

Original Article

A Qualitative Exploration of Stakeholder Perceptions of Schizophrenia

MamnuaH MamnuaH^{1*}, Wawan Febri Ramdani¹, Dwi Prihatiningsih¹, Dwi Sri Handayani¹, Dwi Ernawati², Noorwahyu Trihidayati³, Rofi Istifarah⁴

Abstract

Objective: Schizophrenia is a severe mental disorder associated with substantial social stigma that impedes patients' access to quality care and social support. In Indonesia, where cultural and religious beliefs strongly influence mental health perceptions, stakeholders' attitudes critically shape responses to this condition. This study explored how various stakeholder groups perceive schizophrenia in Indonesia.

Method: A phenomenological qualitative design was employed with 29 participants (families, healthcare workers, and policymakers) selected through purposive sampling in Yogyakarta, Indonesia. Data were collected through face-to-face semi-structured in-depth interviews (60-90 minutes), audio-recorded and supplemented by direct observations. Interview transcripts were analyzed using thematic analysis with triangulation and member checking to ensure data validity.

Results: Five main themes emerged: (1) healthcare workers demonstrated clinical understanding, while families showed experiential knowledge; (2) stakeholders recognized multifactorial causation combining genetic and environmental factors; (3) realistic expectations focused on symptom management rather than cure; (4) persistent cultural stigma, rooted in supernatural beliefs, hindered help-seeking; (5) and collaborative family-healthcare worker partnerships were essential for patient stability.

Conclusion: This study provides novel insights into Indonesian stakeholders' perspectives on schizophrenia, revealing culturally-specific stigma patterns rooted in supernatural beliefs—a factor understudied in Southeast Asian contexts. Findings inform development of targeted anti-stigma interventions and integrated care models that leverage family-healthcare worker collaboration to improve patient outcomes in Indonesia's mental health system.

Key words: *Patients; Mental Health Recovery; Schizophrenia; Social Stigma; Community Support*

1. Departments of Nursing, Faculty of Health and Science, Universitas Aisyiyah Yogyakarta, Yogyakarta, Indonesia.
2. Departments of Midwifery, Faculty of Health and Science, Universitas Aisyiyah Yogyakarta, Yogyakarta, Indonesia.
3. STIKES Advaita Medika Tabanan Bali, Indonesia.
4. Woman, Family, and Disaster Studies, Universitas 'Aisyiyah Yogyakarta, Yogyakarta, Indonesia.

*Corresponding Author:

Address: Departments of Nursing, Faculty of Health and Science, Universitas Aisyiyah Yogyakarta, Yogyakarta, Indonesia., Postal Code: 55292

Tel: 0274-4469199, Fax: 0274-4469204, Email: mamnuaH@unisayogya.ac.id

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Mental health is a critical aspect of individual and community psychological well-being (1). According to a previous study, mental disorders, as part of the mental health spectrum, have become a major concern in various countries due to their significant impact on individual quality of life and social productivity (2). As stated by the World Health Organization, the prevalence of mental disorders continues to increase, with an estimated 1 in 8 individuals worldwide experiencing mental or neurological disorders (3). In the Iranian context, epidemiological studies have shown that psychotic disorders affect approximately 0.25% of children and adolescents, with age being a significant predictor of symptom onset (4).

Beyond these figures, considerable complexity exists in how the community understands and treats individuals with mental disorders. Previous investigations have reported that stigma, prejudice, and discrimination against individuals with mental disorders are major barriers to efforts aimed at improving mental health (5–7). Accordingly, a study showed that stigma was often rooted in ignorance, myths, and unfounded fears, which cause mentally disordered individuals to experience social isolation, exclusion, and unfair treatment (8).

The perceptions of individuals with mental disorders play a significant role in determining how they are treated in the community. Stigma and discrimination have been reported to often worsen the condition of individuals with mental disorders, hinder their access to health services, and reduce the social support they receive (9). These perceptions are not only shaped by the community, but also by the various stakeholders involved in managing mental disorders.

Stakeholders in the context of mental health include various groups, such as families and relatives, healthcare workers, policymakers, non-governmental organizations, and the wider community. Each of these groups has different perspectives and interests regarding individuals with mental disorders, which can influence public policy and clinical practice, as well as community attitudes and behaviors (9).

Considering the importance of stakeholders' perceptions regarding individuals with mental disorders, an in-depth understanding is needed and should be explored further. Consistent with previous explorations, stakeholders in this context include various entities, ranging from families, healthcare workers, and policymakers, to the wider community (10–12). Each of these groups possesses unique perspectives, experiences, and interests, which collectively shape social reality around individuals with mental disorders. The majority of previous studies have limited their focus to a particular stakeholder group, without considering how these different perceptions interact and influence each other in a broader context, thereby presenting a gap.

