

THE EFFECT OF ART THERAPY MANDALA TO REDUCE SYMPTOMS OF DEPRESSION IN ADOLESCENTS WITH INSOMNIA

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ABSTRACT

Art therapy mandala has been widely used to treat anxiety and depression. Depression is a mood disturbance accompanied by prolonged feelings of sadness, helpless, worthlessness, loss of appetite, and experiencing sleep disturbances in the form of lack of sleep as known as insomnia. Insomnia refers to the inability to initiate sleep, maintain sleep, and/or wake up to early. In the long term, insomnia can lead to daytime fatigue, decreased productivity and impaired social relationships. This study aims to determine the effect of art therapy mandala on one of the symptoms of depression which insomnia. Art therapy mandala is an activity of drawing in a circle pattern. The method was used in this study is one group pre-test post-test. Beck Depression Inventory (BDI)-II was used to classify depressive participants on mild, moderate, or severe groups. Insomnia Severity Index (ISI) was used to compare the score prior and after intervention. There were 18 participants with age range 18 to 21 joined the intervention in three sessions, each sessions lasted 60 minutes. The results showed that after participating in the art therapy mandala program for three sessions, the score of insomnia was decreased significantly. Implication of this research is that drawing mandala is easy, fun and practically for daily activity to reduce insomnia.

Keywords: Art therapy mandala, depression, insomnia, adolescents

1. PREFACE

Art therapy is a form of nonverbal communication of thoughts and feelings that involves the creative process [1]. Through art therapy, individuals can express themselves, improve coping skills, manage stress [2], communicate feelings including pain, sadness, and loss [3]. Art therapy is a process with efforts to heal from painful emotional experiences to improving life towards well-being [4]. One of the art therapy activities is drawing mandalas. Mandala in Sanskrit means "circle" or "centre", the universal form. According to Slegelis [5], a mandala is a work of art that is drawn or colored in the form of a circle. Through drawing mandalas, it can help individuals visualize feelings and thoughts through symbols, patterns, colors, and shapes that individuals express in circles. This mandala art therapy activity has been widely used to treat anxiety, post-traumatic, insomnia, to depression [6]. Depression is a mood disorder characterized by persistent feelings of sadness, feelings of worthlessness, helplessness, loss of appetite, and disturbances in sleep patterns [7]. Depression has three symptoms which are psychological symptoms such as loss of confidence, being more sensitive, feeling useless, feeling guilty, to helpless [8], social symptoms such as having problems interacting with other individual, feeling inferior, feeling anxious when in a group, uncomfortable when communicating with other individual, and physical symptoms such as decreased activity, daily productivity, moody, easily tired and sick and disturbed sleep patterns. According to Desi et al. [8] depression is one of the mental disorders that can cause 'paralysis', such as sleep disorders [9], difficulty concentrating, unable to be productive, disrupted social relationships, to suicidal thoughts and actions [10]. In 2018, the Ministry of

Health's Basic Health Research noted that the prevalence of depression in Indonesia for the group of adolescents aged over 15 years increased from 6% in 2013 to 9.8% in 2018. The prevalence of depression in 2018 was 6.1% or 11,315,500 individuals with a percentage of 1% women and 0.6% men [11]. Depression in girls is twice as large as in boy. This gender difference is due to the fact that girls tend to think more about their depressed mood and exaggerate it, especially regarding self-image or body shape [12]. Based on age range of 15-21 years around 32% girls experience depression while boy experience 26% of depression. According to Zhang et al. [13], the phenomenon of depression occurs in adolescent is because adolescence is in a critical period for the onset of depressive symptoms. Adolescence is also a period of transition from childhood to adulthood, where an individual experiences a process of change and development towards maturity and independence [14]. The age range of adolescents according to Papalia and Martorell [15] is between 11 to 20 years. Meanwhile, according to Santrock [12] the range of adolescence begins at the age of 10 to 12 years and ends at the age of about 18 to 21 years. According to Sarwono [16] adolescence is classified into three stages, early adolescence aged 11-14 years, middle adolescents aged 15-17, and late adolescents aged 18-21 years. Based on Erik Ericson's developmental stage, adolescence is the fifth stage of development, namely identity vs identity confusion or identity vs role confusion, in which individuals try to find their identity to find a unique personality [15]. Psychologically, adolescents are in a period of indecision in fulfilling their social roles and identity in society and are not yet fully capable of carrying out responsibilities, like adult individuals [17]. At this stage of development, adolescent individuals are also faced with tasks such as establishing more mature social relationships with peers, developing interpersonal communication skills, achieving emotional independence [18] and being able to carry out new roles positively [19]. These developmental tasks are the key to tasks at a later stage of development, if the individual succeeds in doing the tasks well, it will have a positive impact on individual happiness and ease in completing further tasks. However, if the adolescent individual does not succeed pass these stage, lacks guidance from parents, gets rejected by the society, then this individual will experience failure, confusion and uncertainty about his identity in society [18]. One of the failures experienced by adolescents is the emergence of symptoms of depressive disorder [19]. One of the symptoms of depressive disorder is insomnia sleep disorder [20]. Insomnia is a sleep disorder are experienced by individual with depression such as the inability to sleep for a long time. According to the International Classification of Sleep Disorder-3 (ICSD-3), insomnia is characterized as a disorder of difficulty initiating, maintaining sleep, and/or waking up too quickly [21]. In addition, individual with depression have an irregular circadian rhythm (reverse circadian rhythm), in which sleep patterns are reversed for example: when normal individual are active during the day, depressed individual tend to sleep, and when normal individual sleep at night, individual with depression are awake. [22]. Individuals experience insomnia for a long time can cause disturbances in cognitive abilities, alertness, attention, memory, to executive function [23]. Therefore, this study wanted to see the effect of art therapy mandalas to reduce symptoms of depression in adolescents with insomnia.

