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Case Report

Religious-Spirituality Approach to Post-Stroke Depression Patients: An Evidence-Based Case Report

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Submitted : April 14, 2024
Revised : September 8, 2024
Accepted : December 11, 2024
Published : May 1, 2025

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Abstracts

Introduction: Stroke patients are at can develop a risk of developing a risk of depression as a results of decreased physiological and psychological functions. Management of post-stroke depression is one of the challenges in the care of stroke patients. A religious/spirituality management approach can be an alternative in the management of post-stroke depression. This evidence-based management is to evaluate management options with a religiosity/spirituality approach to reduce the risk of post-stroke depression. **Case:** A 54-year-old female patient came with her husband with presenting with changes in feelings and emotions, accompanied by difficulty sleeping and headaches. She felt dissatisfied with her religious worship properly. The patient was diagnosed with organic depression as a results of stroke. **Discussion:** Three quantitative studies have shown that a religiosity/spirituality approach in the management of post-stroke patients has the effect of reducing depression in patients through increased efficacy and self-acceptance. Based on three qualitative studies, it shows the effect of the religiosity/spirituality approach as a coping mechanism that can reduce depressive symptoms. The lack of quality of the study makes the religiosity/spirituality approach to reduce depression in the management of post-stroke patients need further study regarding its effectiveness and its effect on the wider population. **Conclusion:** The religiosity/spirituality approach can reduce depression and is suggested as one of the management options for post-stroke patients.

Keywords: Complementary Therapy, Depression, Religiosity, Spirituality, Stroke

Cite this as: Sausan, Adnan. M. L, Rhadiana. B. R,"Religious-Spirituality Approach to Post-Stroke Depression Patients: An Evidence-Based Case Report". Jurnal Psikiatri Surabaya, vol. 14, no. 1, pp.119-127, 2025. doi: 10.20473/jps.v14i1.56715

INTRODUCTION

Post-stroke depression (PSD) is one of the serious complications of stroke that can increase the risk of patient mortality [1]. The prevalence of PSD reaches 30% of the total stroke survivors, with a range between 18-33%, depending on the patient selection, diagnostic criteria used, and length of time (follow-up) after the stroke [2], [3]. In men, post-stroke depressive episodes occur more frequently than in women, although women have a greater risk of stroke [4], [5]. Current evidence strongly indicates an association between stroke severity and PSD, which is frequent and is a complication of stroke that interferes with functional abilities of daily living [3]. Depression following an acute post-stroke event impacts recovery function [6].

Spirituality and religiosity have been found to play important moderating roles in other populations [7]. Spirituality refers to the way individuals express their meaning and purpose with important or sacred things, while religiosity means to individuals or groups adherence to a higher power of faith in forms of beliefs, doctrines, or practices [7], [8]. For example, Dewitte and Dezutter (2021) observed older populations in the Netherlands that meaning in life, which is influenced by spirituality and religiosity, is negatively correlated with depressive symptoms, which in populations with indifference to the meaning of life has higher depressive symptoms [9]. The use of religious values can also be utilized in cognitive behavioral therapy sessions and is known to have better results by providing more relevance in life [10]. However, the use of a spirituality approach and religiosity in the management of PSD is still not widely practiced in clinical settings, so in this case, the aim is to discuss evidence-based management of the management of spirituality and religiosity in PSD patients.

CASE

A 54-year-old female patient came with her husband with of presenting with changes in feelings and emotions that were more unstable since multiple strokes, with the first attack occurring 5 years ago and the last attack being 3 months ago. The patient was diagnosed with ischemic stroke since the first stroke. Complaints are accompanied by difficulty sleeping since the last stroke and headaches that extend to the left side of the neck. The patient has been receiving treatment from a neurologist for stroke management, but her mood and emotional complaints have not improved. According to information from her husband, the patient felt dissatisfied in carrying out her religious worship and was disturbed by her physical condition, which made her unable to worship properly. The patient confirmed that she was not happy with her current ability to worship as a results of her stroke. According to information and psychiatric examination, the patient was diagnosed with organic depression due to stroke. After being given treatment in the form of antidepressants and sleep medication, the patient was given an appointment for control 1 week later.

Based on the case, the clinical question is, "Can religiosity and spirituality approaches help the management of patients with post-stroke depression?"

