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The Effectiveness of Group Psychotherapy on Reducing Anxiety and Depression Symptoms in Adolescents

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ABSTRACT

Background: Adolescent patients with anxiety and depressive disorders have difficulty adjusting to their social environment, even after they have recovered. Therefore group psychotherapy, a method of therapy carried out in groups to provide stimulation, is required for adolescents with interpersonal disorders. **Aims:** The study aimed to investigate the effectiveness of group psychotherapy in reducing symptoms in adolescent patients with anxiety and depressive disorders. **Methods:** This research is a quasi-experimental design with a pretest-posttest one-group design including 19 children and adolescent patients with anxiety and depressive disorders aged 12-19 years. The data obtained from the Strength and Difficulties Questionnaire (SDQ), Children's Depression Inventory (CDI) dan The 7-item Generalized Anxiety Disorder Scale (GAD-7) reported pre-intervention, 1-month post-intervention and 3 months post-intervention scores on anxiety and depression measures for participants assigned to group psychotherapy. Data were analyzed using the Wilcoxon test. **Results:** All 19 participants who completed group psychotherapy experienced a significant decrease in SDQ, CDI, and GAD-7 after the intervention. Group psychotherapy is effective in lowering SDQ scores, particularly on the emotional problem subscale. Group psychotherapy also resulted in a reduction in CDI and GAD-7 scores one month and three months after group psychotherapy. However, it was slightly unstable. The decrease in CDI scores was primarily in terms of negative self-esteem and negative mood scales. **Conclusion:** Group psychotherapy is effective in reducing symptoms in adolescent patients with anxiety and depressive disorders.

INTRODUCTION

Anxiety and depression are common mental disorders in society. The World Health Organization (WHO) in World Mental Health Day 2012 with the theme “Depression: A Global Crisis” states that since 2004, depression has ranked third in terms of global disease burden. It is estimated that this case will continue to rise to the rank of disease burden until 2030[1,2]. Data from The Ministry of Health of the Republic of Indonesia, the number of depressive disorders in Indonesia in 2020 is known to be 23,000 people experiencing depression[3]. In addition, based on the 2018 Basic Health Research (Riskesdas) report, shows that depressive disorders can be experienced by all age groups. More than 12 million people over the age of 15 years are depressed and the prevalence of depressive disorders in adolescence reaches 62%. Based on Mental Hospital Prof. Dr. Soerojo’s data in 2019 the number of patients with depression was 559 patients and in 2020 there was an increase of 78.5% or as many as 998 patients with depression[4]. There are many risk factors for depression in children and adolescents. The most common causes are bad childhood experiences such as violence and neglect. In addition to depression, bad experiences in childhood can also lead to other mental problems such as substance abuse and anxiety disorders[5]. There are several treatments used to treat depression through psychotherapy such as behavioral activation therapy, cognitive behavioral therapy, interpersonal therapy psychopharmaceuticals with antidepressants and anti-anxiety drugs[6]. Selective Serotonin Reuptake Inhibitor (SSRI) are currently the first-line pharmacological treatment of depression because they have been shown to provide a safer and tolerable side effect profile than Tricyclic antidepressants (TCA). Other pharmacotherapy options such as Monoamine Oxidase Inhibitors (MAOI)

and Serotonin/Norepinephrine Reuptake Inhibitors (SNRI) may be used although they are less effective but may offer alternative treatments[7]. The treatment provided depends on the results of an assessment of the physical and mental health history, whether it is the treatment for depression or anxiety disorders[8]. Treatment of anxiety disorders also includes psychotherapy, pharmacotherapy taking into account the factors in individuals concerned[9]. For pharmacotherapy, SSRIs are used primarily in patients with anxiety disorders[7]. Therefore, the implementation of treatment is not only limited to dealing with depression also helps children and adolescents to adjust themselves in a social environment[10]. Group psychotherapy is one method to prepare to return to the social environment by interacting with peers or family which aims to increase self-reliance and practice coping strategies in children and adolescents. There is evidence that effects may be enhanced when psychotherapy contains components of activating challenging behaviors and thoughts and also when caregivers are involved[11]. The study aimed to determine the effectiveness of group psychotherapy against the decreased symptoms of adolescent patients with depressive disorders, measured before and after the intervention.

