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Art Therapy for Adolescents With Depression: Feasibility and Acceptability Study in Child and Adolescent Psychiatry

Christina Blomdahl  and Angeliki Goulas 

Abstract

This study examines the feasibility and acceptability of manual-based phenomenological art therapy (PATd) as an intervention for adolescents with depression in child and adolescent psychiatry. Nine adolescents (13–17 years) underwent a 10-week utilizing the adapted youth version of PATd(y). Self-reported measurements were collected pre, during, and post-treatment. Results indicate adolescents' acceptance, positive experiences, and satisfaction. The art therapists followed the PATd(y) methodology. Statistically significant improvement in depressive symptoms was observed after intervention. PATd(y) emerges as a promising therapy for adolescents with depression in child psychiatry, but caution is urged due to the limited participants, emphasizing the need for further empirical examination to fully understand the effects of PATd on adolescent depression.

Keywords: Psychiatry; treatment; arts; youth; anxiety; feasibility; psychological; children

Depression is a growing problem among adolescents. The prevalence of elevated depressive symptoms among adolescents increased by 13% in the last decade. More than one-third experienced elevated depressive symptoms, while about one-tenth had major depressive disorder (MDD) or dysthymia. Point prevalence for major depressive disorder (MDD) and dysthymia was 8% and 4%, respectively (Shorey et al., 2022).

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Depressive symptoms impair young people's functioning and reduce their quality of life. Adolescents with depression are more likely to experience major depression, anxiety disorders, substance abuse, and underachievement in school (Fergusson & Woodward, 2002), and are at risk of suicide, which is the fourth leading cause of death in older adolescents (15–19 years) (World Health Organization, 2018).

Art therapy has shown potential in treating adolescents with depression. A study with an innovative approach to examine treatment effects, measuring cortisol levels in hair samples, showed promising results for mood regulation using clay in art therapy (Nan et al., 2023). Group painting therapy has shown to improve depressive symptoms and negative emotions (Yuan et al., 2021). Art therapy in groups contributed to increased well-being, self-understanding, and positive recognition (Kim et al., 2014). According to Birnkammer and Calvano (2023) children and youths involved with child protection and/or mental health systems can benefit from creative approach to mindfulness, by artmaking enhancing emotional regulation, social and coping skills, self-awareness, self-esteem, and resilience (Coholic, 2011). Le Vu et al. (2022) found art therapy effective in improving mental health, sleep quality, and psychological well-being. The results also indicated that art therapy was well-received and feasible by adolescents, and their families. A trial involving forty-five children in residential care found a 6-week intervention combining group sessions with creative activities and a mental health app to be feasible and accepted by participants (Birnkammer & Calvano, 2023). However, no significant overall improvements in psychological symptoms and resources were observed.

A manual-based phenomenological art therapy has been developed and evaluated for adults with depression (PATd) (Blomdahl, 2017), and the evaluation indicates that it is an effective treatment for persons with moderate or severe depression. The results have been shown sustainable (Blomdahl et al., 2018; 2021). While promising results have been observed in adults, there is still a need to investigate whether PATd is also a feasible and acceptable intervention for adolescents. PATd was developed to facilitate self-awareness and autonomy (Blomdahl, 2017) based on principles for

phenomenological art therapy (Guttmann & Regev, 2004), principles from Expressive Therapies Continuum model (ETC) (Hinz, 2020), factors what art therapists judge to be important factors in treatment (Blomdahl et al., 2016), and what works, for whom and in what circumstances (Blomdahl et al., 2013). This multifaceted approach led to the development of PATd (Blomdahl, 2017). The theoretical base was Phenomenological art therapy first described by Betensky (1977) which emphasizes how individuals experience their lifeworld and create meaning. In phenomenological art therapy the lifeworld is manifested in the art-making process, the produced image, and in a reflective dialogue with the therapist (Blomdahl et al., 2018). The reflective dialogue centers on the individual's narrative of their art-making experience and what is perceived as meaningful. The therapeutic approach for the therapist in engaging with clients and the created image is characterized by an intentional curbing of preconceptions, an intention to maintain an open stance toward the client's narrative, and the use of open-ended questions to further elucidate the client's own story. The overarching objective is to facilitate self-understanding, discovery of new aspects of self, support inner dialogue, and empower self-agency (Blomdahl, 2017; C. Blomdahl et al., 2018).

