Jurnal Ilmu Keluarga dan Konsumen
p-ISSN : 1907 – 6037 e-ISSN : 2502 – 3594

Vol. 19, No. 2 (2026): 68–79
https://doi.org/10.24156/jikk.2026.19.2.68

Stronger Together: Actor–Partner Interdependence Model of Family Resilience and Quality of Life in Parents and Siblings of Children With Epilepsy (SCWE)

Luisa Erica[1*)], Sri Redatin Retno Pudjiati[2]

[1]Faculty of Art & Design, Universitas Multimedia Nusantara,
Jl. Scientia Boulevard Gading, Tangerang, Banten 15810, Indonesia

[2]Faculty of Psychology, Universitas Indonesia,
Jl. Lingkar, Pondok Cina, Depok, West Java 10430, Indonesia

[*)]*E-mail: luisa.erica@umn.ac.id*

Abstract

Raising a child with epilepsy presents emotional, financial, structural, and time management challenges within the family that affect the quality of life (QoL) of both parents and siblings of children with epilepsy (SCWE). To examine the interconnectedness between them, this study aimed to investigate the relationship between family resilience and the QoL of parents and SCWE using the Actor–Partner Interdependence Model (APIM) and structural equation modeling (SEM). This model highlights family systems theory, in which family members share interdependent relationships and influence one another. The model focuses on the dyadic relationship between parents and SCWE rather than on a single individual. The study involved 197 parent–SCWE dyads recruited through purposive sampling from an epilepsy community in Indonesia. The mean age was 42.84 years for parents and 14.54 years for SCWE. The findings indicated a significant interdependent relationship between family resilience and the QoL of both parents and SCWE ($p < 0.05$). These results suggest that parents' family resilience influences the QoL of SCWE and vice versa. Therefore, interventions aimed at strengthening family resilience should be considered to enhance the QoL of both parents and SCWE at the family level.

Keywords: actor–partner interdependence model (APIM), family resilience, interdependence, quality of life, siblings of children with epilepsy

Bersama Lebih Kuat: *Actor–Partner Interdependence Model* pada Resiliensi Keluarga dan Kualitas Hidup Orang Tua dan Saudara Anak dengan Epilepsi

Abstrak

Tumbuh bersama anak dengan epilepsi memberikan tantangan emosional, finansial, struktural, dan manajemen waktu dalam keluarga yang berdampak pada kualitas hidup (*quality of life* [QoL]) orang tua dan saudara anak dengan epilepsi (SAE). Untuk membuktikan keterkaitan antara orang tua dan SAE, penelitian ini melihat hubungan interdependensi antara resiliensi keluarga dan QoL orang tua dan SAE menggunakan *Actor–Partner Interdependence Model* (APIM) dengan *structural equation modeling* (SEM). Model ini berfokus pada teori sistem keluarga (*family systems theory*) yang menyatakan bahwa setiap anggota keluarga memiliki hubungan interdependen dan saling memengaruhi. Dengan model ini, penelitian melihat hubungan diadik yang terbentuk antara orang tua dan SAE dan tidak hanya berfokus pada satu individu. Penelitian dilakukan terhadap 197 pasangan diadik menggunakan metode pengambilan sampel purposif dari komunitas epilepsi di Indonesia. Partisipan diadik memiliki rata-rata usia 42,84 tahun untuk orang tua dan 14,54 tahun untuk SAE. Hasil penelitian menunjukkan adanya hubungan interdependen yang signifikan antara resiliensi keluarga dan QoL orang tua dan SAE ($p < 0,05$). Temuan ini menunjukkan bahwa resiliensi keluarga orang tua memengaruhi QoL SAE dan sebaliknya. Oleh karena itu, intervensi terkait resiliensi keluarga untuk meningkatkan QoL orang tua dan SAE dapat dilakukan pada tingkat keluarga secara menyeluruh.

Kata kunci: *actor–partner interdependence model* (APIM), interdependensi, kualitas hidup, resiliensi keluarga, saudara anak dengan epilepsi

Article history:
Received March 05, 2026
Received in revised August 03, 2026
Accepted August 05, 2026
Available online September 30, 2026

Copyright © 2026 Jurnal Ilmu Keluarga dan Konsumen

This is an open-access article distributed under the Creative Commons Attribution-ShareAlike 4.0 International License

INTRODUCTION

One of the challenges that can influence family dynamics arises when one or more children have chronic illnesses. Rafli et al. (2026) stated that the prevalence of epilepsy diagnosis is relatively high, at 40–50 per 100,000 individuals in Indonesia. Epilepsy is generally characterized by varying seizure frequencies, unpredictability, and the potential for change over time (Syakina & Hawari, 2020). Epilepsy is classified into various categories of illness, including chronic diseases (Dinleyici et al., 2020), neurodevelopmental disorders (NDDs) (Lamsal & Ungar, 2021), and chronic neurological disorders (CNDs) (Rana & Mishra, 2015). Children with epilepsy are also vulnerable to cognitive decline and are more likely to experience developmental delays, especially those who require high-dose medications (Mangunatmadja et al., 2019; Syakina & Hawari, 2020). These risks are influenced by factors such as the occurrence of the first seizure, use of antiepileptic drugs (AEDs), physical activity, and seizure frequency (Syakina & Hawari, 2020).

Epilepsy exhibits specific characteristics that distinguish it from other NDDs, particularly seizure unpredictability, which is characterized by unexpected seizure frequency and intensity (Rafiee et al., 2021). In contrast, Khullar et al. (2021) found that symptoms of other NDDs can often be predicted based on prior experiences and patients' physiological conditions, such as heart rate, perspiration, and body temperature. However, Rafiee et al. (2021) found that patients with epilepsy can still experience sudden seizures even after a prolonged seizure-free period and under normal physiological conditions. This unpredictability requires long-term treatment to prevent seizures. As a result, family members must remain on high alert and make constant adjustments to accommodate changes in seizure frequency and intensity.

