

Cognitive behavioral Therapy Based on Local Wisdom Culture to Increase Happiness and Slow Degradation of Cognitive Function in the Elderly Post-Stroke

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ABSTRACT

Background: Stroke in the elderly often leads to physical, psychological, and quality of life deterioration, which can hinder post stroke rehabilitation. Although Cognitive Behavioural Therapy (CBT) has been widely applied, the use of Cognitive Behavioural Therapy (CBT) integrated with local wisdom remains limited, particularly among elderly stroke survivors.

Purpose: This study aimed to explore the lived experiences of elderly individuals after stroke who received local wisdom based Cognitive Behavioural Therapy (CBT) using *sulthon* prayer as a therapeutic medium.

Methods: This study employed a qualitative phenomenological design. A total of 25 elderly post stroke participants were selected through purposive sampling and participated in in depth interviews. Data were analysed using thematic analysis following Braun and Clarke's approach.

Results: The findings revealed three main themes, namely biological experiences, psychosocial experiences, and spiritual experiences, reflecting participants' perceptions of physical comfort, emotional regulation, and enhanced spiritual meaning during the recovery process. In conclusion, local wisdom based Cognitive Behavioural Therapy (CBT) using *sulthon* prayer provides meaningful biological, psychosocial, and spiritual support for elderly individuals after stroke.

Conclusions: These findings imply that integrating culturally and spiritually sensitive Cognitive Behavioural Therapy (CBT) interventions may enhance holistic nursing care and rehabilitation outcomes for elderly stroke survivors.

Keywords: cognitive behavioral therapy, local wisdom, post-stroke elderly, qualitative studies

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BACKGROUND

Stroke is one of the main problems that often occur in the elderly who need serious attention in dealing with it, because the impact of a stroke attacks the sufferer will experience physical and psychological problems that cause helplessness in the elderly and have an impact on the loss of happiness and can affect the quality of life in the elderly (Abdu et al., 2022). This if left for a long time will cause depression which is an inhibiting factor in the rehabilitation process of the elderly after stroke (Raina Pramono et al., 2024). Every year around 15 million people around the world suffer strokes, 5 million die and another 5 suffer permanent disabilities that result in a burden on families and communities (Rafiudin et al., 2024). Meanwhile, according to the Ministry of Health, in 2023, the prevalence of stroke in Indonesia will reach 8.3 per 1,000 population (Darmawati Annisa et al., 2024). Stroke is also the leading cause of disability at 11.2% and contributes to 18.5% of total deaths (Kemenkes, 2024). (Feigin et al., 2025) states that Stroke continues to be the second leading cause of death and the third leading cause of combined death and disability. In patients aged 60 years and above, stroke reduces the patient's mobility, causing the patient to be independent in performing all his activities (Mapu & Agusrianto, 2023).

Stroke in older adults is frequently accompanied by comorbidities such as fatigue, cognitive impairment, and depression, which significantly reduce quality of life and functional independence, thereby delaying post-stroke rehabilitation when not appropriately managed (Matérne et al., 2025). Evidence indicates that post-stroke depression affects nearly one-third of stroke survivors within the first 24 months following the event (Breckenridge-Trotter et al., 2025). Furthermore, post-stroke depression is associated with poorer outcomes in activities of daily living, higher levels of dependency, and impaired cognitive function, underscoring the critical need for comprehensive rehabilitation interventions in older adults after stroke (Butsing et al., 2024).

Many studies on post-stroke attacks use Cognitive Behavioral Therapy (CBT) as therapy, but in this study, researchers want to develop therapies based on a culture of local wisdom because it will be more easily accepted by the community. According to (Ardi et al., 2023) explained that Cognitive Behavioral Therapy (CBT) with local wisdom is effective in reducing symptoms of anxiety and gastric disorders. According (Sauran & Salewa, 2022) to Cognitive Behavioral Therapy (CBT), it is defined as a theoretical model that connects the mind with emotions and behavior. Research on Cognitive Behavioral Therapy (CBT) based on the culture of local wisdom has been found very little in the pages of scientific publications in the last five years. Cognitive Behavioral Therapy (CBT) in this study is in the form of a culture of local wisdom whose activities use *sulthon* prayer as a therapeutic medium with the aim that the elderly can express their feelings of happiness. Cognitive Behavioral Therapy (CBT) based on local cultural wisdom is carried out in 4-6 sessions and each session takes approximately 20 minutes.

