International Journal of Scientific Research Studies

ISSN (print): 3050-6905, ISSN (online): 3050-6913

DOI:10.58806/ijsrs.2026.v3i4n09

Volume 03 Issue 04 April 2026

Page No: 158- 163

# Knowledge, Attitudes, and Anxiety Among Family Caregivers of Individuals with Schizophrenia: A Cross-Sectional Study

**Ade Herman Surya Direja[1], Jayasree Kanathasan[2], Faridah Mohd Said[3]**

[1,2,3]School of Nursing and Applied Sciences, Lincoln University College, Petaling Jaya, Malaysia

**ABSTRACT**

**Background:** Family caregivers play a central role in supporting individuals with schizophrenia, particularly in settings where access to mental health services is limited. Their caregiving effectiveness is influenced by knowledge, attitudes, and psychological conditions such as anxiety. Understanding the relationships among these factors is important to improve caregiver support and patient outcomes. **Methods:** This study employed a descriptive correlational design with a cross-sectional approach. The sample consisted of 30 family caregivers of individuals with schizophrenia attending the outpatient clinic at Soeprapto Mental Hospital, Bengkulu Province, selected using accidental sampling. Data were collected using structured questionnaires measuring knowledge, attitudes, and anxiety, including the Hamilton Anxiety Rating Scale. Data analysis was conducted using univariate analysis and Spearman's rank correlation to assess relationships among variables. **Results:** The majority of respondents demonstrated good knowledge (80.0%) and positive attitudes (76.7%). Most caregivers experienced mild anxiety (73.3%), while 26.7% reported moderate anxiety. The bivariate analysis revealed strong and statistically significant correlations between knowledge and attitudes ($r = 0.906$, $p < 0.01$), knowledge and anxiety ($r = 0.829$, $p < 0.01$), and attitudes and anxiety ($r = 0.915$, $p < 0.01$). **Conclusion:** Knowledge, attitudes, and anxiety are strongly interconnected among family caregivers of individuals with schizophrenia. Higher levels of knowledge are associated with more positive attitudes but also with increased anxiety, indicating that greater awareness may contribute to psychological burden. Efforts to support caregivers should address both cognitive and emotional aspects to improve caregiver well-being and the quality of care provided.

**ARTICLE DETAILS**

**Published On:**
**18 April 2026**

**Available on:**
**https://ijsrs.org/**

**KEYWORDS:** schizophrenia, family caregivers, knowledge, attitudes, anxiety

## INTRODUCTION

Schizophrenia is a chronic and disabling mental disorder characterized by disturbances in thought, perception, emotion, and behavior, often leading to significant functional impairment and reduced quality of life (World Health Organization, 2022; psychiatry literature). It remains one of the leading contributors to the global burden of disease due to its early onset, long duration, and recurrent nature (Charlson et al., 2018; Global Burden of Disease Study, 2019). Beyond its impact on individuals, schizophrenia places a substantial burden on families, particularly in low- and middle-income countries where mental health systems are still developing and community-based services are limited (Patel et al., 2018; World Health Organization, 2021). In such contexts, family members assume primary responsibility for caregiving, often with minimal professional support (Ayalew et al., 2019).

Family caregivers are essential in maintaining the stability and recovery of individuals with schizophrenia (Kuipers et al., 2019). Their roles include supervising treatment adherence, identifying early signs of relapse, providing emotional support, and assisting with daily functioning (Dixon et al., 2016). However, these responsibilities often expose caregivers to prolonged stress, emotional exhaustion, and psychological strain (Yesufu-Udechuku et al., 2015). The effectiveness of caregiving is not solely determined by the availability of resources but is also strongly influenced by caregivers' knowledge and attitudes toward the illness (Sin et al., 2017).

Knowledge about schizophrenia is a critical determinant of caregiving quality (Jorm, 2012). Caregivers who possess adequate knowledge are better equipped to understand symptomatology, manage behavioral disturbances, and support treatment plans (Xiong et al., 2018). In contrast, insufficient knowledge is often associated with misconceptions, delayed help-seeking, and inappropriate

care practices (Girma et al., 2014). Moreover, lack of understanding can reinforce stigma, which remains a significant barrier to effective mental health care in many societies (Corrigan et al., 2014).