METHODS

Research Design and Data Collection

This is a quantitative research using quasi-experimental with a pretest-posttest one-group design. The research was conducted on January 25, 2021 to May 17, 2021 in Mental Hospital Prof. Dr. Soerojo Magelang. Purposive sampling is used as a sampling technique in this study. The sample were adolescent patients with anxiety and depressive disorders at the Child and Adolescent Mental Health Installation, Mental Hospital Prof. Dr. Soerojo Magelang aged 12-19 years, currently in

the maintenance therapy period or passing the acute phase, and had improvement in symptoms, willing to participate in group psychotherapy completely and signed an informed consent to participate in this research.

The data collection began with a pretest in which 19 adolescent patients were divided into three groups and filled out a pretest questionnaire consisting of SDQ, GAD-7 and CDI. Then the group therapy intervention was carried out four sessions. Participants were given posttest twice, one month and three months after group psychotherapy intervention.

The Mental Hospital Prof. Dr. Soerojo's play therapy module was used as an instrument in the study which consists of: Module 1 (Conflict Resolution), Module 2 (Passive, Aggressive and Assertive Behavior), Module 3 (Sharing feelings about the causes of anger), and Module 4 (Killer Treat). The instrument is used as a guide to conducting interventions on research subjects.

Meanwhile, adolescents with depressive and behavioral disorders were detected using the Strength and Difficulties Questionnaire (SDQ), The 7-item Generalized Anxiety Disorder Scale (GAD-7) and the Children's Depression Inventory (CDI) questionnaire. Data obtained were the Strength and Difficulties Questionnaire (SDQ), Children's Depression Inventory (CDI) scores and The 7-item Generalized Anxiety Disorder Scale (GAD-7) on Pretest, Posttest after one month of group psychotherapy and Post Test after three months of group psychotherapy.

Data analysis was performed using IBM SPSS software for Windows ver. 26.0. Previously, a normality test was conducted to determine distribution of the data. The results of the normality test using the Shapiro-Wilk statistical test showed that distribution of data was not normal ($p < 0.05$). Therefore, further data processing used the Wilcoxon statistical test to determine whether there is statistically significant difference in pretest and posttest scores.

RESULTS

Table 1. Demographic characteristic of the respondent

Variable	n (N=19)	%
Gender		
Male	13	68.4
Female	6	31.6
Age (years)		
<13	6	31.6
13-17	8	42.1
18-19	5	26.3
Education Level		
Elementary School	1	5.3
Junior High School	12	63.1
Senior High School	6	31.6
Parent Education Level		
Junior High School	1	5.3
Senior High School	7	36.8
Bachelor	9	47.4
Master	2	10.5
Monthly Income (IDR)		
1.000.000-4.000.000	7	36.8
5.000.000-8.000.000	5	26.3
8.000.000- 12.000.000	4	21.1
>12.000.000	3	15.8

Table 1 shows the demographic characteristics of the respondents. Respondents consisted of 13 males (68.4%) and 6 females (31.6%). There were 6 adolescents (31.6%) aged < 13 y.o, 8 adolescents (42.1%) aged 13-17 y.o, and 5 adolescents (26.3%) aged 18-19 y.o. The majority of respondents

were adolescents who were in junior high school, as many as 12 adolescents (63.1%) of the total respondents, 31.6% were senior high school students and 5.3% were elementary school students. It's also known that they come from families with various economic and parental education levels.

