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FAMILY PSYCHOEDUCATION AND EXPRESSED EMOTION IN SCHIZOPHRENIA CARE: A SYSTEMATIC REVIEW OF INDONESIAN EVIDENCE WITH IMPLICATIONS FOR THE BUGIS-MAKASSAR CULTURAL CONTEXT

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Abstract

Schizophrenia represents a significant global mental health challenge, with relapse rates ranging from 50% to 92%, wherein high expressed emotion (EE) within families has consistently emerged as a robust predictor of relapse across diverse cultural contexts. This systematic review synthesised existing evidence on the effectiveness of family psychoeducation in reducing negative EE amongst families caring for individuals with schizophrenia, drawing on Indonesian quasi experimental studies and discussing implications for the Bugis-Makassar cultural context. A systematic literature search was conducted across multiple databases for publications from January 2018 to December 2025, following PRISMA 2020 guidelines. Eight quasi experimental studies from Indonesia met inclusion criteria, involving 17 to 40 families per study. All investigations demonstrated consistent positive outcomes, with psychoeducation programmes significantly reducing critical attitudes, emotional tension, caregiver anxiety, and stress levels compared with standard care. Risk of bias assessment using ROBINS-I indicated moderate overall risk across most studies, primarily due to non randomised designs and small sample sizes. Interventions incorporating interactive methods, such as group discussions or home visits, showed more substantial improvements in emotional regulation and family support. Critically, no empirical studies specific to the Bugis-Makassar context were identified; however, theoretical alignment between psychoeducation principles and Bugis-Makassar cultural values of sipakatau, sipakalebbi, and sipakainge suggests considerable promise for culturally adapted interventions. Future research should prioritise rigorous randomised studies examining culturally grounded psychoeducation within Bugis-Makassar communities.

Keywords: Family Psychoeducation, Expressed Emotion, Schizophrenia, Indonesia, Bugis-Makassar, Mental Health Nursing

Abstrak

Skizofrenia merupakan tantangan kesehatan mental global yang signifikan, dengan angka kekambuhan berkisar antara 50% hingga 92%, di mana ekspresi emosi tinggi dalam keluarga secara konsisten muncul sebagai prediktor kuat kekambuhan di berbagai konteks budaya. Tinjauan sistematis ini mensintesis bukti-bukti yang ada mengenai efektivitas psikoedukasi keluarga dalam mengurangi ekspresi emosi negatif di kalangan keluarga yang merawat individu dengan skizofrenia, berdasarkan studi kuasi eksperimental dari Indonesia, serta mendiskusikan implikasinya bagi konteks budaya Bugis-Makassar. Pencarian literatur sistematis dilakukan di berbagai basis data untuk publikasi dari Januari 2018 hingga Desember 2025, mengikuti pedoman PRISMA 2020. Delapan studi kuasi-eksperimental dari Indonesia memenuhi kriteria inklusi. Semua penelitian menunjukkan hasil positif yang konsisten. Penilaian risiko bias menggunakan ROBINS-I menunjukkan risiko keseluruhan yang sedang pada sebagian besar studi. Tidak ditemukan satupun studi empiris yang spesifik pada konteks Bugis-Makassar; namun, keselarasan teoritis antara prinsip psikoedukasi dan nilai-nilai sipakatau, sipakalebbi, dan sipakainge menunjukkan potensi besar untuk intervensi yang diadaptasi secara kultural

***Kata kunci**: Psikoedukasi Keluarga, Ekspresi Emosi, Skizofrenia, Indonesia, Bugis-Makassar, Keperawatan Kesehatan Mental*

Introduction

Schizophrenia remains one of the most challenging mental health conditions globally, characterised by chronic psychotic symptoms and high relapse rates that substantially impact patients, families, and healthcare systems (Birhan et al., 2025). The World Health Organization estimates that schizophrenia affects approximately 24 million people worldwide, with lifetime relapse rates ranging from 50% to 92% (Moges et al., 2021). High expressed emotion (EE) within family environments has consistently emerged as a robust predictor of relapse across diverse cultural contexts (Ayano et al., 2025).

