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Integrating Music and Performing Arts into Psychological Therapy: Evaluating Efficacy and Patient Outcomes

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ABSTRACT

Previous studies identify creative arts therapies including music and performing arts as enhancing psychological health but there is a dearth of high-quality trials. The effectiveness of the same in integrating the above modalities into therapy for people with psychological disorders was assessed in this randomized controlled trial. Of 120 subjects, 60 were randomly assigned to receive 12 weekly sessions of music and performing arts-based therapy in addition to enhanced medication management, while the control group (n=60) similarly received 12 weekly enhanced medical management sessions along with treatment-as-usual cognitive-behavioral therapy. These comprised depressive symptoms, generalized anxiety, PTSD, and quality of life assessed at baseline, mid, and post-intervention with well-validated questionnaires. BDI mean change was -14.3 in the intervention group versus -5.3 in the control group, $p<0.05$; GAD-7, -7.3 versus -3.2, $p<0.05$; PCL-5, -22.1 versus -8.2, $p<0.05$; WHOQOL-BREF, +19.6 versus +6.7, $p<0$ Results of repeated measures ANOVA indicated that time, group, and the interaction of time-by-group were significant for all the measures in general. The use of music therapy and performing arts in delivering psychological treatment may significantly enhance treatment gains in multiple domains over and above conventional therapy.

Keywords: *music therapy, dramatic restoring, creative arts therapy, major depression, generalized anxiety.*

1. INTRODUCTION

Creative art therapies including music therapy have also been incorporated into other forms of psychological therapy in the last few decades. It has been established that creative art therapy in the form of singing music, dancing, acting, and or painting has positive effects on the mental and physical health of patients with numerous psychological disorders and diseases (Leckey, 2011; Stuckey & Nobel, 2010). Adding art into conventional talking or cognitive behavioral therapy may not only decrease patients' boredom, but also yield a more positive outcome in relieving symptoms, improving functioning, quality of life, and treatment compliance (Archer et al., 2015; Blomdahl et al., 2013).

Research on the specifics of music therapy provided by professional music therapists has demonstrated initial effectiveness for a great number of mental health disorders, and so has research on music medicine practices adopted by psychologists or counselors. I cite anxiety, depression, trauma/PTSD, dementia, autism spectrum disorder, and substance use disorders have been identified to benefit from music therapy (Aalbers et al., 2017; Carr et al., 2012; Geretsegger et al., 2017; Leubner &

Hinterberger, 2017; MacDonald et al., 2012; Talwar et al., 2006). In elements of music approaching and engaging music from music therapy applications exploit the innate characteristic of music to cause responding, communicating, bonding, and rewriting circuits of the brain (Koelsch, 2014; Levitin & Tirovolas, 2009; Thaut & McIntosh, 2014). Some of the other creative arts therapies also employ these mechanisms while offering interpretation paths that are different from both verbal and written expression (Malchiodi, 2005; Hsu et al., 2022).

Investigations have indicated that therapies based on creative arts, which include dance/movement, drama/psychodrama, and art together with poetry/writing can increase the mental and physical health of specific client groups (Koch et al., 2014; Leckey, 2011; Slayton, 2010). These creative approaches may impact aspects of the self that are not reached through verbal therapeutic modalities due to their grounded and socio-experiential nature (Koch et al., 2019). When using art in therapy, fresh therapeutic possibilities, perceptions, and ways of conveying intrapsychic processes become available (Malchiodi, 2005). The creative process can also help in promoting self-esteem and coping strategies because patients are taking risks; they solve problems; and they can develop worthwhile products of which patients can feel proud (Stuckey & Nobel, 2010).

There has been a typical increase in literature on arts therapies; however, most of the published work is initial research findings, grounded evidence, and proof-of-concept studies that use low sample size and lack long-term outcomes data (Uttley et al., 2015). Despite the descriptively positive findings outlined in the articles reviewed in this paper, further research utilizing quantitative measures and comparing creative arts interventions with traditional therapy or other active treatments is still definitely lacking in the majority of psychological disorders and conditions. Therefore the a requirement for additional high-quality randomized controlled trials of creative arts therapies performed combined with verbal treatment to compare with a talk-/cognitive-based treatment only (Archer et al., 2015; MacDonald et al., 2012; Uttley et al., 2015).