This investigation aimed to examine stakeholder perceptions of schizophrenia within Indonesia's

sociocultural context. The study sought to: (1) explore conceptual understanding and definitional frameworks across stakeholder groups, particularly examining differences between clinical and experiential knowledge paradigms; (2) investigate stakeholder beliefs regarding schizophrenia etiopathogenesis, including genetic and environmental determinants within cultural belief systems; (3) assess perceptions of recovery trajectories and therapeutic expectations, examining beliefs about symptom management versus complete remission; (4) analyze stigmatization processes and social acceptance dynamics, emphasizing supernatural causation beliefs and help-seeking behaviors; and (5) identify collaborative care roles among families, healthcare professionals, and policymakers in supporting patient recovery and treatment adherence.

Materials and Methods

Study Design

This study used a qualitative method with a phenomenological design to explore and understand stakeholders' perceptions of individuals with mental disorders. The phenomenological design was selected primarily because it had been reported to facilitate the exploration of subjective experiences and perceptions of participants, both of which are important for understanding social reality and meanings associated with mental disorders (13).

Participants

Participants were selected using a purposive sampling method, designed specifically to ensure that individuals with direct experience and roles related to mental disorders were included in the investigation. This method typically facilitates the systematic selection of participants who can provide in-depth and relevant insights into the study topic.

The inclusion criteria were three main groups. First, the family group consisted of family members who lived with or routinely cared for individuals with mental disorders. The participation of this group was considered important because they had direct experience in supporting and caring for family members with mental disorders. Second, the healthcare worker group included doctors, psychiatrists, nurses, and psychologists who worked directly with patients with mental disorders. Participants from this group provided professional perspectives on the diagnosis, treatment, and clinical interactions with these patients. Third, the policy-maker group, consisting of officials in health services or other government agencies who were responsible for developing and implementing mental health policies. This group provided insights into how mental health policies were designed and implemented at the national and local levels.

A total of 29 participants were selected for this study, with proportional representation from each identified stakeholder group. The number of participants was determined based on the principle of data saturation,

where the data collection process was stopped when additional interviews no longer produced new or significant information (13).

Data Collection

Data were collected through in-depth interviews conducted in a semi-structured manner. Interview guides were developed based on existing literature and designed specifically to explore participants' perceptions regarding various aspects of mental disorders, including stigma, discrimination, and personal experiences in interacting with individuals with mental disorders.

Interview Guide Content:

The semi-structured interview guide included five key domains designed to comprehensively explore stakeholder perceptions:

Domain 1: Understanding and Definitions of Schizophrenia

- "How do you define or understand schizophrenia?"
- "What symptoms do you recognize as signs of this condition?"
- "How serious do you consider this mental disorder compared to other health conditions?"
- Domain 2: Beliefs about Causation
- "What do you think causes schizophrenia?"
- "Are there genetic factors involved? What about environmental factors?"
- "Do cultural, spiritual, or supernatural factors play a role in your opinion?"
- Domain 3: Recovery Expectations and Opportunities
- "Do you believe people with schizophrenia can recover completely?"
- "What does recovery look like to you?"
- "What factors support or hinder the recovery process?"
- Domain 4: Stigma and Social Acceptance
- "How does your community generally view people with schizophrenia?"
- "Have you experienced or witnessed discrimination related to this condition?"
- "What barriers exist in seeking help for mental health problems?"
- Domain 5: Stakeholder Roles in Recovery
- "What is your role in helping patients with schizophrenia?"
- "How do different groups (families, health workers, community) work together?"
- "What kind of support do you provide or receive?"

The interviews were conducted face-to-face and recorded with participants' permission to ensure data accuracy. Each interview lasted between 60 and 90 minutes and was conducted in the participants' preferred language, with an interpreter when necessary.

Following the interviews, direct observation was conducted to complement the interview data, specifically regarding participants' social interactions with mentally disordered individuals. These observations were carried

out in the participants' natural environments, such as their homes, workplaces, and healthcare facilities, to gain a more comprehensive understanding of the social and cultural contexts that influenced their perceptions.

Time and Place

This study was conducted at Yogyakarta in August 2023. This area was selected for the study because, according to the 2023 Indonesian Health Survey data, it had the highest prevalence of psychosis/schizophrenia among Indonesian provinces.

Data Analysis

The data obtained from the conducted interviews and observations were analyzed using thematic analysis methods, following the method proposed by Byrne (2022) (14). This thematic analysis allowed for the identification, analysis, and reporting of patterns (themes) within qualitative data. The analysis process included several steps such as verbatim transcription of interview data, initial coding, theme development, and interpretation of themes in the context of relevant theories.

Integration of Observational Data:

Observational data were systematically integrated with interview transcripts during the thematic analysis process. This integration involved several strategies:

1. Behavioral Consistency Analysis: Field notes documenting participant behaviors, non-verbal responses, and emotional reactions were coded as supplementary data to compare with perceptions stated during interviews.
2. Environmental Context Coding: Observations of physical settings (home environments, healthcare facilities, community spaces) and social interactions were analyzed to understand how contextual factors influenced stakeholder perceptions.
3. Contradiction Identification: Discrepancies between verbal statements and observed behaviors were noted and coded as separate indicators, particularly regarding stigma and acceptance attitudes.
4. Triangulation Enhancement: Observational data served as a validation tool, with contradictions between stated perceptions and observed behaviors explored probed through follow-up questions or member checking sessions.

