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Islamic Spiritual Education Through *Visiting Patient App* For Brain Tumor Patients

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ABSTRACT

Brain tumor patients may experience stress due to changes in their health, daily life, and intense head pain. Prolonged stress can worsen their condition and cause depression, hindering their treatment process. The study consisted of two groups, each with 15 participants. However, after some withdrawals, the final sample for Group 1 was 11, and Group 2 was 7. The stress, anxiety, and depression levels were measured using the DASS 42 questionnaire before and after the intervention, which involved providing the Visiting Patient app to Group 1 and not to Group 2. Data was collected every 4 to 5 days using the same questionnaire. The app, which contains Islamic educational content on the positive aspects of illness and rewards, increases the patient's spiritual knowledge and helps them adopt a positive attitude towards their condition, reducing stress, anxiety, and depression. It allow them to cooperate better with their treatment process.

Keywords: Visiting Patient app; stress; anxiety; depression; brain tumor

INTRODUCTION

Brain tumor patients can experience stress from a variety of sources, including changes in health, alterations to their daily routine, and chronic head pain (Gibson & Graber, 2021). Financial difficulties and the inability to support their family can also contribute to stress (Abuatiq et al., 2020). Disruptions to work can also be a source of stress for patients (Urbayatun, 2015). The treatment process for brain tumors, which often involves surgery, can cause anxiety that exacerbates the stress patients are already experiencing (Ningsih et al., 2018). Prolonged stress can have a negative impact on the disease and cause depression, making it harder for the patient to cooperate with their treatment program (Köpsén & Sjöström, 2020).

The stress experienced by brain tumor patients varies from person to person and can affect their physical, emotional, and mental well-being, impacting their recovery

process (Fancourt et al., 2016). Patients who understand the nature of their illness see it as a test from God that must be faced with patience and courage as they seek to recover (Andirja, 2021b). Accepting the illness and recognizing its purpose can improve patients' attitudes and reduce anxiety and depression. Providing spiritual education that explains this perspective is important for helping patients accept their brain tumor. A positive outlook can improve the function of the immune system, reducing inflammation and promoting overall (Savić et al., 2015; Sood et al., 2007).

The widespread adoption of technology has made education accessible through apps (Maiyana, 2018). The Visiting Patient app is an educational tool that provides spiritual guidance on the importance of visiting the sick and the benefits of being sick (Wahyudin, 2022). The app draws on the teachings of Prophet Muhammad PBUH, which emphasize that being sick can purify one's sins and bring one closer to God. The app also highlights the rewards of visiting the sick, including a closer relationship with God.

By visiting the sick, patients feel cared for, loved, and supported (Andirja, 2021a), boosting their motivation and enthusiasm for recovery. The Visiting Patient app in brain tumour treattumourrooms is expected to ease patients' stress, anxiety, and depression and help them cope with their conditions and treatment programs.

MATERIAL AND METHOD

The study utilised a quasi-experimental design with two groups, and a pre-post design with a control group. The participants were randomly selected from the brain tumour treatment ward of Prof. Margono Soekarjo Hospital and met the inclusion criteria. They were then divided into two groups: Group 1 received the Visiting Patient app, and Group 2, the control group, did not. The initial sample size for each group was 15 individuals; however, due to some withdrawals, the final sample size for Group 1 was 11 and for Group 2 was 7. The data was collected using the DASS 42 questionnaire, which measured stress, anxiety, and depression. The data was taken before and after the provision of the app and collected every 4 to 5 days with the same questionnaire. The control group was also evaluated using the same questionnaire but without the intervention of the Visiting Patient app. The statistical analysis was conducted using SPSS 20 to determine the difference between the two groups using the T-test and Wilcoxon test, with a significance level of $p < 0.05$. This study was approved by the Ethics Commission of the Faculty of Medicine Universitas Jenderal Soedirman (Ref: 011/KEPK/PE/VI/2022)

and by the Ethics Commission of Prof. Margono Soekarjo Hospital (register number: 420/08800).