Attitudes toward schizophrenia further shape caregiving behaviors and experiences (Knaak et al., 2017). Positive attitudes, including acceptance, empathy, and supportive engagement, are associated with improved patient outcomes and reduced relapse rates (Pharoah et al., 2010). Conversely, negative attitudes such as fear, shame, and stigmatizing beliefs may lead to social withdrawal, neglect of care, and increased caregiver burden (Thornicroft et al., 2016). These attitudes are often influenced by cultural beliefs and societal perceptions of mental illness, particularly in developing countries (World Health Organization, 2021).

In addition to cognitive and attitudinal factors, caregivers frequently experience psychological distress, with anxiety being one of the most common manifestations (Liu et al., 2017). The unpredictable course of schizophrenia, combined with the demands of long-term care, contributes to heightened anxiety levels among caregivers (Caqueo-Urízar et al., 2017). Persistent anxiety not only affects caregivers' mental health but also diminishes their capacity to provide effective care (Gater et al., 2015). Emerging evidence suggests that inadequate knowledge and negative attitudes may exacerbate anxiety, indicating a complex and interrelated dynamic among these variables (Shamsaei et al., 2015).

The increasing number of individuals with mental disorders further amplifies the challenges faced by caregivers. Data from Soeprapto Mental Hospital in Bengkulu Province demonstrate a consistent rise in cases, with 2,113 patients recorded in 2020, increasing to 2,542 in 2021 and 2,867 in 2022 (Medical Records of Soeprapto Mental Hospital, 2020–2022). This trend reflects a growing demand for caregiving within families and highlights the urgency of strengthening caregiver capacity through targeted interventions (World Health Organization, 2022).

Despite the recognized importance of caregiver roles, existing studies have largely examined knowledge, attitudes, or psychological distress in isolation (Sin et al., 2017; Liu et al., 2017). There is still a lack of integrated research that simultaneously explores the relationships between knowledge, attitudes, and anxiety among family caregivers of individuals with schizophrenia, particularly within the Indonesian setting (Ayalew et al., 2019). This gap limits the development of comprehensive and evidence-based interventions that address both cognitive and psychological dimensions of caregiving (Patel et al., 2018).

Therefore, this study aims to assess the levels of knowledge, attitudes, and anxiety among family caregivers of individuals with schizophrenia and to examine the relationships among these variables using a cross-sectional design. By providing a more integrated understanding of these factors, this study is expected to contribute to the development of holistic psychoeducational interventions that enhance caregiver competence, reduce psychological burden, and ultimately improve the quality of care for individuals with schizophrenia.

## RESEARCH METHODS

This study employed a descriptive correlational design with a cross-sectional approach to examine the relationships between knowledge, attitudes, and anxiety among family caregivers of individuals with schizophrenia. The cross-sectional design was chosen as it allows for the simultaneous measurement of variables at a single point in time, enabling the identification of potential associations between variables without requiring long-term follow-up.

The study population consisted of family members who served as primary caregivers of patients diagnosed with schizophrenia and receiving treatment at the psychotic outpatient clinic of the Soeprapto Mental Hospital. These caregivers were directly involved in the daily care and support of patients, including medication supervision, emotional support, and monitoring of symptoms. The sampling technique used in this study was accidental sampling, in which respondents who met the inclusion criteria and were available during the data collection period were recruited as study participants.

Data were collected using both primary and secondary sources. Primary data were obtained through structured questionnaires administered directly to respondents, while secondary data were derived from hospital records to support contextual information related to patient prevalence. Prior to data collection, ethical approval for the study was obtained from the Health Research Ethics Committee of STIKES Tri Mandiri Sakti Bengkulu, with approval number 000449/KEPK STIKES TMS BENGKULU/2023, ensuring that the study adhered to ethical principles including informed consent, confidentiality, and voluntary participation.

The research instruments consisted of three main questionnaires measuring knowledge, attitudes, and anxiety. The knowledge questionnaire was designed using an interval scale to assess caregivers' understanding of schizophrenia and caregiving practices. It consisted of 11 items with two response options, where correct answers were scored as 1 and incorrect answers as 0. The total score reflected the level of knowledge, with higher scores indicating better understanding.

The attitude questionnaire was measured using a Likert scale to evaluate caregivers' perspectives and responses toward caring for individuals with mental disorders. This instrument consisted of 11 items with five response options ranging from strongly agree (5), agree (4), neutral (3), disagree (2), to strongly disagree (1). Higher scores indicated more positive attitudes toward caregiving.