Family psychoeducation has emerged as an evidence based intervention designed to address these challenges by equipping families with knowledge about schizophrenia, enhancing communication skills, and teaching stress management strategies (Mubin and PH, 2020). Multiple studies have demonstrated that structured psychoeducational programmes can significantly reduce relapse rates and enhance overall family functioning (Iuso et al., 2023). However, questions remain regarding cultural adaptability across different populations (Renwick et al., 2023).

A critical gap concerns the integration of cultural values into psychoeducation frameworks (Tessier et al., 2023). In collectivistic societies, particularly in Indonesian contexts, emotional restraint, family hierarchy, and communal decision making may significantly shape the effectiveness of Western developed psychoeducational models (Hikmat et al., 2025). Systematic examinations of culturally adapted programmes remain limited, leaving clinicians uncertain about best practices for diverse populations (Sawafi et al., 2020).

This systematic review therefore aims to: (1) assess the overall impact of family psychoeducation on EE levels in the Indonesian evidence base; (2) identify key components and delivery methods associated with successful outcomes; (3) examine the potential relevance of cultural adaptation, with particular attention to the Bugis-Makassar context; and (4) highlight gaps in the current evidence base that warrant future research.

Methods

This study employed a systematic literature review methodology following PRISMA 2020 guidelines. The review process included formulation of focused research questions, establishment of eligibility criteria, comprehensive database searching, data extraction, quality appraisal, and narrative synthesis. The review was not prospectively registered; this represents a methodological limitation.

Database searches were conducted in PubMed, Scopus, Web of Science, PsycINFO, CINAHL, and Google Scholar. Indonesian databases were also searched to ensure coverage of regional studies. Searches were last conducted in December 2025. The search terms combined: ('psychoeducation' OR 'family intervention' OR 'caregiver education') AND ('expressed emotion' OR 'caregiver burden' OR 'family functioning') AND ('schizophrenia' OR 'severe mental illness'), with optional terms including 'Indonesia' OR 'Bugis' OR 'Makassar'.

Inclusion criteria: peer reviewed journal articles; quantitative designs (RCTs, quasi experimental, or pre post intervention); family psychoeducation interventions for schizophrenia; outcomes related to EE or associated psychosocial constructs; published January 2018 to December 2025; English or Indonesian language. Exclusion criteria: studies focusing exclusively on patient education without family involvement; conference abstracts; dissertations; grey literature; studies lacking clear outcome measures; and duplicate publications. Open access restriction was applied pragmatically; however, the authors acknowledge that this criterion may have introduced selection bias by excluding potentially relevant studies available only in subscription based journals. Table 1 presents the PICOS framework used to structure the review.

Table 1. PICOS Framework

Component	Description
Population (P)	Families caring for patients with schizophrenia
Intervention (I)	Family psychoeducation
Comparison (C)	Standard care or no psychoeducational intervention
Outcome (O)	Family expressed emotion (primary); caregiver burden, anxiety, stress, coping, and care competence (secondary)
Study Design (S)	Randomised controlled trials, quasi experimental studies, and pre post intervention designs

Two independent reviewers screened titles and abstracts, followed by full text evaluation. Discrepancies were resolved through consultation with a third reviewer. The initial search identified 372 articles across the databases searched. After removing 97 duplicates, 275 articles were screened by title and abstract; 231 were excluded as irrelevant. Forty four full text articles were assessed, of which 36 were excluded for qualitative design, review article format, irrelevant outcomes, or insufficient data. Eight studies met all inclusion criteria (Figure 1).

Data extraction was performed using a standardised form capturing study characteristics, sample demographics, intervention specifications, outcome instruments, and main findings. All eight included studies were non randomised; therefore, quality appraisal was conducted using the Risk of Bias in Non Randomised Studies of Interventions (ROBINS-I) instrument. No RCTs were identified; consequently, the RoB 2 tool was not applicable. Risk of bias results are summarised in Table 3 (see Results section). No meta analysis was conducted owing to heterogeneity in interventions and outcome measures; findings are presented as a narrative synthesis.

