



Study of Physical, Psychological, and Spiritual Impact of Family Caregiver In Home-Based Stroke Treatment: A Systematic Review

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Abstract

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BACKGROUND: Family support during stroke treatment at home is crucial. However, post-stroke patients' long-term care will be a problem for families, reducing the level of life satisfaction and physical burden for caregivers. Furthermore, families may experience depression.

AIM: Analyzing family conditions related to physical, psychological, and spiritual conditions that receive home-based health worker interventions.

METHODS: Study implemented systematic review design with Prisma guidelines, initially with the identification of article sources, following by article screening, checking the eligibility of studies then appraised the selected articles. Three databases were used, Ebsco, PubMed, and PROQUEST. Only studies using quasi-experimental, pre-experimental, and RCT designs were included in this study. Furthermore, those articles were published between 2014 until 2019, full type article and conducted anykind of home intervention for stroke patients and/or family member. Keywords that were employed "Stroke, Apoplexy, Cerebrovascular Accident, Vascular Accident, Home Care Services, home care, Home Health Care, Domiciliary Care, Physical, Physics, Psychological Factors, Psychological Side Effects, Psychosocial Factors, Spirituality." Totally, 19,528 articles were obtained. Finally, only six eligible articles met review requirements.

RESULTS: Implementation of home-based care lowered the physical fatigue of the family. In psychological responses showed that home-based care could reduce the incidence of depression and anxiety levels. Another impact was that the family felt helped because patients could more independently do their activities. Furthermore, the family always supported to motivate the patients to do their daily tasks.

CONCLUSION: Home-based interventions for stroke patients can reduce depression, anxiety, and fatigue for the family caregiver.

Introduction

The World Health Organization 2016 reported that stroke is one of the three leading causes of death (21.2%), following by ischemic heart disease (8.9%), and diabetes mellitus (6.5%) [1]. Stroke attacked was not only impact on patients experience but also on families who take care of them. Families who cared for the elderly stroke should adapt holistically, physically, psychologically, and spiritually [2].

Family members are usually the primary caregivers for stroke patients [3]. With the family's support, post-stroke patients can improve their ability to perform daily activities independently. However, caring for long period will be a burden for family caregiver live. The disease burden is multidimensional responses to physical, psychological, emotional, social, and financial pressures [4]. It has an impact on reducing the level of life satisfaction [5]. Furthermore, it affects family caregiver to discontinue caring to their relatives at home [6].

Home care tasks may produce unpleasant feeling, causing psychological stress, and physical

exhausting. Psychological stress felt by caregivers includes shame, anger, tension, anxiety, fatigue, uncertainty, and feelings of guilt, [7]. Many single studies have reported the family caregiver feels, but a review that analyze home-based treatment impacts on the family caregiver is still required. The study aims to review the home health service of stroke patients on physical, psychological, and spiritual of family caregiver.

Methods

The study used a systematic review design, that summarizes the results of primary research articles to present more comprehensive understanding.

Literature search

Data were collected using three databases, likely PubMed, ProQuest, and Ebsco. The keywords used were "Stroke, Apoplexy, Cerebrovascular Accident, Vascular

Accident, Home Care Services, home care, Home Health Care, Domiciliary Care, Physical, Physics, Psychological Factors, Psychological Side Effects, Psychosocial Factors, Spirituality.” The keywords were combined using the Boolean word AND, OR. No gray literature was involved in the review. Selected articles should follow the inclusion criteria, such as research interventions involved the stroke patients and family, intervention was conducted at home by professional or health staff with outcomes seen in the physical, psychological, and/or spiritual, study design was quasi-experimental, pre-experimental, and RCT. Other criteria were the articles were published between 2014 and 2019.

Data collection

From the certain keywords, the number of articles obtained from Pubmed was (n = 1301), Ebsco (n = 17,890), Proquest (n = 337), totally 19,528 articles. Finally, after screening process and then conforming to the inclusion and exclusion criteria, five articles were eligible to be reviewed. First author conducted a review of each article, while the second author did a double check. When differences were met, a discussion of both authors was conducted to find an agreement. The review process’ was described in Figure 1.

