A process-outcome study of school-based art therapy

Dafna Regev

School of Creative Arts Therapies

University of Haifa, Israel

This article was published at: **https://doi.org/10.1080/17454832.2021.1957960**

To cite: Regev, D. (2021). A process-outcome study of school-based art therapy. *International Journal of Art Therapy*, 1-9.

Bio: Dafna Regev is an art therapist and researcher. She is a senior lecturer at the School of Creative Arts Therapies and a member of the Emili Sagol Creative Arts Therapies Research Centre at the University of Haifa, Israel.

Correspondence concerning this article should be addressed to Dafna Regev, E-mail: daf.regev@gmail.com

Plain Language Summary

Recent studies have attested to the positive impact of art therapy on children and adolescents. However, little is known about what happens during the process of therapy and how it can lead to a positive outcome. The present study examined the relationship between process variables and outcome variables in the school-based art therapy setting. For this purpose, it focused on two process variables. The first was the art therapist's assessment of the client's degree of involvement in therapy. The second process variable was the therapist's assessment of the client's productive behaviours as well as resistance to therapy. This assessment can shed light on the ways in which the client responds to the therapist's interventions. The outcome variable was Child Behaviour Checklist that is designed to evaluate changes in children's behaviour and functioning over time or before/after therapy.

Thirty-two art therapists employed by the Israel Ministry of Education and 44 clients participated in the present study. At the beginning of the school year, each art therapist selected one or two of her clients, who were in grades 1-7. Consent was obtained from both the clients and their parents. Parents and teachers filled out the outcome measure, at the beginning (September) and end of the year (June). The art therapists were asked to fill in the process measures after each treatment session (once a week).

The results showed that cognitive-behavioural exploration and emotional exploration differed significantly across time. In addition, an association was found between improvement in client involvement and cognitive-behavioural exploration and improvement in internalizing problems. The present study provides initial support for the claim that the processes in art therapy with children in general and within the school setting in particular are more complex than is typically assumed for art therapy.

Abstract

Background: Only a few studies in the arts therapies in general and in the field of visual art therapy in particular have begun to address process variables and their relationship to outcome variables.

Aim: The present study thus aimed to contribute to this literature by examining the relationship between process variables and outcome variables in the school-based art therapy setting.

Method: The process-outcome relationship was examined in a school-based art therapy setting in a sample of 32 art therapists and 44 clients aged 7-13. Hypothesis 1 predicted that over the course of art therapy, client involvement and client productive behaviours would increase whereas resistance would decrease. Hypothesis 2 predicted that increases in client involvement and client productive behaviours and decreases in client resistance would be linked to decreases in behavioural problems.

Results: Both hypotheses were partially supported in that cognitive-behavioural exploration and emotional exploration differed significantly during therapy. In addition, there was a significant correlation between improvement in client involvement and cognitive-behavioural exploration and improvement in internalizing problems.

Conclusions: The present study provides initial support for the claim that the processes in art therapy with children are more complex than is typically assumed for art therapy. For example, the results showed that an increase in resistance and a decrease in insight were associated with positive outcomes.

Implications for practice: The findings indicated that in the education system, cognitive-behavioural exploration is an important variable. Models such as the cognitive-behavioural approach thus may be useful in school-based art therapy.

Key words: School-based art therapy, Process-outcome relationship, Client involvement, Productive behaviours, Resistance.

Introduction

In recent years, growing numbers of art therapists have been integrated into the education system in Israel as part of policies favouring the introduction of therapeutic services in schools. School-based art therapy provides a broad-based support system for clients and an opportunity for collaboration between the teachers and staff who are the most closely involved in these students' lives (Regev et al., 2015).

In addition, there has been a steady increase in research on art therapy in the education system (McDonald et al., 2019; Snir et al., 2018). A review of studies on art therapy with elementary school students suggested that school-based art therapy may contribute to improved classroom behaviour and reduced symptoms of resistance, disorder and anxiety (McDonald & Drey, 2018). In a recent study, Harpazi and colleagues asked adolescent clients with a variety of difficulties, most of whom were integrated within the regular education system, to share their thoughts on the contribution of art therapy within the education system (Harpazi et al., 2020). In general, although most of them were referred to art therapy by an authority figure within the school, rather than as the result of a personal process leading to therapy, they could see its benefits. The students stated that school-based art therapy helped them cope with anxiety, stress and strain, anger management and enabled the unfolding of behavioural change. They indicated that it provided a space for personal sharing and venting, and relief from feelings of loneliness. The participants described art therapy as a major source of support for them at school and in their lives in general, and as an opportunity to experience growth in self-confidence, improve their communication and interpersonal skills, increase personal resilience, and ameliorate their feelings during the day.

Recent studies have attested to the positive impact of art therapy on children and adolescents. In a systematic review (Cohen-Yatziv & Regev, 2019), the search produced 13 studies dealing with the effectiveness of art therapy with children and adolescents (e.g., Bazargan & Pakdaman, 2016; Wallace et al., 2014). The findings reported in this systematic

review suggested that art therapy may be beneficial for children and adolescents with post-traumatic symptoms, adolescents who exhibit delinquent behaviours, and those who are not diagnosed with a particular difficulty but are facing various life challenges. A systematic review conducted recently by Moula (2020) concluded that art therapy can be effective in improving children's quality of life, anxiety, self-concept, problem-solving skills, attitudes towards school, as well as emotional and behavioural difficulties. Methodologically, the studies included in these systematic reviews all measured the outcome variables before and after the intervention, such that the pre/post difference was considered to reflect the extent of change attributed to therapy.

