



THE EFFECTIVENESS OF SELF-MANAGEMENT APPROACHES ON IMPROVING SELF-EFFICACY AND QUALITY OF LIFE IN STROKE PATIENTS UNDERGOING REHABILITATION PROGRAMS: A SYSTEMATIC REVIEW

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ABSTRACT

Stroke is a major global health problem and one of the leading causes of long-term disability and death worldwide. Post-stroke patients often experience decreased physical function and independence, while adherence to rehabilitation programs remains suboptimal due to low motivation, insufficient knowledge, and limited family support. The self-management approach has been introduced to encourage patients' active participation in their recovery process by improving self-efficacy and overall quality of life. This study aims to evaluate the effectiveness of the self-management approach in improving self-efficacy and quality of life among post-stroke patients, and to critically appraise the quality of existing scientific evidence. This study applied a systematic review design following the PRISMA 2020 guidelines. Literature searches were conducted in PubMed, Scopus, Web of Science, Google Scholar, and Registers for studies published between 2020 and 2025. Of the 1,383 articles identified, 10 studies met the inclusion criteria and were analyzed. All ten studies consistently demonstrated that self-management interventions effectively improved self-efficacy, adherence to rehabilitation, and quality of life in post-stroke patients. The interventions also promoted independence in daily living activities (Activities of Daily Living/ADL) and strengthened patients' confidence and motivation in managing their health. Additionally, family involvement and healthcare support were identified as key factors contributing to the success of self-management programs. The self-management approach is proven to be an effective strategy for enhancing self-efficacy and quality of life among stroke survivors. It empowers patients to actively engage in their physical, psychological, and social recovery. Therefore, self-management programs should be integrated into post-stroke rehabilitation as a sustainable and patient-centered intervention model in both clinical and community settings.

Keywords: quality of life; rehabilitation; self efficacy; self management; stroke

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INTRODUCTION

Is a global health problem and remains one of the leading causes of long-term disability and mortality worldwide (Dewi IAM, 2025). Post-stroke patients often experience mobility impairments, decreased ability to perform activities of daily living (ADLs), and increased dependence on long-term care (Yuniarti II et al., 2020). These conditions affect not only physical function but also psychological, social well-being, and overall quality of life (Marviana E, 2020). One of the greatest challenges during the recovery phase is low patient adherence to rehabilitation exercises and long-term treatment, which is frequently associated with limited knowledge, low motivation, and inadequate family support (Faizah, 2023).

According to the World Stroke Organization (2024), approximately 12.2 million new stroke cases occur annually worldwide, with 62% affecting individuals of productive age. In Indonesia, the prevalence of stroke based on the 2018 National Basic Health Research (Riskesdas) reached 10.9 per 1,000 population, and this figure continues to increase with advancing age and unhealthy lifestyle patterns (Ministry of Health of the Republic of Indonesia, 2023). After the acute phase,

stroke patients commonly experience declines in physical, cognitive, and psychosocial functioning, resulting in reduced independence in daily activities and increased reliance on family members and healthcare providers (Yuniarti II et al., 2020).

Therefore, continuous and long-term rehabilitation programs are essential after hospital discharge. However, low motivation, limited understanding of rehabilitation, and insufficient environmental support often hinder optimal recovery and increase the risk of secondary complications. In response to these challenges, self-management approaches have been increasingly developed within stroke rehabilitation to enhance patients' active participation in their recovery process. Self-management programs have been shown to improve neurological function and quality of life in patients with ischemic stroke (Faizah et al., 2023). Moreover, higher levels of self-efficacy are strongly associated with better self-management abilities, which in turn positively influences rehabilitation outcomes (Yuliana DM et al., 2024). Studies by Juniarti et al. (2023) also indicates that effective self-care management is associated with improved quality of life among post-stroke patients. Some interventions incorporate family support, while others focus solely on individual patients or utilize digital health technologies.

Given the variability in study findings, a comprehensive and up-to-date systematic review is needed to evaluate the effectiveness of self-management approaches on self-efficacy and quality of life in stroke patients, as well as to assess the quality of available scientific evidence. The results of this review are expected to serve as a foundation for healthcare practices in designing more effective, sustainable, and patient-centered self-management programs for stroke patients in both clinical and community settings. This study aims to evaluate the effectiveness of the self-management approach in improving self-efficacy and quality of life among post-stroke patients, and to critically appraise the quality of existing scientific evidence.