Lamsal and Ungar (2021) stated that family members of children with epilepsy generally experience various adversities, such as financial difficulties, job loss due to caregiving responsibilities, and difficulties with time management. The time parents spend as caregivers often results in siblings receiving less attention. Qualitative data from Kobayashi et al. (2015) revealed that during a child's hospitalization, siblings often feel lonely, are confused about the child's condition, and long for the family to be together again. These emotions ultimately contribute to the siblings' quality of life (QoL). Various findings highlight that the diagnosis of a chronic illness not only affects the individual with the illness but also significantly affects other family members.

The various adversities at the family level often lead siblings of children with epilepsy (SCWE) to feel neglected and forgotten, ultimately affecting their quality of life (QoL) (Lamsal & Ungar, 2021). Lamsal and Ungar (2021) further elaborated that a child's epilepsy diagnosis not only affects the parents or primary caregivers but also affects their siblings. Mendes et al. (2017) also found that all family members of children with epilepsy exist within the same family environment, which means that they share similar experiences, challenges, and concerns. This shared environment results in mutual behaviors, emotions, thoughts, and feelings among family members. To further highlight the interdependence among family members, Dinleyici and Dağlı (2018) stated that the QoL of family members is a critical determinant of the success of the treatment plan undertaken by the child.

However, Lamsal and Ungar (2021) found that research focusing on the quality of life (QoL) of SCWE remains limited and yields inconsistent results, preventing a consensus from being reached. In their systematic review, they concluded that significant research gaps remain because of the diverse findings and relatively small sample sizes ($N < 150$). Rana and Mishra (2015) discovered that the QoL of SCWE is significantly lower than that of siblings of typically developing children. Another important point is that these studies have small numbers of participants, which further highlights the need for replication studies to achieve more robust results.

Puka et al. (2018) explained that the quality of life (QoL) of families of children with epilepsy is influenced by family-related factors such as communication and mutual support among family members, positive interactions, problem-solving skills within the family, and the ability to express emotions and feelings. These factors align with the characteristics of family resilience as defined by McCubbin and McCubbin (1988), which include commitment to one another, mutual support and appreciation, openness, and the perception that the family has control over the situations or challenges it faces. This finding is also consistent with Li et al. (2019), who stated that strong family resilience can enhance QoL by fostering positive changes in family members.

Various studies have found that family resilience can predict the quality of life (QoL) of families in

the midst of adversity. Li et al. (2019) also found that family resilience has a positive impact on families with a member diagnosed with cancer by fostering positive changes and improving QoL. Similarly, Keniş-Coşkun et al. (2020) discovered that family resilience can predict the QoL of caregivers of children with disabilities and neurodevelopmental disorders (NDDs). Based on these studies, it can be concluded that family resilience is a significant predictor of QoL for families facing various challenges related to chronic illness diagnoses, NDDs, and disabilities.

The QoL variable is also closely related to the developmental stage of adolescence. Heng et al. (2020) stated that the QoL of adolescents is generally more vulnerable because of internal conflicts during the identity-seeking stage. In the dyadic relationship between parents and children, Heng et al. (2020) elaborated that adolescents' QoL depends on parenting styles and the relationships they build with family members. Hamidou et al. (2018) discovered that QoL is influenced by another individual in a dyadic relationship within the family. Rachman et al. (2020) also found that adolescents' resilience is positively related to the quality of their interactions with their parents. This indicates an interconnection between the variables of children and parents. Therefore, QoL and adolescents' resilience are highly dependent on the quality of the dyadic relationship established between children and parents.

The connection between children and parents aligns with the family systems theory described by Watson (2012). According to this theory, every family member is part of an interconnected and interdependent system that cannot be separated. Therefore, research on families no longer views individual family members as isolated entities but rather considers the interdependence established among them. Davies and Sturge-Apple (2014) explained that within the family system, each family member is seen as an interdependent individual who influences and is influenced by others. Based on this theory, the family resilience possessed by one member has the potential to affect not only their own QoL but also that of other family members. A study by Yan et al. (2021) focusing on this theory also found that the family resilience variable is interdependent. In addition, various other studies have found that family resilience has interdependent effects on parents, marital partners, children, and other family members (Ao et al., 2025; Neo et al., 2016; Pagorek-Eshel & Finklestein, 2019; Qin et al., 2024).

Based on previous research, no prior study has applied APIM to parent–SCWE dyads in epilepsy. However, through these findings, it can be concluded that each family member's psychological state may influence not only their own well-being but also that of others. Therefore, there is a growing need for research that captures these dyadic processes. However, most studies investigating resilience and QoL in families with epilepsy remain limited and focus only on individuals independently. However, there is a possibility of a relational aspect in which family members could potentially affect each other. Therefore, studies on families with children with epilepsy should not only focus on a single individual but rather on the dyadic relationship that is formed between the parents and SCWE.

To address this gap, the present study utilizes the Actor–Partner Interdependence Model (APIM), a dyadic model designed to establish the relationships between variables at both the individual level (actor effects) and the interdependent level (partner effects) within family systems (Cook & Kenny, 2005). By applying APIM to the context of parents and SCWE, this study aims to determine whether family resilience contributes to each member's quality of life and whether there is an interdependent relationship between them. This research extends previous work by moving beyond individual-level predictors to highlight the systemic level of family relationships. Furthermore, the study contributes culturally grounded evidence from Indonesia, which has distinct family dynamics based on its collectivist societal background, as stated by Mayangsari et al. (2026). Figure 1 illustrates the conceptual framework of this research.

Based on the previous explanation, this study aims to test the following hypotheses:

H1: There is a direct relationship (actor effect) between family resilience and the quality of life of parents.

H2: There is a direct relationship (actor effect) between family resilience and the quality of life of SCWE.

H3: There is an interdependent relationship (partner effect) between parents' family resilience and the quality of life of SCWE.

