



Systematic Review of Physical, Psychosocial And Spiritual Impact of Post Acute Stroke Patients With Home Dwelling Care Approach

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ABSTRACT

Objective: Stroke is a severe problem that is physically, psychologically, and spiritually complex. There should be a consideration of increasing self-ability in stroke patients through continued care at home to help patients to improve their quality of life. This study aims to analyze the impact of home-based care on the physical, psychological, and spiritual conditions of post acute stroke patients.

Methods: This research is a systematic review. The research source came from two databases, namely ProQuest and EBSCO, with the keywords "Stroke" AND "Home service" AND Physical "OR" Psychological "OR" Spiritual. " From the ProQuest database, there were 66,665 journals found, and from EBSCO, there were 69,501 journals. Out of all the articles, only 8 articles met the inclusion criteria. The article must relate to the types of rehabilitation of stroke patients at home with the outcomes seen in the physical, psychological, and spiritual patients. Articles must use quasi-experimental, pre-experimental, and RCT designs, were published in the last five years, namely from 2014 to 2019, and not in the form of protocols and the English language and full text.

Results: This research is a systematic review. The research source came from two databases, namely ProQuest and EBSCO, with the keywords "Stroke" AND "Home service" AND Physical "OR" Psychological "OR" Spiritual. " From the ProQuest database, there were 66,665 journals found, and from EBSCO, there were 69,501 journals. Out of all the articles, only 8 articles met the inclusion criteria. The article must relate to the types of rehabilitation of stroke patients at home with the outcomes seen in the physical, psychological, and spiritual patients. Articles must use quasi-experimental, pre-experimental, and RCT designs, were published in the last five years, namely from 2014 to 2019, and not in the form of protocols and the English language and full text.

Conclusion: Home based care could improve the physical and psychological of stroke patient, however it also has spirituality impact with less evidence

Introduction

The statistical profile of the World Health Organization (WHO) in 2015 explained that stroke was one of the three leading causes of death and stroke was ranked first with a percentage of 21.2%, ischemic heart disease 8.9%, and diabetes erupted 6.5% (Hamjah et al., 2019). Deaths caused by non-communicable diseases, especially coronary heart disease and stroke, will be estimated to continue to increase to reach 23.3 million deaths in 2030 (Indonesian Ministry of Health, 2014).

WHO estimates that by 2020, the stroke will be the leading cause of disability after ischemic heart disease. In society, stroke sufferers often have physical, psychosocial, and cognitive limitations such as hemiplegia, aphasia, depression, or low self-esteem. The general symptoms seen tend to lead to situations where society cannot accept individuals who have had a stroke in their social environment (Deng et al., 2019).

45% of stroke patients experience disabilities, such as physical disorders, facial paralysis, and speech disorders. Events that occur suddenly cause the patient's life to change significantly. This result causes loss of confidence in their ability to carry out daily activities, fear of communicating with others, feelings of guilt for being a burden on family members, and not having a social identity of self-esteem (Zhu et al., 2019).

The needs of patients who have had a stroke are physical and non-physical. Physical needs, such as self-care and movement needs. In the emotional aspect, the existence of support from the closest person is a need that is instrumental in the patient's recovery process. Also, home visits from health workers and motivation provided to patients are essential needs. For the spiritual aspect, the patient reveals the existence of guidance in worship as well as assistance to adapt back to the surrounding environment (Rudini & Mulyani, 2019)

Stroke patients are more satisfied with the meaning of intervention at home compared to hospitals because respondents feel more comfortable doing exercises at home. Respondents said that the benefits of the exercise could help train balance and coordination. Exercise can help balance walking and improve patient health (Chumbler et al., 2015).

Some possible efforts to restore the normal functioning of the body is to carry out rehabilitation. Rehabilitation or recovery must be done immediately after a stroke. The faster rehabilitation is, the higher the chances

of recovery. Common problems experienced by stroke sufferers include motor disturbances, sensory disorders, and cognitive disorders (Handoko, 2017).