METHOD

Literature Search Strategy

This study employed a systematic review design developed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines to ensure that each stage of the review process was conducted transparently, regularly, and in a reproducible manner (Page et al., 2021). The initial phase involved the development of a comprehensive literature search strategy aimed at identifying studies that examined various self-management approaches, particularly those related to self-efficacy and quality of life in stroke patients. A comprehensive literature search was conducted across several major electronic databases, including PubMed, Scopus, Web of Science, and Google Scholar. These databases were selected to capture both indexed international publications and relevant gray literature. To ensure the inclusion of up-to-date evidence, the publication period was limited to studies published between 2020 and 2025. The search strategy combined Medical Subject Headings (MeSH) and free-text terms using Boolean operators. The key search combinations included: (“stroke” OR “cerebrovascular accident”) AND (“self-management” OR “self-care” OR “patient empowerment”) AND (“self-efficacy” OR “self-belief”) AND (“quality of life” OR “functional status”). All retrieved references were exported into Mendeley reference management software, where duplicate articles were regularly removed. Article screening was conducted in two stages. First, titles and abstracts were reviewed to exclude review articles and to assess relevance based on the predefined inclusion criteria. Second, full-text articles of potentially eligible studies were thoroughly evaluated to determine final eligibility.

Inclusion and Exclusion Criteria

The article selection process was guided by the PICOS framework, which includes:

1. **Population/Problem:** Adult post-stroke patients undergoing care or rehabilitation in hospital or community settings. The population was selected in accordance with the study's focus on self-management among post-stroke patients.

2. Intervention: Self-management approaches, including self-care programs, structured health education, self-management-based rehabilitation programs, and interventions aimed at improving self-management abilities and self-efficacy in post-stroke patients.
3. Comparison: Standard care, conventional education, or conditions without self-management interventions. In correlational studies, comparisons involved differences in levels of self-management or self-efficacy among participant groups.
4. Outcome: Quality of life, self-efficacy, and self-care ability among post-stroke patients.
5. Study Design: Quantitative studies, correlational studies, pre-post test designs, quasi-experimental studies, and descriptive studies were included. Review articles, editorials, and opinion papers were excluded from this systematic review.