RESULTS

Most of the samples are female, with housewives (IRT) occupations. Furthermore, the number of primary education graduates was more than that of secondary school graduates (Tabel 1). Table 2 showed that the average value of anxiety, stress and depression in the intervention groups was higher than in the control groups before or after treatment.

Table 1. Characteristics of the Subjects between Groups

Characteristics	Intervention Groups		Control Groups	
	n	%	n	%
Sex				
Female	7	63,6	5	71,4
Male	4	36,4	2	28,6
Total	11	100	7	100
Education				
Primary School (SD)	5	45,5	5	71,4
Junior High School (SMP)	4	36,4	1	14,3
Senior High School (SMA)	2	18,1	1	14,3
Total	11	100	7	100
Occupation				
Unemployed	0	0,00	1	14,3
Housewife (IRT)	7	63,6	5	71,4
Trader	1	9,1	0	0
Farmer	2	18,2	1	14,3
Entrepreneur	1	9,1	0	0
Total	11	100	7	100

Table 2. DASS Score of Anxiety, Stress, and Depression between Groups

Variable	Intervention group			Control group		
	Mean	SD	Mean Difference	Mean	SD	Mean Difference
Anxiety						
Before treatment	12,82	6.750	7,4	4,14	2,116	-0,29
After Treatment	6,29	3,352		4,43	2,992	
Stress						
Before treatment	14.73	7.938	10,55	4.57	2.760	-0,14
After Treatment	4.18	2.786		4.71	2.498	
Depression						
Before treatment	11,09	6,877	7,64	3,00	1,512	-0.01

After Treatment	3,45	2,423		2,86	1,574

Table 3 depicts the statistical analysis results of the Paired T-test and Wilcoxon test in the intervention and control groups. There were differences in the effects after the treatment of *Visiting Patient* app in reducing stress, anxiety, and depression in brain tumour patients between the groups.

Table 3. Pre and Post-Test Differences of DASS Score among Anxiety, Stress, and Depression

Variable	Mean	SD	Std. Error Mean	95% Convidence Interval		P Value
				Lower	Upper	
Intervention groups						
Anxiety	7.364	4.365	1.316	4.431	10.296	0.000
Stress	10.545	5.716	1.723	6.705	14.386	0.000
Depression	7.636	5.104	1.539	4.207	11.066	0.001
Control groups						
Anxiety	0.286	1.113	0.421	1.315	0.743	0.522
Stress	0.143	1.676	0.634	1.693	1.407	0.829
Depression	0.286	0.756	0.286	0.985	0.413	0.356

DISCUSSION

Patients diagnosed with brain tumors often face stress and anxiety related to changes in their health. Without proper intervention, these feelings can progress to depression (Noh & Walbert, 2018). One way to help reduce stress is to provide Islamic spiritual education therapy to Muslim patients. This education can help patients understand that their illness is a test from God and that they can receive rewards for their patience and endurance (Boucher et al., 2017). The Visiting Patient app, which contains hadiths and wisdom on being sick, can also help reduce stress, anxiety, and depression in these patients. Table 1 shows that more women are affected by brain tumors than men, which could be due to differences in their innate and adaptive immunity levels (Klein & Morgan, 2020). Regardless of the severity of their pain, patients must understand that their illness is part of their fate, written in the "Lauh Mahfuz", and that everything happens according to God's plan.

Some patients may struggle with accepting their illness, feeling that God is unfair, or having negative thoughts about God. They may also regret past choices or blame others for their condition. Islamic spiritual education therapy can help these patients understand that their illness is a part of a greater plan and that they can find peace and comfort through their faith (Andirja, 2021b).

According to a hadith narrated by Muslim, Prophet Muhammad PBUH stated that being a Muslim is a blessing. If a Muslim is treated kindly, he/she will be grateful and it is good for him/her. If a Muslim faces adversity, he/she will remain patient, which is also good for him/her (Ibrahim, 2007). This hadith highlights that adversity or any form of test is beneficial for a Muslim as long as they understand its nature. Understanding the nature of the situation will help them remain calm and reduce stress. A calm mind and accepting the situation can release endorphins (Haruyama, 2015).