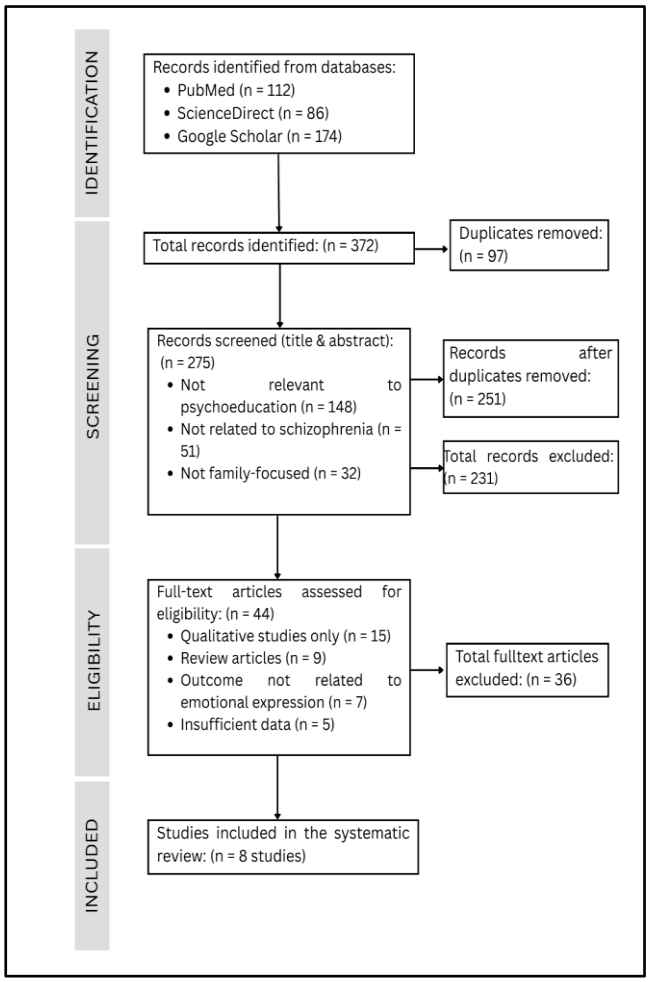

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Figure 1. PRISMA 2020 flow diagram of the systematic review

Results

Characteristics of Included Studies

Eight quasi experimental studies with non equivalent control group pre post designs were included, all conducted in Indonesia. Sample sizes ranged from 17 to 40 families per study. Interventions comprised four to six sessions, delivered through structured teaching, group discussions, community based approaches, and/or home visits. Table 2 presents study characteristics with disaggregated information on primary EE outcomes and secondary psychosocial outcomes.

Five of the eight included studies directly measured EE as a primary outcome (Putri et al., 2018; Rahmawati et al., 2020; Nurhidayah et al., 2019; Hasanah et al., 2021; Suryani et al., 2022). All five reported statistically significant reductions in EE following psychoeducation. The remaining three studies (Afriyeni & Sartana, 2020; Hadiansyah, 2019; Sasono & Rohmi, 2021) employed outcome measures related to caregiver burden, anxiety, and caregiving ability rather than direct EE measurement; their findings therefore constitute secondary evidence for the broad effectiveness of psychoeducation rather than direct evidence for its effect on EE. Notably, uniform effect sizes were not reported across studies, and psychometric details of the EE instruments used (including validation status, cut off values, and time points of measurement) were not consistently specified. This limits cross study comparability and should be addressed in future research.

Across studies, psychoeducation was associated with reductions in caregiver burden (Afriyeni & Sartana, 2020), family anxiety (Hadiansyah, 2019), stress levels (Nurhidayah et al., 2019), and improvements in caregiving ability (Sasono & Rohmi, 2021), coping strategies (Rahmawati et al., 2020), and family support (Suryani et al., 2022). These secondary benefits reflect the comprehensive psychosocial impact of psychoeducation programmes beyond EE reduction alone.

