services.

This study has several limitations. First, its cross-sectional design does not allow for causal inferences or tracking changes over time in caregivers' behavior. Second, self-reported data may be subject to social desirability bias, particularly concerning sensitive issues such as stigma. Despite these limitations, the study offers significant contributions to understanding treatment-seeking behavior in a low-resource context. It provides evidence-based insights for developing interventions targeting caregiver education, stigma reduction, and support structures.

Conclusion

This study highlights the intricate relationship between caregiver characteristics and treatment-seeking behaviors for PMDs. Caregivers who are more literate about mental health, more motivated, and less affected by stigma are more likely to pursue professional help. Targeted educational and psychosocial support interventions are urgently needed to empower caregivers and improve mental health outcomes, particularly in culturally diverse and resource-limited settings.

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Availability of data and materials

The "Availability of Data and Materials" used in the study is available upon request.

Authors' contributions

RF: Conceptualization, Methodology, Writing-Original Draft. DII: Investigation, Resources, Data Curation. DWS: Investigation, Formal Analysis, Writing-Review & Editing. LN: Resources, Visualization, Project Administration. MM: Methodology, Formal Analysis, Writing-Review & Editing. SW: Methodology, Formal Analysis, Writing-Review & Editing. ZAM: Resources, Writing-Review & Editing, Supervision

Declaration of Interest

We declare, no one of us have a conflict of interest.

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