Tables 2 and 3 show that there was a decrease in stress, anxiety, and depression in patients after they received the Visiting Patient app intervention compared to before the intervention. The results indicate a significant decrease in stress scores and a significant difference between the intervention and control groups, with a p value of < 0.05. The study also revealed a difference in stress, anxiety, and depression between the post-intervention and control groups, with a p value of < 0.05. This demonstrates that the provision of the Visiting Patient app can lower stress, anxiety, and depression in patients. Providing education on the wisdom and religious benefits of such conditions through the app can increase patient literacy and help them feel more comfortable, calm, and accepting of their fate. A calm mind and a positive attitude towards the condition can increase endorphin hormone levels. Endorphins are crucial in controlling stress, promoting a positive mood (Draeger et al., 2018), and reducing anxiety and depression (Pilozzi et al., 2020). On the other hand, stress can increase cortisol hormone levels (Abuatiq et al., 2020), which can increase the activity of the sympathetic nervous system, elevating blood pressure and increasing the heart's workload (Hannibal & Bishop, 2014).

Brain tumor patients often face challenges with their mental and emotional well-being, which can be exacerbated by their health condition. These challenges include stress, anxiety, pain, sadness, nervousness, insomnia, and worry (Draeger et al., 2018; Urbayatun, 2015). To mitigate the negative impact of these stressors, family support and spiritual literacy are crucial elements in a patient's recovery process (Jeon et al., 2017).

In particular, Islamic spiritual education that highlights the wisdom and rewards of undergoing trials and tribulations can help patients to build resilience and strengthen their mentality during the disease experience (Unseld et al., 2019). The Visiting Patient app, which can be easily downloaded on the app store, provides access to such education and can help reduce patient stress and anxiety (Andirja, 2021a).

By enhancing a patient's mental and spiritual wellbeing, they are more likely to remain optimistic and exhibit increased levels of patience towards their illness. This can activate endorphins, boosting the immune system and reducing stress and anxiety. Access to educational resources via a smartphone app can also help maintain patients' mental state and improve their compliance with the treatment program. This is crucial to prevent hindrance of treatment due to irregular attendance or lack of motivation. Reducing pain and improving sleep quality during hospitalization can also aid in managing stress. Involving family members in the treatment and familiarizing them with the treatment plan can also contribute to reducing patient stress (Abuatiq et al., 2020).

Enhancing a patient's knowledge can lead to improved self-management and enhance their compliance with treatment programs, thereby reducing stress during treatment (Prabowo et al., 2021). The acceptance of information has a significant impact on knowledge acquisition (Budiman, Riyanto, 2014). As patients gain knowledge and proficiency, they can apply it in their daily lives and educate other family members on adaptive coping strategies and stress management techniques, leading to better decision-making and problem-solving skills. Research also shows that providing information can improve knowledge and coping mechanisms (Sprik et al., 2021). A broad understanding of stress management and problem-solving skills can lead to better emotional self-control and better alternatives to address issues. Individuals who understand the importance of stress management are more likely to utilize adaptive coping mechanisms Education through audio-visual media and booklets has been proven effective in increasing premenopausal women's knowledge and self-efficacy, leading to a positive change in attitude and reduced stress levels (Setiawan et al., 2020).

Therefore, by utilizing a visiting patient app to manage stress, anxiety, and depression, patients can gain spiritual knowledge and make informed decisions. This, in turn, can foster a positive attitude and active coping mechanisms, enabling them to effectively manage negative feelings. The transformation of general religious beliefs and practices into specific coping strategies can have a direct impact on an individual's health during challenging times (Purnama, 2022). This, in turn, can lead to successful outcomes and rewards during times of illness.

CONCLUTION

The Visiting Patient app, which provides Islamic education on the benefits of being ill and the rewards associated with it, boosts patients' spiritual understanding. This

improved spiritual insight promotes a positive outlook and helps patients to accept their illness, reducing stress, anxiety, and depression. This, in turn, improves patient cooperation in their treatment.

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