However, little is known about what happens during the process of therapy and how it can lead to a positive outcome. In the field of psychotherapy today there is growing interest in the way therapy unfolds. A distinction is made between outcome variables that examine whether a change occurred in the client as a result of the intervention, and process variables that examine how and why this change occurred (Kazdin, 2009). To date, only a handful of studies in the arts therapies in general (e.g., Carr et al., 2021; Moula et al., 2019; Orkibi et al., 2017a; Orkibi et al., 2017b) and in the field of visual art therapy in particular (e.g., Keidar et al., 2020) have addressed process variables and their relationship with outcome variables. The present study thus aimed to contribute to this literature by examining the relationship between process variables and outcome variables in the school-based art therapy setting.

For this purpose, it focused on two process variables which were evaluated on questionnaires (see Method). The first was the art therapist's assessment of the client's degree of involvement in therapy (Chu & Kendall, 2004). Studies suggest that there are associations between client involvement in therapy and outcome variables (e.g., Hudson et al., 2014). It is particularly crucial to examine students' involvement in art therapy and the relationship between this involvement and outcome variables since students tend to be oriented to therapy

by professionals rather than choosing therapy out of their own volition. The second process variable was the therapist's assessment of the client's productive behaviours (cognitive-behavioural exploration, emotional exploration, insight, and change) as well as resistance to therapy (Hill et al., 1992; Hill & O'Brien, 1999). This assessment was designed to shed light on the ways in which the client responds to the therapist's interventions. Understanding these behaviours is particularly important when art therapy is provided within an educational setting, given the complexities related to any provision of therapy in school (Snir et al., 2018). Researchers in the field of psychotherapy research (Hill et al., 1992; Hill & O'Brien, 1999) have argued that productive behaviours should increase during therapy, and that less productive behaviours such as resistance should decrease.

Thus, it was hypothesized that (H1) over the course of art therapy, client involvement and client productive behaviours (cognitive-behavioural exploration, emotional exploration, therapeutic change, and insight) would increase significantly whereas resistance would decrease significantly; (H2) increases in client involvement and client productive behaviours (cognitive-behavioural exploration, emotional exploration, therapeutic change, and insight) and decreases in client resistance would be significantly correlated with decreases in students' behavioural problems.

Methods

Research design

This naturalistic study was part of a larger research project investigating the routine work of art therapists in the Israeli education system. The study was approved by the principals of the schools in which it was conducted, the Office of the Chief Scientist at the Ministry of Education and by the Ethics Committee of the Faculty of Health and Welfare at the University of Haifa.

In the letter to the art therapists and parents and in the written consent form, it was made clear to the participants that they were not obligated to participate in the study, and that they could terminate their participation at any time, without affecting them or the continuation of therapy in any way. They were also guaranteed that their identities would be kept confidential both in the data collection process and in the publication of the findings. In order to prevent identification of the participants, each client (and the associated parents, teacher and art therapist) was assigned a four-digit identification code by an experimenter who did not have access to the data. This code was used to cross-reference the data collected for the same client from different sources during the school year, while maintaining complete confidentiality.

Participants

Thirty-two art therapists employed by the Israel Ministry of Education and 44 clients met the inclusion criteria for the present study (see Procedure). The art therapists, all women, ranged in age from 30 to 56 (M = 45, SD = 6.1). Five art therapists were in the early stages of their career with less than five years' experience, 11 had been practicing for 5-10 years, 14 for more than 10 years (no data from two therapists). Five therapists applied an analytical dynamic approach, seven applied a phenomenological approach, one implemented an object relations approach, two applied a cognitive-behavioural approach (CBT), one an intersubjective approach, 14 used an integrated approach and two did not report their theoretical approach.

All the students were eligible for special education services in the regular education setting or as part of a special education class in regular education and were not receiving other kinds of psychotherapy. They were all referred to art therapy by the educational staff. The reasons for referral of the students who participated in this study seemed typical of referrals in the education system, and consisted of students with social difficulties, emotional difficulties, low self-esteem, behavioural disorders and Attention Deficit Disorders

(AD(H)D) that impaired their ability to learn. These clients, 36 boys and eight girls, were in grades one to seven at the time of the study and ranged in age from 7 to 13 (M = 9.9, SD = 1.4). Forty-two were born in Israel, one marked "other" and one student left the country of origin blank. Twelve were defined by the teachers as coming from low socio-economic backgrounds, 23 were middle class, seven upper class (missing data for two students). Forty-three of the clients were Jewish and one was Muslim. Seven students participated in one-to-one art therapy, 21 in group art therapy, four in parent-child art psychotherapy and for 12 clients the setting was not specified.

Measures

The Sociodemographic Questionnaire – was written for the purposes of this study and was used to collect background information on the art therapists (including age, gender, clinical experience and theoretical approach), and on the students (including age, gender, grade, education framework, country of birth, socio-economic background, religion and therapy setting).