H4: There is an interdependent relationship (partner effect) between SCWE's family resilience and the quality of life of parents.

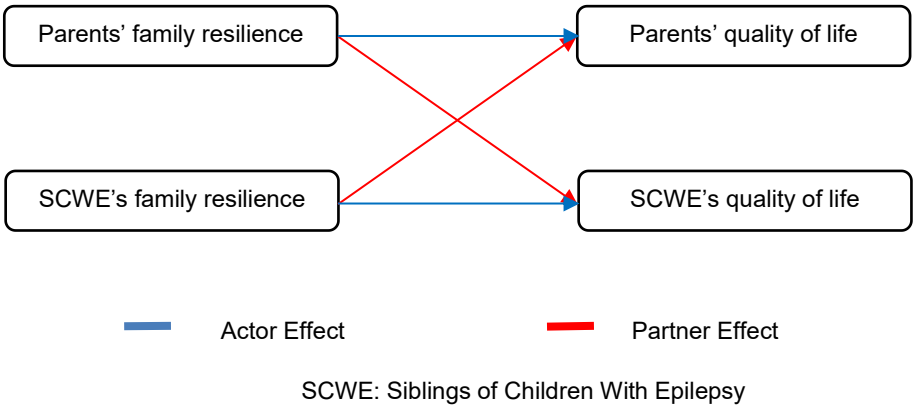


Figure 1 Conceptual framework illustrating the relationships between family resilience and quality of life

METHODS

Research Design, Location, and Time

This study employed a nonexperimental research design with a cross-sectional data collection method. Data were collected in Indonesia over a 3-month period from September to November 2023 using an online form.

Sampling Technique

The sampling technique used in this study was purposive sampling, with data collected from an Indonesian community for children with epilepsy called Ruang Peduli Epilepsi Anak Indonesia (RPEAI). Eligible participants were biologically related parent–sibling dyads in which the sibling of a child with epilepsy was between 12 and 17 years of age. The child with epilepsy was required to have a clinical diagnosis of epilepsy without any reported comorbid conditions to minimize potential confounding effects. Dyads were excluded if the sibling did not meet the specified age range or if either member of the dyad failed the screening or attention-check procedures. A total of 197 dyads passed the screening and attention checks in this study.

Procedures for Data Collection

This study received ethical approval from the Ethics Committee of the Konsorsium Psikologi Ilmiah Nusantara under Ethical Clearance No. 086/2023 Etik/KPIN and was classified as a study involving controllable risk. Accordingly, all research procedures adhered to established ethical standards and did not pose any physical or psychological risks to participants. Data were collected through an online questionnaire. Prior to participation, parents provided informed consent for their own participation and parental consent permitting their children to participate in the study. Participation was entirely voluntary, and both parents and adolescents were informed of their right to withdraw from the study at any time without penalty. Participants who experienced any psychological distress during or after participation were referred to the Lembaga Psikologi Terapan (LPT), Universitas Indonesia, for appropriate psychological support.

Measurement and Assessment of Variables

The sociodemographic data collected in this study included the ages of both the SCWE and the parents, the gender of the SCWE and parents, domicile, parents' educational level, and marital status of the parents. Questions related to epilepsy severity that were asked of the parents included seizure frequency, frequency of doctor visits, and frequency of hospitalizations, based on Deggelman (2011). These variables were collected to describe the clinical characteristics of the sample and to explore their bivariate associations with the study variables.

Quality of life is operationally defined as an individual's subjective evaluation of their overall well-being across life domains such as physical, social, psychological, and environmental domains. Higher scores provided by the participants indicate a better quality of life evaluation. Parents' quality of life was assessed using the World Health Organization Quality of Life–Brief Version (WHOQOL-BREF) by the World Health Organization Quality of Life Group. This instrument was adapted into Indonesian by Purba et al. (2018). This tool consists of the physical (α = 0.82), psychological (α = 0.75), social relationships (α = 0.66), and environmental (α = 0.80) domains, which are rated on a 5-point Likert scale (1 = very dissatisfied, 5 = very satisfied). For the SCWE,

Table 1 Significant correlations between epilepsy severity domains, family resilience, and quality of life (QoL) (n=197 dyads)

Variable	1	2	3	4	5	6	7	8
1. Seizure frequency	—							
2. Doctor visit frequency	0.241***	—						
3. Hospital admission frequency	0.501***	0.223**	—					
4. Hospital admission duration	-0.142*	0.012	-0.059	—				
5. Time since most recent diagnosis	-0.150*	-0.113	-0.081	0.019	—			
6. Parents' family resilience	0.294***	0.140*	0.032	-0.196**	-0.058	—		
7. Parents' quality of life	-0.021	0.076	-0.018	-0.148	-0.027	0.531***	—	
8. SCWE's family resilience	0.249***	0.058	-0.006	-0.217**	-0.095	0.822***	0.572***	—
9. SCWE's quality of life	0.064	0.036	0.030	-0.107	-0.022	0.629***	0.767***	0.653***

Note. *p < 0.05; **p < 0.01; ***p < 0.001; SCWE=siblings of children with epilepsy

QoL was measured using the Youth Quality of Life Instrument–Short Form (YQOL-SF), which has been cross-culturally adapted to Southeast Asian countries (Hoang et al., 2021). This instrument consists of the self-awareness (α = 0.90), social relationships (α = 0.92), and environment (α = 0.89) domains. All items were rated using an 11-point Likert scale (0 = strongly disagree, 10 = strongly agree).

Family resilience is operationally defined as an individual's subjective evaluation of their family's ability to withstand, adapt to, and recover from challenges and adversity across multiple domains, such as building commitment, developing a sense of control, and facing challenges. Higher scores provided by the participants indicate a better family resilience evaluation. Family resilience for both parents and SCWE was measured using the Family Hardiness Index (FHI) by McCubbin et al. (1987). For the SCWE, this tool was adapted for adolescents by Erica and Pudjiati (2024). This instrument includes the dimensions of commitment (α = 0.94 for adults; α = 0.84 for adolescents), control (α = 0.86 for adults; α = 0.84 for adolescents), and challenge (α = 0.89 for both adults and adolescents), which are rated on a 4-point Likert scale (0 = strongly disagree, 3 = strongly agree).