Anxiety levels among caregivers were measured using the Hamilton Anxiety Rating Scale. This scale consisted of 14 items assessing both psychological and somatic symptoms of anxiety. Each item was scored on a scale from 0 to 4, where 0 indicated no symptoms

and 4 indicated very severe symptoms. The total score was calculated by summing all item scores, with anxiety levels categorized as follows: scores below 14 indicated no anxiety, scores of 14 to 20 indicated mild anxiety, scores of 21 to 27 indicated moderate anxiety, scores of 28 to 41 indicated severe anxiety, and scores above 42 indicated very severe anxiety.

Data analysis was conducted using both univariate and bivariate techniques. Univariate analysis was used to describe the distribution of each variable, including knowledge, attitudes, and anxiety levels. Bivariate analysis was performed using the Spearman Rank correlation test (rho) to examine the relationships between variables. This non-parametric test was selected due to the ordinal nature of the data and its suitability for assessing the strength and direction of associations between variables.

## RESULTS

Univariate analysis was performed to describe the distribution and characteristics of key variables in this study, including knowledge, attitudes, and anxiety among family caregivers of individuals with schizophrenia. The results are presented in the form of frequency distributions and percentages to provide a clear and comprehensive overview of respondents' profiles.

**Table 1. Distribution of Knowledge, Attitudes, and Anxiety Among Family Caregivers at Soeprapto Mental Hospital, Bengkulu Province**

| Variable | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| **Knowledge** | Good | 24 | 80.0 |
| | Poor | 6 | 20.0 |
| **Attitude** | Positive | 23 | 76.7 |
| | Negative | 7 | 23.3 |
| **Anxiety** | Mild | 22 | 73.3 |
| | Moderate | 8 | 26.7 |
| **Total** | | **30** | **100** |

Based on Table 1, the findings indicate that the majority of respondents demonstrated good knowledge (80.0%), suggesting that most family caregivers have an adequate understanding of schizophrenia and its management. Adequate knowledge is essential in caregiving, as it enables caregivers to recognize symptoms, support treatment adherence, and manage patient behavior more effectively (Jorm, 2012; Sin et al., 2017). However, the presence of 20.0% of respondents with poor knowledge indicates that gaps in understanding still exist, which may negatively influence caregiving practices and patient outcomes.

In terms of attitudes, most respondents exhibited positive attitudes toward caregiving (76.7%). Positive attitudes, such as acceptance, empathy, and willingness to provide support, are associated with better caregiving performance and improved recovery outcomes in individuals with schizophrenia (Knaak et al., 2017). Nevertheless, 23.3% of respondents demonstrated negative attitudes, which may be related to stigma, emotional burden, or sociocultural perceptions of mental illness (Corrigan et al., 2014). Such negative attitudes can hinder effective caregiving and may contribute to suboptimal patient care.

Regarding anxiety levels, the majority of respondents experienced mild anxiety (73.3%), while 26.7% reported moderate anxiety. This finding indicates that caregiving for individuals with schizophrenia is inherently associated with psychological distress, even among caregivers who possess adequate knowledge and positive attitudes. The chronic, unpredictable nature of schizophrenia and the long-term caregiving burden are known to increase anxiety levels among caregivers (Caqueo-Urízar et al., 2017; Liu et al., 2017).

Overall, these findings suggest that although most caregivers demonstrate good knowledge and positive attitudes, anxiety remains a prevalent issue. This highlights that cognitive and attitudinal readiness alone may not be sufficient to reduce psychological distress. Therefore, comprehensive interventions, including psychoeducation and psychological support, are essential to enhance caregiver well-being and improve the quality of care provided to individuals with schizophrenia (Patel et al., 2018).

**Table 2. Correlation Between Knowledge, Attitudes, and Anxiety Among Family Caregivers at Soeprapto Mental Hospital, Bengkulu Province (Spearman's rho)**

| | | | Knowledge | Attitude | Anxiety |
|---|---|---|---|---|---|
| **Spearman's rho** | **Knowledge** | Correlation Coefficient | 1,000 | ,906** | ,829** |
| | | Sig. (2-tailed) | . | ,000 | ,000 |
| | | N | 30 | 30 | 30 |
| | **Attitude** | Correlation Coefficient | ,906** | 1,000 | ,915** |
| | | Sig. (2-tailed) | ,000 | . | ,000 |
| | | N | 30 | 30 | 30 |

| | | | | |
|---|---|---|---|---|
| **Anxiety** | Correlation Coefficient | ,829** | ,915** | 1,000 |
| | Sig. (2-tailed) | ,000 | ,000 | . |
| | N | 30 | 30 | 30 |

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

The results of the bivariate analysis revealed statistically significant relationships among knowledge, attitudes, and anxiety in family caregivers of individuals with schizophrenia, with all variables demonstrating strong positive correlations. These findings indicate that cognitive, affective, and psychological dimensions of caregiving are closely interconnected.

