

The Impact of Family Support and Patient Dependency on Quality of Life in Stroke Patients Receiving Home Care: A Study at Hospital

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ABSTRACT

Background: The quality of life in stroke patients encompasses physical, psychological, social, and environmental well-being. Family support and patient dependency are critical factors influencing recovery and overall well-being during care.

Purpose: This study aims to examine the relationship between family support and patient dependency with the quality of life among stroke patients.

Methods: A cross-sectional correlational study was conducted from February to March 2025 involving 45 stroke patients selected by purposive sampling. Inclusion criteria were patients who were conscious, living with family, and willing to participate. Instruments used included the Family Support Questionnaire, Patient Dependency measured by the Barthel Index, and the WHOQOL Quality of Life Questionnaire. Data were analyzed using Pearson correlation.

Results: The mean family support score was 40.67 (SD = 3.95), patient dependency score was 61.35 (SD = 23.65), and quality of life score was 61.23 (SD = 96.59). Significant positive correlations were observed between family support and quality of life ($r = 0.376$, $p = 0.008$) and between patient dependency and quality of life ($r = 0.853$, $p = 0.0001$).

Conclusion: Family support and patient dependency are significantly associated with the quality of life in stroke patients. Enhancing family support and managing patient dependency can lead to improved quality of life in this population.

Keywords: Family Support, Nursing, Patient Dependency, Stroke, Quality of Life

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BACKGROUND

Stroke remains a major global health challenge, ranking as one of the leading causes of death and long-term disability worldwide (Krishnamurthi & Feigin, 2021). The World Health Organization estimates that approximately 15 million people suffer a stroke annually, with a significant proportion experiencing lasting impairments that affect their quality of life (Gurková et al., 2023). Stroke patients exhibited a poor quality of life, with a mean score of 94.4 (SD = 8.1) (Ayasrah et al., 2024). In Indonesia, the prevalence of stroke has been increasing, substantially contributing to the national burden of disease at a rate of 8.3 per 1,000 population (Ministry of Health Indonesia, 2023).

The aftermath of stroke often results in physical, cognitive, and emotional impairments that increase patient dependency on caregivers for activities of daily living (González-Santos et al., 2023). Patient dependency is commonly assessed using the Barthel Index, which measures functional independence in basic self-care tasks. The Barthel Index indicators include complete independence, mild dependency, severe dependency, and total dependency (Saisana, 2024). Higher levels of dependency are associated with poorer quality of life, with a mean score of 42.9 (SD = 14.9) (Ellepola et al., 2022).

Stroke patient care is initially provided in the hospital and subsequently continued with home-based care (D. Li et al., 2025). Stroke patient care at home is provided by family members. The family's capability and support significantly influence the quality of life of stroke patients during their care (C. C. Li et al., 2024). Family support plays a pivotal role in stroke rehabilitation and home care. It encompasses emotional, informational, appraisal, and instrumental assistance, which collectively enhance patient motivation, treatment adherence, and psychological well-being (Kim et al., 2021; Sharifian et al., 2021). Strong family support networks have been associated with improved recovery outcomes and significantly better quality of life in stroke survivors ($P < 0.0001$) (Nooreddini et al., 2024)(Bello et al., 2021).

This study aims to investigate the relationship between family support, patient dependency, and quality of life in stroke patients receiving home care at RSUD Gondo Suwarno Ungaran. The findings will contribute to evidence-based nursing practices and inform strategies to enhance stroke care in similar settings.

METHODS

This research employed a correlational design to examine the relationships between family support, patient dependency, and quality of life in stroke patients. The study population consisted of stroke patients visiting the outpatient clinic at RSUD Gondo Suwarno Ungaran. The inclusion criteria were adult stroke patients diagnosed with stroke more than three months prior, with full consciousness (*compos mentis*), able to communicate, and willing to participate. Exclusion criteria included stroke patients with complications and patients with decreased consciousness. The sample size was 48 patients, selected based on sample availability using purposive sampling to ensure relevance and data quality.

The Family Support Scale is a validated questionnaire measuring emotional, informational, instrumental, and appraisal support from family members. It consisted of 20 items encompassing instrumental, informational, emotional, and appraisal domains (Toledano-Toledano et al., 2020). A validated 20-item questionnaire (score range: 20–60; higher scores indicate greater support), validity 0,36 – 0,83 with Cronbach's alpha of 0,94 in this study (Solmaz & Korkmaz Aslan, 2024). The Barthel Index is a well-established tool used to assess patient dependency in activities of daily living. It includes 10 indicators: feeding, bathing, grooming, dressing, bowel control, bladder control, toilet use, transfers, mobility, and stair climbing. Scoring ranges from 0 to 100, where higher scores indicate

greater independence. The instrument demonstrated excellent internal consistency with a Cronbach's alpha of 0.942 (Saisana, 2024)(Dos Santos Barros et al., 2022). The Quality of Life Scale is a standardized instrument evaluating the physical, psychological, social, and environmental domains of life quality. The total score ranges up to 100, where higher scores indicate better quality of life. The WHOQOL-BREF questionnaire, developed by the World Health Organization, consists of 26 questions (Gurková et al., 2023). Data were collected from February to March 2025 through face-to-face interviews and medical record reviews. Ethical considerations included obtaining informed consent, ensuring anonymity, and maintaining confidentiality. The study protocol was reviewed and approved by the Universitas Widya Husada Semarang Ethics Committee No : 36/EC-LPPM/UWHS/III-2025. All participants provided informed consent, and the study adhered to ethical principles of beneficence and non-maleficence.s

RESULTS

The study found a moderate positive correlation between family support and quality of life ($r = 0.376$, $p = 0.008$), indicating that higher family support is associated with better quality of life in stroke patients. A strong positive correlation was observed between patient dependency level and quality of life ($r = 0.853$, $p = 0.0001$), suggesting that patients with lower dependency levels tend to report higher quality of life.