Data Analysis

The data analysis in this study utilized structural equation modeling (SEM), following the guidelines proposed by Cook and Kenny (2005), with dyads categorized as distinguishable based on their roles (parents and children). Model fit was further evaluated using the standardized root mean square residual (SRMR), with values below 0.08 indicating acceptable model fit. Statistical significance was determined using a threshold of $p < 0.05$. The analysis was performed using SmartPLS Version 4.0.9.8.

RESULTS

A total of 197 dyads passed the screening and attention checks in this study, with parents' ages ranging from 33 to 50 years (M = 42.84, SD = 3.26) and the ages of siblings of children with epilepsy (SCWE) ranging from 12 to 17 years (M = 14.54, SD = 1.93). Regarding gender distribution, the majority of parents were mothers (94.9%), while most SCWE were female (65.9%). Based on the scores obtained by the participants, parents exhibited high family resilience (51.3%) and good quality of life (QoL; 62.4%). The majority of SCWE demonstrated low family resilience (51.3%) and good QoL (66.5%).

As an exploratory analysis, Pearson's correlation analyses were conducted to examine the associations between epilepsy severity indicators and the primary study variables. Although epilepsy severity was not included in the hypothesized Actor–Partner Interdependence Model, these analyses were performed to characterize the clinical context of the sample and to identify potential relationships that may inform future research. Based on the correlation results (Table 1), seizure frequency in children with epilepsy showed the strongest positive and significant correlations with family resilience in parents (r = 0.294, p < 0.001) and family resilience in SCWE (r = 0.249, p < 0.001). These correlations indicate that higher seizure frequency in children with epilepsy is associated with higher family resilience in both parents and SCWE. On the other hand, hospitalization duration was significantly negatively correlated with family resilience in parents (r = −0.196, p < 0.01) and SCWE (r = −0.217, p < 0.01). This indicates that longer hospitalization duration is associated with lower family resilience in both parents and SCWE.

APIM testing followed the guidelines for structural equation modeling (SEM). Based on the data normality test, the data followed a normal distribution, allowing SEM testing to be conducted using a parametric approach, specifically covariance-based structural equation modeling (CB-SEM). The proposed model demonstrated acceptable fit based on the recommended model fit criteria, including a Comparative Fit Index (CFI) ≥ 0.90, Tucker–Lewis Index (TLI) ≥ 0.95, and root mean square error of approximation (RMSEA) < 0.08.

The results in Figure 2 show positive and significant partner effects between family resilience and QoL for both parents and SCWE. This indicates an interdependent relationship between parents and SCWE. However, regarding the actor effect, a significant positive relationship was found only between family resilience and QoL in SCWE. In other words, strong family resilience in parents affects the QoL of SCWE but does not affect parents' own QoL.

DISCUSSION

An individual's quality of life (QoL) is determined by various factors, both internal, such as health conditions and self-assessment, and external, such as family relationships, friendships, and environmental conditions (Felce & Perry, 1995). This study focuses on family-related variables, specifically family resilience, as a predictor of good QoL. Family resilience is a variable that is closely related to an individual's QoL. Various studies involving individuals facing family challenges, such as a cancer diagnosis (Li et al., 2019), pandemic conditions (Setiawan et al., 2022), and infertility (Ha & Ban, 2020), have demonstrated a significant relationship between these two variables. Although previous studies did not specifically focus on SCWE, this research successfully demonstrates that good family resilience significantly predicts higher levels of QoL.

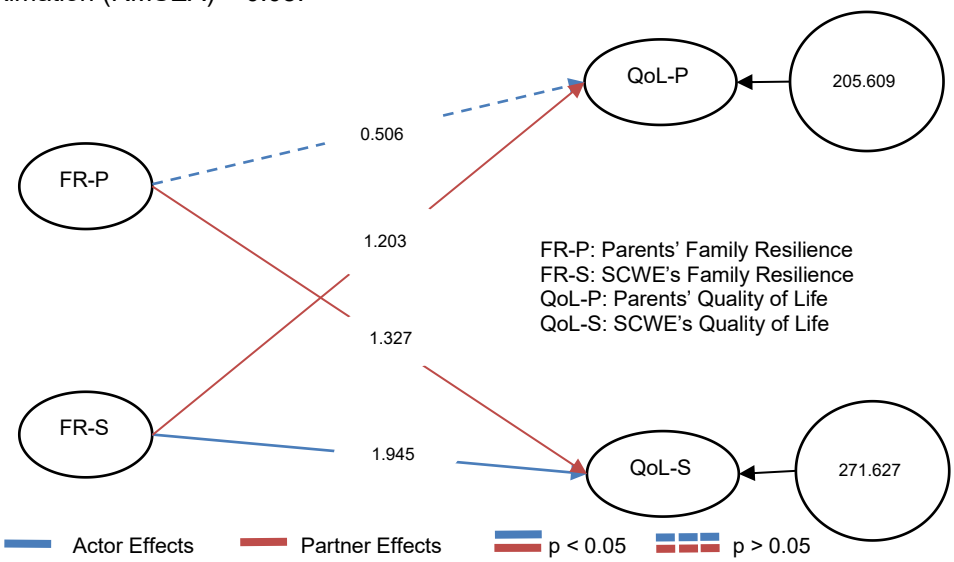


Figure 2 Actor and partner effect for actor-partner interdependence model (n=197 dyads)

However, based on the tested research model, parents' family resilience did not show a significant relationship with improvements in their own QoL. This is suspected to be due to the presence of a mediating variable not considered in this study, namely perceived social support. The interdependence study conducted by Chen et al. (2021), involving cancer patients and their partners and using the Actor–Partner Interdependence Mediation Model (APIMeM), found that perceived social support significantly serves as a mediator between family resilience and the QoL of the couple. Ruiz-Rodríguez et al. (2022) also found that QoL has a significant relationship with perceived social support. Furthermore, Kuru and Piyal (2018) found that perceived social support from family members significantly affected the QoL of parents of children with ASD. This finding is also consistent with the study by Zhou et al. (2022), which demonstrated that perceived social support is an important protective factor associated with improved quality of life among individuals across diverse populations. Based on these findings, the authors hypothesized that this variable could be a potential mediator between family resilience and the QoL of parents of children with chronic illness. Therefore, further research should empirically examine whether perceived social support explains this gap.