For example, when participants verbally expressed acceptance of schizophrenia patients but displayed physical distancing behaviors or hesitation in interactions, these contradictions were coded as indicators of internalized stigma and analyzed as distinct sub-themes within the broader stigma category.

To ensure the validity and reliability of the data, a triangulation strategy was used. This strategy included the combination of data from interviews, observations, and relevant policy documents. Member checking was also carried out by asking participants to review their own responses to ensure the interpretation matched their intentions.

Research Ethics

This study was approved by the Research Ethics Committee with ethics approval number 1790/KEP-UNISA/VIII/2023. All participants were given written information about the purpose of the study, procedures, their rights, and guarantees of data confidentiality. All participants signed a written consent form before participating in the study.

Results

This study explored the perceptions of various stakeholder groups regarding schizophrenia, including families, healthcare workers, and the wider community. Through thematic analysis, several main themes were identified that described stakeholders' understanding and perceptions of schizophrenia, its causes, recovery opportunities, the influence of stigma, and their role in the recovery process. Figure 1 presents the theme and category scheme of the results.

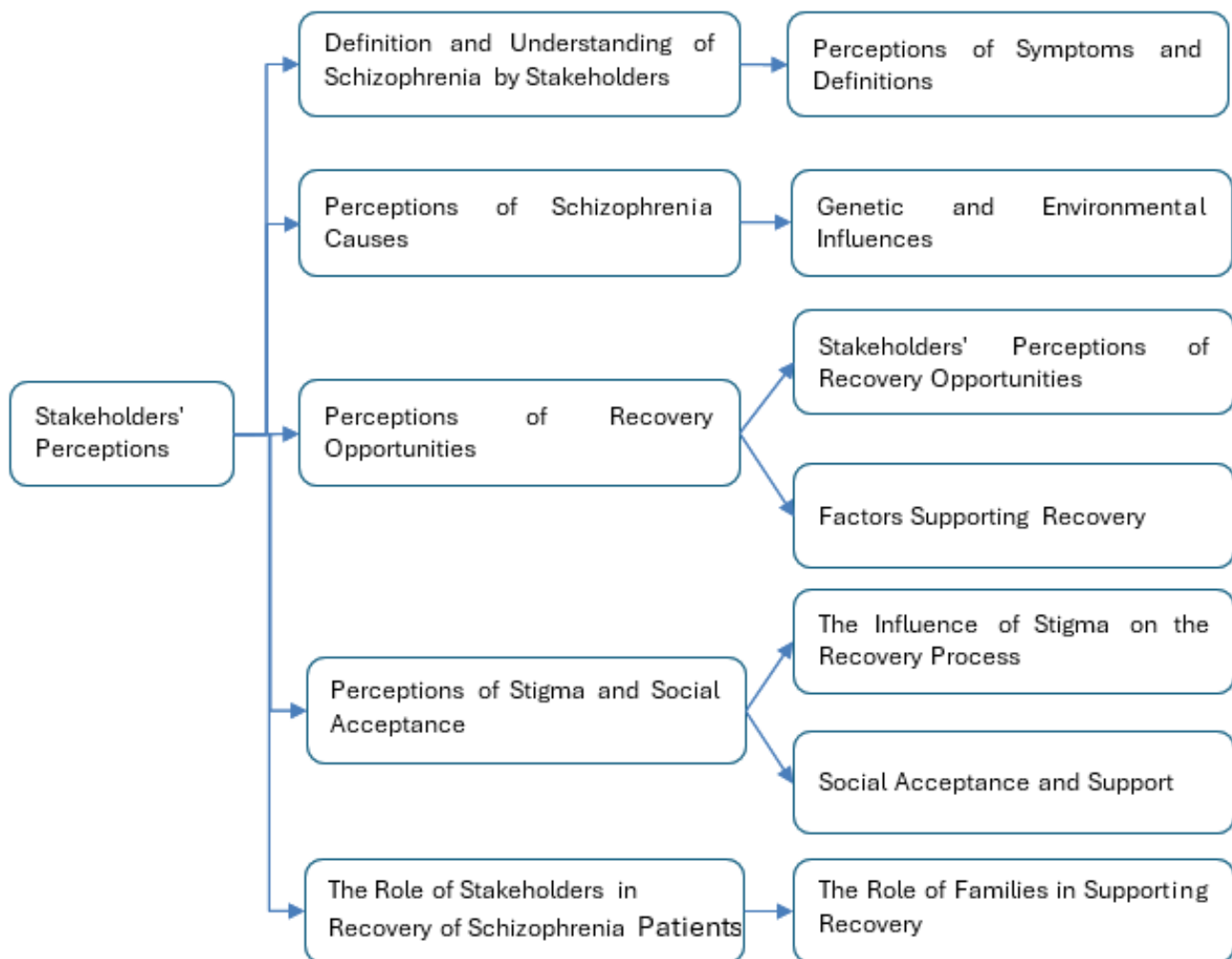


Figure 1. Theme and Category of Stakeholders' Perceptions toward Schizophrenia

Thematic analysis of stakeholder interviews revealed five major themes encompassing definitional understanding, etiological attributions, recovery expectations, stigmatization experiences, and collaborative care roles. These themes demonstrated both convergent perspectives and notable divergences across stakeholder groups, particularly regarding the integration of biomedical frameworks with cultural belief systems. Table 1 presents the comprehensive thematic framework with corresponding categories and key findings across family, healthcare professional, and policymaker perspectives.