The novelty of this research is that Cognitive Behavioral Therapy (CBT) which is based on the culture of local wisdom in the form of dhikr using *sulthon* prayers in addition to being able to provide peace and happiness for anyone who listens or reads it can also slow down the degradation of cognitive function.

OBJECTIVE

This study aimed to explore the lived experiences of elderly individuals after stroke who received local wisdom based Cognitive Behavioural Therapy (CBT) using *sulthon* prayer as a therapeutic medium.

METHODS

This study employed a qualitative research design using Braun and Clarke's Thematic Analysis to explore the experiences of elderly individuals after stroke who participated in local wisdom-based Cognitive Behavioural Therapy (CBT). This approach enabled the identification and interpretation of patterns of meaning derived from participants' narratives in a systematic and reflective manner. Data were collected through in-depth interviews, observations, and field documentation. The interaction process was conducted in an empathetic and structured manner to facilitate participants in expressing their experiences openly. The study was conducted at the SAHARA Clinic, Pasuruan City, involving 25 elderly post-stroke participants who met the inclusion criteria and voluntarily agreed to participate. The intervention consisted of local wisdom-based Cognitive Behavioural Therapy (CBT), integrating cognitive restructuring and emotional regulation techniques with the practice of *Sulthon* prayer. Each therapy session lasted approximately 20 minutes and was delivered in 4–6 structured sessions. The sessions were guided by the researchers and supported by trained facilitators. The facilitators were responsible for guiding the therapy process, ensuring participant safety, and maintaining adherence to the intervention protocol. Ethical approval for this study was obtained from the Health Research Ethics Committee, Faculty of Nursing, University of Jember, with ethical approval number 298/UN25.1.14/KEPK/2024. Prior to data collection, all participants received a comprehensive explanation regarding the study objectives, procedures, potential benefits, and risks. Written informed consent was obtained from all participants, and they were informed of their right to withdraw from the study at any stage without consequences.

RESULTS

The results of this study were derived from in-depth interviews with 25 elderly post-stroke participants who received *dhikr* and *sholawat sulthon*-based local wisdom therapy. Data analysis revealed three main themes describing the experiences of elderly individuals after stroke, namely biological conditions, psychosocial conditions, and spiritual conditions. Each theme is presented with supporting participant quotations and interpretive explanations.

Table 1. Psychosocial themes, subthemes, participant quotations, and interpretations among elderly post-stroke participants

Theme	Subtheme	Participant Quotes	Interpretation
Biological	Physical activity	"One month after I recovered from the stroke, I can eat and bathe myself, no longer a hassle for my child."	Participants experienced improvement in basic functional abilities and independence.
	Vital signs awareness	"I often check my blood because I'm afraid of being high again, I used to have a stroke."	Increased health awareness and self-monitoring behaviors emerged after the stroke.
	Cognitive function	"Now I'm starting to remember the past, although sometimes I forget a little bit."	Cognitive functions gradually improved during the rehabilitation process.

Based on the psychosocial theme, several subthemes emerged from participants' narratives, including mood improvement, reduced anxiety, assertiveness, and increased social interaction. Participants described experiencing better emotional regulation, improved sleep quality, and a gradual reduction in fear and anxiety related to their condition. In addition, participants demonstrated increased reflective capacity and assertiveness in responding to life experiences after stroke. Enhanced openness in communication with family members also indicated strengthened social interaction and supportive relationships.

Table 2. Biological themes, subthemes, participant quotations, and interpretations among elderly post-stroke participants

Theme	Subtheme	Participant Quotes	Interpretation
Psychosocial	Mood improvement	"Now I can sleep well, I used to dream of dying."	Emotional stability and sleep quality improved after the intervention.
	Reduced anxiety	"Now I can accept, I used to be afraid of dying."	Participants showed a shift from anxiety toward acceptance of their condition.
	Assertiveness	"I just took a lesson, think about it."	Participants developed reflective and adaptive coping strategies.
	Increased social interaction	"Now if I have a thought, I tell my kids."	Family relationships become more open and supportive.

The biological theme reflects participants' experiences related to physical functioning, health awareness, and cognitive changes after stroke. Subthemes included physical activity, vital signs awareness, and cognitive function. Participants reported gradual improvements in basic daily activities and increased independence. Increased awareness of bodily conditions and routine health monitoring behaviors also emerged from the narratives. Furthermore, participants described subtle improvements in cognitive functioning, particularly in memory recall, although occasional forgetfulness remained present during the rehabilitation process.