In relationships among family members, Watson (2012) explains that each member of the family has an interdependent relationship with others. Through APIM, this study successfully demonstrated an interdependent relationship between the variables of both parents and SCWE. This is evidenced by the significant partner effects in the relationship between parents' family resilience and SCWE's QoL, as well as between SCWE's family resilience and parents' QoL. These findings align with various studies on dyadic relationships within families, which found partner effects of family resilience in predicting the QoL of the dyadic partner (Deng et al., 2024; Ha & Ban, 2020; Ke et al., 2023; Olsavsky et al., 2024; Wang et al., 2021; Yan et al., 2021).

Thus, this study demonstrates that family members have interdependent relationships, in which each individual can influence variables in other family members. This aligns with Davies and Sturge-Apple (2014), who emphasize that the family is a holistic entity that cannot be separated and that the functioning of each family member depends on other family members. Based on this finding, future research focusing on family dynamics can incorporate interdependence models to examine dyadic relationships among individuals rather than focusing on a single individual.

This study also considers epilepsy severity by referring to Deggelman's (2011) research, which includes variables such as seizure frequency, doctor visits, hospitalizations, and average hospitalization duration. Although epilepsy severity was not included in the primary hypothesis-testing model, these clinical variables were assessed because previous studies have suggested that disease severity may influence family functioning and quality of life. Therefore, they were included to characterize the clinical profile of the sample and to examine their potential associations with the study variables through exploratory analyses. The correlation analysis found that seizure frequency had a significant positive correlation with family resilience in both parents and SCWE. The frequency of doctor visits also significantly predicted family resilience in parents. This is in line with McCubbin and McCubbin (1988), who stated that family resilience tends to form from family members' ability to accept various challenges, manage both favorable and unfavorable situations within the family, and work together to solve family problems. The higher the seizure frequency, the more likely the family is to develop effective coping systems, organize resources, and assign roles to family members, thus strengthening family resilience.

Conversely, hospitalization duration had a significant negative correlation with family resilience in both parents and SCWE. McCubbin and McCubbin (1988) elaborated that family resilience forms when families are able to build predictable routines that foster a sense of security among family members. The negative correlation between hospitalization duration and family resilience is likely due to the separation of family members, as they need to care for the child in the hospital. Prolonged hospital stays also force family members to readjust the family system that has already been established. As a result, this could be a threat to the development of family resilience. This aligns with previous studies that identified a tendency toward lower resilience associated with hospitalization (Lu et al., 2022). However, Kennedy et al. (2024) found that hospitalization positively correlates with the development of resilience in individuals. This presents an opportunity to further explore hospitalization-related factors that influence resilience.

This study's main strength is that it successfully demonstrates the interdependent relationships

between children and parents concerning family resilience and QoL using APIM. This opens opportunities for future family-related research to incorporate interdependence models to depict family dynamics more comprehensively rather than focusing on just one individual. Additionally, the presence of interdependence indicates that interventions aimed at improving individuals' psychological well-being can be conducted within the family system as a whole. This study also successfully identified a possible variable that contributes to the QoL of SCWE, which has often been overlooked in prior research.

Family resilience of SCWE and their parents significantly predicts the QoL of SCWE. Based on this finding, family resilience could be considered a potential intervention target for siblings of children with epilepsy to improve their QoL. The need to enhance adolescent resilience is also in line with a study conducted by Chew et al. (2018), which focused on adolescents with lived experience of epilepsy. Strengthening family resilience has the potential to foster positive adaptation, such as stronger shared beliefs, increased connectedness among family members, and improved communication that, in turn, supports collaborative problem-solving. Dray et al. (2017) also found positive outcomes from resilience-based interventions across diverse adolescent groups.

The significant partner effect also has practical implications for intervention design. Our findings suggest that fostering resilience among siblings may have positive impacts on the entire family system. This finding is also in line with the family systems theory described by Watson (2012), which views families as interdependent units in which the functioning of one member inevitably shapes others. Thus, resilience-building programs should target families as a collective, emphasizing shared routines, collaborative problem-solving, and reciprocal support.

There are several limitations in this study that are acknowledged and could serve as considerations for future research. First, the questionnaire was lengthy, and its completion took a considerable amount of time. One mitigation measure taken by the researcher was to conduct readability tests, provide attention checks to ensure participant attention and cognitive ability, and offer offline methods or researcher-guided completion. The researcher also reviewed each response to identify repetitive response patterns. Second, regarding participants' demographics, this study did not inquire about their socioeconomic status (SES). However, SES has the potential to affect the availability of resources, facilities, information, and treatment for children with epilepsy, all of which are predictors of QoL. Therefore, SES may be a confounding variable that influences the relationship between the two variables. Nonetheless, this study could potentially contribute to knowledge about QoL and family resilience among SCWE, as well as interdependent relationships among family members.