Table 1. Thematic Framework of Stakeholder Perceptions toward Schizophrenia in Indonesia

Theme	Categories	Description	Key Findings
1. Definition and Understanding	Clinical vs. Experiential Knowledge	Contrasting knowledge paradigms between professional biomedical understanding and family practical experience	Health workers: DSM-based symptom identification (hallucinations, delusions); Families: behavioral changes observed through daily caregiving
2. Causation Beliefs	Multifactorial Etiology (Genetic + Environmental)	Recognition of complex causation integrating hereditary predisposition with psychosocial determinants	Health workers emphasize genetic risk factors; Families point to environmental stress; Convergent acknowledgment of gene-environment interactions
3. Recovery Perceptions	Recovery Expectations (what they believe possible)	Realistic but pessimistic prognostic outlook focused on symptom management rather than complete cure	Cross-stakeholder consensus: chronic condition requiring lifelong management; stabilization achievable but complete recovery unlikely
4. Stigma and Acceptance	Recovery Supporting Factors (what helps achieve it)	Essential elements identified as facilitating patient stability and functional improvement	Family support prioritized as primary factor; medication adherence, community acceptance, and environmental stability as secondary factors
	Stigma Barriers (supernatural beliefs, help-seeking reluctance)	Cultural stigma rooted in traditional causation attributions creating systematic care engagement obstacles	Witchcraft/curse beliefs prevalent; family shame leading to delayed help-seeking; social discrimination and avoidance behaviors
	Community Support Variability (acceptance levels differ)	Heterogeneous community responses ranging from empathetic assistance to complete social rejection	Spectrum from neighbors providing practical help to complete social isolation; education-dependent acceptance patterns
5. Stakeholder Roles	Family-Centered Support Systems	Core responsibilities and functions of family members in treatment adherence and daily care	Medication monitoring, appointment compliance, emotional support, behavioral observation, crisis intervention
	Professional Healthcare Facilitation	Healthcare provider roles in patient management and family education	Clinical assessment, treatment planning, family psychoeducation, professional coordination, monitoring therapeutic responses

1. Definition and Understanding of Schizophrenia by Stakeholders

Category: Clinical vs. Experiential Knowledge
 "Schizophrenia is one of the severe mental disorders whose symptoms are already there... hallucinations... delusions... which require regular treatment" (P.4); "In my opinion, schizophrenia has delusions, illusions, and hallucinations... yes... like that... and... there are risk factors... the family may have previously suffered from it" (P.5); "Schizophrenia is often seeing or hearing voices, easily emotional" (P.24); "Schizophrenia disorders have hallucinations, delusions, and other symptoms that affect patients' ability to think and act" (P.5).

This understanding was also reflected by families, although more in the context of daily practice, where the symptoms are recognized through direct experience with family members affected by the disease. The information gathered in this context showed a widespread awareness of the serious nature of schizophrenia among various stakeholder groups.

2. Perceptions of Schizophrenia Causes

Category: Multifactorial Etiology (Genetic + Environmental)
 "Risk factors... the family may have previously suffered from schizophrenia" (P.5); "Maybe too much thinking and personal problems are the cause" (P.24); "I think it has something to do

with environmental pressure and excessive stress" (P.4); "An unsupportive environment, coupled with a family history of mental disorders, can trigger schizophrenia" (P.5).

Stakeholders identified genetic and environmental factors as the main causes of schizophrenia. In this context, health workers emphasized the importance of genetic factors, while families attributed the form of mental disorders to stress and environmental pressure. This reflected the presence of diverse but complementary views, which recognized the complexity of schizophrenia etiology resulting from the interaction between genetic predisposition and environmental conditions.

3. Perceptions of Recovery Opportunities

Category: Recovery Expectations (what they believe possible) "For the memory... they cannot be cured... it can only be controlled with medication and environmental support" (P.5); "To fully recover... uh... no... not fully recover... it can only be said to be stable... so even though their condition is good... working and all... they still have to be monitored" (P.4); "In my opinion, schizophrenia cannot be completely cured, only the symptoms can be managed" (P.5); "As long as the patients are compliant in taking medication and get family support, symptoms can be controlled, even though they are not completely cured" (P.4).