Table 3. Spiritual themes, subthemes, participant quotations, and interpretations among elderly post-stroke participants

Theme	Subtheme	Participant Quotes	Interpretation
Spiritual	Illness acceptance	"Now I'm more focused on taking care of my health."	Illness was perceived as a manageable life process.
	Diligent worship	"Now the fifth prayer is continued, it would be a pity if it was abandoned."	Spiritual practices contributed to inner discipline and tranquility.
	Inner peace	"A lot of <i>dhikrs</i> at night so that the heart is calm."	Dhikr practices helped regulate emotions and reduce distress.

Theme	Subtheme	Participant Quotes	Interpretation
	Surrender	"I've accepted everything, just take his wisdom."	Self-acceptance reduced psychological burden.

The spiritual theme highlights participants' meaning-making processes and spiritual responses to illness following stroke. Several subthemes were identified, including illness acceptance, diligent worship, inner peace, and surrender. Participants perceived their illness as a manageable life process and reported increased engagement in spiritual practices. These practices were associated with feelings of calmness, emotional regulation, and inner tranquillity. Acceptance and surrender were described as contributing to reduced psychological burden and enhanced self-acceptance.

Characteristics of respondents

A total of 25 elderly post-stroke participants were involved in this study. A quantitative instrument, namely the Oxford Happiness Questionnaire, was used solely to support participant characterization and to provide an initial overview of participants' emotional conditions prior to the intervention. The quantitative data were not subjected to statistical analysis and were not intended to measure the effectiveness of the intervention. Consistent with the qualitative research design, the findings are presented based on participants' narratives and lived experiences. Most participants described experiencing low perceived happiness prior to therapy. After participating in local wisdom-based Cognitive Behavioural Therapy (CBT), participants reported positive emotional experiences, including feelings of calmness, emotional comfort, and inner peace. Participants educational backgrounds varied, ranging from no formal education to completion of elementary and secondary education. These differences did not hinder participants' engagement in the therapeutic process, as all participants were able to articulate their experiences clearly during in-depth interviews.

DISCUSSION

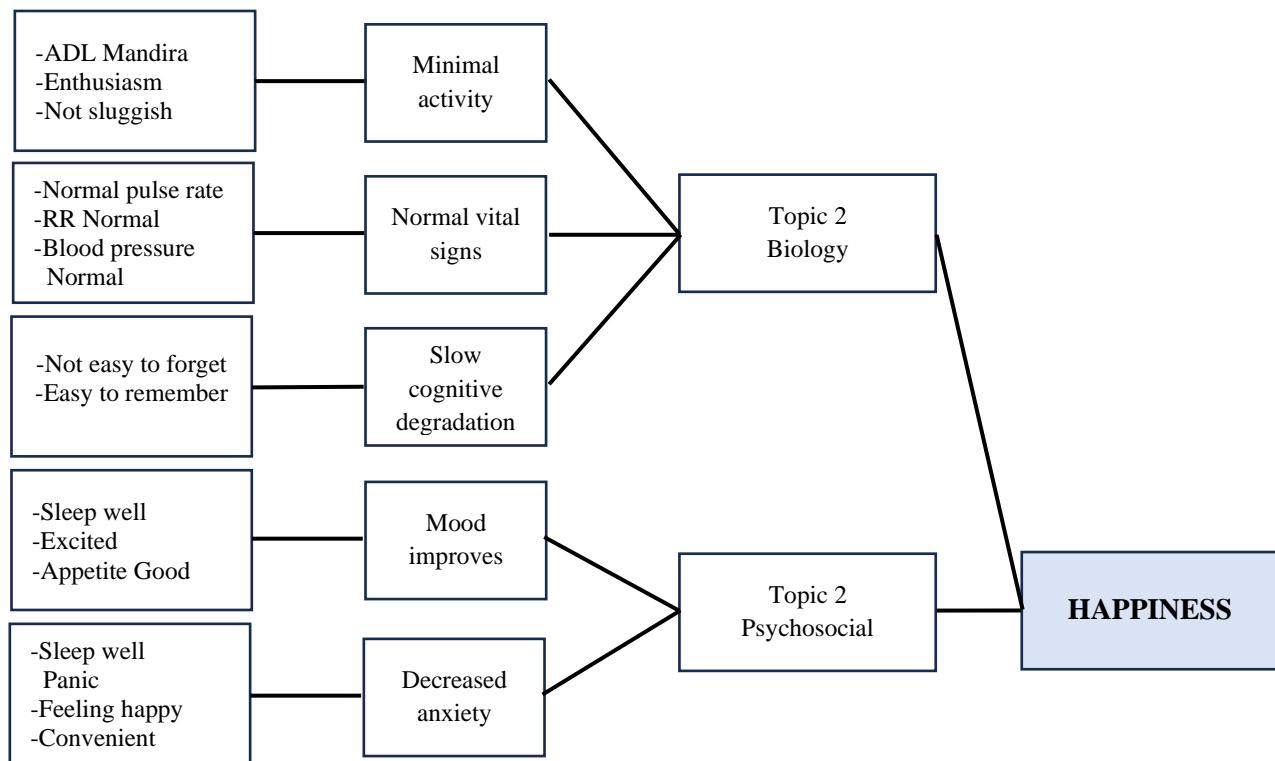
The findings of this study suggest that local wisdom-based Cognitive Behavioural Therapy (CBT) facilitates meaningful adaptive processes among elderly post-stroke participants. Rather than being interpreted as a simple change in emotional scores, the participants' experiences reflect shifts in how they understand their illness, regulate emotions, and re-engage with daily life following stroke.