Table 2. Pre–post intervention score of SDQ, GAD-7 and CDI

Scale	Pretest		Posttest		p-value
	Mean	SD	Mean	SD	
SDQ	23.84	7.88	20.05	8.26	0.014*
GAD-7	16.05	3.15	10.11	2.68	<0.001*
CDI	26.74	5.45	22.95	3.35	0.006*

Table 2 shows the differences Strength and Difficulties Questionnaire (SDQ) scores, The 7-item Generalized Anxiety Disorder Scale (GAD-7) and the Children’s Depression Inventory (CDI) before and after group psychotherapy intervention. Based on table 2, SDQ, GAD-7 and CDI average

scores decreased after the intervention. The SDQ, GAD-7 and CDI scores before and after psychotherapy change statistically significantly (($p < 0.05$). It is concluded that group psychotherapy interventions provide symptom improvement in adolescents with depressive disorders

Table 3. Pre–post intervention score of SDQ Subscale

SDQ Subscale	Pretest		Posttest		p-value
	Mean	SD	Mean	SD	
Emotional Problem	6.16	3.51	3.79	2.80	0.003*
Conduct Problems	2.53	1.61	2.53	1.64	0.93
Hyperactivity-Inattention	4.53	2.34	3.58	1.89	0.06
Peer-Relationship Problems	3.68	2.33	3.16	2.03	0.07
Prosocial	7.47	1.74	6.47	2.95	0.41

Table 3 shows the results of the statistical analysis of the SDQ assessment subscale which consists of the Emotional Problems, Conduct Problems, Hyperactivity-Inattention, Peer-Relationship Problems, and Prosocial subscales. Based on these results, each SDQ subscale decreased in average value. Only the Emotional Problem sub-

scale has a statistically significant change ($p < 0.05$). The average Emotional Problem score before group psychotherapy was 6.16 and after four sessions of group therapy was 3.79. This suggests that emotional problems in adolescents with anxiety and depression disorders improved after group psychotherapy intervention.

Table 4. Pre–post intervention score of CDI Subscale

CDI Subscale	Pretest		Posttest		p-value
	Mean	SD	Mean	SD	
Negative Self Esteem	5.84	1.26	4.85	1.02	0.03*
Anhedonia Scale	2.79	1.84	2.26	1.09	0.09
Interpersonal Scale	3.63	1.57	3.16	1.38	0.21
Ineffectiveness Scale	5.16	1.11	5.32	1.00	0.58
Negative Mood Scale	9.32	2.60	7.26	2.51	0.01*

Table 4 shows the differences in the subscales of CDI scores before and after subjects attended 4 psychotherapy intervention. The CDI (Children’s Depression Inventory) is divided into five assessment subscales: Negative self-esteem, Anhedonia, Interpersonal, Ineffectiveness, and Negative mood scale. Based on these results, it can be seen that there is a significant difference in the pretest and posttest scores of the CDI Negative Self Esteem

subscale (p=0.03) and the Negative Mood Scale (p=0.01) subscale. Because the p-value < 0.05, it can be concluded that the psychotherapy intervention resulted in a score change on the CDI assessment subscale. In other words, psychotherapy intervention improved symptoms in adolescents with depression disorders, particularly on Negative Self Esteem and Negative Mood Scale assessments.