Process Measures

Child Involvement Rating Scale – was composed of a six-item measure of client involvement or participation in a therapy session (Chu & Kendall, 2004). In their study, trained coders used the scale to assess audiotaped sessions on four items of positive involvement (reflecting behaviours that indicate the child's active participation in therapy-related tasks; e.g., "does the child initiate discussion or introduce new topics?") and two reverse-scored items of negative involvement (reflecting behaviours that indicate the child's withdrawal from or avoidance of therapy-related tasks; e.g., "the child is inhibited or avoidant with regard to participation"). The items were rated on a 6-point scale indicating their manifestation in the session, from 0 (not at all present) to 5 (very present) with higher scores representing higher involvement. Because recorded sessions were not available in the current study due to ethical considerations, the art therapists evaluated each participant directly after

each session. The therapists' evaluation of this measure was also reported in Orkibi et al. (2017a). The original version of the scale showed moderately strong internal consistency reliability (.73), strong inter-rater reliability (interclass correlation coefficient = .76), and moderate retest reliability (.59; Chu & Kendall, 2004). The current version of the scale showed good internal consistency reliability, with a Cronbach's alpha of .84.

Client Behaviour System – This scale is composed of four productive behaviours (cognitive-behavioural exploration, emotional exploration, insight, and change) and four less productive behaviours (resistance, agreement, appropriate request, and recounting) (Hill & O'Brien, 1999). Shechtman and Leichtentritt (Leichtentritt & Shechtman, 2010; Shechtman & Leichtentritt, 2010) and also Orkibi et al. (2017a, 2017b) used this scale in a number of studies that have also focused on the relationship between process variables and outcome variables in therapy with children. In all of them, given a small sample size, only resistance and the four productive behaviours were measured. Similarly, in all of them, because transcripts or videos were not available, the therapists were requested to evaluate each student on the five behaviours using a yes (coded as 1) or no (coded as 0) scale. The art therapists completed the scales after each session for each participant.

Outcome Measure

Child Behaviour Checklist – This checklist is designed to evaluate changes in children's behaviour and functioning over time or before/after therapy (Achenbach, 1991). Here, the Hebrew versions of the 113-item Teacher's Report Form (TRF) was completed by the students' teachers and the 109-item Child Behaviour Checklist (CBCL) was completed by the students' parents. The presence/absence of problems are rated on a three-point scale: "not true of him/her" (0), "sometimes true" (1), or "always true of him/her" (2). The items are divided into eight subscales that can be subsumed into three broader subscales: internalizing problems (anxiety/depression, introversion/depression, and somatic complaints subscales),

mixed problems (social problems, cognitive problems, and attention problems) and externalizing problems (aggressive behaviour and delinquent behaviour). Given the number of assessment instruments administered in this study, only the three composite scales were used in the analyses. In a previous study, the overall Cronbach's alphas for the CBCL and TRF were very good at .97 and .94, respectively (Bernedo et al., 2014). In the present study the Cronbach's alpha was .90 for Internalizing problems, ranged from .88 to .90 for Mixed problems, and from .88 to .91 for Externalizing problems, in both versions, at the beginning and end of therapy.

Procedures

The art therapists, who were located using a convenience sample method, agreed to take part in the study in exchange for a 60-hour graded course on Research in Art Therapy, which was delivered in 2015-2017, and counted for in-service training points. At the beginning of the school year, each art therapist selected one or two of her clients (no specific instructions were given as to selection criteria), who were in grades 1-7. Consent was obtained from both the clients and their parents. Parents and teachers filled out the Child Behaviour Checklist questionnaire, an outcome measure, at the beginning (before the first session) and at end of the year (after the last session). For the process measures, the art therapists were asked to fill in the Child Involvement Rating Scale and the Client Behaviour System after each treatment session (once a week). In fact, not all of them filled in the questionnaires after each session. In order to obtain a good distribution of the questionnaires during the year, the year was divided into five segments (weeks 1-8, 9-16, 17-24, 25-32, 33-38). The total number of sessions could not be divided exactly by five so that the last section was a little shorter. The analysis only included art therapists who completed the questionnaires for at least 15 sessions with at least one questionnaire corresponding to five different time points in the school year.

The art therapists as well as the parents and teachers filled out the questionnaires after entering the dedicated site using a link sent by the experimenters at the appropriate time to fill in each questionnaire.

Data Analysis

Preliminary analyses

Calculations of differences in process variables. The calculation of the differences in the process variables were made between measurements at weeks 1-8 vs. weeks 33-38. For the Child Involvement Rating Scale and the four productive behaviours in the Client Behavior System (cognitive-behavioural exploration, emotional exploration, therapeutic change, and insight), the differences were calculated as the mean score for weeks 33-38 minus the mean score for weeks 1-8, to obtain a positive measure of the difference, where the higher the difference score, the more positive the change between measurements. For resistance as measured on the Client Behaviour System, the differences were calculated as the mean score for weeks 1-8 minus the mean score for weeks 33-38, to obtain a positive score for greater improvement.

Calculations of differences in outcome variables. The outcome questionnaires were only filled in by 41 clients, since three students dropped out before the end of treatment. For all the sub-scales (three on the CBCL questionnaire and three on the TRF questionnaire), the differences were calculated as the pre-score minus the post score, in order to obtain a positive valence: the higher the difference score, the more positive the change between the two measurements.

Examining the research hypotheses

To test hypothesis 1 and examine differences between measures, a repeated measures ANOVA was calculated. To test hypothesis 2 and examine correlations between variables, Pearson tests were calculated. In addition, a standard multiple regression analysis was conducted.

Results

Table 1 lists the differences in process variables as a function of the minimum, maximum, median, mean, and standard deviation. It shows that all the mean difference scores were positive but low. That is, there appeared to be some improvement in these measures over the course of therapy.