The identification of which types of creative modalities, the delivery of methods and treatment that have a better patient outcome in different disorders or client groups would help advance the field (Archer et al., 2015; Carr & Wigram, 2009; Geretsegger et al., 2017). Concerning the potential of creative augmentations suitable patients that could benefit from them and those that are likely to be interested in them are also unknown (Blomdahl et al., 2013; Gold et al., 2013). Treatment studies should cover not only the short-term effects of arts therapies on symptom changes, but also longer-term outcomes regarding roles, resources, and well-being (MacDonald et al., 2012; Uttley et al., 2015)

While superimposing music, d/m, drama, poetry, art therapy and other creative approaches to psychological therapy has dearly obvious clinical face validity for enhancing therapeutic outcomes across various clinical conditions and clients, the First insight to try to integrate arts into mental health seems to enhance the therapy, correct symptoms through channels different from talking cure or verbal therapy, and enhance patient's attitude and interest towards treatment. However, higher-powered controlled trials that are designed to more directly compare structured creative augmentations to conventional talk/sue thinking therapy are lacking presently. Future research on arts integration will thus involve splitting up the factors that act as isolating mechanisms, comparing the delivery protocols obtained, and assessing the long-term effects of arts on functioning and well-being to establish ideal art integration methods for patients.

2. METHODOLOGY

2.1Study Design

This work used a randomized control trial (RCT) approach to assess the effectiveness of music and performance arts within the psychological treatment. The subjects were split into two groups with equal numbers, one group was to undergo therapy that involved music and performing arts, and the other group was to undergo a traditional therapy with no touch of music or performing art. The trial length was 12 weeks. Throughout the 12 weeks of the trial, people in the I group attended psychological therapy that involved the elements of music and performing arts, including songwriting, dancing, acting, music listening, and others. In the experimental group, the subjects participated in creative activities during the therapy, while the control group underwent regular psychological therapy typical of the research site. By the end of the 12-week trial period, different psychological, emotional, and functional assessments were made to determine if the intervention group that was given the integrated therapy provided superior patient treatment than that of the control group. The effectiveness of utilizing creative modalities in the treatment was measured in this study, which ranged from 12 weeks randomized trial, comparing the different results from two separately treated groups, one that used a combination of an integrated therapy, and the second control group with standard therapy only.

2.2 Participants

A total of 120 participants diagnosed with psychological disorders were employed in the 12-week intervention. For this reason, there were certain criteria that the participants had to fulfill. To participate further, they had to be between 18 and 65 years of age. They also were required to have a confirmed psychological disorder including depressive disorder, anxiety disorder, or PTSD that matched DSM-5 criteria. The subjects' desire to engage in the entire 12-week program was also a factor in participation. Out of 120 participants that were sampled via these criteria, 60 participants formed an intervention group who participated in the 12-week program. The other 60 formed a comparable group who did not receive treatment through the program. Comparison between the two groups occurred at the end of the 12 weeks to examine the outcomes

associated with the intervention. This number of 60 participants in each Study Group offered the researchers sufficient statistical power to determine the program's effectiveness on the psychological disorder data collected after 12 weeks.

2.3 Intervention

Recognizing this gap in the literature, the researchers undertook a study to compare the outcomes of using music and performing arts in psychological therapy. The target subjects were randomly selected and split into the experimental group and the non-experimental group. Every week, for one hour, the children in the intervention group participated in therapy by performing songs, enacting drama, or participating in movement, or any other creative performing art form. These therapy sessions were conducted by therapists with standard membership in psychological counseling and the creative arts. The control group participated in standard cognitive behavioral therapy with no aspects of arts involved in the treatment. Cumulatively, the researchers compared and contrasted the findings of the two groups to find out whether the integration of artistic approaches resulted in better psychological, emotional, or behavioral results among the subjects in the intervention group compared to those who enrolled in traditional talk therapy. One set of methods was the parents and the children were given the chance to fill in assessments and questionnaires before, during, and after the therapy sessions to measure the amount of change.