From a biological perspective, participants narratives indicate gradual improvements in physical functioning and self-management. Increased engagement in daily activities reflects an adaptive physiological response to post-stroke limitations. According to Roy's Adaptation Theory, stroke functions as a focal stimulus that challenges individuals' physiological and self-concept modes, requiring continuous adaptation (Desi et al., 2025). The ability of participants to remain physically active, despite persistent conditions such as hypertension, suggests the development of more effective adaptive mechanisms rather than complete physical recovery. Awareness of bodily changes and health conditions may represent an important step toward long-term self-care and illness management.

Psychosocial adaptation was evident through participants' descriptions of improved mood, reduced anxiety, reflective acceptance, and enhanced social interaction (Aristawati et al., 2022). These changes illustrate how participants cognitively and emotionally reframed their post-stroke experiences. Consistent with Lazarus and Folkman's coping theory, participants predominantly employed emotion-focused coping strategies, including acceptance, emotional expression, and sharing experiences with family members (Octaviani et al., 2018). Such strategies appear to reduce psychological distress and support emotional regulation, enabling participants to regain a sense of purpose and social connectedness after stroke.

Spiritual adaptation emerged as a central dimension in participants' meaning-making processes. Participants described illness normalization, increased engagement in religious practices, inner calmness, and acceptance of their condition as part of divine will. Within the framework of spiritually integrated Cognitive Behavioural Therapy (CBT), practices such as prayer and dhikr function as forms of cognitive restructuring, allowing participants to replace maladaptive beliefs with spiritually meaningful interpretations (Humaira, 2025). This process contributes to emotional stability, reduced anxiety, and enhanced motivation for recovery, highlighting the role of spirituality as a culturally relevant therapeutic resource for elderly post-stroke individuals.

Overall, these findings indicate that the integration of local wisdom into Cognitive Behavioural Therapy (CBT) supports holistic adaptation across biological, psychosocial, and spiritual domains. The therapeutic process appears to foster acceptance, emotional balance, and constructive meaning-making rather than solely improving measurable happiness indicators. This underscores the importance of culturally and spiritually sensitive interventions in addressing the complex experiences of elderly individuals recovering from stroke.



DISCUSSION

To further contextualize these findings, the following discussion situates the results of this study within the broader international literature on Cognitive Behavioral Therapy (CBT) in post-stroke rehabilitation. Building on the internal adaptive processes identified in the preceding discussion, the present findings can be situated within the broader body of international literature on Cognitive Behavioural Therapy (CBT) in post-stroke rehabilitation. Previous studies conducted in diverse settings have consistently demonstrated that Cognitive Behavioural Therapy (CBT) is effective in reducing depressive symptoms, anxiety, and emotional distress among post-stroke survivors, while supporting psychological adjustment and engagement in rehabilitation processes. The current study aligns with this body of evidence by indicating that CBT-oriented interventions support psychological well-being and adaptive functioning in elderly individuals following stroke.

However, much of the existing international literature has focused on standardized Cognitive Behavioural Therapy (CBT) protocols developed within Western cultural frameworks, often emphasizing symptom reduction and cognitive restructuring at an individual level. In contrast, the present study extends prior research by demonstrating how Cognitive Behavioural Therapy (CBT) principles can be meaningfully adapted through the integration of local wisdom, thereby enhancing contextual relevance without departing from core cognitive-behavioural mechanisms. This finding supports growing international calls for culturally responsive mental health interventions, particularly for older adults and populations in non-Western contexts.