Table 2 lists the differences in outcome variables as a function of the minimum, maximum, median, mean and standard deviation. It indicates that all the mean difference scores were positive but low. That is, there appeared to be some improvement in these measures over the course of therapy.

Hypothesis 1 – change in process variables

H1 posited that over the course of art therapy, client involvement and client productive behaviours (cognitive-behavioural exploration, emotional exploration, therapeutic change, and insight) would increase whereas resistance would decrease over time. To test this hypothesis, a repeated measures ANOVA was calculated.

As shown in Table 3, client involvement did not differ significantly across the five time points; $F(4, 172) = 1.26$, n.s.). However, as depicted in Figure 1, there was an upward trend in the art therapists' assessment of the clients' involvement in therapy. The increase was related to cognitive-behavioural exploration and can be seen as an indicator of change and development. However, the progression was not linear since it did not progress or develop smoothly from one time point to the next. Specifically, a decrease was observed between time 2 and time 3, followed by an upward slope.

Cognitive-behavioural exploration differed significantly across the five time points; $F(4, 168) = 2.70$, $p < 0.05$) (Table 3). Figure 2 shows that this increase was also not linear. At the beginning of therapy between time 1 and time 2, there was a significant increase in the art therapists' assessment of the clients' cognitive-behavioural exploration. By contrast there was a significant decrease between time 2 and time 3, followed by a significant increase between

time 3 and time 5. However, the general trend from time 1 to time 5 indicated a significant increase in the therapists' assessment of the clients' cognitive-behavioural exploration.

Emotional exploration differed significantly across the five time points; $F(4, 172) = 3.20$, $p < 0.05$) (Table 3). Figure 2 shows that the increase was not linear. At the beginning of therapy between time 1 and time 2, there was a slight non-significant decrease in the art therapists' assessment of the clients' emotional exploration. Nevertheless, the general trend from time 1 to time 5 showed a significant increase in the assessment of emotional exploration.

Insight did not differ significantly across the five time points $F(4, 172) = 2.02$, n.s. (Table 3). However, Figure 2 shows an upward trend in the art therapists' assessment of the clients' insights in therapy. This increase was non-linear and was observed between time 1 and time 4. However, there was a slight decrease between time 4 and time 5.

As was the case for insight, therapeutic change did not differ significantly across the five time points; $F(4, 172) = 2.12$, n.s. (Table 3). However, as shown in Figure 2, there was an upward trend, which was linear with respect to the art therapists' assessment of the change taking place in the clients throughout therapy.

Similarly, resistance did not differ significantly across the five time points; $F(4, 172) = 0.10$, n.s.) (Table 3). However, as shown in Figure 3, unlike the first three time points (between time 1 and time 4), where the mean resistance assessed by the art therapists was similar, in the fourth time point between time 4 and time 5 there was a downward trend in resistance.

Thus, Hypothesis 1 was partially supported. Cognitive-behavioural exploration and Emotional exploration differed significantly across the five time points. In contrast, client involvement, insight, therapeutic change and resistance did not differ significantly across the five time points.

Hypothesis 2 – Associations between process variables and outcome variables

Hypothesis 2 posited that increases in client involvement and client productive behaviours (cognitive-behavioural exploration, emotional exploration, therapeutic change, and insight) and decreases in client resistance would be linked to decreases in the clients' behavioural problems. These behavioural problems were defined on the teachers' and parents' assessments as externalizing, internalizing, and mixed behavioural problems. The data were subjected to Pearson tests (Table 4).

Table 4 shows that there was a significant positive correlation between improvement in the clients' involvement in therapy as assessed by the art therapists and improvement in internalizing problems as assessed by the parents ($r = 0.34$, $p < 0.05$). There were also significant positive correlations between improvement in the clients' cognitive-behavioural exploration as assessed by the art therapists and improvement in internalizing problems as assessed by the parents ($r = 0.32$, $p < 0.05$) and the teachers ($r = 0.35$, $p < 0.05$). None of the other correlations between the differences in the process variables and the differences in the outcome variables reached significance, thus only partially supporting Hypothesis 2.

A standard multiple regression analysis was conducted to predict the differences in teachers' assessment of internalizing problems in terms of the differences in the art therapists' assessment of the process variables. The regression model was significant [$F(6,34) = 3.38$, $p = 0.01$] and accounted for 26.4 % (Table 5) of the difference in teachers' assessment of internalizing problems. The predictor of difference in cognitive-behavioural exploration was significant ($\beta = 0.63$, $p = 0.0012$), and was positively correlated with the difference in teachers' assessment of internalizing problems. That is, the greater the art therapists' assessment of improvement in cognitive-behavioural exploration, the greater the teachers' assessment of improvement in internalizing problems.

In contrast, the predictors of difference in resistance ($\beta = 00.34$, $p = 0.0357$) and difference in insight ($\beta = 00.42$, $p = 0.0088$) were also significant but were negatively

correlated with the difference in the teachers' assessment of internalizing problems. That is, the greater the increase in resistance and a decrease in the degree of insight as assessed by the art therapists, the greater the teachers' assessment of improvement in internalizing problems.

Discussion

The present study examined the relationships between process variables and outcome variables in a school-based art therapy setting. In so doing it contributes to studies that have taken preliminary steps in the field of arts therapies towards a better understanding of the relationship between the processes occurring in therapy and treatment outcomes (Heynen et al., 2017; Keidar et al., 2020).