Important for the development of PATd was also the ETC model (Hinz, 2020), ETC clarifies the therapeutic dimensions of art and the interaction between artmaking, art materials, and their impact on information processing and brain function. The ETC model was used as the framework, where art themes were arranged according to the ETC levels of information processing: Kinesthetic/Sensory, Perceptual/Affective, Cognitive/Symbolic, and the Creative level—seen as a synthesis of the previous three levels in the continuum (Hinz et al., 2022). An explanatory factor of how art therapy works can be understood by theories about brain function and cognition, Large-Scale Brain Networks (LSBNs) perform specific functions by integrating different brain regions (Bressler & Menon, 2010). The salience network (SN) is part of LSBNs that engages in the integration of emotional and cognitive information, contributing to communication, social behavior, and self-awareness (Kozioł et al., 2014; Menon, 2011). Art therapy can directly and indirectly facilitate synchronization between the major networks in LSBN. By strengthening the SN, individuals can learn to suppress self-criticism and focus on more goal-oriented tasks. Art therapists can strengthen SN activity by focusing on the perceptual/affective level and asking questions that integrate internal experiences with cognitive processes, such as “What do you see, and how does it make you feel?” (Hinz, 2020).

Before implementing a new treatment such as PATd for adolescents, it is important to investigate its relevance in a natural setting. Feasibility and acceptability are key for assessing and evaluating specific interventions. In the

preparation for this study PATd was adjusted for the target group. The languages were simplified and some of the exercises were shortened. These adjustments generated youth version of PATd, i.e., PATd(y). Hence, the purpose of this study was to investigate the feasibility and acceptability of PATd(y) adapted for youths with depression within child and adolescent psychiatry. The research questions were:

1. Did the adolescents accept and complete the treatment?
2. Were the adolescents and their parents satisfied with the treatment?
3. Was it possible for the art therapists to use and follow the manual?

An additional problem statement considered how PATd(y) affected the adolescents' depressive symptoms, anxiety symptoms, quality of life and level of functioning.

Method

Research Design

A quasi-experimental study design was used to answer the question of whether adolescents find the PATd(y) feasible and acceptable. In this case we did not try to examine if the treatment had effect on depression compared to a control group. Instead, feasibility was examined by the perceived fit of the intervention to address depression symptoms and problems. Also, by the art therapists' fidelity to the treatment principles. Acceptability was examined by adolescents' satisfaction and attendance to the treatment (cancellations, dropouts, rescheduling). The intervention was scrutinized in a natural setting to evaluate its fit and usefulness in the intended context. The study was approved by the Regional Ethical Review Board in Stockholm Sweden. (Diary number: 2018/137131/1).

Participants

Ten adolescents with depression as their main diagnosis were invited to participate in the study after seeking healthcare for depressive symptoms and meeting the inclusion criteria. They were recruited from four units in child and adolescent psychiatry in Sweden. However, one participant withdrew before the start of the treatment, leaving nine participants who completed it (one boy and eight girls, aged 13–17 years). The exclusion criteria included suicidal ideation, psychosis, current eating disorder, untreated PTSD, suspicion of family violence, abuse, mistreatment, or other vulnerabilities. No ongoing treatment was allowed, but patients with medical treatment could be included if no adjustments were planned during treatment. Written informed consent was obtained from the adolescents and their parents before inclusion in the study. All participants were informed orally and in writing that they had the right to refuse to

participate without consequences and that they could withdraw their consent anytime.

Measures

The Child International Mini International Neuropsychiatric Interview (M.I.N.I-Kid) was used as a diagnostic interview for screening for depression (Sheehan et al., 2010).

Sociodemographic variables such as gender, age, peer relationships, family situation and experience of bullying were collected via a short questionnaire that the adolescents filled out.

The Client Satisfaction Scales (CSS) (Ollendick et al., 2009) includes ten questions examining treatment satisfaction. High scores indicate greater satisfaction. In this study, only five questions were used to examine the satisfaction and experience of the treatment. The answer options were on a 1–5 scale, where 1 = Do not agree at all and 5 = Agree very much. The last question had a reverse score calculation, and during the analysis, the score was reversed. The maximum score was twenty-five points. The adolescents and their parents had to answer questions such as “I think this treatment was effective,” “My needs were met by this treatment,” “I would recommend this treatment to a friend who has similar problems,” “How successful do you think this treatment was in helping you deal with your depression?,” and “After undergoing the treatment, how does depression affect your life?” The form was answered after completing the treatment.