CONCLUSIONS AND SUGGESTIONS

This study demonstrates that family resilience significantly predicts the quality of life of SCWE and reveals interdependent relationships between parents and SCWE. Specifically, this study finds that resilience within one family member can positively influence the quality of life of another, supporting family systems theory, which emphasizes interdependence among family members. The use of the Actor–Partner Interdependence Model provides methodological novelty, showing that dyadic perspectives could potentially capture family dynamics more holistically than individual-focused approaches. In conclusion, this study highlights that the quality of life of SCWE cannot be fully understood without considering the interdependent processes within the family system. Therefore, strengthening resilience within the family system offers potential for psychological research and interventions aimed at improving the lives of both parents and SCWE.

Based on the limitations previously discussed, several suggestions can be considered for future research. First, regarding the data collection method, future studies could employ face-to-face data collection and involve research assistants to collect data from parents and SCWE separately. With the involvement of research assistants, questionnaires for both parents and SCWE could be completed in a timely manner while ensuring that participants remain fully attentive during data collection. Second, regarding the study variables, future research could consider collecting data on participants' socioeconomic status (SES) and including it as a control variable. Additionally, perceived social support is suspected to play a role as a mediator between family resilience and parents' QoL. Including this variable could help explain why no significant relationship was found between family resilience and parents' QoL in this study. Third, regarding the age of SCWE, future research could consider a more diverse age range across various stages of development. Future studies could also conduct comparative studies across different developmental stages.

With such follow-up research, a trajectory related to the quality of life of SCWE could be identified, along with the developmental stages that are more vulnerable to a decline in quality of life and require specific interventions. From a practical perspective, these findings highlight the importance of implementing family-centered resilience interventions within clinical and community-based epilepsy services in Indonesia. Rather than focusing exclusively on parents or children with epilepsy, intervention programs should actively involve siblings and promote shared coping strategies, effective family communication, and collaborative problem-solving. Integrating resilience-building programs into routine psychosocial support offered by hospitals, epilepsy communities, and mental health services may strengthen family functioning and ultimately improve the quality of life of all family members affected by childhood epilepsy.

ACKNOWLEDGMENTS

Our sincere gratitude extends to Ruang Peduli Epilepsi Anak Indonesia (RPEAI) and all families of children with epilepsy for their valuable contributions to this research, as well as to the academic staff of Universitas Multimedia Nusantara and Universitas Indonesia for their insightful recommendations to improve the quality of this research paper.

AUTHOR STATEMENTS

Artificial Intelligence Use Statement. In preparing this manuscript, the authors used ChatGPT (OpenAI, GPT-5.5) for assistance with language editing, grammar checking, and reviewing sentence structure during manuscript preparation. All outputs generated through the use of AI were reviewed and verified by the authors. The authors remain fully responsible for the accuracy, integrity, and content of the manuscript.

Author Contributions Statement. Luisa Erica: Conceptualization, Data Curation, Formal Analysis, Funding Acquisition, Investigation, Methodology, Project Administration, Resources, Software, Validation, Visualization, Writing – Original Draft, Writing – Review & Editing. **Sri Redatin Retno Pudjiati:** Conceptualization, Data Curation, Formal analysis, Resources, Supervision, Validation, Writing – Review & Editing.

Funding Statement. This research received no funding.

Conflict of Interest. The authors declare that there are no conflicts of interest related to the publication of this article.

REFERENCES

Ao, L., Cheng, X., An, D., An, Y., & Yuan, G. (2025). Relationship between perceived family resilience, emotional flexibility, and anxiety symptoms: A parent–adolescent dyadic perspective. *Journal of Youth and Adolescence, 54*(2), 510–521. https://doi.org/10.1007/s10964-024-02083-7

Chen, J. J., Wang, Q. L., Li, H. P., Zhang, T., Zhang, S. S., & Zhou, M. K. (2021). Family resilience, perceived social support, and individual resilience in cancer couples: Analysis using the actor–partner interdependence mediation model. *European Journal of Oncology Nursing, 52*, 101932. https://doi.org/10.1016/j.ejon.2021.101932

Chew, J., Carpenter, J., & Haase, A. M. (2018). Young people's experiences of living with epilepsy: The significance of family resilience. *Social Work in Health Care, 57*(5), 332–354. https://doi.org/10.1080/00981389.2018.1443195

Cook, W. L., & Kenny, D. A. (2005). The actor–partner interdependence model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*(2), 101–109. https://doi.org/10.1080/01650250444000405

Davies, P. T., & Sturge-Apple, M. L. (2014). Family context in the development of psychopathology. In M. Lewis & K. D. Rudolph (Eds.), *Handbook of developmental psychopathology* (3rd ed., pp. 143–161). Springer. https://doi.org/10.1007/978-1-4614-9608-3_8

Deggelman, E. L. (2011). *Coping and quality of life for siblings of children with chronic illness* [Doctoral dissertation, Kent State University]. OhioLINK Electronic Theses and Dissertations Center. http://rave.ohiolink.edu/etdc/view?acc_num=kent1309541030

Deng, X., Liu, Q., Geng, L., Li, J., Wang, M., & Wan, Y. (2024). Dyadic coping, resilience, and quality of life in young

and middle-aged couples after gynecologic cancer: An actor–partner interdependence mediation model. *European Journal of Oncology Nursing, 70*, 102601. https://doi.org/10.1016/j.ejon.2024.102601

Dinleyici, M., & Dağlı, F. Ş. (2018). Evaluation of quality of life of healthy siblings of children with chronic disease. *Turkish Archives of Pediatrics, 53*(4), 205–213. https://doi.org/10.5152/TurkPediatriArs.2018.6778

Dinleyici, M., Çarman, K. B., Özdemir, C., Harmancı, K., Eren, M., Kirel, B., Şimşek, E., Yarar, C., Duyan Çamurdan, A., & Şahin Dağlı, F. (2020). Quality-of-life evaluation of healthy siblings of children with chronic illness. *Balkan Medical Journal, 37*(1), 34–42. https://doi.org/10.4274/balkanmedj.galenos.2019.2019.7.142