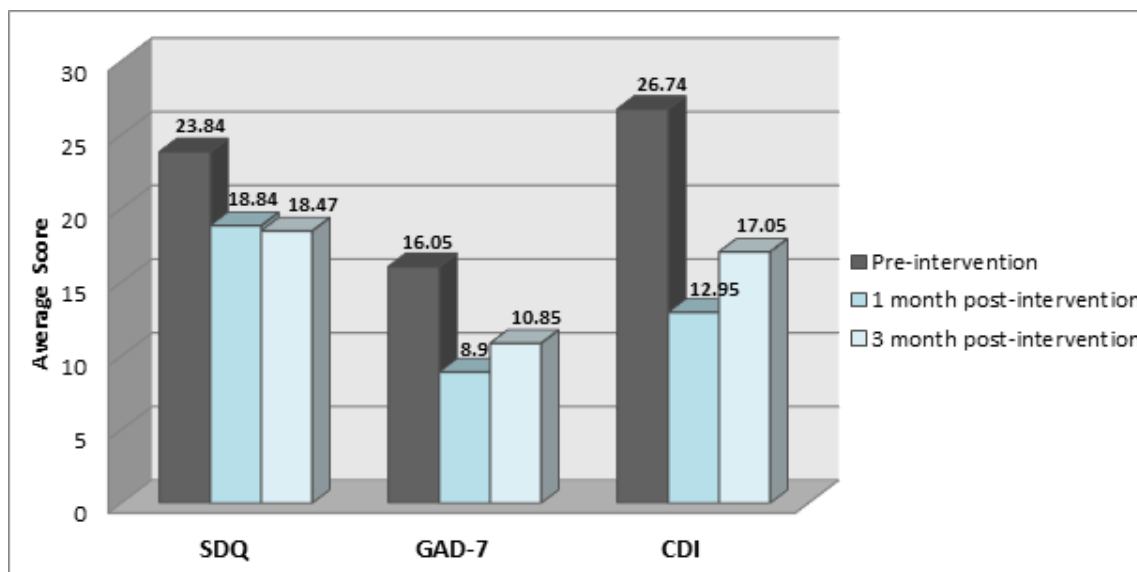


Figure 1. Average score of SDQ, GAD-7 and CDI scale Pre and Post Psychotherapy Intervention

Based on figure 1, the SDQ (Strength and Difficulties Questionnaire) assessment was measured before the intervention, 1 month and 3 months after group psychotherapy. This study found that the mean SDQ before intervention was 23.84 and decreased after 1 month of intervention to 18.84 and stable up to 3 months after the group psychother-

apy intervention. Therefore, it is known that adolescents with anxiety and depression disorder who received group psychotherapy showed improvement in symptoms based on the SDQ scale. The decrease of GAD-7 (The 7-item Generalized Anxiety Disorder Scale) scores measured before psychotherapy interven-

tion, 1 month and 3 months after psychotherapy intervention. Based on the results, the average score of GAD-7 before therapy was 16.05 and decreased to 8.90 and increased to 10.85 at 3 months after the intervention. However, this value is still below the average score before intervention. This explains despite the fact, group psychotherapy improved symptoms in adolescents with anxiety and depression, but the score decline was not stable.

The decrease of CDI (Children's Depression Inventory) scores measured before group psychotherapy intervention, 1 month and 3 months after group psychotherapy. The results showed the average CDI score before the intervention decreased by almost half after 1 month of group psychotherapy, from 26.74 to 12.95. But 3 months after the intervention, the average CDI score became 17.05. However, this score was still below pre-intervention average. Therefore, it was concluded that group psychotherapy provides improvement in symptoms based on CDI scores but the reduction is unstable.

DISCUSSION

Among the 25 adolescent patients at the Children and Adolescents Mental Health Installation, Mental Hospital Prof. dr. Soerojo Magelang, who initially met the inclusion criteria, 6 adolescent patients were unable to finish group psychotherapy until the end of the meeting, so those who met the inclusion criteria were determined to be 19 adolescents. This study was conducted to determine whether group psychotherapy proved effective in reducing symptoms of anxiety and depression in adolescent patients as measured by the Strength and Difficulties Questionnaire (SDQ) score, The 7-item Generalized Anxiety Disorder Scale (GAD-7) and the Children's Depression Inventory (CDI).