Measurement of manual fidelity was done using a treatment specific questionnaire. The questionnaire has previously been employed to assess the art therapists’ estimated fidelity to PATd (Blomdahl et al., 2018). It comprises the following questions: “Estimate how well you followed the manual” (on a scale of 1–4, where 1 = not at all and 4 = completed all steps), “State the reason why you deviated from the manual,” “Which steps were performed partially or not at all” (the art therapist had to indicate which steps were not performed), and “What did you do instead?”

Beck Depression Inventory BDI-II self-assessment form (Beck et al., 1996) was used to measure depressive symptoms. Scores between 14 and 19 indicate mild depression, scores between 20–28 moderate depression and scores above 29 indicate severe depression.

Revised Children’s Anxiety and Depression Scale, R-CADS 25 C and R-CADS 25 P (children and parents’ versions) (Chorpita et al., 2005) were used to measure depression and anxiety symptoms. Scores above 70 indicate clinical symptoms.

KIDSCREEN-10 (children and parents’ version) (Ravens-Sieberger et al., 2010) was used to examine quality of life. Higher scores on quality of life indicated an increased experience of quality of life.

Education, Work and Social adjustment Scale EWSAS-C and EWSAS-P (children and parents’ versions) (Mataix-Cols et al., 2005) were used to measure

the level of functioning. Lower scores at the functional level indicated that depression had less effect on the adolescent’s everyday lives.

CSS, BDI-II, KIDSCREEN-10, EWSAS, and R-CADS have shown good reliability and are validated (Mundt et al., 2002; Piqueras et al., 2017; Ravens-Sieberger et al., 2010).

Procedures

Qualified art therapists with extensive experience in art therapy conducted the intervention. The PATd(y) consist of 10 sessions, each lasting sixty minutes. The sessions adhere to a consistent structure, including an introduction, mindfulness exercises, an art theme, reflection on the artwork, and a conclusion. Examples of art themes explored in PATd include a graphic-lifeline described by Martin (1997), emotional doodles (Öster et al., 2006), and different roles inspired by Barbee (1996) (Blomdahl et al., 2018). The manual contains instructions on how to execute each session, outlining the purpose of each, and it also includes methodological principles based on phenomenology as guidance.

The art therapists underwent training in the PATd manual before inclusion of clients in the study. They received supervision throughout the study to ensure manual fidelity. The study was introduced to the staff at four child and adolescent psychiatric clinics. After diagnostic interviews, adolescents were invited to participate in the study. Self-assessment forms were completed by the adolescents and parents a week before entering the study, during, and directly after treatment. A symptom assessment was conducted before the fifth session to monitor any changes in the adolescents’ condition. The art therapists measured their fidelity to the manual after each session according to the treatment specific questionnaire (Blomdahl et al., 2018) and recorded participants’ attendance, dropouts, and cancellations.

Validity

To ensure validity, Goulías (second author) coordinated and supervised art therapists. Blomdahl (first author) conducted a blinded statistical analysis. Both engaged in the education of art therapists and participated in discussions regarding findings and conclusions. The therapists also estimated their fidelity to the treatment principles. This is a way to ensure validity, as we can determine whether they are following the treatment principles or not.

Data Analysis

The sample size was calculated based on the assumption of a normal distribution with 90% power, an alpha level of 0.05, a mean difference of seven within the group, and a standard deviation (SD) of 5. For a two-

Table 1. Summary of Sociodemographic Characteristics

		N	%
Gender	Boy	1	11.1
	Girl	8	88.9
Living conditions	Biological parents	7	77.8
	Altering accommodation	1	11.1
	One parent	1	11.1
Siblings	Yes	9	100.0
No. of siblings	1	3	33.3
	2	3	33.3
	3	1	11.1
	4	2	22.2
Thrives in family	Splendid	4	44.4
	Good	4	44.4
	Not at all	1	11.1
Level of education	Elementary school	7	77.8
	High school	2	22.2
Wellbeing in school	Good	3	33.3
	All right	2	22.2
	Not at all	4	44.4
Friends	Yes	8	88.9
	No answer	1	11.1
Wellbeing in friendship	Splendid	2	22.2
	Good	4	44.4
	All right	2	22.2
	Not at all	1	11.1
Bullied	Not a problem	6	66.7
	Sometimes can be a problem	2	22.2
	No answer	1	11.1

sided *t*-test, a total of eight adolescents were needed. To account for potential dropouts, we planned to include more than eight participants.

