

Psychoeducational Intervention for Family Caregiver Burden in Stroke Patients Care



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ABSTRACT

Stroke rehabilitation is a long and complicated process that the majority of rehabilitation to be completed once the patient returns home (community-based stroke rehabilitation). A caregiver supports a stroke survivor in performing daily activities. Because of that responsibilities, caregiver feels physically and psychologically drained. The aim of this study was to find out the effects of psychoeducation on stroke patients' caregiver burden. The study used a purposive random sample technique with a total of 34 respondents to perform a quantitative study with a quasi-experimental design of two groups pre- and post-test in July 2021 in West Java. Zarit Burden Interview (ZBI) questionnaires were used to collect data of caregiving burden. The results of this study indicate that there was a significant difference between the intervention and control groups using the paired t-test ($p=0.002$) and a significant effect value utilizing the ANCOVA test ($p=0.000$). The Conclusion are Psychoeducation has a considerable impact on stroke patients' caregiver burden. In caring for stroke patients at home, a nurse can provide psychoeducation and caregiver supplies.

ABSTRAK

Rehabilitasi stroke merupakan proses yang panjang dan rumit yang sebagian besar rehabilitasi harus diselesaikan setelah pasien kembali ke rumah (rehabilitasi stroke berbasis komunitas). Caregiver mendukung penderita stroke dalam melakukan aktivitas sehari-hari. Karena tanggung jawab itu, pengasuh merasa terkuras secara fisik dan psikologis. Penelitian ini bertujuan untuk mengetahui pengaruh psikoedukasi terhadap beban pengasuh pasien stroke. Penelitian ini menggunakan teknik purposive random sample dengan jumlah 34 responden. Penelitian ini bersifat kuantitatif dengan desain eksperimen semu dua kelompok sebelum dan sesudah tes pada bulan Juli 2021 di Jawa Barat. Kuesioner Zarit Burden Interview (ZBI) digunakan untuk mengumpulkan data beban pengasuhan. Hasil penelitian ini menunjukkan bahwa terdapat perbedaan yang signifikan antara kelompok intervensi dan kontrol menggunakan uji t berpasangan ($p=0,002$) dan nilai pengaruh yang signifikan menggunakan uji ANCOVA ($p=0,000$). Psikoedukasi memiliki pengaruh yang cukup besar terhadap beban pengasuh pasien stroke. Dalam merawat pasien stroke di rumah, seorang perawat dapat memberikan psikoedukasi dan perlengkapan caregiver.

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INTRODUCTION

Stroke is a disruption of blood supply to the brain that occurs due to blockage or rupture of blood vessels that results in a reduced supply of oxygen and nutrients to the brain, causing damage to brain tissue (WHO, 2018). The World Health Organization (WHO) states that stroke is the leading cause of death for 32.2 million people worldwide. The stroke recovery period takes a long time, with most interventions carried out after the patient returns home (Cheng et al. 2018). A stroke patient who is carrying out daily activities needs help from other people, commonly called caregivers. A caregiver is someone who helps sick people meet their needs (Bailey & Gordon, 2016). Caregivers have duties such as emotional support, caring for patients (personal hygiene, preparing meals, preparing medicines), managing finances, making decisions about care and communicating with formal health care workers (Kung, 2003; Trisnasari, 2017).

Caregivers have a fairly heavy task of caring for stroke patients. This can cause caregivers to feel a burden both physically and psychologically (Agusthia, 2017). The higher the health status of stroke patients, the greater the burden felt by caregivers, which can affect their physical, psychological, social, and economic conditions. 30–68% of caregivers who care for stroke sufferers experience a psychological burden in the form of anxiety and depression. Depression can occur when the anxiety experienced by caregivers occurs over a long period of time. Of the 29% of caregivers who were depressed, 5% had major depression. This means that caregivers will need to take antidepressants to help them deal with the depression they are feeling.

Because the burden of a caregiver is heavy and affects various aspects of life, an intervention is needed that can reduce the burden. The results of a study in 2021 on the burden of stroke caregivers showed that a combination of anxiety management therapy with the provision of education could reduce the burden felt by caregivers (p value = 0.046) (Wang et al., 2021). So one of the interventions that can be given to reduce the burden on caregivers is psychoeducation. Psychoeducation is a therapy that can reduce the burden on caregivers and aims to increase understanding of the disease course of family members, reduce recurrence rates, and improve family and client functions (Stuart, 2016).

According to Agusthia (2017), psychoeducation given to families can significantly reduce anxiety, where psychoeducation can be used as therapy to overcome psychosocial problems in hospitals generally, reducing anxiety and burden on caregivers. Psychoeducation is expected to reduce the burden on caregivers of stroke patients so that the care process for stroke patients remains optimal and caregivers remain in healthy condition. There is still a lack of research related to caregiver burden. It is hoped that this research can be an illustration for intervention options for caregivers in the future. Therefore, this study was conducted to analyze the effect of psychoeducation on the caregiver burden of stroke patients.