The observed stakeholders were generally pessimistic about the possibility of a complete cure for schizophrenia, but there was consensus that the conditions of patients could be effectively managed with adequate medication and environmental support. Health workers and families viewed recovery as more of a stabilization process than a full cure, which required ongoing support from families and the community.

Category: Recovery Supporting Factors (what helps achieve it)

"The first is... family... then the surrounding community... and third... medication compliance" (P.5); "Family support is important... and also support from the surrounding community" (P.4); "The main thing is support from the family, without it recovery is difficult to occur" (P.5); "Environmental factors play a crucial role, including support from the family and community for patient recovery" (P.5).

Family support is recognized as a very important factor in the recovery process of schizophrenia patients. Health workers emphasized that besides treatment, support from families and the surrounding community is essential to help patients achieve stability and reduce the risk of relapse. A supportive family and environment are considered to play a significant role in the successful management of schizophrenia.

4. Perceptions of Stigma and Social Acceptance

Category: Stigma Barriers (supernatural beliefs, help-seeking reluctance)

"The biggest problem is stigma... the family feels that this is not a mental disorder... this is witchcraft... being cursed" (P.5); "Strong stigma in the community often makes patients and their family reluctant to seek help" (P.5); "I feel bad for the neighbors, he once tried to hang himself and the neighbors started to avoid us" (P.27); "Many people still think this is a curse or the result of witchcraft, not a medical illness" (P.5).

Stigma was recognized as the major obstacle hindering the recovery process of schizophrenia patients. Negative perceptions and beliefs that mental disorders are the result of witchcraft or curses often make families and patients feel ashamed and reluctant to ask for medical help. This form of stigma invariably worsens patients' conditions because it hinders access to necessary support from the community and in some cases, even from their own families.

Category: Community Support Variability (acceptance levels differ)

"Families and the community need to provide full support because it greatly affects the recovery process" (P.4); "Neighbors and the surrounding community should be more understanding of this condition, not just avoiding patients" (P.27); "The community generally accepts, but not many actively support" (P.27); "There are those who help, but most just watch from a distance, do not really care" (P.27).

Regardless of the fact that stigma was considered a very strong factor, stakeholders recognized the importance of support from the community and families in helping schizophrenia patients recover. In this context, some families and health workers signified that education and increasing awareness in the community could reduce stigma and increase social support for patients.

5. The Role of Stakeholders in recovery of Schizophrenia Patients

Category: Family-Centered Support Systems

"Family support is important... they should continue to monitor patients' condition even though they are stable" (P.4); "The family should continue to provide encouragement, even though the patients are stable and can work" (P.27); "We as a family should always ensure that he takes his medication and does not miss check-ups with the doctor" (P.27); "Without family support, the patients may not want to come to the health center or take their medication on schedule" (P.4).

Families have a central role in supporting recovery of schizophrenia patients. This is evidenced by the fact that family members are not only responsible for ensuring patients adhere to treatment but also for providing emotional support and ensuring continued

adherence to routine check-ups. As a result, active family inclusiveness in daily monitoring and support is essential to achieving better recovery outcomes.

Category: Professional Healthcare Facilitation

"We, as health workers, should provide education to families about the importance of treatment and routine check-ups" (P.5); "The most frequent effort we make is to motivate patients and families to continue coming to the health center" (P.4); "Our role is also to ensure that patients follow therapy and regular monitoring" (P.4); "Health workers should be able to provide clear information and help families understand the patients' condition correctly" (P.5).

Health workers have an important role in supporting families and patients by providing the necessary education about treatment and the importance of routine check-ups. These stakeholders are also responsible for monitoring the progress of patients and providing ongoing support to ensure they remain on a stable path to recovery.

Discussion

This study provides comprehensive insights into stakeholders' perceptions of schizophrenia, including families, healthcare workers, and the wider community. This discussion contextualizes the main findings within existing literature and discusses their implications for mental health practice and public policy.

Definition and Understanding of Schizophrenia by Stakeholders

These results align with previous studies showing that the understanding of schizophrenia often differs between healthcare professionals and the general population, with healthcare professionals being more familiar with diagnostic definitions and clinical criteria (15).

Despite the extensive clinical knowledge of healthcare professionals, the importance of comprehensive understanding by families cannot be overlooked, as they play a crucial role in the day-to-day care of patients. Lack of knowledge and misconceptions about schizophrenia can hinder effective support and increase the risk of relapse. Therefore, educational programs targeting families should be prioritized to ensure they have accurate and relevant information about the disorder.

Perceptions of Schizophrenia Causes

Perceptions of the causes of schizophrenia reflect a holistic view that combines genetic and environmental factors (16). Healthcare workers predominantly emphasized the importance of genetic factors, while families tended to attribute the condition to stress and environmental pressure. This reflects diverse but complementary perceptions, acknowledging the complexity of schizophrenia etiology as a result of the

interaction between genetic predisposition and environmental conditions.