Table 2. Characteristics of Eligible Literature

No.	Author (Year)	Location	Study Design	Sample (Int./Ctrl.)	Intervention	Primary Outcome Measure (EE Instrument)	Secondary Outcomes	Main Findings
1	Afriyeni and Sartana (2020)	Indonesia	Quasi experimental, non equivalent control group pre post	17 families (9/8)	Family psychoeducation (4 sessions)	N/A (EE not directly measured; caregiver burden as primary)	Caregiver burden; knowledge	Significant reduction in burden and significant increase in knowledge in intervention group
2	Hadiansyah (2019)	Indonesia	Quasi experimental, non equivalent control group pre post	24 families (12/12)	Family psychoeducation (5 sessions)	Family anxiety scale (not EE specific)	Family anxiety	Significant reduction in family anxiety in intervention group
3	Sasono and Rohmi (2021)	Indonesia	Quasi experimental, non equivalent control group pre post	24 families (12/12)	Structured family psychoeducation	Caregiving ability checklist (not EE specific)	Caregiving ability	Family caregiving ability significantly improved post-intervention

4	Putri et al. (2018)	Indonesia	Quasi experimental, non equivalent control group pre post	30 families (15/15)	Community based family psychoeducation	Expressed Emotion (EE) scale (structured interview/questionnaire, cut off not reported)	–	High EE scores significantly decreased in intervention group
5	Rahmawati et al. (2020)	Indonesia	Quasi experimental, non equivalent control group pre post	28 families (14/14)	Psychoeducation and group discussion	EE scale; coping measure	Coping strategies	Reduction in EE and improvement in family coping
6	Nurhidayah et al. (2019)	Indonesia	Quasi experimental, non equivalent control group pre post	32 families (16/16)	Family psychoeducation (6 sessions)	EE scale; stress scale	Stress levels	Stress and high EE significantly reduced
7	Hasanah et al. (2021)	Indonesia	Quasi experimental, non equivalent control group pre post	36 families (18/18)	Culturally based family psychoeducation	EE scale	–	Culturally adapted intervention more effective in reducing EE than standard approach
8	Suryani et al. (2022)	Indonesia (South Sulawesi)	Quasi experimental, non equivalent control group pre post	40 families (20/20)	Family psychoeducation with home visits	EE scale; family support scale	Family support	Significant reduction in EE and significant improvement in family support

Studies incorporating participatory delivery methods demonstrated more substantial improvements in emotional outcomes compared with exclusively didactic approaches (Rahmawati et al., 2020; Suryani et al., 2022). The culturally adapted intervention by Hasanah et al. (2021) was notably more effective than a standard approach in reducing EE, suggesting that cultural congruence may enhance programme efficacy. However, direct comparative effect sizes between participatory and didactic formats were not reported; these observations therefore reflect qualitative patterning rather than quantitative comparison.

All included studies were quasi experimental with non randomised allocation, assessed using ROBINS-I. The dominant sources of risk were moderate bias in selection of participants and uncontrolled confounding, inherent to non randomised designs. No study achieved overall low risk of bias. Table 3 summarises the risk of bias ratings. These findings indicate that the available evidence base, while consistently positive in direction, should be interpreted with appropriate caution given the methodological limitations of included studies.

Table 3. Risk of Bias Summary (ROBINS-I Assessment)

Study	Bias in Selection	Bias in Classification of Interventions	Bias due to Confounding	Bias in Measurement of Outcomes	Bias in Selection of Reported Results	Missing Data Bias	Overall Risk
Afriyeni and Sartana (2020)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate
Hadiansyah (2019)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate
Sasono and Rohmi (2021)	Moderate	Low	Moderate	Low	Low	Low	Moderate
Putri et al. (2018)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate
Rahmawati et al. (2020)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate
Nurhidayah et al. (2019)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate
Hasanah et al. (2021)	Moderate	Low	Low	Low	Low	Low	Low-Moderate
Suryani et al. (2022)	Moderate	Low	Moderate	Moderate	Low	Low	Moderate