Before analyzing the change, we assessed the normal distribution. The analysis consisted of two-sided dependent *t*-tests with a significance level of .05. Demographic data and non-comparative measurements are reported as mean, standard deviation (SD), median, minimum, and maximum values. When applicable, 95% confidence intervals (CI) are reported.

Effect size is a quantitative measure that indicates the magnitude of a difference or relationship between variables. In this study, we followed the guidelines proposed by Cohen's *d*. A small effect size is typically around 0.2, a medium effect size is around 0.5, and a large effect size is around 0.8. However, it is important to note that the sample size in this study was small, and caution should be applied when interpreting the results. Statistical calculations were performed using IBM SPSS 25.

Results

Of the nine participants, eight were girls, seven were in primary school and two were in high school. Most of the adolescents lived with their biological parents, and all

had siblings. Eight out of nine participants reported thriving in their families. Five out of nine enjoyed school, and eight experienced well-being in their friendships. Two participants reported that they had been bullied. For a summary of sociodemographic characteristics, see [Table 1](#).

Adolescents' Acceptance and Completions of PATd(y)

The acceptability and feasibility of the treatment was elucidated by examining the participants' attendance, dropouts, and cancellations. Rescheduling was required due to school-related reasons and illness, but there were no cancellations. All participants completed 10 sessions.

The Adolescents and Their Parents' Satisfaction With PATd(y)

Overall, most adolescents rated satisfaction with treatment with mean 16.7 with median 18 and the scoring ranged between 11-20. The parents' ratings were slightly higher. Their rated total satisfaction was mean 17.6, with median 17 ranging from 16 to 22. For more details see [Table 2](#).

Table 2. Satisfaction With Treatment (CSS) Measured After Treatment

Adolescents' Ratings	N	Mean (SD)	Median	Minimum	Maximum
Total satisfaction	9	16.7 (3.03)	18	11	20
This treatment was effective	9	3.78 (0.97)	4	2	5
My needs were met by this treatment	9	3.56 (0.52)	4	3	4
I would recommend this treatment to a friend with similar problems	9	3.56 (0.72)	4	2	4
How successful was this treatment to learn to deal with your depression?	9	3.00 (1.41)	3	1	5
After undergoing the treatment, how does depression affect your life?	9	3.11 (0.92)	3	1	4
Parents' Ratings	N	Mean (SD)	Median	Minimum	Maximum
Total satisfaction	9	17.6 (1.96)	17	16	22
This treatment was effective	9	3.94 (.52)	4	3	5
My child's needs were met by this treatment	9	3.72 (.83)	3.5	3	5
I would recommend this treatment to a friend who has similar problems.	9	3.88 (.60)	4	3	5
How successful do you think that this treatment was when it comes to deal with depression?	9	3.11 (.33)	3	3	4
After undergoing the treatment, how does depression affect your child's life?	8	2.63 (.51)	3	2	3

Note. SD: standard deviation.

The Art Therapist's Fidelity to the Manual

By investigating the compliance of the art therapists, i.e., had the manual been followed or was it necessary to make deviations and if so for what reason. The art therapists showed a considerable level of fidelity to the treatment manual. Deviations were rare. The mean value of compliance was 3.92 out of a maximum of 4.

PATd(y)s' Effect on the Adolescents' Depressive Symptoms, Anxiety Symptoms, Quality of Life and Level of Functioning

Depression levels were measured using the BDI-II before, mid-treatment, and post-treatment, as shown in Figure 1. The mean difference in depressive symptoms before and mid-treatment was 6.89 (SD 10.39), and after treatment was the difference 12.11 points (SD 13.43), see Figure 2. BDI-II showed a statically significant decrease in depression, with a large effect size as shown in Table 3. Depression was also measured with RCADS-C25D. The ratings indicated a reduction of depressive symptoms with a difference between before treatment and after treatment with 4 points, but the difference was not statistically significant. The adolescents' ratings regarding anxiety symptoms (RCADS-C25) showed a tendency to decrease.