Results

The physical impact of home health intervention for stroke survivors felt by the family for instance may reduce physical fatigue during caring for patients [8]. Psychological responses seem can lower the incidence of depression and levels of anxiety in the family [9], [10], [11], [12]. The families also become more independent doing their activities and give motivation to patients more confidently [9], [10]. Unfortunately, there are no articles viewed the spiritual aspect of family. Detailed findings are explained in Table 1.

Discussion

Stroke is an acute disease that can cause long-term problems and require treatment and rehabilitation outside of hospitalization. Continuity and integration of care in home-based outpatient rehabilitation can be made alternative to stroke patients [13].

Healing process of post-stroke patient will be more effective if combined with the family function

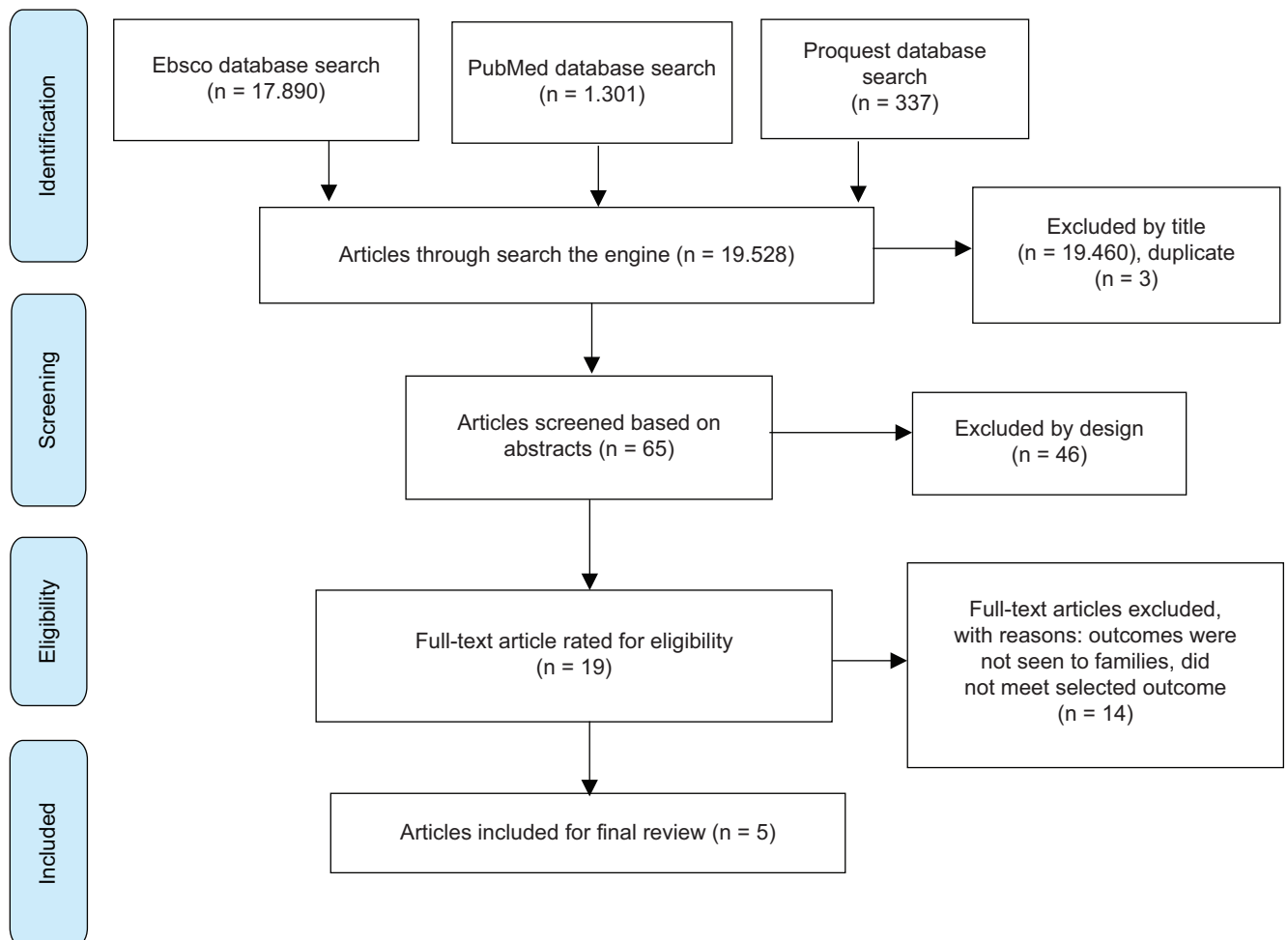


Figure 1: The process of search and review the articles

Table 1: The articles characteristic

Author	Subject	Home health Intervention	Outcome measure				Duration of intervention
			Physical	Psychological	Spiritual	Other outcomes	
(Wu <i>et al.</i> , 2017)	12	Cognitive behavioral therapy	-	Decreased anxiety levels in families caring for patients	-	The family felt helped because patients could more independently do their activities	3 months
(Cheng <i>et al.</i> , 2018)	126	Psychoeducation (evidence-based therapeutic interventions for patients and their loved ones who provide information and support to better understand and deal with the disease)	-	- The family felt happy - Stress and family burden was reduced.	-	The family always motivated patients to carry out daily activities	T1 = 1 week T2 = 3 months T3 = 6 months
(Gauthier <i>et al.</i> , 2017)	224	Training motor interventions	Physical fatigue	Reducing stress	-	-	6 months
(Kamal <i>et al.</i> , 2016)	300	Training using video-based home rehabilitation programs	-	A decrease in the incidence of depression	-	Video-based rehabilitation programs helped families on taking care of patients	12 months
(Trihandini <i>et al.</i> , 2018)	30	Holistic care and praying	-	A decrease in anxiety levels in families	-	-	5 weeks

enhancement. It showed that family member become more confidence, so it improved patient's engagement and allows them to do activities as much as possible independently [14]. There is a significant relationship between family support and patient's independence of daily life activities [15]. If the patient is always motivated to do daily activities positively, it will accelerate the healing [16]. Individuals with high motivation will have a proper frequency of self-care [17].