The results further suggest that, despite a general understanding of the multifactorial nature of schizophrenia, there is a gap in mental health literacy, particularly among patients' families. This gap could be addressed through increased education and support that emphasizes evidence-based knowledge of risk factors for schizophrenia. Accordingly, more targeted interventions can be designed to address common misconceptions and improve families' capacity to support patients. Beyond psychosocial interventions, emerging evidence suggests that adjuvant nutritional approaches, such as B vitamin supplementation, may improve negative symptoms in chronic schizophrenia, indicating the potential value of integrating biological and psychosocial treatment strategies (17).

Perceptions of Recovery Opportunities

Stakeholders' perceptions of recovery opportunities in schizophrenia reflected a realistic yet pessimistic attitude, with complete recovery considered unlikely, but stabilization of symptoms considered achievable. This aligns with previous studies emphasizing that recovery in schizophrenia patients was often more focused on symptom management and improving quality of life rather than achieving complete recovery (18).

These perceptions emphasize the importance of a patient-centered approach to recovery that considers realistic expectations while focusing on improving functioning and social engagement. Given these findings, rehabilitation programs emphasizing social engagement, family support, and symptom management should be integral components of the mental health care system. This will ensure that patients can lead more stable and meaningful lives despite having a mental disorder. Complementary interventions focusing on attentional mechanisms, such as mindfulness-based approaches, have demonstrated efficacy in reducing distress associated with auditory hallucinations, suggesting that combining family support with cognitive strategies may enhance recovery outcomes (19).

Perceptions of Stigma and Social Acceptance

The stigma associated with schizophrenia remains a major challenge in patient recovery. This is evidenced by stakeholder statements indicating that social stigma often prevents patients from seeking help. This stigma leads to deeper social isolation for patients, thereby worsening their conditions and hindering access to appropriate medical care. Previous studies support these results, demonstrating that stigma is a major barrier to accessing mental health care and often leads to discrimination against individuals with mental disorders (20).

The stigma identified in this study is often rooted in ignorance, myths, and misconceptions about schizophrenia. For instance, some people still believe that schizophrenia is a result of witchcraft or curses, rather than a medical condition that requires treatment.

Similarly, previous studies have reported that being a medical condition requiring treatment, schizophrenia is often considered a consequence of supernatural forces or sin, leading to the exclusion of patients from the community and even their families (21).

Overcoming this stigma requires collective and integrated efforts, including effective education campaigns for the wider community. These campaigns should emphasize that schizophrenia is a medical disorder that can be managed with proper treatment. The campaigns should also focus on raising awareness that individuals with schizophrenia deserve support and fair treatment. This recommendation aligns with previous studies emphasizing that increasing community understanding of schizophrenia can significantly reduce stigma and improve social acceptance of patients (22, 23).

In addition to education, the inclusion of community leaders and the use of the media to disseminate correct information about schizophrenia are crucial. The media also plays a significant role in shaping public opinion and can be an effective tool to normalize seeking medical help as a responsible and necessary step. Studies on the role of the media have suggested that accurate representation of schizophrenia in the media can help reduce stigma and motivate patients to seek help without fear or shame (24–26).

The Role of Stakeholders in recovery of Schizophrenia Patients

The role of families in the recovery of schizophrenia patients is crucial. Families not only play a role in ensuring medication adherence but also provide continuous emotional support. Such support is important to maintain the stability of patients' conditions and minimize the risk of relapse. Studies have reported that consistent family support can significantly improve recovery outcomes for patients with mental disorders, including schizophrenia (27, 28).

Healthcare workers, on the other hand, act as facilitators who ensure that patients with schizophrenia remain on a stable path to recovery. They are responsible for educating patients and families about the importance of consistent treatment and regular symptom monitoring. Additionally, healthcare workers provide clear and easily accessible information to families, thereby promoting greater family involvement in the care process. Research has shown that effective collaboration between healthcare workers and families can reduce symptoms of schizophrenia and improve overall quality of life in patients (29).

A holistic approach to schizophrenia recovery incorporating the participation and efforts of families and healthcare workers focuses not only on medical aspects but also on psychosocial ones. This includes support in daily life and interventions aimed at improving social skills as well as patient independence. As confirmed in previous research, approaches that include psychosocial support can significantly improve

patient recovery outcomes and reduce relapse rates (30). These observations suggest that close collaboration between families, healthcare workers, and the community is key to ensuring long-term success in the recovery of patients with schizophrenia (31).

Theoretical Implications

These findings extend social-ecological theory by identifying supernatural causation beliefs as macrosystem barriers inadequately addressed in Western frameworks. The shame-based stigma mechanisms documented here contrast with fear-based patterns in individualistic cultures, requiring different intervention approaches than those emphasizing safety and predictability (32). Additionally, the convergent emphasis on symptom management versus cure challenges recovery-oriented models developed in Western contexts, suggesting culturally-responsive prognostic frameworks may be more appropriate for collectivist societies.

Clinical and Policy Implications

Implementation should prioritize culturally-integrated psychoeducation in partnership with religious leaders to create bridge narratives between spiritual and biomedical explanatory models. Healthcare systems require formal family navigator programs with structured collaboration protocols, while community-level interventions must address supernatural attribution directly through Indonesian recovery narratives. Policy integration should embed family-centered approaches within national mental health strategy frameworks by establishing cultural competency training requirements and dedicating funding for community-based education that addresses traditional belief systems.