The findings showed that the most influential variable was cognitive-behavioural exploration. Cognitive-behavioural exploration shows that the client is currently involved in the investigation of meaningful thoughts or behaviours. The client thinks actively about issues, even though s/he does not have all the answers and attempts to understand more. Consistent with H1, there was a general trend between time 1 and time 5 (beginning and end of the school year) toward a significant increase in the therapists' assessment of cognitive-behavioural exploration. Thus, as familiarity with the therapeutic space and the establishment of the therapeutic relationship progressed, clients' cognitive-behavioural exploration skills in school-based art therapy appeared to develop. Sutherland et al., (2010) described the theory and practice of a school art therapy program in Chicago, Il, for students identified as being at risk. They emphasized that similar to the present study, the program helped those children enter into processes of change in their lives.

In line with H2, the improvement in clients' cognitive-behavioural exploration as assessed by the art therapists was significantly correlated with improvement in the internalizing problems of anxiety/depression, introversion/depression and somatic complaints assessed by both parents and teachers on the Child Behaviour Checklist. The significant

regression model showed that the greater the art therapists' assessment of the improvement in cognitive-behavioural exploration, the greater the teachers' assessment of improvement in internalizing problems. This finding is consistent with results from a study on a school-based psychodrama group with clients ranging in age from 13 to 16 (Orkibi et al., 2017b) where there were moderate to strong positive correlations between cognitive-behavioural exploration and changes in scholastic self-concept.

Most psychological services provided to students take a similar view of the importance of cognitive-behavioural exploration as a key to change and development. It is possible that the school context in which cognitive processes develop and take place, summons these processes, and the more these exist in therapy, the more progress the client makes. This is one of the reasons why Sharon (2018) recommended the use of the cognitive-behavioural approach to art therapy in schools. The clients' cognitive-behavioural exploration of the meaning of their internalizing problems and their acknowledgment of it within treatment may thus have occurred in tandem with improved coping with these problems.

As predicted in H1, there was a significant increase in emotional exploration over the course of therapy. Emotional exploration indicates that the client is currently involved in investigating emotions related to significant therapeutic material. Emotional words must be heard or be seen through non-verbal behaviours. This finding suggests that beyond cognitive-behavioural exploration, art therapy in the school setting does indeed enable clients to engage in a deeper observation of their emotions (similar to the subjective reports in Harpazi et al., 2020). However, this increase, contrary to the H2, was not associated with improvement in client behaviour. A model constructed as part of a study by Shechtman and Leichtentritt (2010) on groups of children also reported that although cognitive-behavioural exploration influenced clients' emotional exploration, there was no association between emotional exploration and treatment outcomes.

Contrary to H1, there was no significant change in client involvement in treatment over the course of therapy. As shown in studies addressing the resistance of adolescent clients to treatment (Sommers-Flanagan et al., 2011), this may be partially attributed to the fact that most clients do not seek out therapy themselves. This may account for the fluctuations in the extent of their involvement in therapy. However, consistent with H2, improvement in client involvement was significantly associated with parents' assessment of their children's improvement in internalizing problems. It may be the case that the opportunity to be treated and receive assistance for children with internalizing problems within the school system prompted both parental and student hopes for change. Those students who were involved and active in their therapy were able to progress and their parents noticed an improvement in their behavior. The Harpazi et al. study (2020) of school-based art therapy pointed to the importance of clients' sense of acceptance in therapy as a precondition for them to form a therapeutic bond and be involved in therapy. Future studies should examine the processes underpinning clients' feelings of acceptance in therapy in relation to their involvement in the therapeutic process.

H1 was also disproven with respect to the insight, therapeutic change, and resistance variables. Over time, there was a trend toward an increase in insight and therapeutic change. By contrast, there was no change in resistance until the fourth time point (weeks 25-32) and the fifth time point (weeks 33-38) where there was a trend toward a decrease in resistance.

Although H2 was disconfirmed with respect to the therapeutic change variable, the predictors of regression difference in resistance and difference in insight were significant, but negatively associated with the difference in teachers' assessment of internalizing problems. That is, the greater the increase in resistance and a decrease in the degree of insight as assessed by the art therapists, the greater the teachers' assessment of improvement in internalizing problems. Recent articles discussing the concepts of insight (Freilich &

Shechtman, 2010) and resistance (Crenshaw, 2017) among children, show how subjective and even more complex these concepts are when related to children in general and the school setting in particular. It is possible that students who were allowed to resist treatment and perhaps engage less in the processes leading to insight in therapy were able to strengthen internally, feel less depression and anxiety and thus manifest improvement in terms of their teachers' assessment. These findings are to some extent consistent with other findings on psychotherapy and psychodrama for children which have failed to find a positive correlation between insight and treatment outcomes (e.g., Shechtman, & Leichtentritt, 2010), and may suggest that the meaning of insight is different in child psychotherapy as compared to adult psychotherapy.

Limitations of this Study

The main limitation of this study was the small sample size and the problems recruiting art therapists, parents and teachers to fill out all the questionnaires. Out of the 77 students who participated in the study, only 44 completed enough process questionnaires for analysis over the course of the treatment period. In addition, some of the research tools were used differently from the original versions, although there are other studies that have made similar uses.

It is important to emphasize that the study focused on very subjective concepts, which in the questionnaires were assessed by the art therapists. For example, the concept of insight is a concept that is not easy to evaluate, and the art therapists, the students and the parents may have perceived it differently. In addition, the study dealt with students with a variety of difficulties treated with art therapy in the Israeli education system. Future studies should examine the relationship between process variables and outcome variables with larger samples in different settings and specific populations.