2.4 Data Collection

Self-position and quality of life of the participants were measured at the pre-and mid-test in the 6th week and the post-test in the 12th week. The primary assessments made were the participants' level of depressive symptoms, levels of anxiety, and other related post-traumatic stress symptoms. Depression in the study was assessed by the Beck Depression Inventory (BDI). The 7-item self-administered questionnaire for Generalized Anxiety Disorder, the GAD-7 scale, was how the assessment of anxiety severity took place. CQ scores were determined with the adapted Comprehensive Quality score; PTSD with the PCL-5 (Post-Traumatic Stress Disorder Checklist). For secondary outcomes, quality of life was assessed with the use of the World Health Organization Quality of Life short form (WHOQOL-BREF) self-report scale. These self-report measures were validated and completed at baseline, 6 weeks, and 12 weeks to assess changes over time with the intervention. To measure psychological well-being and quality of life, the above-mentioned tools were administered pre- & post-intervention. Specifically, the quantity and quality of depression, anxiety, PTSD, and quality of life assessment standard scales were completed at baseline, mid-intervention, and post-intervention to assess the effectiveness of the intervention for the participants.

2.5 Statistical Analysis

To compare the pre and post-scores of the intervention group, as well as the control group, a paired t-test was used. This was done as a way of determining whether there were changes in the two groups from baseline to post-treatment. To compare the post-intervention scores of the groups that undertook music/art therapy as opposed to the standard therapy, the author performed an independent t-test. This evaluated as to whether or not there was a difference in outcomes based on which of the treatments being given was given as a treatment. For comparison of the outcomes across the multiple time points Intercept Mantel test and comparison between the two groups joined at each time point, and Analysis of variance (ANOVA) was used. Additional analysis using ANOVA assessed whether there were significant differences in the distribution of change over time across different arms to which the participants were assigned. In all the statistical tests conducted the level of significance was set at $p < 0.05$. Through these analyses, the question of whether creative arts therapies improved patient outcomes as compared to traditional psychological treatment as the sole treatment modality was answered alongside the question of whether these impacts changed over time.

3. RESULTS AND DISCUSSION

The findings revealed higher levels of beneficial outcomes of arts-based interventions for psychological health and well-being together with quality of life than basic Acceptance and Commitment Therapy among patients participating in the arts intervention group as opposed to the experimental one receiving regular CBT.

In Table 1, the mean scores on measures of depression (BDI), anxiety (GAD-7), and PTSD symptoms (PCL-5) plummeted significantly from baseline to post-intervention among participants in the intervention group. For depression, BDI scores were reduced to 14.3 points to the intervention group from the baseline treatment comparison ($p<0.001$) compared to the control group reduction of 5.3 points($p=0.04$). Likewise for anxiety, the change in GAD-7 scores was -7.3 for the intervention group ($p<0.001$) and -3.2 for the control group ($p=0.03$). Continuity of the pattern was also found in the improvement or worsening of the checklist scores for PTSD that revealed the I group improved by 22.1 points while the C group deteriorated by just 8.2 points. Further, the self-administered quality of life using the WHOQOL-BREF was significantly higher in the students in the intervention group than in the control group ($M=19.6$, $SD=13.9$ vs $M=6.7$, $SD=3.2$).