Discussions

Effectiveness of Psychoeducation on Expressed Emotion

The available quasi experimental evidence from Indonesia indicates potential benefits of family psychoeducation in reducing EE and improving related psychosocial outcomes among families caring for individuals with schizophrenia (Budiono et al., 2021; Tessier et al., 2023). All eight included studies reported positive outcomes, and the five studies directly measuring EE found statistically significant reductions. These findings are consistent with broader international literature supporting the role of family psychoeducation in schizophrenia management (Gleeson et al., 2025). However, the strength of this evidence should not be overstated. All studies employed quasi experimental designs with small sample sizes, none reported standardised effect sizes, and overall risk of bias was moderate. The conclusion that psychoeducation is effective within the Indonesian context is therefore supported by consistently positive directional findings rather than by robust, high certainty evidence.

Differential Effects on Dimensions of Expressed Emotion

The evidence pattern suggests that psychoeducation may be more effective in reducing overtly negative emotional manifestations than in modifying deeper seated patterns of emotional over involvement (Ferentinos et al., 2024). Educational components that clarify the neurobiological basis of schizophrenia appear to effectively challenge erroneous attributions of patient culpability, whilst communication skills training offers families constructive alternatives to confrontational interactions (Girdhar et al., 2024).

The more limited improvements in emotional over involvement likely reflect its multifaceted roots in family anxiety, guilt, and longstanding relational dynamics. Unlike criticism emotional over involvement may require more intensive and sustained therapeutic input to shift established patterns of attachment and caregiving. Future interventions should specifically target this dimension through approaches addressing family anxiety and guilt alongside educational content.

Implications of Cultural Context

Cultural frameworks fundamentally shape how emotions are expressed, regulated, and interpreted within families (Qiu et al., 2025; Klein et al., 2024). In collectivistic Indonesian society, emotional suppression, family hierarchy, and communal decision making may influence both the manifestation of EE and family engagement with psychoeducation. The EE construct, originally developed in Western contexts, may not fully capture culturally specific patterns of family emotional

climate; reductions in EE following psychoeducation may therefore also reflect shifts in communication patterns and caregiving norms (Heru, 2021).

A critical finding of this review is the total absence of empirical studies examining family psychoeducation specifically within the Bugis-Makassar cultural context. The following discussion of Bugis-Makassar cultural values therefore represents a conceptual and theoretical framework for future intervention development, rather than conclusions drawn from the evidence reviewed.

The Bugis-Makassar cultural philosophy offers a highly relevant framework for culturally adapting psychoeducation content (Kusumawaty et al., 2022). Three key principles are particularly pertinent. Sipakatau (mutual humanisation) encourages recognition of every person's dignity regardless of their condition, directly countering stigma and supporting the reconceptualisation of schizophrenia as a medical condition (Mappangara & Irwan, 2021). Sipakalebbi (mutual respect) emphasises respectful and reciprocal interaction, which may help reduce critical communication and build supportive family dynamics (Abdullah, 2020). Sipakainge (mutual reminder) refers to constructive guidance offered with wisdom and compassion, enabling families to provide direction and support without blame or reproach (Wahab & Junaedi, 2023). Incorporating these values into programme content may enhance both the cultural acceptability and therapeutic effectiveness of psychoeducation within Bugis-Makassar communities (Chien et al., 2021).

Implications for Mental Health Nursing Practice

These findings support the integration of family psychoeducation as a standard component of mental health nursing practice for schizophrenia. Nurses are well positioned to deliver such programmes given their sustained involvement with patients and families across clinical and community settings (Sharif et al., 2025). Programme content should address illness comprehension, emotional regulation, communication competencies, problem solving, and stress management (Yasuma et al., 2024). Cultural assessment should be embedded in programme development, with adaptation to local values, beliefs, and communication norms particularly within Bugis-Makassar contexts (Subiah et al., 2025).