Conclusions and Implications for Practice

This study is a preliminary exploration in the field and as such only points to directions for further research. The findings indicated that in the education system, cognitive-behavioural exploration is an important variable: it was shown to develop during art therapy sessions and was associated with positive outcomes. Models such as the cognitive-behavioural approach thus may be useful in school-based art therapy.

The present study also provides initial support for the claim that the processes in art therapy with children in general and within the school setting in particular are more complex than is typically assumed for art therapy. Children do not behave in therapy like adults and in addition, the characteristics of school treatment, in an environment that hosts art therapy within an educational framework, are not always optimal for therapy. In the present study, the results suggested that an increase in resistance and a decrease in insight were associated with positive outcomes. These findings demonstrate that art therapy with children has specific characteristics that need to be further investigated in future studies.

References

Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4-18, YSR, and TRF profiles.* Department of Psychiatry, University of Vermont.

Bazargan, Y., & Pakdaman, S. (2016). The Effectiveness of Art Therapy in Reducing Internalizing and Externalizing Problems of Female Adolescents. *Archives of Iranian Medicine (AIM), 19*(1).

Bernedo, I. M., Salas, M. D., Fuentes, M. J., & García-Martín, M. Á. (2014). Foster children's behavior problems and impulsivity in the family and school context. *Children and Youth Services Review*, *42*, 43-49.

Carr, C., Feldtkeller, B., French, J., Havsteen-Franklin, D., Huet, V., Karkou, V., ... & Sandford, S. (2021). What makes us the same? What makes us different? Development

of a shared model and manual of group therapy practice across art therapy, dance movement therapy and music therapy within community mental health care. *The Arts in Psychotherapy*, *72*, 101747.

Chu, B. C., & Kendall, P. C. (2004). Positive association of child involvement and treatment outcome within a manual-based cognitive-behavioral treatment for children with anxiety. *Journal of Consulting and Clinical Psychology, 72*(5),821–829.

Cohen-Yatziv, L., & Regev, D. (2019). The effectiveness and contribution of art therapy work with children in 2018-what progress has been made so far? A systematic review. *International Journal of Art Therapy*, 1-13.

Crenshaw, D. A. (2017). Resistance in child psychotherapy: Playing hide-and-seek. In C. A. Malchiodi & D. A. Crenshaw (Eds.), *What to do when children clam up in psychotherapy: Interventions to facilitate communication* (pp. 18–37). Guilford Press.

Freilich, R., & Shechtman, Z. (2010). The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities. *The Arts in psychotherapy*, *37*(2), 97-105.

Harpazi, S., Regev, D., Snir, S., & Kaspy, R. (2020). Perceptions of Art Therapy in adolescent clients treated within the school system. *Frontiers in Psychology.*

Heynen, E., Roest, J., Willemars, G., & Hooren, S. V. (2017). Therapeutic alliance is a factor of change in arts therapies and psychomotor therapy with adults who have mental health problems. *The Arts in Psychotherapy, 55*, 111-115. Doi: 10.1016/j.aip.2017.05.006.

Hill, C. E., Corbett, M. M., Kanitz, B., Rios, P., Lightsey, R., & Gomez, M. (1992). Client behavior in counseling and therapy sessions: Development of a pantheoretical measure. *Journal of Counseling Psychology, 39*(4), 539–549.

Hill, C. E., & O'Brien, K. M. (1999). Helping skills: Facilitating, exploration, insight, and action. American Psychological Association.

Hudson, J. L., Kendall, P. C., Chu, B. C., Gosch, E., Martin, E., Taylor, A., & Knight, A. (2014). Child involvement, alliance, and therapist flexibility: Process variables in cognitive-behavioural therapy for anxiety disorders in childhood. Behaviour *Research and Therapy, 52,* 1–8.

Kazdin, A. E. (2009). Understanding how and why psychotherapy leads to change. *Psychotherapy Research, 19*(4–5), 418–428.

Kazdin, A. E., & Weisz, J. R. (2003). Evidence-based psychotherapies for children and adolescents. Guilford Press.

Keidar, L., Snir, S., Regev, D., Orkibi, H., & Adoni-Kroyanker, M. (2020). Relationship Between Therapist-Client Bond and Outcomes of Art Therapy in the Israeli School System. *Art Therapy.*

Leichtentritt, J., & Shechtman, Z. (2010). Children with and without learning disabilities: A comparison of processes and outcomes following group counseling. *Journal of Learning Disabilities, 43*(2), 169–179.

McDonald, A., & Drey, N. S. (2018). Primary-school-based art therapy: a review of controlled studies. *International Journal of Art Therapy*, *23*(1), 33-44.

McDonald, A., McConnell, D., Ottarsdottir, U., & Gonzales-Doglinko, B. (2019, July). Art Therapy in Education: 21hallenges, Opportunities and Best Practice. In S. Deaver (Chair). *International Art Therapy Practice/Research Conference*. Lecture conducted from BAAT & AATA, London.

Moula, Z. (2020): A systematic review of the effectiveness of art therapy delivered in school-based settings to children aged 5–12 years. *International Journal of Art Therapy*, Vol 25, No 2.

Moula, Z., Karkou, V., & Powell, J. (2019). A pilot cross-over randomised controlled trial of child-focused process and outcome evaluation of arts therapies at primary mainstream schools: study protocol. *Arts & health*, 1-16.