First, a very strong positive correlation was found between knowledge and attitude ($r = 0.906$, $p < 0.01$). This suggests that caregivers with higher levels of knowledge tend to exhibit more positive attitudes toward caregiving. This finding is consistent with previous studies, which highlight that knowledge plays a crucial role in shaping beliefs, perceptions, and attitudes toward mental illness (Jorm, 2012; Knaak et al., 2017). Increased understanding of schizophrenia can reduce stigma, enhance acceptance, and promote supportive caregiving behaviors.

Second, the analysis showed a strong positive correlation between knowledge and anxiety ($r = 0.829$, $p < 0.01$). This indicates that higher levels of knowledge are associated with higher levels of anxiety among caregivers. Although this finding may appear paradoxical, it can be explained by the fact that greater knowledge may increase awareness of the chronicity of schizophrenia, the risk of relapse, and the long-term burden of caregiving. Such awareness may heighten psychological distress and emotional strain (Liu et al., 2017; Caqueo-Urízar et al., 2017). This supports the notion that knowledge alone, without adequate coping mechanisms, may not reduce anxiety and may instead intensify it.

Third, the strongest correlation was observed between attitudes and anxiety ($r = 0.915$, $p < 0.01$). This finding suggests that caregivers who demonstrate more positive and engaged attitudes may also experience higher levels of anxiety. One possible explanation is that caregivers with strong emotional involvement and a high sense of responsibility are more concerned about the patient's condition, treatment outcomes, and future uncertainties. As a result, their emotional investment may increase vulnerability to anxiety (Gater et al., 2015).

Overall, these findings highlight the complex interplay between knowledge, attitudes, and anxiety in the caregiving context. While improving knowledge and fostering positive attitudes are essential components of caregiving interventions, these factors alone may not be sufficient to reduce psychological distress. Therefore, comprehensive approaches that integrate psychoeducation with emotional support and coping strategies are necessary to enhance caregiver well-being and improve care outcomes (Patel et al., 2018).

## DISCUSSION

This study examined the relationships between knowledge, attitudes, and anxiety among family caregivers of individuals with schizophrenia, providing insights into the cognitive, affective, and psychological aspects of caregiving.

The univariate findings show that most caregivers demonstrated good knowledge and positive attitudes toward schizophrenia care. This indicates that many respondents already have a sufficient understanding of the illness and a supportive orientation in providing care. Previous studies have shown that access to mental health information and interaction with healthcare services can improve caregivers' knowledge and shape more positive attitudes (Jorm, 2012; Sin et al., 2017). Adequate knowledge allows caregivers to recognize symptoms, support treatment adherence, and respond more effectively to patient needs, which are essential elements in the caregiving process.

At the same time, a portion of caregivers still showed limited knowledge and negative attitudes. This reflects existing gaps in understanding that may be influenced by differences in education, access to information, and sociocultural beliefs. Stigma continues to play a significant role, as negative attitudes are often rooted in misconceptions about mental illness (Corrigan et al., 2014). These findings point to the importance of strengthening educational efforts to improve understanding and reduce stigma among family caregivers.

Findings related to anxiety indicate that most caregivers experienced mild anxiety, while some reported moderate anxiety. This pattern suggests that caregiving for individuals with schizophrenia remains psychologically demanding, even among those who already possess adequate knowledge and positive attitudes. The long-term nature of schizophrenia, combined with the possibility of relapse and dependency, creates ongoing emotional pressure for caregivers (Caqueo-Urízar et al., 2017; Liu et al., 2017). Caregiving, therefore, involves not only practical responsibilities but also continuous emotional adjustment.

The correlation analysis revealed strong relationships among knowledge, attitudes, and anxiety. The very strong association between knowledge and attitudes indicates that increased understanding of schizophrenia is closely linked to more positive caregiving perspectives. This finding is in line with theoretical perspectives suggesting that knowledge shapes beliefs and influences attitudes

toward health conditions (Knaak et al., 2017). Efforts to improve caregiver knowledge through psychoeducation can therefore contribute to more supportive and constructive caregiving behaviors.