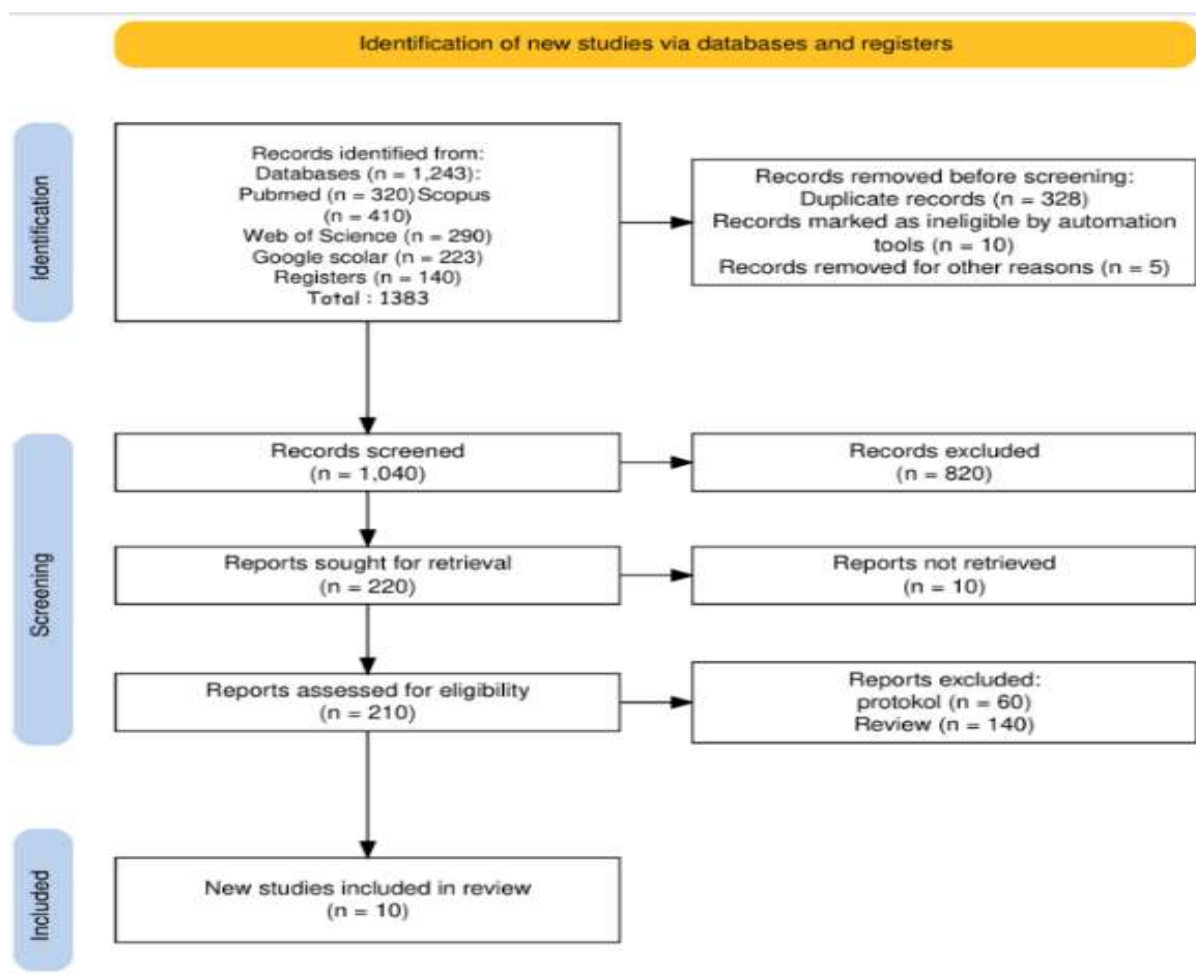


Figure 1. PRISMA Flow Chart

The study identification process began with a comprehensive literature search conducted across multiple databases, including PubMed (320 records), Scopus (410 records), Web of Science (290 records), Google Scholar (223 records), and trial registers (140 records), resulting in a total of 1,383 publications identified. Following the initial screening, 328 articles were removed due to duplication, 10 articles were automatically excluded by the system, and 5 articles were excluded for other reasons. As a result, 1,040 articles advanced to the screening stage. During the screening process, 820 articles were excluded because they did not meet the predefined inclusion criteria, leaving 220 articles for full-text retrieval. Of these, 10 full-text articles could not be obtained, resulting in 210 articles assessed for eligibility. At the eligibility assessment stage, 200 articles were excluded, including 60 protocol studies and 140 review articles that did not contain primary research data relevant to the study objectives.

Ultimately, 10 studies met all eligibility criteria and were included in the final systematic review analysis. This rigorous and stepwise selection process ensured that only studies with strong methodological quality and relevant evidence were included in the final synthesis. The selection results support the study's objective to review the effectiveness of self-management approaches on self-efficacy and quality of life among stroke patients. Overall, findings from the ten included studies consistently demonstrate that self-management interventions are effective in improving self-efficacy and quality of life in stroke patients. The article review process began with a comprehensive literature search across multiple databases, yielding 1,383 records. After removing duplicates and exclusions, 1,040 articles were screened based on titles and abstracts, resulting in 220 articles for full-text review. Of these, 210 full-text articles were assessed for eligibility, and 200 were excluded due to study design or lack of relevant primary data. Ultimately, 10 studies met the inclusion criteria and were included in the systematic review. This rigorous selection process ensured the inclusion of high-quality evidence, demonstrating that self-management interventions effectively improve self-efficacy and quality of life among stroke patients.

RESULT

Table 1.
Characteristics of Included Studies

No	Journal Title	Method	Research result
1	The Relationship Between Self-Management and Quality of Life in Post-Stroke Patients (Marviana, 2020)	D: Correlational S: Adult post-stroke patient V: Self-management → kualitas hidup I: Self-management questionnaire & WHOQOL A: Uji korelasi ($p \leq 0,05$)	Self-management interventions are effective in improving health education and building patient confidence.
2	Stroke Self-Management Program as an Effort to Improve Quality of Life (Faizah et al., 2023)	D: Pre–posttest S: Post-stroke patient V: Self-management program I: Self-education & monitoring A: Paired t-test	The self-management program significantly improved the quality of life of post-stroke patients after the intervention ($p < 0.05$).
3	The Relationship between Self-Efficacy and Self-Management in Post-Stroke Patients (Rahayu Sa'pang et al., 2022)	D: Correlational S: Post-stroke patient V: Self-efficacy → self-management I: Self-efficacy & self-management scale A: Pearson Correlation	Self-efficacy is significantly related to the self-management ability of post-stroke patients ($p < 0.05$).
4	Stroke Self-Care Management on Patient Quality of Life (Juniarti et al., 2023)	D: Correlational S: Post-stroke patient V: Self-care management → kualitas hidup I: Self-care questionnaire A: Correlation test	Good self-care management is associated with a higher quality of life in post-stroke patients.
5	The Relationship Between Self-Management and Quality of Life in Post-Stroke Patients (Rahmadana et al., 2020)	D: Quantitative S: Post-stroke patient V: Self-management → kualitas hidup I: Standardized instruments A: Chi-square	There is a significant relationship between the level of self-management and the quality of life of post-stroke patients ($p < 0.05$).
6	The Relationship Between Self-Management and ADL Independence in Post-Stroke Patients (Laili, 2020)	D: Quantitative S: Post-stroke patient V: Self-management → ADL I: Barthel Index A: Spearman Correlation	Better self-management is correlated with increased ADL independence in post-stroke patients.
7	The Effect of Self-Management on the Functional Status of Post-Stroke Patients	D: Quasi-experimental S: Post-stroke patient V: Self-management → status fungsional I: Educational program	Self-management interventions have a significant effect on improving the functional status of post-stroke patients.