Providers of rehabilitation services can be in various places, such as acute care and rehabilitation in hospitals, long-term rehabilitation facilities, rehabilitation services from agents or health institutions at home, and outpatient rehabilitation facilities (American heart association & American Stroke Association, 2013; in Anderson 2019).

Some therapies are performed on stroke patients at home, including psychological therapies that are useful to restore psychological disorders such as depression and anxiety. Another therapy is physical therapy with passive and active exercise. Then cognitive therapy aims to restore brain function, both verbally and in writing, to train memory. The last is communication therapy to restore patient communication skills (Handoko, 2017).

Method

This study used a systematic review design. In principle, this review is a research method carried out by summarizing the results of primary research articles as a goal to present more comprehensive and balanced data.

Literature Search

The researchers searched for data sources using two databases, ProQuest and Ebsco. The keywords used are "Stroke" AND "Home service" AND Physical "OR" Psychological "OR" Spiritual. " The researchers provided limitations to search for articles related to inclusion criteria, namely:

- Articles should relate to the any types of rehabilitation of stroke patients at home with the outcomes seen in the physical, psychological, and spiritual aspect.
- Hemorrhage and ischemic stroke type more than 18 years old
- Articles must use quasi-experimental, pre-experimental, and RCT designs.
- Articles had a publication in the last five years, namely from 2014 to 2019.

However, stroke patients who unable to verbally communicate was eliminated from the review.

Data Selection and Analysis

From the results of an article search conducted through the ProQuest and Ebsco databases, in the ProQuest database, 66,665 articles were found, and the EBSCO database was 69,501 articles. The process from identification the eligible articles through final decision, used PRISMA guideline (Figure 1).