Limitation

Several methodological limitations warrant consideration when interpreting these findings. The study's geographic scope was limited to Yogyakarta, which may restrict transferability to other Indonesian regions with different ethnic compositions, socioeconomic structures, and healthcare infrastructures. Yogyakarta's relatively urban setting and higher education levels may not adequately represent rural Indonesian perspectives, where traditional beliefs and resource constraints may be more pronounced. Additionally, purposive sampling may have introduced self-selection bias, as participants were primarily stakeholders already engaged with formal mental health services, potentially excluding perspectives from community members who completely avoid psychiatric care or rely exclusively on traditional healing practices. Language barriers and interpreter-mediated interviews may have influenced response nuance and depth, particularly regarding culturally-sensitive topics such as supernatural beliefs and family shame experiences. Despite member checking efforts, cultural meanings and emotional subtleties may have been lost in translation,

potentially affecting the accuracy of cross-cultural concept interpretation. Furthermore, the cross-sectional design limited exploration of how stakeholder perceptions evolve over time, particularly following exposure to psychoeducation interventions or direct recovery experiences. This temporal limitation prevents an understanding of whether perceptions are stable or changeable—a distinction with important implications for intervention timing and sustainability that longitudinal investigation would better capture.

Conclusion

This study revealed five distinct domains of stakeholder perceptions regarding schizophrenia in Indonesia, highlighting divergence between clinical and experiential knowledge, multifactorial causation beliefs, management-oriented recovery expectations, supernatural attribution stigma, and essential collaborative care roles. Effective schizophrenia management in Indonesia requires addressing culturally-embedded belief systems alongside biomedical approaches. Integrating this into the National Mental Health Strategy necessitates systematic reforms including mandatory cultural competency training for mental health professionals, family-centered care models with structured collaboration protocols, and healthcare facility accreditation standards incorporating family engagement metrics. Immediate implementation priorities include developing standardized family navigator programs in regional psychiatric facilities, creating community education campaigns in partnership with religious leaders to address supernatural attributions, establishing peer-support family networks, implementing workplace mental health literacy training, and developing Indonesian-specific recovery narratives for dissemination through the media. Also, long-term transformation requires embedding cultural adaptation principles into national policy frameworks, scaling up successful interventions across Indonesia's diverse regions, and developing sustainable funding mechanisms for community-based psychoeducation addressing traditional belief systems.

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Conflict of Interest

None.

Author's Contributions

MM: Conceptualization, Methodology, Writing - Original Draft Preparation, wrote the first draft of the manuscript, data analysis, revised the final draft, and gave final approval of the version to be published
WFR: Data Curation, Formal Analysis
DP: Investigation, Resources
DSH: Validation, Supervision
DE: Visualization, Software
NT: Writing - Review & Editing
RI: Project Administration

References

1. Menefee DS, Ledoux T, Johnston CA. The importance of emotional regulation in mental health. *Am J Lifestyle Med.* 2022;16(1):28-31.
2. James T, Mukadam N, Sommerlad A, Pour HR, Knowles M, Azocar I, et al. Protection against discrimination in national dementia guideline recommendations: a systematic review. *PLoS Medicine.* 2022;19(1):e1003860.
3. Collaborators GMD. Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet Psychiatry.* 2022;9(2):137-50.
4. Alavi SS, Mohammadi MR, Hooshyari Z, Mohammadi Kalhori S, Salehi M, Salmanian M, et al. Epidemiology of Psychotic Disorders Based on Demographic Variables in Iranian Children and Adolescents. *Iran J Psychiatry.* 2021;16(1):1-12.
5. Sawaf S. Applying theoretical perspectives and activism to understand and combat mental health stigma. *J Recovery Ment Health.* 2022;5(2):42-6.
6. Schomerus G, Stolzenburg S, Freitag S, Speerforck S, Janowitz D, Evans-Lacko S, et al. Stigma as a barrier to recognizing personal mental illness and seeking help: a prospective study among untreated persons with mental illness. *Eur Arch Psychiatry Clin Neurosci.* 2019;269(4):469-79.
7. Torales J, Aveiro-Róbal TR, Ríos-González C, Barrios I, Almirón-Santacruz J, González-Urbíeta I, et al. Discrimination, stigma and mental health: what's next? *Int Rev Psychiatry.* 2023;35(3-4):242-50.
8. Latoo J, Mistry M, Alabdulla M, Wadoo O, Jan F, Munshi T, et al. Mental health stigma: the role of dualism, uncertainty, causation and treatability. *Gen Psychiatr.* 2021;34(4):e100498.
9. Kudva KG, El Hayek S, Gupta AK, Kurokawa S, Bangshan L, Armas-Villavicencio MVC, et al. Stigma in mental illness: Perspective from eight