DISCUSSION

A literature search was conducted from August to September 2022 using the electronic search engines PubMed, Google Scholar, EBSCO, and ScienceDirect using the phrases "religiosity approaches in the management of post-stroke depression (PSD)," "spirituality coping management of post-stroke depression (PSD)," and a combination of the keywords "religiosity," "spirituality," "post-stroke depression," and "rehabilitation.". The search for selected studies focused on the effect of religious and spiritual approaches on post-stroke depression patients. The inclusion criteria in this literature search were quantitative and qualitative studies and stud-

ies published in English or Indonesian from 2019-2022. Data retrieval from qualitative studies was carried out to obtain the perspective of stroke patients on the influence of the religiosity-spirituality approach to analyze understanding resilience through the perspective of stroke patients [11]. All relevant studies will be assessed using the Center for Evidence-Based Medicine (CEBM) critical appraisal worksheet tool by the University of Oxford according to the type of study.

We obtained 3 studies related to interventions to support the religiosity/spirituality approach in post-stroke depression patients and 3 qualitative studies on the effect of religious and spiritual approaches to answer our clinical questions. Our literature search is described in Figure 1. Based on the critical appraisal assessment with the CEBM, only one study met the internal validity for the RCT study, while the findings of the qualitative study were obtained to formulate clinical questions and problems. The results of the critical appraisal of quantitative and qualitative studies are shown in Table 1 and Table 2.

Table 1. Critical appraisal for RCT in included studies

Author (Year of study)	Country	Type of intervention	Focused approach (Spirituality/ Religiosity)	Number of participants	PICO	Randomisation	Similiarity	Equally treated	Intention to treat	Blinding	Main findings
Handayani et al (2020)	Indonesia	The SELF-HELP Packages (Smart, Effort, Wellness, Feel, Happy and Power)	Spirituality and Religiosity	68 patients of ischemic stroke	+	-	+	+	+	-	The intervention did not effect on post-stroke depression significantly after any confounding controlled (OR=0.288, 95% CI 0.073 – 1.135, p=0.075)
Dharma et al (2020)	Indonesia	Religious Spiritual and Psycososial Coping Training (RS-PCT)	Religiosity and Spirituality	56 patients (28 patients in intervention group (24 non hemorrhage and 4 hemorrhage) and 28 patients in control group (23 non hemorrhage and 5 hemorrhage)	+	+	+	+	+	+	In the intervention group, there was a significant (p=0,046 and 0,030) increase in the value of self-acceptance (36,86 (8,484), CI 95%: 33,57-40,15) and efficacy (25,18 (4,137), CI 95%: 23,57-26,78) compared to control group (32,32 (8,092), CI 95%: 29,18-35,46) and 22,36 (5,272), CI 95%: 20,31-24,40)

Table 2. Critical appraisal for qualitative studies in included studies

Author (Year of study)	Country	Focused approach (Spirituality/Religiosity)	Number of participants	Rationale for research	Appropiate	Sampling	Data collecting	Data analysis	Researcher's position	Credibility	Justified	Transferable	Main findings
Smith (2019)	South Africa	Spirituality	14 patients	+	+	+	+	+	?	+	+	+	The participants used their spirituality as a coping mechanism for the loss of their ability to function as before and relied on higher powers to help them regain the functions they had lost when they suffered a stroke.
Mairami and Warren (2021)	Malaysia	Religiosity	20 patients	+	+	+	+	+	?	+	+	+	Healthcare management for stroke patients can be combined with an all-inclusive health model that combines the physical, social and spiritual realms. Incorporating religious practices can help relieve symptoms of depression in stroke patients

Author (Year of study)	Country	Focused approach (Spirituality/Religiosity)	Number of participants	Rationale for research	Appropiate	Sampling	Data collecting	Data analysis	Researcher's position	Credibility	Justified	Transferable	Main findings
Taylor-Pillae et al (2021)	USA	Spirituality	7 patients	+	+	+	+	+	+	+	+	+	The tai-chi method for stroke patients encourages curiosity about the spirituality and rituals of the program, but its relationship to reducing depressive symptoms remains unclear.

The study by Handayani et al. (2020) [12] conducted a quasi-experimental study using the SELF-HELP Packages (Smart, Effort, Wellness, Feel, Happy, and Power) method by combining a combination of health education, discussion, and independent activities delivered in four sessions with a pause of one week between sessions, each session lasting 60-90 minutes. The intervention was carried out for two months. In this study, the approach to spirituality and religiosity of stroke patients was carried out in the second session with the help of booklets and flipcharts. The results of the intervention showed that the SELF-HELP Packages could reduce PSD, but the decrease was not significant when various confounding factors (social support, functional status, cognition, brain-derived neurotrophic factor (BDNF), and constant) were controlled.