In post-stroke rehabilitation research, psychological recovery is increasingly recognized as inseparable from physical and social adaptation. International studies have shown that emotional regulation, acceptance of functional limitations, and perceived meaning in illness play critical roles in long-term recovery and quality of life after stroke. The present findings are consistent with these observations, suggesting that CBT-based approaches can facilitate adaptive cognitive and emotional processes that support engagement with daily life. Rather than indicating direct causal effects, the findings suggest that participation in a culturally adapted Cognitive Behavioural Therapy (CBT) framework may contribute to conditions that support psychological stability and cognitive adjustment during post-stroke recovery.

The incorporation of local wisdom represents a distinctive contribution of this study to the existing literature on culturally adapted Cognitive Behavioural Therapy (CBT). Local values related to spirituality, acceptance, and collective meaning-making appear to provide a culturally congruent cognitive framework through which participants interpret their illness experiences. Within a CBT-informed structure, these culturally grounded beliefs function as alternative cognitive appraisals that may support emotional regulation and reduce psychological distress. This mechanism resonates with international research on spiritually integrated and culturally adapted Cognitive Behavioural Therapy (CBT), which highlights the importance of aligning therapeutic interventions with patients' belief systems to enhance engagement and perceived relevance.

Importantly, the contribution of local wisdom-based CBT in this study lies not in replacing established Cognitive Behavioural Therapy (CBT) principles, but in contextualizing them in ways that are meaningful for elderly post-stroke individuals. International evidence suggests that older adults may benefit more from interventions that emphasize acceptance, meaning, and continuity of identity rather than symptom-focused change alone. The present findings extend this perspective by illustrating how culturally embedded values can support

adaptive cognitive processing and psychological well-being within a Cognitive Behavioural Therapy (CBT) framework.

Taken together, this study confirms the relevance of Cognitive Behavioural Therapy (CBT) in post-stroke psychological rehabilitation while extending existing research through its culturally grounded approach. The findings underscore the importance of avoiding overgeneralization, as the results reflect contextual and experiential insights rather than universal causal claims. Nevertheless, the study contributes to the growing international discourse on culturally sensitive mental health interventions by demonstrating how local wisdom-based Cognitive Behavioural Therapy (CBT) may support psychological well-being and cognitive adaptation among elderly post-stroke populations.

CONCLUSION

This study indicates that local wisdom-based Cognitive Behavioral Therapy (CBT) describes meaningful experiences among elderly individuals after stroke. The findings suggest that participants experienced improved self-acceptance, greater inner peace, increased motivation to engage in daily activities and care, and enhanced social support from family and their surrounding environment. Through cognitive reflection and the strengthening of spiritual meaning via dhikr and prayer, participants reported a more adaptive way of understanding and responding to their illness. These findings highlight the potential of spiritually integrated Cognitive Behavioural Therapy (CBT) to support biological, psychosocial, and spiritual adaptation in elderly post-stroke individuals.

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CONFLICTS INTEREST

Related to conflict of interest that arise when conducting research is to increase happiness post stroke patient.

REFERENCES

Abdu, S., Satti, Y. C., Payung, F., & Soputan, H. A. (2022). Analisis Kualitas Hidup Pasien Pasca Stroke Berdasarkan Karakteristik. *Jurnal Keperawatan Florence Nightingale*, 5(2), 50–59. <https://doi.org/10.52774/jkfn.v5i2.107>.

Ardi, Z., Eseadi, C., Yuniarti, E., Yendi, F. M., & Murni, A. W. (2023). Efficacy of Cognitive Behavioral Therapy With Local Wisdom and Web-Based Counseling on Generalized Anxiety Disorders and Functional Gastrointestinal Disorders in Adolescent College Girls: Protocol for a Randomized Controlled Trial. *JMIR Research Protocols*, 12. <https://doi.org/10.2196/50316>.

Aristawati, E., Huda, N., & Cahyono, B. D. (2022). Hipnosis Lima Jari untuk Menurunkan Derajat Kecemasan Bagi Petani Tambak Bandeng Kota Pasuruan di Masa Pandemi Covid-19. *JURNAL KREATIVITAS PENGABDIAN KEPADA MASYARAKAT (PKM)*, 5(6), 1662–1667. <https://doi.org/10.33024/jkpm.v5i6.5350>.