- Asian nations. *Asia Pac Psychiatry*. 2020;12(2):e12380.
10. Allchin B, Goodyear M, O'Hanlon B, Weimand BM. Leadership perspectives on key elements influencing implementing a family-focused intervention in mental health services. *J Psychiatr Ment Health Nurs*. 2020;27(5):616-27.
11. Chlebowski C, Hurwich-Reiss E, Wright B, Brookman-Frazee L. Using stakeholder perspectives to guide systematic adaptation of an autism mental health intervention for Latinx families: A qualitative study. *J Community Psychol*. 2020;48(4):1194-214.
12. Putri DK. The Family Experiences in Caring for People with Mental Disorders. *Journal of health research and technology*. 2023;1(2):95-105.
13. Creswell JW, Poth CN. *Qualitative inquiry and research design: Choosing among five approaches*: Sage publications; 2016.
14. Byrne D. A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*. 2022;56(3):1391-412.
15. McCutcheon RA, Marques TR, Howes OD. Schizophrenia—an overview. *JAMA psychiatry*. 2020;77(2):201-10.
16. Tsuang MT, Bar JL, Stone WS, Faraone SV. Gene-environment interactions in mental disorders. *World Psychiatry*. 2004;3(2):73-83.
17. Agmashe S, Sadighi G, Radman N, Mazinani R. Effects of B Vitamins on Symptoms and Cognitive Functions in Schizophrenia: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. *Iran J Psychiatry*. 2025;20(1):3-11.
18. Correll CU, Ismail Z, McIntyre RS, Rafeyan R, Thase ME. Patient Functioning, Life Engagement, and Treatment Goals in Schizophrenia. *J Clin Psychiatry*. 2022;83(5):LU21112AH2.
19. Madani M, Hossein Sabet F, Borjali A. The Effect of Attentional Avoidance, Attentional Focusing, and Mindfulness on the Frequency of Voice-Hearing and Associated Distress in People with Schizophrenia: A Randomized Controlled Trial. *Iran J Psychiatry*. 2023;18(2):108-18.
20. Adil M, Atiq I, Ellahi A. Stigmatization of schizophrenic individuals and its correlation to the fear of violent offence. Should we be concerned? *Ann Med Surg*. 2022;82.
21. Subu MA, Wati DF, Netrida N, Priscilla V, Dias JM, Abraham MS, et al. Types of stigma experienced by patients with mental illness and mental health nurses in Indonesia: a qualitative content analysis. *Int J Ment Health Syst*. 2021;15(1):77.
22. Jauhar S, Johnstone M, McKenna PJ. Schizophrenia. *Lancet*. 2022;399(10323):473-86.
23. Kilgour JG. Mental health and substance use disorder benefits parity. *Compens Benefits Rev*. 2018;50(2):95-106.
24. Amsalem D, Markowitz JC, Jankowski SE, Yang LH, Valeri L, Lieff SA, et al. Sustained Effect of a Brief Video in Reducing Public Stigma Toward Individuals With Psychosis: A Randomized Controlled Trial of Young Adults. *Am J Psychiatry*. 2021;178(7):635-42.
25. Bowen M, Kinderman P, Cooke A. Stigma: a linguistic analysis of the UK red-top tabloids press' representation of schizophrenia. *Perspect Public Health*. 2019;139(3):147-52.
26. Holmberg C. Schizophrenia in Print, Digital, and Audiovisual Media: Trends, Topics, and Results From an Anti-Stigma Intervention Targeting Media Professionals. *Schizophr Bull Open*. 2023;4(1):sgad018.
27. Suhermansyah A, Rahman G, Badar. Relationship between Family Support with Relapse in Schizophrenic Patients. *Asian J Healthc Anal*. 2023;2(1):193-200.
28. Teicher MH, Andersen SL, Polcari A, Anderson CM, Navalta CP. Developmental neurobiology of childhood stress and trauma. *Psychiatr Clin North Am*. 2002;25(2):397-426, vii-viii.
29. Byng R, Creanor S, Jones B, Hosking J, Plappert H, Bevan S, et al. The effectiveness of a primary care-based collaborative care model to improve quality of life in people with severe mental illness: PARTNERS2 cluster randomised controlled trial. *Br J Psychiatry*. 2023;222(6):246-56.
30. Bighelli I, Rodolico A, García-Mieres H, Pitschel-Walz G, Hansen WP, Schneider-Thoma J, et al. Psychosocial and psychological interventions for relapse prevention in schizophrenia: a systematic review and network meta-analysis. *Lancet Psychiatry*. 2021;8(11):969-80.
31. Sri Suhardiningsih A, Sustrami D, Mundakir M. Parenting style, family support, and relapse among schizophrenia patients: a literature review. *Healthc Low Resour Settings*. 2024;12(1).
32. Gupta AK, Grover S, Thapaliya S, Shrestha S, Sawant S, Shoib S. Pathways to care and supernatural beliefs among patients with psychotic disorders in Nepal. *Middle East Current Psychiatry*. 2021;28(1):61.