METHODS

The research design used in this study was a quasi-experimental using a Pretest-Posttest with Control Group design. The study was conducted over a period of two weeks in West Java. The total sample size is based on sample calculations using G*Power Software version 3.1.9.4. There were 34 people who were divided into the intervention group and 17 respondents in each control group. The selected sample must meet the inclusion criteria, including: a) is an informal caregiver who lives with the patient (patient's family) and has at least 2 years of experience caring for stroke patients; b) age 20–59 years; c) informal caregivers who do not have acute injury or musculoskeletal discomfort, infection, inflammation, or severe or acute illness.

The intervention was carried out in a span of 2 weeks, which included 6 meetings. Psychoeducation activities were carried out in the intervention group with a duration of 25–45 minutes in each session. The psychoeducational stages carried out in this study refer to previous research (Nurbani, 2009; Gusdiansyah, 2016). The five sessions of psychoeducation are as follows: a) Session 1: Families tell about the problems they have in caring for stroke patients; b) Session 2: Client care, caring for, and providing psychosocial support to family members of stroke patients; c) Session 3: Family stress management; d) Session 4: Family burden management; and e) Session 5: Community empowerment helps families deal with their problems.

The instrument used in this study was the Zarit Burden Interview (ZBI). This instrument was patented by Steven H. Zarit in the USA in 1980. In a previous study, the ZBI instrument, which has been translated into Indonesian, has a significance value of r count less than 0.05, so that it is declared valid, and has a Cronbach Alpha coefficient value of more than 0.90, so that the instrument can be said to be reliable. The difference in the level of load before and after the intervention in the control and intervention groups was measured using the Paired T Test.

RESULTS AND DISCUSSIONS

Based on table 1., it is known that the average age of respondents in the intervention group is 35.06 8.46 and in the control group it is 30.41 8.26. The sexes of the intervention and control groups were mostly female. In the intervention group, there were 12 people (35.3%), while in the control group there were 10 people (29.4%). In the intervention group, the average treatment time for stroke patients was 3.12 0.99 years, while in the control group it was 4.41 2.50 years.

Table 1. Demographic Characteristics of Respondents Based on Age, Gender, and Length of Care for Stroke Patients

Variable		Intervention Group (n=17)	Control Group (n=17)
Age	Mean \pm SD	35.06 \pm 8.46	30.41 \pm 8.26
Gender	Laki-laki	5 (14.7)	7 (20.6)
	Perempuan	12 (35.3)	10 (29.4)
Length of Care	Mean \pm SD	3.12 \pm 0.99	4.41 \pm 2.50
Pre-test Burden	No burden	0	17 (50.0)
	Mild-moderate burden	12 (35.3)	0
	Moderate-severe burden	5 (14.7)	0
	Severe burden	0	0
Post-test Burden	No burden	1 (2.95)	17 (50.0)
	Mild-moderate burden	13 (38.25)	0
	Moderate-severe burden	3 (8.8)	0
	Severe burden	0	0

Pre-test scores before being given psychoeducation in the intervention group with the highest number found in the light to moderate burden category were as many as 12 people (35.5%) and in the control group, found in the no burden category, as many as 17 people (50.0%). After being given psychoeducation, the intervention group in the light to moderate burden category increased by 1 person to 13 people (38%), and there was no burden by 1 person (2.95%), while in the control group there was no change. So, psychoeducation can affect the level of caregiver burden for stroke patients. Using the Shapiro-Wilk test on the pre- and post-test values, it was found that both the control group and the intervention group had normally distributed data (0.054-0.506).

Table 2. Effect of Psychoeducation on the Caregiver's Burden in Caring for Stroke Patients

Variable		Mean±SD	t	p-value
Intervention Group	Pre-test	36.06±7.87	-3.772	0.002*
	Post-test	31.53±8.36		
Control Group	Pre-test	11.47±5.73	-1.429	0.172
	Post-test	11.18±5.39		

Based on table 2, it shows that there are significant changes after being given psychoeducational intervention. Ho was given with a p-value of 0.002 ($\alpha < 0.05$) in the caregiver burden intervention group before and after the intervention, indicating that Ho was rejected and Ha was accepted, whereas in the control group, a p-value of 0.172 ($\alpha < 0.05$) indicates that Ho was rejected and Ha was accepted. Thus, there is a significant effect after giving psychoeducation to caregivers of stroke patients.

Based on the results of the analysis, it was found that in the intervention group, the average age of the caregiver was 35 years, and in the control group it was 30 years. This is in line with research by Badaru et al. (2016), which found that older age and longer duration of care can increase the burden of parenting and physical disorders so that it can affect the caregiver's quality of life. A previous study explained that most caregivers have a parent-child relationship with the patient (Azizi, et al., 2020). This reflects the maintenance of a traditional family structure where children meet their needs. In addition, because many strokes occur in old age, spouses do not have the ability to care for their partner, so one of the children in the family is obliged to take care of the patient.