The parents' ratings about depression showed decreased levels at the end of treatment with a mean difference with 3, 22 but the difference cannot with certainty be explained by the treatment. Anxiety symptoms

based on parental assessment (RCADS-P25) showed a statistically significant difference and the effect size was large, see Table 3.

The impact of treatment on adolescents' level of functioning (EWSAS) and quality of life (KIDSCREEN 10) was examined, and a statistically significant difference was found in the parents' assessment regarding quality of life and the effect size was large (see Table 4).

Discussion

This feasibility and acceptability study indicates that PATd(y) was accepted by the adolescents, with no cancellations or dropouts. Furthermore, the adolescents and their parents were satisfied with the treatment, and the art therapist adhered to the treatment principles. If the treatment proved feasible, it would suggest that a larger study evaluating art therapy as an intervention for adolescents with depression is needed. The adolescents showed good acceptance and satisfaction with the treatment, but parents were more satisfied and experienced greater effectiveness. According to the parents, the adolescents had improved quality of life and less anxiety after the intervention.

The art therapists in the pilot study did not encounter any significant challenges when using PATd(y) with adolescents. Only minor adjustments were made to the manual, such as adapting the language and shortening some mindfulness exercises. Furthermore, no changes were considered necessary for the Art therapy tasks in the manual for use with adolescents.

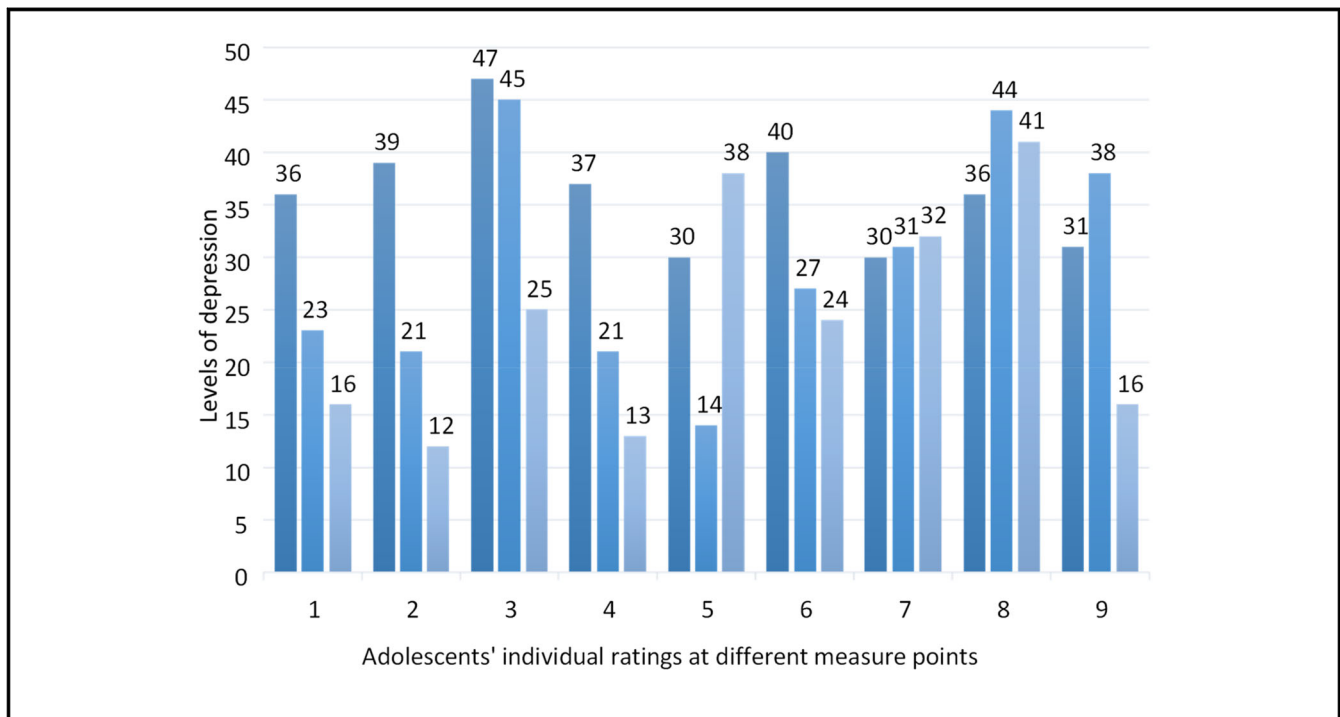


Figure 1. Individual Ratings of Level of Depression Before, During and After Treatment Measured with BDHI