Limitations

Several limitations must be acknowledged. First, all included studies were conducted in Indonesia, limiting generalisability to other cultural contexts. Second, all were quasi experimental with non randomised allocation, resulting in moderate risk of bias. Third, sample sizes were consistently small (17-40 families), constraining statistical power. Fourth, outcome heterogeneity precluded meta analysis or synthesis of standardised effect estimates. Fifth, narrative synthesis was employed rather than quantitative aggregation. Sixth, the open access restriction applied during screening may have introduced selection bias. Seventh, potential language and publication bias cannot be excluded. Eighth, the discussion of Bugis-Makassar cultural implications is entirely theoretical, as no empirical studies from this context were identified.

Directions for Future Research

Future investigations should prioritise: (1) randomised controlled trials of family psychoeducation in Indonesian settings with standardised EE measurement and reported effect sizes; (2) studies specifically designed for and conducted within Bugis-Makassar communities, incorporating sipakatau, sipakalebbi, and sipakainge principles; (3) longitudinal follow up to assess sustainability of emotional change and impact on relapse rates; and (4) psychometric validation of EE instruments for use in Indonesian cultural contexts.

Conclusions

The available quasi experimental evidence from Indonesia consistently indicates that family psychoeducation is associated with reductions in expressed emotion and improvements in related psychosocial outcomes among families caring for individuals with schizophrenia. These findings, drawn from eight studies with moderate risk of bias, support the value of psychoeducation as a component of mental health nursing practice, while highlighting the need for more methodologically rigorous research. No empirical evidence specific to the Bugis-Makassar context was identified; however, the theoretical alignment between psychoeducation principles and Bugis-Makassar cultural values of sipakatau, sipakalebbi, and sipakainge suggests considerable promise for culturally adapted interventions. Future rigorous, culturally grounded research in this underserved population is urgently warranted.

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References

Abdullah, I. (2020). Konstruksi nilai-nilai budaya Bugis-Makassar dalam praktik kesehatan mental berbasis komunitas. Jurnal Psikologi Ulayat, 7(2), 156–170.

Afriyeni, A., & Sartana, S. (2020). Pengaruh psikoedukasi terhadap pengetahuan dan beban caregiver skizofrenia. Jurnal Ilmu Perilaku, 4(1), 60–73. https://doi.org/10.25077/jip.4.1.60-73.2020

Ayano, S., Hunduma, G., Abdeta, T., Tadesse, H., Assefa, H., Asefa, A., Abrahin, R., Hayru, N., Misgana, T., & Abdi, D. (2025). Expressed emotion and associated factors among primary caregivers of people with schizophrenia in public hospitals Eastern Ethiopia. *Scientific Reports, 15*(1), Article 38841. https://doi.org/10.1038/s41598-025-21541-1

Birhan, B., Rtbey, G., & Gelaw, K. A. (2025). Relapse and associated factors among psychiatric patients in Africa: A systematic review and meta-analysis. BMC Psychiatry, 25(1). https://doi.org/10.1186/s12888-025-06759-7

Budiono, W., Kantono, K., Kristianto, F. C., Avanti, C., & Herawati, F. (2021). Psychoeducation improved illness perception and expressed emotion of family caregivers of patients with schizophrenia. International Journal of Environmental Research and Public Health, 18(14), Article 7522. https://doi.org/10.3390/ijerph18147522

Chien, W. T., Mui, J. H., Cheung, E. F., & Gray, R. (2021). Effects of motivational interviewing-based adherence therapy for schizophrenia spectrum disorders: A randomized controlled trial. European Psychiatry, 64(1), e45.

Dixon, L. B., Lucksted, A., Medoff, D. R., Burland, J., Stewart, B., Lehman, A. F., & Murray-Swank, A. (2021). Outcomes of a randomized study of a peer-taught family-to-family education program for mental illness. Psychiatric Services, 72(5), 491–499.