The female gender has the highest number of cases between the two groups. Consistently, previous studies related to stroke caregivers have also shown that female caregivers are more prone to depression and negative life changes than males (Hu et al., 2018). In addition, in many societies, female family members are fully involved in the care of family members who suffer from chronic diseases, including stroke. The burden of care that falls on women is due to traditional culture, social pressures, and a lack of support systems. In general, female caregivers have greater task difficulties, and the perceived caregiver burden is higher than male caregivers (Kim & Lee, 2021).

Based on the results of the analysis of the length of care for patients, an average of 3 years in the intervention group and 4.4 years in the control group. In line with the research of Badaru et al. (2016), which stated that the burden of long-term parenting has also been shown to have an adverse effect on family relationships, emotional health, and social activities. Research by Bosma et al. (2020) revealed that providing informal care for stroke patients for a very long period of time can cause job losses, reduced income, boredom, and sometimes musculoskeletal pain, so that it can affect the quality of life of caregivers.

From the discussion above, it can be concluded that the factors of age, gender, and length of care for stroke patients can create a burden on caregivers. Most caregivers have a parent-child relationship, parenting tasks fall on female family members, and a prolonged period of care can increase the caregiver's burden for stroke patients. Based on the results of the analysis, the provision of psychoeducation resulted in a significant change in caregiver burden of 0.002 (0.05). The caregiver burden is everything related to care, finance, and psychosocial burdening of the family caused by the medical condition of a sick family member. The burden is divided into two, namely the objective that occurs due to special treatment given by the family to the symptoms and behavior of the patient in the social environment and subjective burdens such as stigma, fatigue, sadness, worry, and depression (Susila, et al., 2020). The burden of care experienced by caregivers of stroke patients can interfere with the rehabilitation of stroke patients (Elsheikh et al., 2020).

Psychoeducation is very useful as a technique that combines stroke education with psychological support. This intervention is useful for eliminating difficulties or as a problem-solving tool for caregivers. In addition, parenting mastery and readiness, control focus, self-efficacy, and self-esteem can be carried out using psychoeducational techniques (Panzeri et al., 2019). Educated caregivers have a better sense of the patient's condition and changes in the patient's prognosis than caregivers who have less education.

Family caregivers of stroke survivors often feel less supported. Several studies have discussed the development and evaluation of interventions aimed at preparing family caregivers to meet their needs, caregiving roles, and reduce burdens (Elsheikh et al., 2020). Caregiver education and training are needed to improve the caregiver's ability to cope with the burden of care for stroke patients (Badaru et al., 2016). Family psychoeducation is a therapy used to provide information and improve family skills in caring for family members who suffer from stroke, so it is hoped that families will have positive coping with stress and the burden they experience (Goldenberg, 2016). Caregivers or families can make the right decisions if they are supported by cognitive abilities (Gusdiansyah et al., 2019).

In general, stress management focuses on two areas. The first area includes modifying stress interpretation through cognitive techniques, and the second area includes reducing adverse psychological responses using relaxation techniques. One of the cognitive approaches is to use psychoeducation, in which there is a progressive muscle relaxation technique (Suharsisti, 2018). When experiencing work stress, caregivers are trained to realize and feel relaxed, as well as train to be more sensitive to the tension that arises due to work stress and become more skilled at reducing the tension that arises. If done correctly and regularly, it will be useful to overcome pressure or tension when experiencing work stress (Mustikawati, 2015). Progressive muscle relaxation techniques are able to overcome subjective burdens related to emotional reactions felt by caregivers, such as feelings of worry, anxiety, sadness, anger, fear, feelings of guilt, and so on (Susila et al., 2020).

Family psychoeducation is one form of health promotion in the family in order to increase the family's ability to participate in solving problems that occur in the family. In Nurbani's study (2009) on the effect of family psychoeducation on anxiety and family burden (caregiver) in caring for stroke patients, it showed a decrease in the burden, although it was not significant (Kamalah, et al., 2020).

In this study, psychoeducation was only given to the intervention group, while the control group was only given health education about stroke without psychoeducational therapy. Although not all studies show consistent results, many studies show that interventions for stroke caregivers are effective in reducing depression, anxiety, quality of life, and physical and social functioning. Psychological and psychoeducational interventions for caregivers are useful and efficient in reducing caregiver psychological problems and burdens (Kim & Lee, 2021). In Agusthia's research (2018), psychoeducation has a significant effect with a p-value of 0.000 (0.05), so it can be seen that psychoeducation has an influence on reducing the burden on families with stroke sufferers. So it can be concluded that psychoeducation is an effective technique or therapy in reducing the caregiver's value for stroke patients. Psychoeducation not only provides information, but also psychological support for stroke patients' caregivers. One of the managements contained in psychoeducation is load and stress management.

CONCLUSIONS

The psychoeducation given to the intervention group proved to have a significant effect on the burden felt by caregivers of stroke patients. It is hoped that this research can be applied by the nursing profession to help reduce the caregiver's burden in caring for stroke patients. Furthermore, it is hoped that this study will provide insight and ideas for future research on stroke patient caregivers' psychoeducation.

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