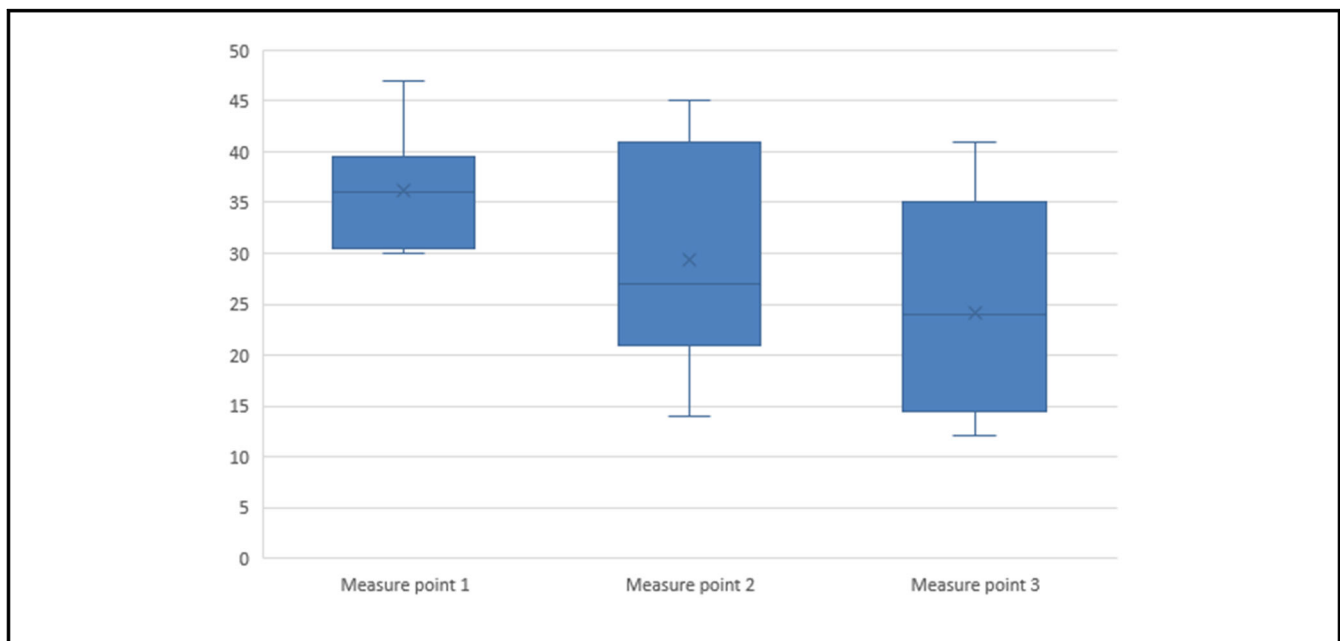


Figure 2. BDHI at Different Measure Points

(Note. The boxplot shows the first quartile (Q1) to the third quartile (Q3), representing the interquartile range of the dataset. The median, which is the middle value of the dataset, is marked by a vertical line inside the box. The minimum and maximum values are represented by the whiskers. X shows mean at the different measure points.)

To ensure evaluation accuracy, the art therapists closely followed the manual without deviating significantly from its treatment principles, with only minor adjustments made based on patients' needs. Compliance to the manual was deemed high according to therapists' session

estimates. Although therapists may worry that manuals will not meet individual patients' needs, the study's results indicate that following the manuals is critical. However, there is a need for flexible manual use guidelines to be developed. (Pagano et al., 2016; Schulte & Eifert, 2002)

Table 3. Differences of Depression and Anxiety at Three Measuring Points: Before, During and After Treatment

Youths' Ratings	Pretreatment		Mid-treatment		Post-treatment				
	Mean	SD	Mean	SD	Mean	SD	<i>d</i>	<i>p</i>	95% CI
BDI-II	36.22	5.518	29.33	10.943	24.11	10.856	0.902	.027*	1,788:22,434
RCADS-C25D	71.89	9.610	69.22	11.966	67.89	8.313	0.347	.328	-7.58:15.58
RCADS-C25A	61.00	6.083	61.00	6.305	57.56	4.746	0.672	.079	-0.496:7.385
Parents' Ratings									
RCADS-P25D	76.11	6.153	75.44	5.411	72.89	6.809	0.575	.123	-1.088:7.533
RCADS-P25A	63.38	8.280	58.13	6.621	51.63	5.755	1.25	.009*	3.898:19.602

Note. *d* = Cohens' *d* effect size; **p* = level of significance at 0.05.