A study by Dharma et al. (2020) [13] using the Religious Spiritual and Psychosocial Coping Training (RS-PCT) intervention, namely the practice of applying religious spiritual coping and psychosocial coping to increase self-efficacy against disability conditions in post-stroke patients so that the patient's motivation for rehabilitation increases. The intervention in this study was carried out in three stages, namely assessment, intervention, and strengthening and evaluation. In this study, after conducting an assessment of the patient's spirituality, an intervention was carried out that consisted of 5 stages: education about stroke and prevention of recurrent stroke, education about self-efficacy after stroke, teaching about positive thinking after stroke, and practicing spiritual coping strategies. religious, and that is to practice emotional control strategies and stress relief. The results of the study show that the spiritual religiosity coping intervention has the effect of increasing self-efficacy and self-acceptance, although its effect on the risk of post-stroke depression has not been analyzed further.

Results of Qualitative Study Data Extraction

In a study by Smith (2019) [14], stroke patients developed recovery skills through adaptation, engaging with information, coping and acceptance strategies, and exercises to facilitate recovery in self-management following the acute phase. The participants used their spirituality as a coping mechanism and were encouraged to start the rehabilitation process and improve their functional abilities through recovery exercises. In addition, spirituality encourages increased belief in a higher power to help him recover. Although this study does not discuss how spirituality affects depression, spirituality influences various factors that may have an impact on depression risks, such as self-efficacy and functional rehabilitation.

The study by Mairami and Warren (2021) [15] discusses the effect of religiosity on religiously specific stroke survivors. Although stroke affects the patient's ability to fulfill religious obligations, religiosity is central to the patient's understanding of dealing with his illness and the conceptualization of recovery. There are four sub-themes found in the religiosity of stroke patients, namely: the centrality of religion, causation and seeking help, the recovery process, and family and communal support. The findings of this study support the approach of religiosity as a cure for stroke patients suffering from depression. Religious practices carried out by stroke patients can improve functional abili-

ties such as physical rehabilitation and brain function.

The study by Taylor-Pillae et al. (2021) [16] used the tai-chi method, which is a moderate-intensity exercise that combines physical movement, breathing exercises, and mindful awareness during exercise. Tai-chi has been widely studied to have beneficial effects on the rehabilitation of stroke patients. In this study, the tai-chi approach is known to affect the spirituality of patients, although more participants were asked and interested in tai-chi than its effect on the spirituality of stroke patients. However, in this study, Tai Chi provided physical benefits such as better balance and strength, mental benefits such as hope and reduced depression, and social benefits such as forming new friendships with other patients and greater social support.

One of the main points of the religiosity and spirituality approach in each study is the patient's acceptance of their post-stroke condition, which includes adaptation, increasing self-acceptance, and increasing patient self-efficacy. In the study by Dharma et al. (2020), Handayani et al. (2020), and Smith (2019), the patient-oriented approach to accepting their condition and adapting is the first step in the religiosity approach [12]–[14]. In the study by Taylor-Pillae et al. (2021), the spirituality approach is based on personal efficacy beliefs, which include the patient's ability to receive information from various sources and base actions and habits on that information [16]. The development of these approaches aims to develop coping mechanisms in post-stroke patients. However, in a qualitative study by Mairami and Warren (2021), one of the challenges in developing coping mechanisms is the understanding of fatalism, which results in patients being noncompliant with treatment [15].

Stroke patients are at risk of developing resilience conditions caused by various general physical disorders, including damage to limb functions such as disability and paralysis, speech disorders, and cognitive disorders [11]. The religious and spiritual approach aims to develop resilience for patients by producing positive adaptation to avoid negative emotions that arise, such as depression, disappointment, and anger, which are often followed by loss of self-esteem [11]. The self-esteem component is a core factor for adaptation both emotionally and socially, where a study by Khaledian et al. (2017) showed that the spiritual approach for opioid addicts had better self-acceptance, which is supported by the theory of the influence of spirituality as one of the coping mechanism approaches [17]. The patient's resilience process can also develop through the process of religious activities by increasing social interaction between patients and their environment [17]. In a study by Ozawa et al. (2017), religiosity scores were related to self-esteem and contributed to strengthening resilience in depressed patients to reduce depressive symptoms while reducing the risk of suicide attempts [18].