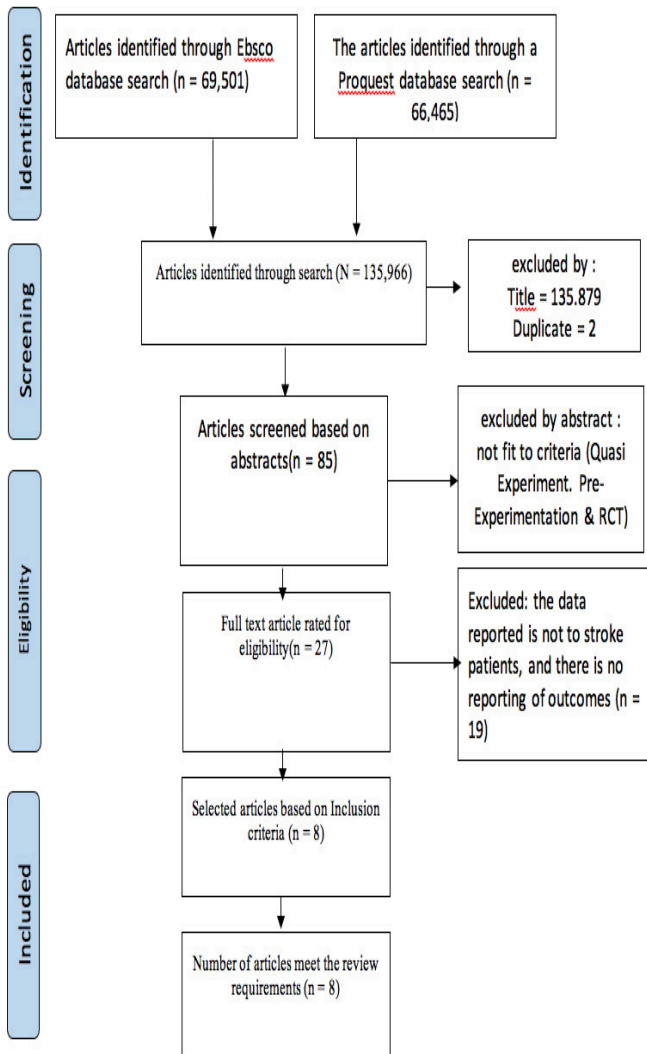


Figure 1. PRISMA flow for review process

RESULT

Of the eight articles, most of them discuss the impact of interventions that can increase the ability of activities of daily living patients measured by increasing the value of the Barthel Index, namely the ability to ambulate and maintain personal health. One article has the benefit of reducing the risk of falling. The other four articles discuss the patient’s psychological problems, which can improve mood comfort and trust. Only one article mentioned that the patient’s

spirituality enhanced with the treatment of stroke at home (Table 1)

Discussion

Stroke is an acute disease that can cause long-term problems to require treatment and rehabilitation outside of hospitalization. Continuity and integration of care in home-based outpatient rehabilitation can be an alternative in the recovery of stroke patients.

Functional damage causes a person to suffer from a disability so that stroke sufferers become unproductive. Someone who suffers from a stroke will increasingly depend on others in doing the activity of daily living (ADL) so that the need for therapy. The provision of therapy only improves motor nerves so that patients do not depend on others or reduce patient dependence on others in doing ADL. Functional disorders experienced by people after a stroke become one of the factors that are independent in carrying out activities. Efforts to restore limbs are by conducting rehabilitation. Rehabilitation also not only relieves functional disorders but also helps ease the task of people around people who have had a stroke and foster a spirit of people who have had a stroke (Karunia, 2016).

The proprioceptive neuromuscular facilitation (PNF) rehabilitation program and mirror therapy rehabilitation program combined with physical range of motion (ROM) exercise can increase the ability of activity daily living (ADL) by assessing the Barthel index. The results of the mirror therapy rehabilitation program combined with ROM were visible through an increase in the scale of muscle strength. After the two rehabilitation programs, there was an increase in the ability of ADL in the PNF rehabilitation program group, and there was also an increase in the muscle strength scale in the mirror therapy rehabilitation program.

Table 1. Types and duration of home intervention, and outcomes

No	Author	Subject	Intervention	Outcome measure			Intervention Duration
				Physical	Psychological	Spiritual	
1	Janet WH <i>et al.</i> (2019)	210	Health Empowerment Intervention for Stroke Self-management [HEISS]	ADL functional capability improvement	-	-	T1 = 1 week T2 = 3 months T3 = 6 months
2	Margaret Galloway <i>et al.</i> (2019)	21	Aerobic training using telehealth (video conference)	Feeling the benefits of fitness from each exercise	An increase in self-confidence, and disciplined motivation for exercise	-	8 weeks
3	Daniel K. Zondervan, <i>et al.</i> (2016)	17	Music Glove Therapy completed with a Music Glove device and a laptop	An increase in the ability to grip	An increase in depression due to intervention	-	3 weeks
4	Arne Buss, <i>et al.</i> (2015)	113	Nursing education on mobility and quality of life	ADL functional capability improvement	A decrease in the incidence of depression	-	12 months
5	Dorian K. Rose, <i>et al.</i> (2017)	347	Movement training equipment (training on a treadmill with weight support)	An increase ability to train the limbs, withstand gravity, the ability to stand and hold the balance of standing shoulder-width apart and walking with eyes open or closed	-	-	12-16 weeks
6	Neale R Chumbler, <i>et al.</i> (2015)	52	STeleR intervention consists of three home visits, five telephone calls, and a home messaging device.	A reduce risk of falling	-	-	6 months
7	Adriana Avila <i>et al.</i> (2014)	23	Program OTH (Occupational Therapy Home)	An increase in patient independence in performing ADL	-	-	6,5 months
8	Frances Kam Yuet Wong and Siu Ming Yeung (2014)	108	TCP intervention that begins before the patient is discharged from the hospital and continues for four weeks after discharge from the hospital.	ADL functional capability improvement	An increase in calm, interpersonal and somatic mood	There is an increase in the spiritual value of the World Health Organization - Quality of Life - Spirituality, Religion and Personal Beliefs (WHO-QOL-SRPB)	8 weeks