	(Amalia, 2022)	A: t-test	
8	The Effect of Self-Management Education on Post-Stroke Patient Independence (Sari & Handayani, 2021)	D: Quasi-experimental S: Post-stroke patient V: Edukasi self-management → ADL I: Structured education A: Paired t-test	Self-management education significantly increased the independence of post-stroke patients ($p < 0.05$).
9	The Relationship Between Self-Efficacy and Quality of Life in Post-Stroke Patients (Pratama et al., 2022)	D: Correlational S: Post-stroke patient V: Self-efficacy → kualitas hidup I: Self-efficacy & QoL scale A: Pearson Correlation	Self-efficacy is positively related to the quality of life of post-stroke patients.
10	Effectiveness of Self-Management-Based Rehabilitation Program on Functional Status (Wulandari et al., 2023)	D: Pre-posttest S: Post-stroke patient V: Self-management rehabilitation I: Independent rehabilitation program A: t-test	Self-management-based rehabilitation programs effectively improve the functional status of post-stroke patients.

DISCUSSION

The self-management approach has increasingly been used as an intervention strategy in post-stroke rehabilitation. Based on a review of ten journals published between 2020 and 2025, all studies demonstrated that the implementation of self-management had a positive impact on self-care and the quality of life of stroke patients. These findings are consistent with several studies reporting that self-management-based interventions are effective in improving health education, independence, functional status, and active patient participation in the rehabilitation process. This approach emphasizes patients' active involvement in managing their condition through enhanced knowledge, skills, and decision-making abilities related to care and rehabilitation. Several systematic reviews have also reported that self-management interventions are effective in improving health education, independence, and self-confidence among post-stroke patients (Dewi, 2025; Yuniarti et al., 2020; Bunga Dwi Amalia, 2022). These findings are aligned with Orem's Self-Care Deficit Theory, which states that individuals with chronic illnesses experience limitations in self-care abilities and therefore require nursing interventions to enhance their self-care capacity.

Various correlational and quantitative studies indicate a significant relationship between self-management and the quality of life of post-stroke patients. Patients with good self-management abilities tend to report a higher quality of life. Within Orem's theoretical framework, improved self-management reflects a reduction in self-care deficits, enabling patients to meet basic needs and maintain optimal health functioning. The nursing implications of these findings highlight the importance of comprehensive self-care assessments to determine appropriate and sustainable nursing interventions (Marviana, 2020; Juniarti et al., 2023; Rahmadana et al., 2020; Orem, 2001).

In addition to quality of life, self-management is also closely associated with independence in activities of daily living (ADL) among stroke patients. Patients who are able to manage their self-care effectively demonstrate better functional independence. This supports Orem's assumption that the primary goal of nursing care is to enhance individuals' ability to perform self-care independently according to their capacity. Based on these findings, nurses play a strategic role in designing structured self-care education and training programs to support post-stroke patient independence (Laili, 2020; Faizah et al., 2023). Several studies emphasize the role of self-efficacy as a psychological factor influencing the success of self-management. Patients with high self-efficacy tend to be more consistent in performing self-care behaviors and participating in rehabilitation programs. These findings are consistent with Bandura's Self-Efficacy Theory, which states that belief in one's own abilities influences motivation, effort, and persistence in achieving health-related goals. From a nursing perspective, this underscores the importance of providing emotional support, positive reinforcement, and mastery experiences to enhance patients' self-efficacy (Rahayu Sa'pang et al., 2022; Bandura, 1997).

From a methodological perspective, this systematic review indicates that although most studies reported the benefits of self-management, there were variations in study designs, respondent characteristics, and outcome indicators used to evaluate intervention effectiveness among post-stroke patients. These variations highlight the need for evidence synthesis through systematic reviews to provide a more integrated and comprehensive understanding of the effectiveness of self-management approaches in post-stroke care. Based on these findings, future research is recommended to employ stronger experimental designs with control groups, larger sample sizes, and theory-based self-management interventions evaluated longitudinally to assess long-term effects on quality of life and patient independence (Yuliana et al., 2024)

CONCLUSION

Based on a review of ten research articles published between 2020 and 2025, it can be concluded that self-management approaches are effective in improving self-efficacy and quality of life among stroke patients after hospital discharge. The implementation of self-management enables patients to better understand their health conditions, enhances self-confidence (self-efficacy), and promotes active involvement in the care and recovery process. Multiple studies indicate that patients who consistently apply self-management strategies demonstrate better quality of life, higher levels of independence in daily activities, and improved adherence to medication and rehabilitation exercises. Furthermore, this approach strengthens patients' psychological well-being by fostering a sense of responsibility for their own health and reducing dependence on others. Therefore, self-management can be considered an effective intervention strategy to support holistic stroke rehabilitation outcomes, encompassing physical, psychological, and social aspects of patient care.

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