The main limitation of this report is that we did not have the opportunity to conduct a follow-up, given that the patient's medical history focused on stroke, thus limiting the role of the patient's psychiatric approach. However, several non-interventional studies have shown that patients with high levels of religiosity have higher levels of resilience as well as improved quality of life [19], [20]. However, it should be noted that religiosity and spirituality do not always result in positive coping mechanisms. In several studies, the level of religiosity and spirituality related to negative coping mechanisms that lead to patients' reluctance to continue treatment as a results of their disabling condition [15], [21]. Negative coping mechanisms are often shown in patients with fatalism or a resigned attitude to fate and an inability to control what happens in life [22]. Fatalism itself is influenced by the surrounding environment socially or culturally and is often a negative self-determinant in several studies [23]–[26]. In this case, the patient is an ischemic stroke patient who has severe motor function dis-

orders. Only two studies describe the type of stroke patient, both of which focus on patients with ischemic stroke [12], [16]. Differences in rehabilitation outcomes between stroke types have contradictory results. The study by Oosterveer et al. (2022) showed no significant difference during the rehabilitation process in patients with ischemic stroke and hemorrhagic stroke after three and six months, but this study had a bias in patient selection [27]. In contrast to the results of a study by Salvadori et al. (2020), which showed that patients with hemorrhagic stroke had more severe clinical and functional outcomes and were influenced by various variables, including the influence of influencing factors such as age, gender, duration of rehabilitation in the hospital, and functional and clinical burden upon admission to the hospital [28]. A religious and spiritual approach can be a holistic rehabilitation program for both types of stroke, but further studies are needed on the functional outcomes and quality of life of post-stroke patients.

Existing studies show the effect of a religiosity and spirituality approach on reducing depression in stroke patients. We also discussed how the influence of religiosity and spirituality might help stroke patients by taking a qualitative study to find out the patient's perspective regarding the approach of religiosity and spirituality to prevent them from developing depression. In the three quantitative studies we encountered, spirituality became the main focus in the three studies, while two focused on the approach to religiosity and spirituality. This finding may be as a results of the concept of religiosity being focused on a particular religion, thus influencing the patient's perspective on his religion [14], [16]. The spirituality approach depends on the patient's inner self and is universal without being specifically dependent on any particular religion [17].

Religiosity/spirituality acts as a mediator between race/ethnicity and communication quality, but its impact is limited to one particular aspect of communication: higher ratings of physicians' questions about the patient's religious beliefs, especially in the Asian community [18], [19]. Religiosity and spirituality at higher levels have a positive relationship with the quality of communication specifically related to conversations about religion/spiritual beliefs [20]. The application of a religiosity and spirituality approach has benefits in cases of chronic disease patients. For example, the results in the Eloia et al. (2019) study show the role of a religiosity and spirituality approach in the management of chronic kidney disease patients by providing activities that can increase religiosity and spirituality [21]. Also, religiosity can affect social support through coping, medication, and help-seeking behavior, whether in an Islamic society or other religions [22], [23]. As a result, this approach can be applied to stroke patients, considering that stroke patients need a long time to recover so that it can help patients reduce the risk of complications.

Based on this case, the use of a religiosity and spirituality approach might reduce depression in the patient and restore the patient's cognitive function. The use of a religiosity and spirituality approach can help post-stroke patients experiencing psychological stress as a results of impaired physiological function by helping to improve their psychological and physiological health and thereby relieve depression. This approach can be useful as a non-pharmacological therapy for use by many stroke clinicians and as a strategy to improve post-stroke depression. However, based on our critical appraisal, only one study, each quantitative and qualitative, met the completeness of the checklist. These findings indicate the need for further studies on management with a religiosity and spirituality approach to prevent depression in post-stroke patients.

CONCLUSION

Stroke patients can be at risk of developing depression, which can worsen the patient's

quality of life. Management of post-stroke depression patients in the form of a religiosity/spirituality approach can help reduce depression by making religiosity and spirituality an effective coping mechanism. The religiosity/spirituality approach can be recommended for management of post-stroke patients to avoid the risk of depression and improve the patient's quality of life to avoid stroke complications.

ACKNOWLEDGMENTS

None

CONFLICT OF INTEREST

There is no conflict of interest between authors

FUNDING

There is no funding from any party.

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