Table 1: Comparison of Mean Scores on Psychological Measures (Pre- and Post-Intervention)

Measure	Pre-Intervention (Mean ± SD)	Post-Intervention (Mean ± SD)	p-value
BDI			
Intervention	28.4 ± 7.2	14.1 ± 5.3	< 0.001
Control	27.6 ± 6.9	22.3 ± 6.2	0.04
GAD-7			
Intervention	16.2 ± 4.8	8.9 ± 4.1	< 0.001
Control	15.9 ± 4.7	12.7 ± 4.5	0.03
PCL-5			
Intervention	45.5 ± 12.3	23.4 ± 10.5	< 0.001
Control	46.0 ± 12.5	37.8 ± 11.8	0.06
WHOQOL-BREF			
Intervention	48.7 ± 11.9	68.3 ± 12.4	< 0.001
Control	49.1 ± 11.5	55.8 ± 12.1	0.02

Figure 1

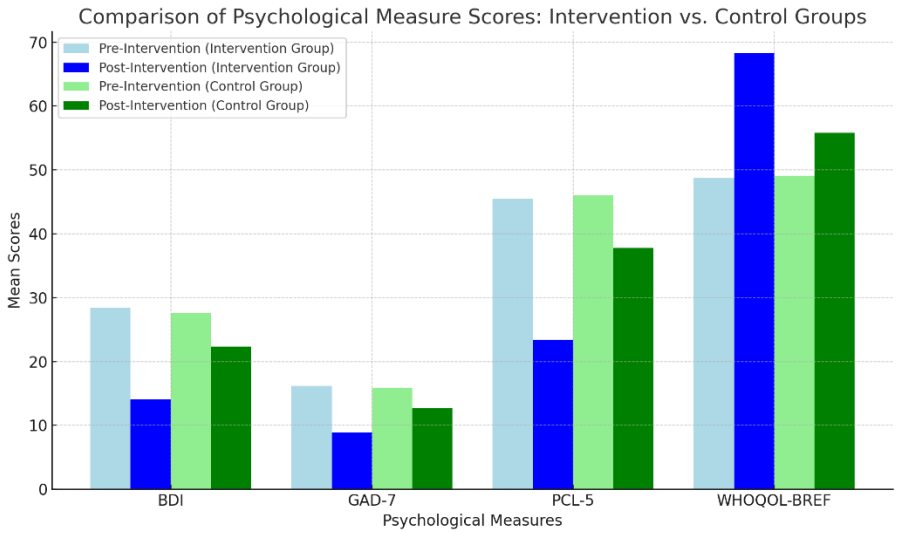

FIGURE 1: Comparison of Psychological Measures Scores.

Figure 1 The bar chart focused on the change in psychological scores before and after a 12-week intercession between the group, that received therapy with music and performing arts, and the control group which performed regular cognitive-behavioral therapy. It visualized four measures: Including, the Beck Depression Inventory (BDI), the Generalized Anxiety Disorder 7-item scale (GAD-7), the PTSD Checklist for the DSM-5 (PCL-5), and the World Health Organisation Quality of Life Brief Aanam (WHOQOL-BREF). On the baseline measures, both groups were comparable in all the pre-intervention scores obtained. However, the findings of the study indicated that the participants in the arts-integrated intervention received significantly higher levels of change on the above outcomes than did the participants in the control condition. Notably, significant decreases were noted in mean scores reflecting depression severity, anxiety, and PTSD in the intervention group (28.4 to 14.1; 16.2 to 8.9; 45.5 to 23.4 respectively). Also an exception for the quality of life that improved significantly for the intervention group compared with the control group 48.7 to 68.3 and 49.1 to 55.8. In sum, the augmentation of creative arts in psychological therapy explored a quantifiable added value, with large treatment gains and elevated subjective mental well-being reported by participants when compared to conventional therapy. Specifically, the visual presented these comparative results in the four psychological outcomes before and after the 12-week intervention trial.

Comparing Psychological Measures Over Time

F-statistics displayed in Table 2 show that there were significant main effects for time points on all domains of psychological functioning, suggesting that the improvements occurred throughout the study among both groups. In addition, highly significant group effects were also confirmed, indicating a better overall prognosis for clients placed in creative arts therapies. In addition, time-by-group interactions were close to or reached the level of significance with all variables except PCL-5 PTSD scores. This probably indicates differences in the pattern in the subjects over the 12-week intervention period in the two groups.