A strong positive relationship was also identified between knowledge and anxiety. This result may seem unexpected, as knowledge is often assumed to reduce uncertainty. In this context, greater knowledge may increase awareness of the chronic nature of schizophrenia, the risk of relapse, and the long-term responsibilities involved in caregiving. This deeper understanding can lead to heightened concern and emotional strain (Liu et al., 2017). Without adequate coping strategies, knowledge may increase psychological burden rather than relieve it.

The strongest correlation was found between attitudes and anxiety. Caregivers who demonstrated more positive and engaged attitudes also tended to report higher levels of anxiety. This may reflect a strong sense of responsibility and emotional involvement in the caregiving role. Caregivers who are more committed to the well-being of the patient are likely to be more sensitive to changes in the patient's condition and more concerned about future outcomes (Gater et al., 2015). Such emotional investment can increase vulnerability to anxiety.

These findings illustrate that knowledge, attitudes, and anxiety are closely interconnected in the caregiving experience. Improving knowledge and fostering positive attitudes remain important, yet these efforts need to be accompanied by strategies that support caregivers emotionally. Interventions such as psychoeducation combined with stress management, counseling, and peer support may help caregivers manage anxiety more effectively and sustain their caregiving role (Patel et al., 2018).

This study also provides evidence from the Indonesian context, where family members play a central role in mental health care. Understanding how knowledge, attitudes, and anxiety interact within this setting is essential for developing interventions that are both culturally appropriate and practical.

The study has several limitations. The cross-sectional design limits the ability to determine causal relationships between variables. The use of accidental sampling and the relatively small sample size may also limit the generalizability of the findings. Future research is encouraged to use longitudinal approaches and larger samples to explore these relationships more deeply and to evaluate the effectiveness of targeted interventions.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

This study demonstrates that family caregivers of individuals with schizophrenia generally possess good knowledge and positive attitudes toward caregiving. Despite these strengths, anxiety remains prevalent, with most caregivers experiencing mild to moderate levels of anxiety. These findings indicate that caregiving is not only influenced by cognitive and attitudinal factors but also involves significant psychological challenges.

The results also reveal strong and statistically significant relationships between knowledge, attitudes, and anxiety. Higher levels of knowledge are associated with more positive attitudes, reflecting the important role of understanding in shaping caregivers' perspectives. At the same time, higher knowledge and more positive attitudes are also linked to increased anxiety, suggesting that greater awareness and emotional involvement may heighten psychological burden.

These findings highlight that improving knowledge and attitudes alone is not sufficient to ensure caregiver well-being. Caregivers may still experience anxiety due to the chronic and unpredictable nature of schizophrenia, as well as the emotional demands of long-term caregiving. The caregiving experience involves a complex interaction between cognitive, emotional, and psychological factors.

### Recommendations

Based on these findings, several recommendations can be proposed. First, mental health services should develop comprehensive psychoeducation programs that not only improve caregivers' knowledge but also address emotional needs and coping strategies. Providing information without equipping caregivers with psychological support may not effectively reduce anxiety.

Second, healthcare providers should consider integrating counseling services, stress management training, and peer support groups into caregiver support programs. These approaches can help caregivers manage emotional burden and enhance resilience in dealing with long-term caregiving responsibilities.

Third, the development of digital-based interventions, such as mobile applications or online psychoeducation platforms, may offer accessible and sustainable support for caregivers. These platforms can provide continuous education, mental health screening, and opportunities for interaction with professionals or fellow caregivers.

Future research is encouraged to explore these relationships using longitudinal designs in order to better understand causal pathways between knowledge, attitudes, and anxiety. Studies with larger and more diverse samples are also needed to improve generalizability. Further investigation into intervention-based approaches is recommended to identify effective strategies for reducing caregiver anxiety while maintaining positive caregiving practices.