Table 1. Correlation Between Family Support and Patient dependency level with Quality of Life in Stroke Patients

Indicators	Mean (\pm SD)	coefficients	p
Family Support	40.67 (\pm 3.948)	0,376	0,008 ^a
Quality of Life	61.23 (\pm 96.59)		
Patient dependency level (barthel index score)	61.35 (\pm 23.649)	0,853	0,0001 ^a
Quality of Life	61.23 (\pm 96.59)		

^a Pearson Corellation

Significant at $p < 0.05$

DISCUSSION

Correlation Between Family Support with Quality of Life in Stroke Patients

The results of this study showed a significant relationship between family support and the quality of life of stroke patients ($p = 0.008$, $r = 0.376$). The findings of this study highlight the significant roles of family support in influencing the quality of life among stroke patients receiving home care. The moderate correlation between family support and quality of life aligns with previous studies emphasizing the importance of emotional and practical support in stroke recovery (Kim et al., 2021; Sharifian et al., 2021). Stroke patients who received strong family support demonstrated significantly better quality of life ($p = 0.0001$). Emotional support provided by family plays an important role in accelerating the care process and enhancing the patient's well-being (Seok & Lee, 2025). Families provide essential emotional and psychological support that helps reduce depression and anxiety levels in stroke patients. Stroke patients who receive good family support tend to have a better quality of life because families play a vital role in offering emotional support, appreciation, physical assistance, and information needed during the recovery period. Family support helps patients feel safer, valued, and loved, thereby increasing motivation and confidence to engage in rehabilitation and daily activities (Butsing et al., 2019)(Abeasi, 2020)(Seok & Lee, 2025).

Stroke patients who participated in a self-care support program involving their families showed a significant improvement in their quality of life scores, increasing from 83.95 ± 1.43 to 119.72 ± 4.54 ($P < 0.0001$). Families who are actively involved in assisting with basic needs and daily activities can improve the physical function of patients, thereby enhancing their quality of life. Family involvement can enhance patients' motivation, adherence to treatment, and psychological well-being, which collectively improve life quality (Deyhoul et al., 2020)(Nooreddini et al., 2024).

Correlation Between Patient dependency level with Quality of Life in Stroke Patients

The results of this study demonstrated a significant relationship between the level of patient dependency and quality of life in stroke patients ($p = 0.0001$, $r = 0.853$). The strong correlation between patient dependency and quality of life corroborates global research indicating that functional independence is a critical determinant of life satisfaction post-stroke (Ekstrand & Brogårdh, 2022; Mustapha et al., 2022). Patients with higher Barthel Index scores, reflecting greater independence, experience fewer limitations in daily activities, contributing to better physical and mental health outcomes.

The level of dependency in stroke patients is strongly associated with their quality of life, where lower dependency (greater patient independence) corresponds to a better perceived quality of life. Dependency in activities of daily living (ADL) leads to physical, social, and psychological limitations, which negatively affect various aspects of quality of life, including physical health, social relationships, and psychological well-being (Kariyawasam et al., 2020)(Kang & Shergill, 2021).

Comparing these results with international studies, similar patterns emerge. For instance, a study in the United States found that family support significantly predicted quality of life in stroke survivors (Bello et al., 2021). Research in Europe also reported that reducing patient dependency through rehabilitation positively impacts quality of life (Sierra-García et al., 2022). These consistencies underscore the universal relevance of these variables in stroke care.

The mechanisms underlying these relationships may involve psychosocial and physiological pathways. Family support likely buffers stress and fosters coping strategies, while patient independence enhances self-efficacy and reduces caregiver burden. Nursing interventions should therefore focus on strengthening family engagement and promoting patient autonomy through tailored rehabilitation programs (González-Santos et al., 2023; Tu et al., 2025).

The results of the study indicated that the family environment serves as a highly therapeutic factor in stroke recovery, with the family playing a crucial role as the primary caregiver. Integrated family-based interventions can enhance rehabilitation outcomes for stroke patients. However, this study had limitations, including a relatively small sample size and an observational, cross-sectional study design. Further research employing longitudinal designs with larger samples is needed to strengthen the evidence base and support the implementation of more effective interventions.

CONCLUSION

This study confirms that both family support and patient dependency levels are significantly associated with the quality of life in stroke patients during home care. Nursing care strategies that enhance family involvement and reduce patient dependency may lead to improved patient outcomes and quality of life.

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Conflict of Interest

The authors declare no conflict of interest related to this study.

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