Univariate analysis was performed to find out the frequency and proportion of these

respondent characteristics, the results showed that there were more male adolescent patients (68.4%) than female (31.6%). The age distribution rate is quite or less equal with the highest number being in the age range of 13-17 years (42.1%) and when the study was conducted the majority of patients were adolescent and middle school students. Meanwhile, bivariate analysis was used to determine the difference values before and after group psychotherapy intervention. A Wilcoxon statistical test was used because the data were not normally distributed. Based on this analysis, there were significant differences in SDQ, GAD-7 and CDI scores between before and after group psychotherapy. The average score of SDQ, GAD-7 and CDI also always improved after 4 sessions group psychotherapy. This shows that group psychotherapy for adolescents with anxiety and depression disorders has improved symptoms. Similar findings were obtained in a previous study, which found that after receiving psychotherapy intervention, adolescents with depressive disorders reported higher psychological well-being and self-esteem than those in the control groups[12]. Research in Iran reveals group psychotherapy significantly increases the level of hope in patients with major depressive disorder[13]. Qualitative research conducted by Guhn et al, showed that respondents reported five main benefits of group therapy: Gains in social competence, self-confidence, self-reflection, interpersonal dynamics, and optimism/universality[14]. In several study, it was found that therapy in emotional adjustment and emotion regulation reduces the self-harming acts and improves the regulation of both negative and positive emotions in people, especially adolescents who are exposed to multiple negative emotions. Accordingly, the group receiving psychotherapy intervention showed a statistically significant increase in the control of positive emotions

and affect, as well as a decrease in negative affect, violent conduct, and self-harm[15]. In this study, there is also significant change in the SDQ scores. Before group psychotherapy, average SDQ score was 23.84 and after four sessions of group psychotherapy decreased to 18.47. Research on the impact of group psychotherapy for children's and adolescent emotional resilience has been limited. This study found group psychotherapy significantly reduced anxiety symptoms in adolescents based on the GAD-7 score with pretest score of 16.05 and posttest score of 10.11. These findings are consistent with study by Bar-kowski et al. who examined the effectiveness of group psychotherapy for anxiety disorders and found that the group therapy was more effective than individual psychotherapy such as improving attention, motivation and hope. Therefore, group therapy can be considered as alternative treatment for anxiety disorder[9].

Children's Depression Inventory (CDI) average score before group therapy was 26.74, and after four sessions, it was 12.9 in this study. Several previous studies assessed the impact of group psychotherapy on depression in children and adolescents who stated that psychotherapy for depression proved to be effective compared to no treatment (NT)[16]. Rohde et al conducted a study of group therapy in depressed adolescents and compared it with other therapies such as bibliotherapy and brochures. Those adolescents who attended group therapy had significantly lower major depressive disorder incidence rates[17]. A randomized clinical trial (RCT) study by Moloud et al concluded that group therapy is an effective method for improving self-esteem and optimism in patients with depression[18]. Since the patient can better express their thoughts and feelings in group therapy, it becomes more affordable rather than individual therapy[18]. However, the response and effectiveness of psy-

chotherapeutic interventions may differ in adolescents. The need for research on particular therapy requirements for this age group is required because they are a population with high needs[19,20]. Carr stated that improvement of group therapy as chronic depression psychotherapy was better than antidepressants-treated cases. The average score was lower after received group psychotherapy than before therapy, and this gain was maintained at follow-up one year later[20].

CONCLUSION

Group Psychotherapy has been shown to be significantly effective in reducing SDQ, GAD-7 and CDI scores, although not stable within 3 month post-intervention. Social skills of adolescents with anxiety disorders and depression also improved. This means that group psychotherapy is effective in reducing symptoms in adolescent patients with anxiety and depressive disorders.

There are limitations in this study that future researchers should pay attention to get better research results. This limitation is related to the number of samples, therefore it doesn't represent the total population to describe the real situation. This study was expected to serve a reference for providing group psychotherapy to children and adolescents suffering from anxiety and depressive disorders. There are shortcomings in this study, therefore further study of SDQ, GAD-7 and CDI scores can be carried out at 6 months to 1 year after the intervention to determine stability of decrease in symptoms shown. It aims to investigate the effective period of group psychotherapy to reduce symptoms until recovery from anxiety and depressive disorders in adolescents.

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