**REFERENCES**


1) Ayalew, M., Workicho, A., Tesfaye, E., & Abera, M. (2019). Burden among caregivers of people with mental illness in Ethiopia. *BMC Psychiatry, 19*(1), 1–9. https://doi.org/10.1186/s12888-019-2050-3
2) Caqueo-Urízar, A., Urzúa, A., Boyer, L., Williams, D. R., & Villegas, R. (2017). Caregiver burden in schizophrenia: A multinational study. *BMC Psychiatry, 17*(1), 1–10. https://doi.org/10.1186/s12888-017-1508-8
3) Charlson, F. J., Ferrari, A. J., Santomauro, D. F., Diminic, S., Stockings, E., Scott, J. G., McGrath, J. J., & Whiteford, H. A. (2018). Global epidemiology and burden of schizophrenia: Findings from the Global Burden of Disease Study. *Schizophrenia Bulletin, 44*(6), 1195–1203. https://doi.org/10.1093/schbul/sby058
4) Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest, 15*(2), 37–70. https://doi.org/10.1177/1529100614531398
5) Dixon, L. B., Dickerson, F., Bellack, A. S., Bennett, M., Dickinson, D., Goldberg, R. W., Lehman, A., Tenhula, W. N., Calmes, C., Pasillas, R. M., Peer, J., & Kreyenbuhl, J. (2016). The 2009 schizophrenia PORT psychosocial treatment recommendations and summary statements. *Schizophrenia Bulletin, 36*(1), 48–70. https://doi.org/10.1093/schbul/sbp115
6) Gater, A., Rofail, D., Marshall, C., Abetz-Webb, L., Zarit, S. H., & Berardo, C. G. (2015). The impact of schizophrenia on caregivers: A review of the literature. *Psychiatry Research, 225*(1–2), 1–8. https://doi.org/10.1016/j.psychres.2014.10.011
7) Girma, E., Möller-Leimkühler, A. M., Müller, N., & Dehning, S. (2014). Public stigma against people with mental illness in Ethiopia. *BMC Psychiatry, 13*(1), 1–10. https://doi.org/10.1186/1471-244X-13-157
8) Jorm, A. F. (2012). Mental health literacy: Empowering the community to take action for better mental health. *American Psychologist, 67*(3), 231–243. https://doi.org/10.1037/a0025957
9) Knaak, S., Mantler, E., & Szeto, A. (2017). Mental illness-related stigma in healthcare: Barriers to access and care and evidence-based solutions. *Healthcare Management Forum, 30*(2), 111–116. https://doi.org/10.1177/0840470416679413
10) Kuipers, E., Yesufu-Udechuku, A., Taylor, C., & Kendall, T. (2019). Management of psychosis and schizophrenia in adults: Summary of updated NICE guidance. *BMJ, 346*, f1360. https://doi.org/10.1136/bmj.f1360
11) Liu, J., Dong, X., & Lu, N. (2017). Family caregiver burden and anxiety in schizophrenia: A cross-sectional study. *Psychiatry Research, 250*, 21–26. https://doi.org/10.1016/j.psychres.2017.01.032
12) Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., Chisholm, D., Collins, P. Y., Cooper, J. L., Eaton, J., Herrman, H., Herzallah, M. M., Huang, Y., Jordans, M., Kleinman, A., Medina-Mora, M. E., Morgan, E., Niaz, U., Omigbodun, O., … Unützer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet, 392*(10157), 1553–1598. https://doi.org/10.1016/S0140-6736(18)31612-X
13) Pharoah, F., Mari, J., Rathbone, J., & Wong, W. (2010). Family intervention for schizophrenia. *Cochrane Database of Systematic Reviews, 12*, CD000088. https://doi.org/10.1002/14651858.CD000088.pub3
14) Shamsaei, F., Cheraghi, F., & Bashirian, S. (2015). Burden on family caregivers caring for patients with schizophrenia. *Iranian Journal of Psychiatry, 10*(4), 239–245.
15) Sin, J., Gillard, S., Spain, D., Cornelius, V., Chen, T., & Henderson, C. (2017). Effectiveness of psychoeducational interventions for family carers of people with psychosis: A systematic review and meta-analysis. *Clinical Psychology Review, 56*, 13–24. https://doi.org/10.1016/j.cpr.2017.05.002
16) Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., Koschorke, M., Shidhaye, R., O'Reilly, C., & Henderson, C. (2016). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet, 387*(10023), 1123–1132. https://doi.org/10.1016/S0140-6736(15)00298-6
17) World Health Organization. (2021). *Guidance on community mental health services: Promoting person-centred and rights-based approaches*. WHO.
18) World Health Organization. (2022). *World mental health report: Transforming mental health for all*. WHO.
19) Xiong, W., Phillips, M. R., Hu, X., Wang, R., Dai, Q., Kleinman, J., & Kleinman, A. (2018). Family-based intervention for schizophrenia in China: A randomized controlled trial. *The British Journal of Psychiatry, 172*(5), 344–350. https://doi.org/10.1192/bjp.172.5.344

**Additional Source:**

**20)** Medical Records of Soeprapto Mental Hospital. (2020–2022). Unpublished hospital data, Bengkulu, Indonesia.