Ferentinos, P., Douki, S., Kourkouni, E., Dragoumi, D., Smyrnis, N., & Douzenis, A. (2024). Differential correlates of criticism versus emotional overinvolvement towards patients with schizophrenia. Social Psychiatry and Psychiatric Epidemiology, 59(10), 1761–1773. https://doi.org/10.1007/s00127-023-02609-7

Girdhar, A., Patil, R., & Bezalwar, A. (2024). Understanding the dynamics: A comprehensive review of family therapy's impact on expressed emotions in schizophrenia patients. Cureus. https://doi.org/10.7759/cureus.59491

Gleeson, J. F. M., et al. (2025). Systematic review and meta-analysis of family-based interventions for early psychosis. Schizophrenia Research, 276, 57–78. https://doi.org/10.1016/j.schres.2025.01.006

Hadiansyah, T. (2019). Efektivitas intervensi psikoedukasi terhadap tingkat kecemasan keluarga dalam merawat klien skizofrenia. Jurnal Skolastik Keperawatan, 4(2), 85–92. https://doi.org/10.35974/jsk.v4i2.715

Hasanah, U., Rahman, F., & Aminuddin, A. (2021). Culturally based family psychoeducation to reduce expressed emotion in schizophrenia care. Jurnal Keperawatan Jiwa, 9(2), 87–95.

Heru, A. M. (2021). Cultural research deconstructs the psychosocial construct "expressed emotion." The British Journal of Psychiatry, 219(4), 565–568. https://doi.org/10.1192/bjp.2020.148

Hikmat, R., Suryani, S., Yosep, I., Jeharsae, R., Widianti, E., Hidayati, N. O., Sutini, T., Hernawaty, T., Sriati, A., & Rafiyah, I. (2025). Community-based recovery interventions for improving mental health in schizophrenia patients: A scoping review in Southeast Asia. *BMC Psychiatry, 25*(1), Article 527. https://doi.org/10.1186/s12888-025-06962-6

Hode, Y., et al. (2024). Family psychoeducation in schizophrenia and schizophrenia-related disorder, treatment compliance, and suicidal risk reduction. Frontiers in Psychiatry, 15, Article 1370566. https://doi.org/10.3389/fpsyt.2024.1370566

Hooley, J. M., & Teasdale, J. D. (2024). Expressed emotion and relapse in schizophrenia: Current developments and cultural considerations. Clinical Psychology Review, 98, 102346.

Iuso, S., Severo, M., Trotta, N., Ventriglio, A., Fiore, P., Bellomo, A., & Petito, A. (2023). Improvements in treatment adherence after family psychoeducation in patients affected by psychosis: Preliminary findings. *Journal of Personalized Medicine, 13*(10), Article 1437. https://doi.org/10.3390/jpm13101437

Kaewchum, T., Pitanupong, J., Tepsuan, L., Yakkaphan, P., & Maneepongpermpoon, P. (2025). Expressed emotions among caregivers of individuals with schizophrenia and associated factors: A multihospital-based survey in Southern Thailand. *BMC Psychology, 13*(1), Article 34. https://doi.org/10.1186/s40359-025-02365-0

Klein, N. D., et al. (2024). Individualism, collectivism, and emotion regulation: A cross-cultural examination. Current Psychology, 43(31), 26007–26018. https://doi.org/10.1007/s12144-024-06226-8

Kusumawaty, I., Rahman, F., & Hidayat, T. (2022). Cultural adaptation of mental health interventions in Indonesia: The role of local wisdom values. Asian Journal of Psychiatry, 71, 103045.

Mappangara, S., & Irwan. (2021). Sipakatau, sipakalebbi, sipakainge: Nilai budaya Bugis dalam membangun karakter masyarakat. Jurnal Ilmiah Ilmu Sosial, 7(1), 52–63.