Confidential interval (CI) is based on the difference between pretreatment and post-treatment.

Table 4. Difference in Functional Level and Quality of Life Before, During and After Treatment

Youths' Ratings	Pretreatment		Mid-treatment		Post-treatment				
	Mean	SD	Mean	SD	Mean	SD	<i>d</i>	<i>p</i>	95% CI
EWSAS-C	17.11	8.054	17.11	7.833	16.11	5.207	0.130	.707	-4.917:6.917
Kidscreen 10c	25.11	2.76	26.00	4.3	27.89	5.11	-0.577	.122	-2.974:1.197
Parents' Ratings									
EWSAS-P	17.11	5.883	15.78	7.596	13.33	4.500	0.449	.217	-3.157:11.657
Kidscreen 10p	30.00	3.899	33.17	5.115	34.00	4.980	-1.085	.018*	-7.526: -0.974

Note. *d* = Cohens' *d* effect size; **p* = level of significance at 0.05.

Confidential interval (CI) is based on the difference between pretreatment and post-treatment.

The study found a significant decrease in depressive symptoms after PATd(y), with two adolescents no longer meeting the criteria for depression and the remaining adolescents that have mild to severe symptoms. However, three adolescents did not show any improvement in symptoms, and it is suggested that they may have had more severe comorbidities requiring additional treatment options, such as parallel treatment for parents. Involving parents in treatment may be beneficial, as shown in a study of adolescents receiving CBT treatment (Oud et al., 2019). Between 40% to 90% of adolescents with depression also have other psychiatric disorders, such as anxiety (Birmaher et al., 2007). In this feasibility study, the treatment has also shown an effect on the degree of anxiety. The parental estimate showed a significant reduction in anxiety, while the adolescents' estimates showed a tendency toward reducing anxiety symptoms that was almost significant. The interesting question is whether PATd(y) had a direct effect on anxiety or whether comorbid conditions benefited from the effect on depression.

Practical Implications

The study demonstrated the feasibility of the treatment within child and adolescent psychiatry, as evidenced by the absence of dropouts, high fidelity to the manual reported by the art therapists, and positive treatment experiences. The manual-based Phenomenological Art Therapy for depression, adapted for youth, appears

to be implementable in psychiatric care for adolescents. This suggests that art therapy can serve as a valuable tool to creatively express and process feelings, thoughts, and experiences.

Limitations

The study has a few limitations. The sample size was small, making it challenging to demonstrate significant change. Hence, to the small sample size, the results cannot be generalized to other populations. It is worth noting that art therapy has been found to be beneficial in helping adolescents identify and express emotions and understand the relationship between their thoughts and feelings, as demonstrated by a study in an Australian CAMHS inpatient unit (Nielsen et al., 2019).

The study had a limitation regarding the use of the revised Client Satisfaction Scales (CSS). Although specific items were selected in the pilot study to make it easier for adolescents to complete the form, the total score should be interpreted with caution as the scale has not been used in this format before. Despite this limitation, it was relevant to report the total score. Other forms that measure treatment satisfaction, such as the Client Satisfaction Questionnaire CSQ-8, have been validated even in shorter versions with specific item selection (Attkisson & Zwick, 1982). The questions used in the study were selected after comparing with the abbreviated form CSQ-8.

Recruiting patients for the study posed another difficulty. The inclusion criteria, which prohibited ongoing treatments during Art therapy, made it challenging to recruit participants since many patients in child and adolescent psychiatry require multiple interventions. It would be interesting to investigate how PATd(y) would work in combination with other interventions, such as parental support.

Conclusion

PATd(y) is a promising treatment method for adolescents with depression in child and adolescent psychiatry, as demonstrated by the feasibility study. The study shows a significant effect on depression, although the sample size is limited. Further studies are needed to confirm these findings and investigate the art therapists' and adolescents' experiences. Replicating these results in larger populations could increase the availability of Art therapy for adolescents with depression in child and adolescent psychiatry, potentially informing future clinical practice and policies for mental health treatment.

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Disclosure Statement

No potential conflict of interest was reported by the authors.

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