Orkibi, H., Azoulay, B., Regev, D., & Snir, S. (2017a). Adolescents' dramatic engagement predicts their in-session productive behaviors: A psychodrama change process study. *The Arts in Psychotherapy, 55*, 46-53.

Orkibi, H., Azoulay, B., Snir, S., & Regev, D. (2017b). In-session behaviours and adolescents' self-concept and loneliness: A psychodrama process–outcome study. *Clinical Psychology & Psychotherapy, 24*(6), O1455-O1463.

Regev, D., Green-Orlovich, A., & Snir, S. (2015). Art therapy in schools - The therapist's perspective. *Arts in Psychotherapy*, *45,* 47-55.

Shechtman, Z., & Leichtentritt, J. (2010). The association of process with outcomes in child group therapy. *Psychotherapy Research, 20*, 8–21.

Sharon, Y. (2018). Cognitive behavioral art therapy. In S. Snir, & D. Regev (Eds.), *When Arts Therapy Meets the Education System in Israel: Applied Aspects*. The Emili Sagol Research Center: University of Haifa (in Hebrew).

Snir, S., Regev, D., Keinan, V., Abd El Kader-Shahada, H., Salamey, A., Mekel, D… Alkara, M. (2018). Art therapy in the Israeli education system - a qualitative meta-analysis. *International Journal of Art Therapy*, *23*(4), 169-179.

Sommers-Flanagan, J., Richardson, B. G., & Sommers-Flanagan, R. (2011). A multi-theoretical, evidence-based approach for understanding and managing adolescent resistance to psychotherapy. *Journal of Contemporary Psychotherapy, 41*(2), 69–80. https://doi.org/10.1007/s10879-010-9164-y.

Sutherland, J., Waldman, G., & Collins, C. (2010). Art therapy connection: Encouraging troubled youth to stay in school and succeed. *Art Therapy: Journal of the American Art Therapy Association, 27*(2), 69-74. doi: 10.1080/07421656.2010.10129720.

Wallace, J., Packman, W., Huffman, L. C., Horn, B., Cowan, M., Amylon, M. D., ... & Moses, J. (2014). Psychosocial changes associated with participation in art therapy interventions for siblings of pediatric hematopoietic stem cell transplant patients. *Art Therapy, 31*(1), 4-11.

Table 1

Differences in process variables

Variable	N	Mean	SD	Median	Minimum	Maximum
Client involvement	44	0.23	0.85	0.17	-1.94	1.90
Cognitive behavioural exploration	44	0.14	0.42	0.09	-0.75	1.00
Emotional exploration	44	0.16	0.44	0.00	-0.67	1.00
Insight	44	0.09	0.36	0.00	-0.50	1.00
Therapeutic change	44	0.14	0.43	0.00	-0.75	1.00
Resistance	44	0.02	0.40	0.00	-1.00	1.00

Table 2

Differences in outcome variables

Variable	N	Mean	SD	Median	Minimum	Maximum
CBCL - Externalizing	41	2.73	8.40	2.00	-11.00	31.00
TRF - Externalizing	41	1.32	9.71	0.00	-27.00	30.00
CBCL - Internalizing	41	1.49	7.01	0.00	-16.00	17.00
TRF - Internalizing	41	0.80	6.75	0.00	-12.00	27.00
CBCL - Mixed	41	2.95	8.56	1.00	-19.00	23.00
CBCL - Mixed	41	2.46	10.74	2.00	-22.00	34.00

Table 3

Repeated measures model – overall time effect

Time	Client involvement	Cognitive Behavioural Exploration	Emotional Exploration	Insight	Therapeutic change	Resistance
Time effect [1]	F (4,172) =1.26	F (4,168) =2.70*	F (4,172) =3.20*	F (4,172) =2.02	F (4,172) =2.12	F (4,172) =0.10
Significant differences		(1) vs. (2) (2) vs. (3) (1) vs. (5) (3) vs. (5)	(1) vs. (5) (2) vs. (5) (3) vs. (5)			
(1) weeks 1-8	3.38(0.70)	0.54(0.42)	0.56(0.39)	0.35(0.33)	0.33(0.37)	0.21(0.35)
(2) weeks 9-16	3.49(0.62)	0.66(0.30)	0.54(0.32)	0.36(0.32)	0.37(0.35)	0.20(0.24)
(3) weeks 17-24	3.44(0.69)	0.57(0.34)	0.57(0.32)	0.42(0.33)	0.41(0.36)	0.21(0.25)
(4) weeks 25-32	3.57(094)	0.65(0.39)	0.65(0.37)	0.47(0.43)	0.45(0.43)	0.21(0.32)
(5) weeks 33-38	3.61(0.71)	0.68(0.35)	0.72(0.33)	0.44(0.40)	0.47(0.43)	0.18(0.29)

*p. value<0.05

Table 4

Matrix correlations between differences in process variables and differences in outcome variables (N = 41)

	CBCL – Externalizing difference	CBCL – Internalizing difference	CBCL – Mixed difference	TRF – Externalizing difference	TRF – Internalizing difference	TRF – Mixed difference
Client involvement difference	0.02	0.34*	-0.10	-0.20	0.06	-0.13
Cognitive Behavioural Exploration difference	0.16	0.32*	0.20	0.13	0.35*	0.23
Emotional Exploration difference	-0.11	-0.06	-0.21	-0.19	-0.14	-0.24
Insight difference	-0.06	0.16	0.09	-0.17	-0.19	-0.19
Therapeutic change difference	0.06	0.26	0.03	0.14	0.08	0.13
Resistance difference	-0.04	0.23	0.03	0.19	-0.14	0.16

