

The Effect of Islamic Spiritual Mindfulness Therapy on the Drugs Adherence of Skizofrenia Patients through SI-POS Android Application

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Abstract

Background: The non-adherence of schizorefrenia is high even though non-adherence causes relaxed and rehospitalization. One of alternative intervention strategies is to use Islamic spiritual mindfulness therapy.

Objective: To determine the effect of Islamic spiritual mindfulness intervention on drug adherence in schizophrenia through SI-POS android application.

Method: This type of research was quantitative using a quasy-experimental design with a prepost test control group design approach, namely the type of research design by forming two groups, namely the control and intervention groups. Data were measured using the MARS 10 questionnaire, it took six weeks to see drug adherence and the effectiveness of Islamic spiritual mindfulness therapy, a questionnaire to follow up on the ability of spiritual healthy independent target activities. This research has been declared to have passed the ethical health test at RSJ Central Java. Data was analyzed using SPSS 25 programs with Wilcoxon signed rank test or a statistical test difference. The intervention group was given "Islamic Spiritual Mindfulness" to receive treatment. Results: This study showed that mindfulness intervention is very effective in increasing drug adherence and targets for spiritual independence. Islamic spiritual mindfulness patients acknowledge the problem causing their problem. These findings support the use of Islamic Spiritual Mindfulness as an intervention to increase the adherence level of patients treatment with mental and mental health conditions. IT recommended not only drug adherence, that these interventions could be developed through future research and intervention programs. Conclusion: This study concluded that spiritual mindfulness has an effect on drug adherence in schizophrenia patients. Therefore, Islamic spiritual mindfulness therapy is highly recommended for mental nurses. Islamic spiritual mindfulness as a therapy is considered as an intervention for patient mental disorders.

Keywords: mindfulness, spirituality, schizophrenia, adherence

INTRODUCTION

The biggest economic burden in the world is a mental health than other health sectors, a mental health problem in 2010 costed as much as US \$ 2.5 trillion, and the prediction will increase continuously to US \$ 6 trillion in 2030.¹ According to WHO, There are about 50 million people with dementia in the world, 60 million people with bipolar disorder, 23 million people with schizophrenia, 300 million people suffer from depression.² The results of Basic Health Research in Indonesia showed an increase in the proportion of mental disorders, increased from 1.7% in 2013 to 7% by 2018.³ Schizophrenia is one of the most serious and frightening mental disorder that can cause anxiety in society, the media, and the health sector.⁴

The biggest problem in medicine and psychiatry is non-compliance (non-adherence). The non-adherence rate in schizophrenia is 41.2% - 49.5% influenced by low knowledge, not getting support from family,⁵ substance abuse, poor communication with health workers, and not knowing about the benefits of drugs.⁶ Forgetting, carelessness, feeling healthy, quitting if feeling worse, taking medication if you feel sick, feeling weird like a zombie and side effects of drugs.⁷ The result that occurs in schizophrenia patients who do not comply is a high relapse rate.⁸ 80 % in 12 months after discontinuation of treatment,⁹ and 95% in 24 months after discontinuation of treatment.¹⁰

Mindfulness is a way of training the mind, heart, and body to fully accept what is experienced in life. The acceptance with deep awareness and knowing that life that arose today will pass.¹¹ Research in various countries has shown that mindfulness therapy can increase drug adherence in schizophrenic patients,¹² Several conscious therapeutic approaches have been developed for example, Mindfulness Based Stress Reduction (MBSR),¹³ Mindfulness Based Cognitive Therapy.¹⁴ Mindfulness Caring¹⁵ Islamic spiritual mindfulness¹⁶ Islamic spiritual mindfulness therapy is one of the effective therapies to increase treatment adherence in schizophrenia patients.¹⁷

Islamic spiritual mindfulness has influenced a spiritual independence and increase the patient drug adherence that has mental disorders including schizophrenia.¹⁷ Islamic spiritual mindfulness is given to patients by emerging a sense of kindness, acceptance, and patience.¹⁸ Previous studies, using the pilot study method with 11 schizophrenic patients as the samples without a control group, proved that Islamic spiritual mindfulness therapy has an effect on spiritual independence and increase drug adherence for patients with mental disorders including schizophrenia.