2. RESEARCH METHOD

This study is an experimental study using one-group pretest and post-test design. Eligibility for participation was based on the following criteria: A participant was aged 18-21 years, female experience depression with moderate (score ranges 31-40) and high score (above 40) based on the BDI-II, domiciled in Jakarta, and were willing to participate in the intervention program. There were 74 individuals recruited for the intervention and only 18 participants who were willing to participate in this study. The severity of depression is assessed with

BDI-II [24]. Insomnia is measured using the Insomnia Severity Index (ISI) [25]. All outcome measure were collected at baseline (T_0) and after three sessions of participating in the intervention program (T_1). The participants was conducted the interventions online via zoom.

Mandala art therapy program

The art therapy mandala program is composed of drawing a circle (mandala), and filling the circle. The participants could fill the circle with pictures, shapes, and colors that represented the participant's feelings or emotions related to the symptoms experienced (for example prolonged feelings of sadness, lack of interest). The intervention program was conducted in three sessions based on Henderson et al. [26]. Participants were guided through art therapy mandala program for 60 minutes [27]. Materials such as A4-size sketch paper, colored pencils, crayons, or markers were used during the intervention.

3. RESULTS AND DISCUSSIONS

The normality test of all participants showed a significance value greater than 0.05 according to the requirements of the data normality test using the One-Sample Kolmogorov-Smirnov Test 0.131 for the insomnia scale pre-test (ISI) (Table 1). The insomnia scale on the post-test showed a significance value of 0.151. Hypothesis testing showed that there was a decrease in the average score on the insomnia scale for all participants before and after participating in the art therapy mandala program for 3 sessions. Before participating in the mandala art therapy program, the average insomnia scale score for all participants was 20.89 and it dropped to 15.11 after participating in the mandala drawing intervention for 3 sessions (Table 2). The t value $t = 4.617$ and the significance value 0.000, $p < 0.05$. This shows that there is a significant difference on the insomnia scale of all participants before and after participating in the art therapy mandala program for 3 sessions.

Table 1

Pre-test and post-test insomnia scale

	N	Mean	SD	t	Sig.
Pre-Test	18	20.89	3.53	4.617	0.000
Post-Test	18	15.11	5.47		

The participant JFL's mandala drawing result in session 1 and session 3. The insomnia score prior participated in the intervention was 16 (moderate insomnia) to 12 after participating the session 3 times. LDA participants, had an insomnia score of 26 (severe insomnia) to 15 after participating in 3 sessions. Another participant, RAA, had an insomnia score of 22 (severe insomnia) to 18 after participating 3 sessions of intervention. There are some the results of participant's mandala who experienced a decreased in insomnia scores after participating in three sessions of intervention.

Table 2

Pre-test and post-test insomnia scale

	N	Mean	SD	t	Sig.
Pre-Test	18	20.89	3.53	4.617	0.000
Post-Test	18	15.11	5.47		

Figure 1

JFL's mandala session 1



Figure 2

JFL's mandala session 3



4. CONCLUSIONS AND RECOMMENDATIONS

Adolescents with depression experience a decrease in symptoms of insomnia, after participating in three sessions of the mandala art therapy program. This reduction in sleep disturbances may vary from individual to individual in this study. In addition, when examined from the depression experienced by the adolescents in this study, there was a decrease in depression after participating in three mandala art therapy sessions. This decrease in depression also varied in each individual who attended three session of mandala art therapy. This study aims to determine the effect of art therapy mandala to reduce symptoms of depression: insomnia in adolescents. The results of data analysis showed that there was a significant decrease in the average score of the insomnia scale for all participants before (pre-test) and after (post-test) in participating in three sessions of the mandala art therapy program. This is in line with the research of Henderson et al. [26] that drawing a mandala has a significant effect on reducing trauma symptoms in three meetings. In addition, the results of

this study are also in line with Hoo and Li's [27] research which explains that drawing mandalas for one hour per session is an effective approach to exploring an individual's subconscious. Art therapy mandala is a tool that can be used to dig deeper into individual emotions and feelings that cannot be expressed verbally and express them in the form of images.

After participating in the mandala art therapy program, all participants experienced a significant decrease in scores on the insomnia scale. One of the triggers for insomnia is anxiety. Excessive feelings of anxiety cause individuals to become restless, have difficulty concentrating, feel tired, fearful, more emotional, thus making individuals not relax and experience insomnia [28]. Through mandala art therapy, participants showed a significant decrease in insomnia scores, in line with previous research that mandalas have an effect or effect on reducing anxiety and depression in individuals [2,24,29,30,31]. Drawing mandalas also has calming properties so that individuals can relax more and sleep. In addition to scores on the insomnia scale, depression scale scores on all participants showed a significant decrease after drawing the mandala. Insomnia is one of the crucial symptoms of depressive disorders, so a decrease in scores on the insomnia scale allows a decrease in scores on the depression scale. This is in line with the research of Babouchkina and Robbins [32], mandalas as tools in fun and calming art therapy to reduce depression and other negative feelings in individuals.

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