*$p<.05$

Table 5

Multiple regression analysis

	B	SE B	β	t	P
Client involvement difference	1.76	1.40	0.22	1.26	0.2164
Cognitive Behavioural Exploration difference	10.14	2.86	0.63	3.54	0.0012
Emotional Exploration difference	-3.51	2.17	-0.23	-1.62	0.1155
Insight difference	-7.79	2.80	-0.42	-2.78	0.0088
Therapeutic change difference	-3.34	2.55	-0.22	-1.31	0.1994
Resistance difference	-6.24	2.86	-0.34	-2.19	0.0357

$F(6,34) = 3.38$, $p = 0.01$, $AdjR^2=0.2635$

Figure 1

Developmental trends in client involvement across the five time points in school-based art therapy did not differ significantly.

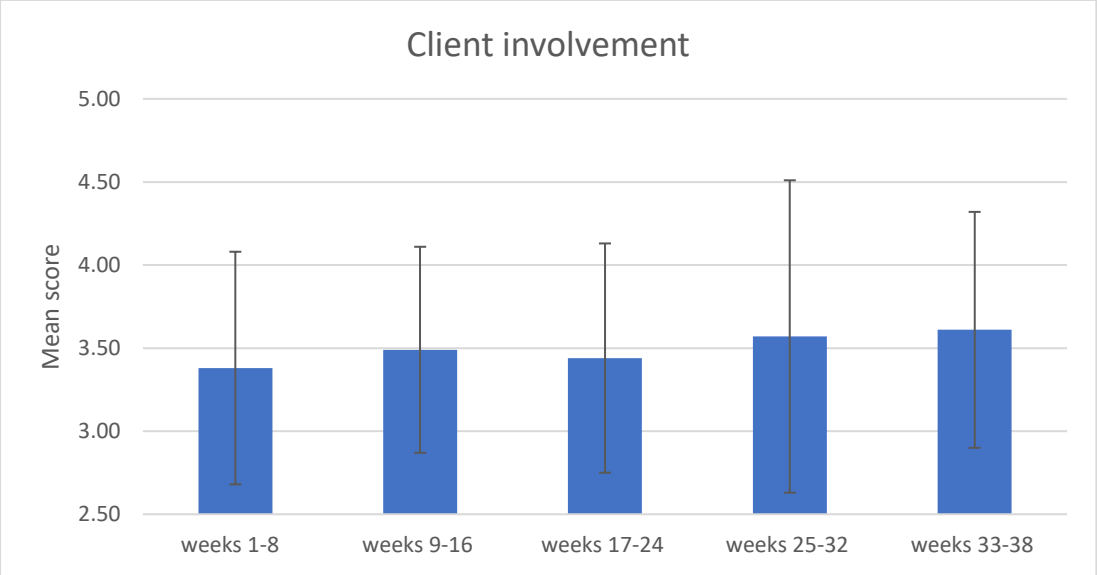


Figure 2

Developmental trends for four productive client behaviours across the five time points showing that Cognitive-behavioural exploration and Emotional exploration differed significantly whereas Insight and Therapeutic change did not.

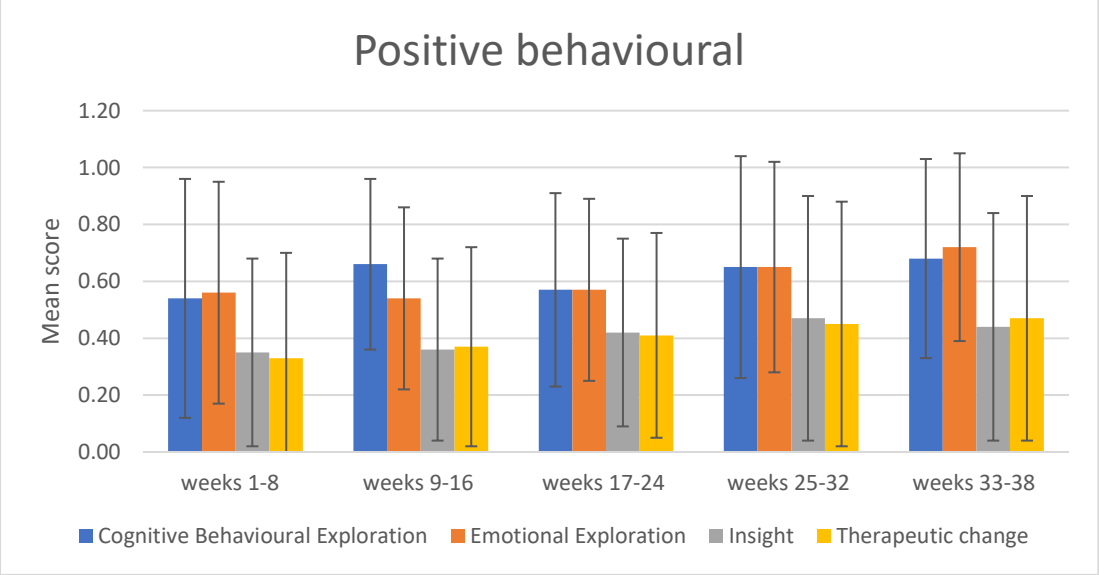


Figure 3

Developmental trends in resistance across the five time points in school-based art therapy did not differ significantly