The use of technology can facilitate the adoption and integration of drug adherence by promoting behavioral strategies through health messages, emphasizing healthy habits, tracking goals, and providing incentives for behavior change.¹⁹ Using smartphone apps is a new approach in improving patient adherence and behavior easily accessible and downloaded for free. Taking a medication has been widely applied in various methods, including the use of smartphone technology media. Such as smartphone

drug adherence-oriented app (adherence apps) which features a calendar-based alarm with dosage, drug function and drug side effects, pharmacy contacts and primary care.²⁰

Android-based applications to improve drug adherence are widely used and there are still many schizophrenic patients who do not adhere on the treatment. However, the research using Android-based Islamic spiritual mindfulness therapy has never been carried out. Therefore, this study was conducted to determine the effect of Islamic spiritual mindfulness therapy on drug adherence in schizophrenic patients.

OBJECTIVE

This study aims to determine the effect of Islamic spiritual mindfulness on drug adherence in schizophrenia

METHOD

This research is a quantitative research with "Quasi experimental pre-post test control group" design. The sample in this study were schizophrenic patients. The inclusion criteria for this study were patients who had been treated more than once and willing to take Islamic spiritual mindfulness therapy. The exclusion criteria were unwillingness to continue therapy. The sampling technique used purposive sampling with 50 people. This research was conducted at RSJ in Central Java, Indonesia, taken from 8 rooms, namely RIPD, R1, R2, R3 R5, R6, R7, R.12 and outpatient polyclinic on August to October 2019 who had completed drug therapy at the RSJ and were allowed to go home. Furthermore, a pretest was carried out which later it was given the Islamic spiritual mindfulness therapy, two weeks later, the adherence was measured using the MARS questionnaire (10). Then, an Islamic spiritual mindfulness intervention was carried out. Four weeks later, a post-test was carried out and the adherence was measured using the MARS questionnaire as well as the Islamic spiritual mindfulness intervention. The data were obtained using the Wilcoxon test bivariate analysis with a significance value of α 0.05, and the Kolmogorov-Smirnov normality test. The research instrument used was the MARS (10) questionnaire to measure the adherence of the drugs contained in SI-POS android application.¹⁹

Result

The respondent's characteristics showed that most of the respondents were male, 17 people (68.0%). The education level was elementary school, 18 people (72.0%), and the employee were 15 people (60.0%), the medical diagnosis of hebephrenic schizophrenia was 9 people (36.0%), the marital patient was 12 people (48.0%), and 18 people had an income below 2.5 million (72.0%). The respondents were 36.08 years old (SD = 12.62). The house distance to the hospital was 42.60 (SD = 22.92) and the diagnosis age was 27.52 (SD = 6.76).

1. The drug adherence level of Pre-test Schizophrenia Patients in the Intervention and Control Groups

Table 1. The drug adherence level of Pre-test Schizophrenia Patients in the Intervention and Control Group (n = 50)

No	Variable	Intervention		control		P
		Frequency	(%)	Frequency	(%)	
1	Pre-test					
	Adherence	25	100,0	25	100,0	
	Non-Adherence	0	0	0	0	1,000
	Total	25	100,0	25	100,0	
2	Post-test					
	Adherence	17	68,0	9	36,0	
	Non-Adherence	8	32,0	16	64,0	0,002
	Total	25	100,0	25	100,0	

In the table above, it can be concluded that there is no difference of drug adherence level in the pre-test intervention and control groups ($p > 0.05$) and in the post-test, there is a difference of drug adherence level between the intervention and control groups ($p < 0.05$).

1.1. The drug Adherence level in consuming drug of Schizophrenia Patients in the Intervention and Control Group

Table 2. The differences of drug adherence level on schizophrenia patients in the pre-test and post-test intervention and control groups (n = 50)

	Intervention (n=25) M(SD)	Z	P
<i>Pre-test</i>	8,72(0,61)	-3,231	0,000
<i>Post-test</i>	7,60(1,12)		

Kontrol (n=25)			
M(SD)			
<i>Pre-test</i>	8,5431(0,58)		
<i>Post-test</i>	7,22(1,15)	-4,101	0,000

Based on the table above, it can be concluded that there is a difference of drug adherence level on schizophrenia patients in the pre-test and post-test intervention groups ($Z = -3,231$, $p < 0.05$). In the control group, there were differences of the drug adherence level in the pre-test and post-test ($Z = -4,101$, $p < 0.05$).