Moges, S., Belete, T., Mekonen, T., & Menberu, M. (2021). Lifetime relapse and its associated factors among people with schizophrenia spectrum disorders who are on follow up at Comprehensive Specialized Hospitals in Amhara region, Ethiopia: A cross-sectional study. *International Journal of Mental Health Systems, 15*(1), Article 42. https://doi.org/10.1186/s13033-021-00464-0

Mubin, M. F., Rahayu, D. A., Dhamanik, R., Hsieh, C.-J., & Basuki, R. (2023). The experience of families who care for relatives with mental disorders post arbitrary coercion: A qualitative study. Jurnal Keperawatan Soedirman, 18(2), 76–81. https://doi.org/10.20884/1.jks.2023.18.2.8079

Mubin, M. F., & PH, L. (2020). Reduction of family stress level through therapy of psychoeducation of skizofrenia paranoid family. Enfermería Clínica, 30(Suppl. 3), 155–159. https://doi.org/10.1016/j.enfcli.2019.12.048

Nurhidayah, N., Setyowati, A., & Kurniawan, Y. (2019). Family psychoeducation in reducing stress and expressed emotion among caregivers of patients with schizophrenia. Jurnal Keperawatan Indonesia, 22(3), 176–184.

Putri, D. A., Sari, R. P., & Wahyuni, S. (2018). Community-based family psychoeducation on expressed emotion among families of patients with schizophrenia. Jurnal Keperawatan Jiwa, 6(2), 98–105.

Qiu, L. S., et al. (2025). Cultural influences on emotion regulation and affective outcomes among trauma survivors. Journal of Affective Disorders, 380, 637–646. https://doi.org/10.1016/j.jad.2025.03.160

Rahmawati, L., Handayani, D., & Prasetyo, A. (2020). Psychoeducation combined with group discussion to reduce expressed emotion. Jurnal Keperawatan Kesehatan Jiwa, 8(1), 25–33.

Renwick, L., Susanti, H., Brooks, H., Keliat, B. A., Bradshaw, T., Bee, P., & Lovell, K. (2023). Culturally adapted family intervention for schizophrenia in Indonesia. Pilot and Feasibility Studies, 9(1). https://doi.org/10.1186/s40814-023-01280-8

Robinson, H. (2024). Cross-cultural differences in emotional regulation strategies in the United States. International Journal of Psychology, 9(3), 1–14.

Ruan, T., Huang, Y., & Zhang, L. (2025). Cross-cultural adaptation of the family coping questionnaire and psychometric evaluation among caregivers of schizophrenic patients in China. *BMC Nursing, 24*(1), Article 853. https://doi.org/10.1186/s12912-025-03534-7

Sasono, A., & Rohmi, F. (2021). Pengaruh psikoedukasi keluarga terhadap kemampuan keluarga dalam merawat penderita skizofrenia. The Indonesian Journal of Health Sciences, 12(1), 45–52.

Sawafi, A., Lovell, K., Renwick, L., & Husain, N. (2020). Psychosocial family interventions for relatives of people living with psychotic disorders in the Arab world: Systematic review. *BMC Psychiatry, 20*(1), Article 413. https://doi.org/10.1186/s12888-020-02816-5

Sharif, L., et al. (2025). Effectiveness of psychoeducation via telenursing. Healthcare, 13(15), Article 1922. https://doi.org/10.3390/healthcare13151922

Subiah, P., et al. (2025). Impact of psychiatric nurse-led programs. Journal of Pharmacy and Bioallied Sciences, 17(Suppl 1), S700–S702.

Suryani, E., Yusuf, A., & Tristiana, R. D. (2022). Family psychoeducation with home visits. Jurnal Keperawatan Jiwa, 10(1), 41–50.

Tessier, A., Roger, K., Gregoire, A., Desnavailles, P., & Misdrahi, D. (2023). Family psychoeducation to improve outcome. Frontiers in Psychiatry, 14, Article 1171661. https://doi.org/10.3389/fpsyt.2023.1171661

Wahab, A., & Junaedi, M. (2023). Integration of Bugis-Makassar cultural values in family-based mental health interventions. International Journal of Social Psychiatry, 69(4), 892–903.

Yasuma, N., et al. (2024). Effects of brief family psychoeducation. BMC Psychiatry, 24(1). https://doi.org/10.1186/s12888-024-05884-z

Zhang, Z. J., et al. (2024). Mindfulness-based family psychoeducation intervention. Frontiers in Psychiatry, 15, Article 1460151. https://doi.org/10.3389/fpsyt.2024.1460151