Dray, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, L., Hodder, R. K., McElwaine, K., Tremain, D., Bartlem, K., Bailey, J., Small, T., Palazzi, K., Oldmeadow, C., & Wiggers, J. (2017). Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. *Journal of the American Academy of Child & Adolescent Psychiatry, 56*(10), 813–824. https://doi.org/10.1016/j.jaac.2017.07.780

Erica, L., & Pudjiati, S. R. R. (2024). Adaptation of the Family Hardiness Index (FHI) instrument for Indonesian adolescents: Alat ukur Family Hardiness Index (FHI) untuk remaja Indonesia. *Jurnal Ilmu Keluarga dan Konsumen, 17*(2), 120–131. https://doi.org/10.24156/jikk.2024.17.2.120

Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities, 16*(1), 51–74. https://doi.org/10.1016/0891-4222(94)00028-8

Ha, J. Y., & Ban, S. H. (2020). Effect of resilience on infertile couples' quality of life: An actor–partner interdependence model approach. *Health and Quality of Life Outcomes, 18*(1), 295. https://doi.org/10.1186/s12955-020-01550-6

Hamidou, Z., Auquier, P., Leroy, T., Barlesi, F., Salas, S., Chinot, O., & Baumstarck, K. (2018). Dyadic effects of coping strategies, time perspectives, and personality on the quality of life of cancer patients and their caregivers. *Psycho-Oncology, 27*(2), 590–599. https://doi.org/10.1002/pon.4553

Heng, P. H., Soetikno, N., & Fahditia, A. (2020). Peranan pola asuh orang tua terhadap kualitas hidup remaja perkotaan. *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni, 4*(2), 550–561. https://doi.org/10.24912/jmishumsen.v4i2.6599.2020

Hoang, M. T., Do, H. N., Dang, T. Q., Do, H. T., Nguyen, T. T., Nguyen, L. H., Nguyen, C. T., Doan, L. P., Vu, G. T., Ngo, T. V., Latkin, C. A., Ho, R. C. M., & Ho, C. S. H. (2021). Cross-cultural adaptation and measurement properties of Youth Quality of Life Instrument-Short Form (YQOL-SF) in a developing South-East Asian country. *PLOS ONE, 16*(6), e0253075. https://doi.org/10.1371/journal.pone.0253075

Ke, J., Lin, J., Lin, X., Chen, W., & Huang, F. (2023). Dyadic effects of family resilience on quality of life in patients with lung cancer and spousal caregivers: The mediating role of dyadic coping. *European Journal of Oncology Nursing, 66*, 102400. https://doi.org/10.1016/j.ejon.2023.102400

Kennedy, H. M., Cole, A., Berbert, L., Schenkel, S. R., & DeGrazia, M. (2024). An examination of characteristics, social supports, caregiver resilience and hospital readmissions of children with medical complexity. *Child: Care, Health and Development, 50*(1), e13206. https://doi.org/10.1111/cch.13206

Keniş-Coşkun, Ö., Atabay, C. E., Şekeroğlu, A., Akdeniz, E., Kasil, B., Bozkurt, G., & Karadağ-Saygı, E. (2020). The relationship between caregiver burden and resilience and quality of life in a Turkish pediatric rehabilitation facility. *Journal of Pediatric Nursing, 52*, e108–e113. https://doi.org/10.1016/j.pedn.2019.10.014

Khullar, V., Singh, H. P., & Bala, M. (2021). Meltdown/tantrum detection system for individuals with autism spectrum

disorder. *Applied Artificial Intelligence, 35*(15), 1708–1732. https://doi.org/10.1080/08839514.2021.1991115

Kobayashi, K., Hayakawa, A., & Hohashi, N. (2015). Interrelations between siblings and parents in families living with children with cancer. *Journal of Family Nursing, 21*(1), 119–148. https://doi.org/10.1177/1074840714564061

Kuru, N., & Piyal, B. (2018). Perceived social support and quality of life of parents of children with autism. *Nigerian Journal of Clinical Practice, 21*(9), 1182–1189. https://doi.org/10.4103/njcp.njcp_13_18

Lamsal, R., & Ungar, W. J. (2021). Impact of growing up with a sibling with a neurodevelopmental disorder on the quality of life of an unaffected sibling: A scoping review. *Disability and Rehabilitation, 43*(4), 586–594. https://doi.org/10.1080/09638288.2019.1615563

Li, Y., Qiao, Y., Luan, X., Li, S., & Wang, K. (2019). Family resilience and psychological well-being among Chinese breast cancer survivors and their caregivers. *European Journal of Cancer Care, 28*(2), e12984. https://doi.org/10.1111/ecc.12984

Lu, Z. H., Lam, F. M. H., Leung, J. C. S., & Kwok, T. C. Y. (2022). The resilience and the subsequent hospitalization of older people with different frailty status: A prospective cohort study. *Journal of the American Medical Directors Association, 23*(10), 1718.e1–1718.e6. https://doi.org/10.1016/j.jamda.2022.07.021

Mangunatmadja, I., Mulyani, D. I., Pardede, S. O., Tridjadja, B., & Wulandari, H. F. (2019). Faktor risiko epilepsi intraktabel pada anak dengan epilepsi umum. *Journal of the Indonesian Medical Association, 69*(2), 59–65. https://doi.org/10.47830/jinma-vol.69.2-2019-72

Mayangsari, A., Rustyawati, R., Kusumawardhani, S. J., & Ariantika, V. (2026). Beyond family ties: Intergenerational trauma as a predictor of mental well-being among Indonesian youth. *Nusantara Journal of Behavioral and Social Science, 5*(1), 9–16. https://doi.org/10.47679/njbss.202615051

McCubbin, H. I., & McCubbin, M. A. (1988). Typologies of resilient families: Emerging roles of social class and ethnicity. *Family Relations, 37*(3), 247–254. https://doi.org/10.2307/584557

McCubbin, M. A., McCubbin, H. I., & Thompson, A. I. (1987). Family Hardiness Index (FHI). In H. I. McCubbin & A. I. Thompson (Eds.), *Family assessment inventories for research and practice* (pp. 125–130). University of Wisconsin–Madison.