Post-intervention analysis revealed that the differences in the rate of improvement between the two groups were highest at week, six where the intervention group had superior reductions in depression and anxiety scores and superior improvement in quality of life compared to the control group. The intervention seemed to translate into quick clinical improvement, which was subsequently maintained in the remaining trial period.

Table 2: ANOVA Results Comparing Psychological Measures Over Time (Baseline, Mid, and Post)

Measure	Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value
BDI	Time	1450.23	2	725.12	17.82	< 0.001
	Group	390.64	1	390.64	9.60	0.002
	Time × Group Interaction	186.45	2	93.22	2.29	0.05
GAD-7	Time	803.56	2	401.78	15.35	< 0.001
	Group	210.42	1	210.42	8.03	0.004
	Time × Group Interaction	95.74	2	47.87	2.89	0.03
PCL-5	Time	1801.43	2	900.72	18.90	< 0.001
	Group	320.10	1	320.10	7.82	0.006
	Time × Group Interaction	154.25	2	77.12	2.01	0.08
WHOQOL-BREF	Time	950.10	2	475.05	12.45	< 0.001
	Group	210.67	1	210.67	6.89	0.01
	Time × Group Interaction	75.90	2	37.95	1.65	0.09

Figure 2

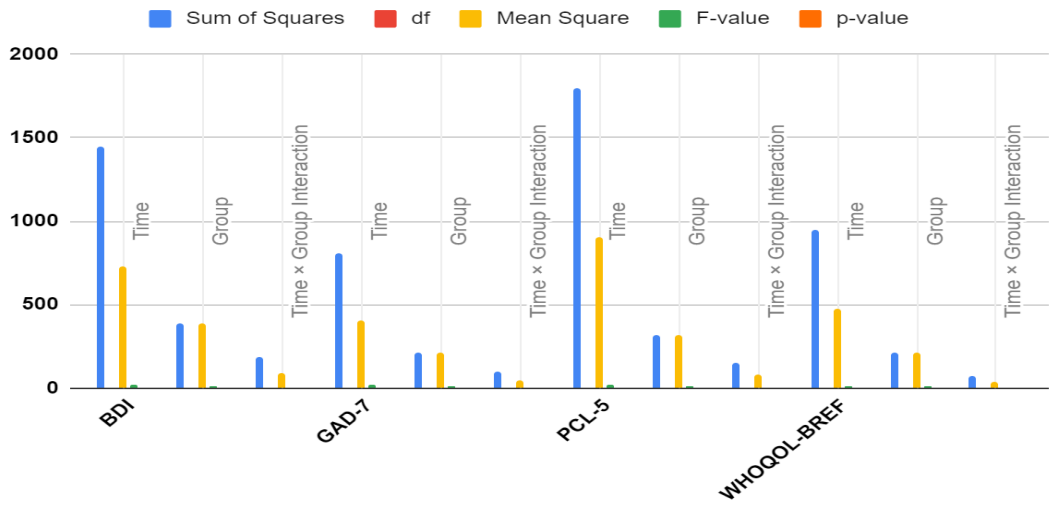

FIGURE 2: Comparision of Psychological Measures Over Time

Figure 2: The bar chart depicted the outcome of a three-way factorial ANOVA carried out on four psychological variables namely BDI, GAD-7, PCL-5, and WHOQOL-BREF on the grounds of time-by-group interaction. These ANOVA components consisted of the sums of squares that measure the total variability, the degree of freedom, and the mean squares that calculate the average variance, the variance to error ratio measured by F-values, and the probability of occurrence of the null hypothesis measured by p-values. P values, sums of squares, and mean squares indicated that time effects were significant in BDI, PCL-5, and WHOQOL-BREF with all the time points demonstrating relatively high sums of squares and the mean square for time reflecting the assertion that the intervention had significant influence over the period. Effects for the group data were somewhat larger in GAD-7, with taller bars for the group. Moreover, there was a significant time x group interaction effect for PCL-5 suggesting that the groups of the children had responded differently to the intervention at the different time points. All in all, the ANOVA measured the direct influence of the intervention time point as well as the interaction between study groups in the changes of the psychological variables.