Breckenridge-Trotter, T., Denny, D. L., Evanson, T., Ferraro, F. R., O’Malley, P., & Bottomley, M. (2025). Stroke survivors’ and informal caregivers’ perceptions of depressive symptoms after stroke: an explanatory sequential mixed-methods study. *Current Psychology*, 44(10), 9312–9330. <https://doi.org/10.1007/s12144-025-07580-x>.

Butsing, N., Zauszniewski, J. A., Ruksakulpiwat, S., Quinn Griffin, M. T., & Niyomyart, A. (2024). Association between post-stroke depression and functional outcomes: A systematic review. *PLoS ONE*, 19(8). <https://doi.org/10.1371/journal.pone.0309158>.

Darmawati Annisa, Prasetyo, S., & Najah, M. (2024). Stroke pada Lansia di Indonesia: Gambaran Faktor Risiko Berdasarkan Gender (SKI 2023). *Jurnal Biostatistik, Kependudukan, Dan Informatika Kesehatan*, 5(1). <https://doi.org/10.7454/bikfokes.v5i1.1092>.

Desi, D., Eva Rayanti, R., & Tumbal, V. (2025). Proses Koping Pasien Stroke terhadap Penyakit Menurut Model Adaptasi Callista Roy. *JKJ: Persatuan Perawat Nasional Indonesia*, 13.

Feigin, V. L., Brainin, M., Norrving, B., Martins, S. O., Pandian, J., Lindsay, P., F Grupper, M., & Rautalin, I. (2025). World Stroke Organization: Global Stroke Fact Sheet 2025. In *International Journal of Stroke* (Vol. 20, Issue 2, pp. 132–144). SAGE Publications Inc. <https://doi.org/10.1177/17474930241308142>.

Humaira, S. (2025). Konsep Ketenangan Jiwa Dalam QS Al-Fajr: 27-30 Sebagai Terapi Bagi Isu Kesehatan Mental Di Era Modern (Kecemasan dan Depresi). In *International Seminar on Social* (Vol. 11, Issue 1). <https://proceedings.radenfatah.ac.id/index.php/ISSHMIC>.

Kemenkes, R. (2024). *Cegah Stroke dengan Aktivitas Fisik*. [Https://Kemkes.Go.Id/Id/Rilis-Kesehatan/Cegah-Stroke-Dengan-Aktivitas-Fisik](https://Kemkes.Go.Id/Id/Rilis-Kesehatan/Cegah-Stroke-Dengan-Aktivitas-Fisik).

Mapu, N. N. S., & Agusrianto, A. (2023). Asuhan Keperawatan Gerontik dengan Kasus Stroke di Panti Sosial Tresna Werdha Madago Tentena. *Madago Nursing Journal*, 4(2), 106–116. <https://doi.org/10.33860/mnj.v4i2.3089>.

Matérne, M., Lindvall, M. A., Appelros, P., Eriksson, O., & Jarl, G. (2025). Post-stroke fatigue: The role of comorbidities and its impact on quality of life. *BMC Neurology*, 25(1). <https://doi.org/10.1186/s12883-025-04143-2>.

Octaviani, M., Herawati, T., & Tyas, F. P. S. (2018). Stres, Strategi Koping, dan Kesejahteraan Subjektif pada Keluarga Orang Tua Tunggal. *Jurnal Ilmu Keluarga Dan Konsumen*, 11(3), 169–180. <https://doi.org/10.24156/jikk.2018.11.3.169>.

Rafiudin, M. A., Utami, I. T., Fitri, N. L., Dharma, A. K., & Metro, W. (2024). Implementation of Active Cylindrical Grip Range of Motion on Muscle Strength in Non-Hemorrhagic Stroke Patients. *Jurnal Cendikia Muda*, 4(3).

Raina Pramono, M., Pakaya, N., & Sulistiani, I. (2024). Hubungan Dukungan Keluarga dengan Depresi pada Pasien Pasca Stroke. *Journal of Health Guidance and Counseling*, 1(3). <http://jurnal.globalhealthsciencegroup.com/index.php/JHGC>.

Sauran, A. R., & Salewa, W. (2022). Teknik Cognitive Behavior Therapy (CBT) dalam Gangguan Kepribadian Bipolar. *POIMEN: Jurnal Pastoral Konseling*, 3(1). <https://scholar.google.co.id>.