Mendes, T. P., Crespo, C. A., & Austin, J. K. (2017). Family cohesion, stigma, and quality of life in dyads of children with epilepsy and their parents. *Journal of Pediatric Psychology, 42*(6), 689–699. https://doi.org/10.1093/jpepsy/jsw105

Neo, A. H. C., Chang, W. C., & Fung, D. S. S. (2016). An actor–partner interdependence model on family resilience and subjective wellbeing. *Psychology, 7*(6), 889–900. https://doi.org/10.4236/psych.2016.76091

Olsavsky, A. L., Ralph, J., Benhayoun, A., Hill, K. N., Guttoo, P., Akard, T. F., Gerhardt, C., & Skeens, M. A. (2024). COVID-19 impact, resilience, and child quality of life: A dyadic analysis. *Journal of Family Psychology, 38*(4), 523–535. https://doi.org/10.1037/fam0001218

Pagorek-Eshel, S., & Finklestein, M. (2019). Family resilience among parent–adolescent dyads exposed to ongoing rocket fire. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(3), 283–291. https://doi.org/10.1037/tra0000397

Puka, K., Tavares, T. P., Anderson, K. K., Ferro, M. A., & Speechley, K. N. (2018). A systematic review of quality of life in parents of children with epilepsy. *Epilepsy & Behavior, 82*, 38–45. https://doi.org/10.1016/j.yebeh.2018.03.008

Purba, F. D., Hunfeld, J. A. M., Iskandarsyah, A., Fitriana, T. S., Sadarjoen, S. S., Passchier, J., & Busschbach, J. J. V. (2018). Quality of life of the Indonesian general population: Test-retest reliability and population norms of the EQ-5D-5L and WHOQOL-BREF. *PLOS ONE, 13*(5), e0197098. https://doi.org/10.1371/journal.pone.0197098

Qin, F., Wei, T., Zhao, X., Yuan, S., He, Y., Chen, M., Luo, Z., Shi, L., & Li, G. (2024). Relationship between family resilience and dyadic coping in colorectal cancer patients and their spouses, based on the actor–partner interdependence model. *European Journal of Oncology Nursing, 70*, 102622. https://doi.org/10.1016/j.ejon.2024.102622

Rachman, Y. A., Sunarti, E., & Herawati, T. (2020). Interaksi suami-istri, interaksi orang tua-anak, interaksi teman sebaya, dan resiliensi remaja. *Jurnal Ilmu Keluarga dan Konsumen, 13*(1), 1–12. https://doi.org/10.24156/jikk.2020.13.1.1

Rafiee, M., Istasy, M., & Valiante, T. A. (2021). Music in epilepsy: Predicting the effects of the unpredictable. *Epilepsy & Behavior, 122*, 108164. https://doi.org/10.1016/j.yebeh.2021.108164

Rafli, A., Handryastuti, S., Mangunatmadja, I., Mulyadi, R., Kekalih, A., Gayatri, A., Herini, E., Kusuma, W. A., Raditha, C., Tjandrajani, A., Lestari, P. C., & Muchtar, Y. M. (2026). Characteristics and risk factors of drug-resistant epilepsy in children: A retrospective study in Jakarta from 2020–2025. *Paediatrica Indonesiana, 66*(1), 69–75. https://doi.org/10.14238/pi66.1.2026.69-75

Rana, P., & Mishra, D. (2015). Quality of life of unaffected siblings of children with chronic neurological disorders. *The Indian Journal of Pediatrics, 82*(6), 545–548. https://doi.org/10.1007/s12098-014-1672-4

Ruiz-Rodríguez, I., Hombrados-Mendieta, I., Melguizo-Garín, A., & Martos-Méndez, M. J. (2022). The importance of social support, optimism and resilience on the quality of life of cancer patients. *Frontiers in Psychology, 13*, 833176. https://doi.org/10.3389/fpsyg.2022.833176

Setiawan, T., Wardani, R., & Theresia, E. (2022). The conditional effect of family resilience on family quality of life during the COVID-19 pandemic [Version 2]. *F1000Research, 11*, 1279. https://doi.org/10.12688/f1000research.125852.2

Syakina, L., & Hawari, I. (2020). Pengaruh fungsi kognitif terhadap kualitas hidup orang dengan epilepsi pada Komunitas Peduli Epilepsi Indonesia di Depok periode November 2017–Maret 2018. *Tarumanagara Medical Journal, 2*(1), 110–116. https://doi.org/10.24912/tmj.v2i2.7846

Wang, H., Yue, H., Ren, M., & Feng, D. (2021). Dyadic effects of family-functioning and resilience on quality of life in advanced lung cancer patients and caregivers: An actor–partner interdependence mediation model. *European Journal of Oncology Nursing, 52*, 101963. https://doi.org/10.1016/j.ejon.2021.101963

Watson, W. H. (2012). Family systems. In V. S. Ramachandran (Ed.), *Encyclopedia of human behavior* (2nd ed., pp. 184–193). Academic Press. https://doi.org/10.1016/B978-0-12-375000-6.00169-5

Yan, Z., Zhang, Q., Chang, L., Liu, Y., & Li, Y. (2021). Dyadic effects of family resilience on post-traumatic stress symptoms among breast cancer patients and their primary family caregivers: A cross-sectional study. *European Journal of Oncology Nursing, 53*, 101998. https://doi.org/10.1016/j.ejon.2021.101998

Zhou, K., Ning, F., Wang, X., Wang, W., Han, D., & Li, X. (2022). Perceived social support and coping style as mediators between resilience and health-related quality of life in women newly diagnosed with breast cancer: A cross-sectional study. *BMC Women's Health, 22*(1), 198. https://doi.org/10.1186/s12905-022-01783-1