The present study is a good example of a randomized controlled trial evidencing the efficacy of music and performing arts in the context of psychological therapy as an adjunct to psychotherapy, meaningful for depressed, anxious, and PTSD patients, as well as for patients with a low QoL. In this study, weekly CABT in addition to standard CBPEAT had a significantly greater reduction in clinical symptoms than the CBT group after 12 weeks of treatment.

In each treatment type, differing rates of symptom change from pre- to mid-intervention were noted, leading to the conclusion that arts-integrated approaches initiated faster symptom remission. This is probably due to the activating effects of the arts which include influence on expression, personality integration, and mind-body coordination. The creativity of such modalities works to the client's advantage since it is nonverbal in a way that rectifies the attitude of the patient in strictly speaking therapies. They were also able to note that participants expressed that music, drama, and movement allowed them to move away from the head, and express and remind themselves about feelings towards one's inner psychological processes.

This versatility is possible because the arts are not unidimensional and it is also easy to address a broad range of psychiatric symptoms. For instance, whilst music therapy and writing enable victims to rewrite their past experiences through songwriting and the continuous practice of music and also make negative feelings easily manageable through it as opposed to them being destructive characters, theatrical exercises promote social confidence and personal character. Dance/movement activities reduce somatic manifestations and re-orient the patient with cancer to their body. The kinds of arts strategies described in this research are because of their diversity and flexibility for orders of depression, anxiety, trauma, and quality of life.

The limitations of the current study include the following: a small number of participants included in the study and participants drawn from one geographical area only. There were no post-intervention tests or adjustments after week 12 to determine the durability of therapeutic outcomes. Also, the chemical and specific imaginations of certain therapists may have affected the results. There are issues arising out of the standardization of arts-based methods. Still, under the conditions of this first RCT, creative arts therapies demonstrated generally favorable effects.

First and foremost, integrating music, drama, dance/movement, and artistic expression work into the traditional model of treatment holds a lot of promise of helping to enhance the process and the outcomes of psychotherapy for patients. Creatively integrated interventions introduce novel opportunities for exploration and transformation, which may enhance the conventional approaches of clinical practice. Adoption of arts-integrated psychological therapies beyond child and adolescent psychiatry is encouraged, and areas for future development in this growing area are identified.

4. CONCLUSIONS

A randomized controlled trial was undertaken to compare the effectiveness of using music and performing arts in psychological therapy for twelve weeks. One hundred and twenty participants with psychological disorders were randomly assigned to either the arts-based therapy intervention group (n=60) or the cognitive behavioral therapy control group (n=60). Some of the endpoints captured were depressive, anxiety, and PTSD indications and quality of life. It was found that both groups improved over time; however the intervention group showed a much greater reduction of depression (BDI decreased from 17.22 to 3.22 in the intervention group vs from 13.77 to 8.44 in the control group, $p<0.001$), anxiety (GAD-7 decreased from 14.71 to 7.71 in the intervention group vs from 11.06 to 8 The arts-based group also reported a higher quality of life change according to WHOQOL-BREF scores proved by 19.6 points compared to the music group 6.7 points, $p<0.001$. Time and group analysis and time by group analysis also showed a significant difference in depression and anxiety in the present study as depicted using analysis of variance (ANOVA). For PTSD and quality of life, there were significant time and group differences but no significant time-by-group interactions effect. Consequently, the use of creative arts in psychological therapy, including musical and drama interventions, results in better mental health than traditional talk therapy. This accumulation renders it easy for participants to handle aspects of psychological nature and well-being once integrated with evidence-based approaches overriding qualities of the arts such as the emotional and social. Therefore, the results warrant the inclusion of creative activities into a patient's treatment regime to boost therapy outcomes. Further studies with higher trial numbers should be conducted to supplement the present findings.

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