Other research conducted by Suzana explains that active ROM therapy in post-stroke patients can increase the fulfillment of the Activity of Daily Living (ADL). The independence that arises in patients after stroke is essential to accelerate the process of recovery of disabilities experienced as a whole, not only can lighten the task of family members or people around him but can foster enthusiasm for stroke sufferers. The sooner the exercise begins, the faster the patient adjusts his new life independently (Suzana, 2018). These results are also in line with research conducted by Hapsari et al. There was a significant increase in independence after the Activity Daily Living exercise. Before doing the activity of daily living, the patient lies in bed. The family assists all activities. After doing the daily living activity exercises, the patient can perform necessary activities such as eating, drinking, tilting left and right, brushing teeth, cleaning body parts, moving to and from a wheelchair, recognizing the sensation of defecation and minor and hygiene afterward (Hapsari, Risnanto, & Supriatun, 2018).

Health problems experienced by stroke patients not only disrupt the physical aspects but also psychological, which will have an impact on the psychosocial state. This situation causes stroke sufferers to feel like individuals who are not useful in carrying out various activities that risk the quality of life and can cause psychological stresses such as stress, anxiety, loss of purpose in life, and social disturbances (Yuanita et al. 2015; Karunia, 2016).

Physical changes experienced by patients will cause psychological responses, both maladaptive and adaptive, thus requiring coping mechanisms.¹⁴ Coping strategies that can be used by patients are of two types, namely problem-focused coping and emotion-focused coping. Problem-focused coping is coping that appears focused on individual problems that will deal with stress by learning new skill ways. Emotion-focused coping is a form of coping directed to regulate emotional responses to stressful situations (Safaria & Nofrans, 2012; in Loupatty, et al., 2019).

Motivational interviewing interventions influence reducing depression in stroke patients, seen from the aspects of reception, expression, and ability of respondents in explaining and the affirmation of the response after several visits. The patient shows the decision to change cognitive toward a positive direction, reflected in the language of the respondent's commitment in the form of ability, the reason for need, and activation of the respondent after motivational interviewing (Apriani, 2018).

Suryawantie explains that four themes in describing the

fulfillment of basic spiritual needs in post-acute stroke patients are: 1) getting closer to God as maintaining the quality of worship by performing five daily prayers. 2) sincerely accepting the illness suffered, such as assuming that God is testing it by giving trials because God will not provide difficulties beyond the ability of his people. 3) positive thinking such as praying to God, no matter how severe the illness is, there must be no feelings of despair, not giving up, still trying and praying, 4) having great hope for recovery, such as hoping to get a miracle from God (Suryawantie, 2019).

Cognitive interventions changing negative thoughts that focus on self-weaknesses can be positive thoughts by increasing gratitude for all the blessings given by God (Setyowati & Hasanah, 2016). If the spiritual needs of patients after a stroke have met, then the patient will be able to achieve a state of well-being because it has excellent personal spiritual activity support. Besides that, the patient can adjust to the situation and accept the conditions, which makes the patient make peace with himself, others, the natural surroundings, and also with God. This situation is the acceptance stage (Sriyanti, Warjiman, & Basit, 2016).

Conclusion

Several interventions can be at home in stroke patients ranging from transitional care, then home visits, telerehabilitation, glove therapy training programs, occupational therapy, and mobilization education. All of these interventions have a physical impact in the form of increasing the ability of ADL patients, namely the ability to ambulate and maintain personal health. Also, it can prevent the risk of falling. The benefits of psychology are that it can improve comfort, mood, self-confidence, motivation, discipline for exercise, fitness, and reduce depression. The benefit of the spiritual is the existence of home care can increase the spiritual value of patients

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