A previous study revealed that educated caregivers experiencing physical health problems and needed more treatment than non-caregivers. There was a 23% increase in stress hormones in the caregiver. Other results showed that caregivers produced low antibody production, experience high sleep disturbance, fatigue, and inadequate diet [18].

Individual psychotherapy could be a choice to overcome the caregiver's health problems. Psychotherapy is a therapeutic method that aims to improve the human by examining feelings, attitudes, ways of thinking, and how the individual behaves. The types of psychotherapy applied to psychosocial caregiver problems include thought-stopping therapy, cognitive therapy, progressive muscle relaxation therapy, and psychoeducation therapy [19]. The purpose of psychoeducation on caregivers is to increase understanding of family members to disease journey, reduce recurrence of stroke, and increase family and client roles [20]. Psychoeducation given to families can significantly reduce anxiety and burden of caregivers especially when the patients were treated at hospital [21].

Spiritual support is one of the strategies or external family coping in addition to adapt with environment change [22]. The dimensions of spiritual support that can be done by families include intrapersonal (self), interpersonal (other people and the environment), and transpersonal relationships (God or a power greater than oneself) support [23]. Factors that influence family's spiritual support are family behavior and family burden in caring for older adults after stroke. The family burden is the level of family distress experienced due to family members who experience a chronic illness that can cause increased emotional and economic stress from the family [24]. Spiritual practice

can increase hope, enthusiasm, self-confidence, and psychological comfort that brings strength to the elderly after a stroke [25].

Conclusion

Rehabilitation process of stroke patients treated at home also affects the family well-being. This review concluded that home-based intervention could help physical problem of family caregiver's by reducing fatigue, supporting emotional with decreasing depression and family anxiety. Unfortunately, no reports showed the benefits of home care to the spiritual aspects of the family yet.

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