2. The Effect of Mindfulness Therapy on drug adherence level of Schizophrenia Patient through SI-POS Android Application between the Intervention Group and the Control Group

Table 3 The Effect of Mindfulness Therapy on drug adherence level of Schizophrenia Patient through SI-POS Android Application between the Intervention and Control Group (N = 50)

		Intervention (n=20)		Control (n=20)		<i>U</i>	<i>p-value</i>
		Mean Rank	Sum Rank	Mean Rank	Sum Rank		
Drug Adherence Level	<i>Pre-test</i>	29,36	734,00	21,64	541,00	216,000	0,034
	<i>Post-test</i>	30,14	753,50	20,86	521,50	196,500	0,020

Based on the table above, it can be concluded that there is an increase of drug adherence level in the pre-test ($U = 216,000$, $p < 0.05$) and there is an increase of drug adherence level in the post-test ($U = 196,500$, $p < 0.05$).

Discussion

The results of this study indicates that Islamic spiritual mindfulness therapy can improve drug adherence of schizophrenic patients. There are several reasons. First, Islamic spiritual mindfulness focuses on full awareness on the conditions experienced by the body, mind, feeling, and behavior by using the muroqobah, muhasabah, repentance, prayer, tawakkal method, and maintaining closeness / obedience to worship to Allah that aims to solve the problem and could focus on the problem. The problem solving is done through the behavior changing, being calm, having compassion, respecting, and respecting himself.²⁰ The two interventions were carried out repeatedly. In this study, it was conducted mindfulness for 3 sessions within 1.5 months. Third, information about schizophrenia and drug adherence was conducted. The fourth, information about drugs.

This is in line with Nurdan's research that cetin, mindfulness can improve drug adherence of schizophrenic patients, a study conducted in eight sessions for four weeks of mindfulness therapy was given, namely patients were able to accept the situation they were experiencing. Being aware of what to do based on the events experienced. The ability to accept problems that arise consciously without

judging, rejecting or avoiding, in order to be able to focus on things that arise without rejection which inviting to be closer to God and sharing information about medicine.²¹

Mindfulness begins with bringing the conscious state that being awake to the here-now experience, by increasing the attention focus on the changes of thoughts, feelings, and sensations observed over time. The attention focus increase results in non-elaborative and non-judgmental awareness of the thoughts, feelings, and sensations that arise so that full awareness is a direct reality experience. The acceptance condition of mindfulness emerges as an open experience of the present reality.²²

In this study, an approach was carried out by reminding that the disease only comes from Allah, and Allah will heal, the client is taught to read istigfar, read short surah (al-fatihah al -ikhlas, an- naas, al-alaq), teach to perform ablution, and pray independently. This is in line with Dwidiyanti who stated that a spiritual approach through Islamic spiritual mindfulness therapy is carried out on patients considering that basic consciousness such as love, kindness, patience, are part of spirituality, where realizing the patient means teaching them to open the mindset and aware that the provider of healing is only Allah SWT, and humans must be willing to accept as the key to inner happiness.²³

The research has proven that the use of android applications can improve mental health and drug adherence in the short term (10), medium term (30) days, and the long term. Howel Jayde's (2018) states that using android applications is very effective in increasing awareness of mindfulness and drug adherence.²⁴ Other researchers also stated that the effect of mindfulness therapy using android applications increases adherence, awareness, client acceptance of pleasant, and unpleasant experiences. Then, the clients take good value from spiritual experiences and encourage to make changes in non-adherence behavior that consistent with their personal value.²⁵

CONCLUSION

Islamic spiritual mindfulness therapy originates from the concept of soul purification, so it is very effective for patients with mental disorder experiencing spiritual distress and drug-nonadherence behavior. Mindfulness studies with a spiritual approach can have a positive impact on clients with mental disorders, namely on spiritual distress, on drug adherence according to the evaluation of poly nurses and drug adherence.

The results of this study are expected that technology-based Islamic spiritual mindfulness interventions such as SI-POS android application can help health workers in providing Islamic spiritual mindfulness interventions and can be the basis for nursing personnel to detect drug adherence, improve, and maintain drug adherence. The mental health care services for people with mental spiritual disorders. This can be done by applying spiritual mindfulness as an alternative intervention. In addition, further research also needs to be carried out in several ways such as 1) research using a qualitative method approach to explore deeper psycho-social problems, 2) Islamic spiritual mindfulness research conducted on one variable (spiritual distress/drug adherence) so that discussions can be carried out in more detail and

focus, 3) the nurse performs Islamic spiritual mindfulness therapy using an Android-based application without using internet access.

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