

EFFECTIVENESS OF ART THERAPY ON READINESS TO CHANGE AND RESILIENCE IN SUBSTANCE USERS

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Abstract

Many therapeutic interventions have been used for treatment of addiction. However, art therapy is a relatively recent form of treatment that is less well-known but effective for drug users. This study investigated the effectiveness of structured art therapy program on readiness to change and resilience in substance users. The study was conducted in a rehabilitation center in Rawalpindi with 30 sample size. Quasi-Experimental Pretest–Posttest design was employed. The Brief Resilience Scale Urdu Version (Khan et al., 2020), and the Readiness Ruler (Moyers et al., 2009) was utilized to collect data. Descriptive analysis along with inferential analysis i.e. t test was utilized. Findings suggest that there were significant shifts in resilience scores and readiness to change scores. Participants' resilience scores increased significantly from pre-test to post-test, $t(29) = -4.83, p < .001, df = 29$ and participants' readiness to change scores increased significantly from pre-test to post-test $t(29) = -4.80, p < .001, df = 29$. Hence art therapy proves to be effective in enhancing substance users' readiness to change and resilience.

Keywords:

Creative Therapies; Readiness to change; Emotional Expression; resilience; Substance Use Disorder (SUD).

INTRODUCTION

Life can be unpleasant and demanding. Everyone handles life challenges differently, yet we are all mere humans, which means we are all imperfect. Sometimes the thing someone turns to for relief i.e. drugs, becomes the heaviest burden (Ruden & Byalick, 1997). In Pakistan, an estimated 7 million individuals take drugs regularly, of which 4 million use cannabis, and 2.7 million use opiates (Ochani et al., 2023). Art therapy can be used in the treatment of drug abuse, along with traditional therapies.

According to American Art Therapy Association, 2014, Art therapy began in 1969 and is a mental health treatment that combines traditional counseling and psychotherapy processes with creative artistic expression methods. The motivation, preparedness, and willingness of a person to change troublesome behaviors/actions or embrace healthy behaviors is referred to as their readiness to change. Art therapy is gaining importance for those overcoming substance dependence, by encouraging people to be ready to change their maladaptive habits. Resilience is defined as active and effective participation in the environment, rather than passive resistance to traumas and threats.

Resilience means a person's ability to maintain a psycho-social equilibrium in the face of risk. (Connor & Davidson, 2003). Resilience can be an important predictor of a person's adjustment in the face of life's challenges. For example, a study showed that emotional intelligence and resilience were significant positive predictors of student's adjustment at university (Jillani, U et al., 2023). A recent study showed no significant gender differences in resilience among university students (Jillani, U et al., 2023). This suggests that therapies aimed at increasing resilience, such as art therapy, can be equally beneficial for both male and female participants.

There are many traditional therapies for addiction but alternative, complementary, or new addiction treatments, whether pharmacological or behavioral, must be empirically explored as soon as possible (Gilroy, 2006). Since the 1960s, art therapy has been widely considered as a complement to orthodox substance misuse treatment (Moore, 1983). Even so, only a handful of Pakistan's substance abuse hospitals offer art therapy. Collins, B., suggest future studies should include comparison groups. This way, they can measure how art therapy really impacts children in rehabilitation facilities. (Collins, Darewych, & Chiacchia, 2023). Though music therapy has stronger support from randomized trials in the past, those studies often involve too few participants to draw broad conclusions and has less generalizability. (Ghetti et al., 2023). Looking at these research gaps, this study steps in to explore how well-organized art therapy works on core mental health aspects for those dealing with substance use issues.

Substance use disorder is a major problem in Pakistan and is often related to low readiness to change and resilience in face of life's challenges. Despite growing use of creative therapies in rehabilitation, there is limited empirical evidence for the effectiveness of structured art therapy programs for improving resilience and readiness to change among substance users. Our brains

think of hundreds if not thousands of things throughout a day, if we do not stop to write our thoughts or visualize them through any means, they become entangled and it can be difficult to listen to what our brain is trying to tell us. If we can externalize our thoughts, it becomes easier to take actions to change our problematic thoughts and behaviours. Art therapy can be a great means to externalize our thoughts and fears to better understand ourselves.

A study found older adults on their own felt less isolated and depressed after shaping clay together. Participants in the sessions showed clear shifts in mood. This hints that making art could support mental health. New ways of therapy seem worth including in routines for elder (Aydın & Kutlu, 2021). In another study, participants in the experimental group who had 12 one-hour art therapy sessions in addition to the traditional therapy demonstrated significant improvements in all four readiness to change factors in both alcohol-use and substance use scores of SOCRATES, according to paired sample t-tests (Isaacson, 2021). A study involving a control group was used in another quasi-experimental investigation. Participants in the experimental group in the study underwent ten forty-five-minute sessions of expressive arts group therapy had a positive impact on resilience and emotion control. (Raghibi, Jafari Kahkha, & Health, 2022).

In Pakistan, most therapies for substance use rely on cognitive-behavioral methods alongside motivational strategies; however, few studies explore expressive alternatives centered on emotion, self-concept, or inner drive. Art therapy now appears more often in recovery settings, yet global evidence measuring its effect on willingness to change or personal strength remains thin. For example the First Step Series revealed drawing and creative tasks helped people voice feelings and engage deeper, steps that are tied to stronger motivation to change (Holt & Kaiser, 2009). Lately, insights like Quinn's 2024 findings point out how making art activates brain circuits involved in handling stress, managing moods, and adjusting behavior, key pieces of enduring tough phases. Even so, just a handful of real-world investigations, especially ones comparing before-and-after results, have tracked how much resilience or willingness to shift improves via organized art therapy sessions.

What stands out here is this research step, aiming to check whether an ordered creative therapy method can lift both resilience and readiness to change in people battling substance dependence at recovery centers across Pakistan. Right now, nobody in Pakistan has done a full check on whether structured art therapy really helps those fighting drug problems increase resilience and readiness to change. Because of this, research needs to step forward, looking into how drawing, painting, or creating might fit naturally within local healing spaces. This research aims to investigate the art therapy effectiveness on readiness to change and resilience among substance users in Pakistan ultimately adding in to already existing minimal literature on this intervention effectivity with substance users

Theoretical framework

Art therapy facilitates readiness to change and resilience by integrating neurobiological, psychological and behavioural mechanisms. Art therapy acts as a bottom-up approach that aids people to move from a state of fear or shutdown (dorsal vagal part of brain responsible to freeze

or shutdown during stress) or fight-or-flight (sympathetic nervous system) to a state of calm and compose also known as ventral vagal state. Through art materials, people can "reset" their nervous system, stimulate self-regulation and promote emotional control. The presence of a trusted art therapist works as a secure attachment figure, that allows co-regulation, which is essential element for developing resilience (Haeyen, S. 2024). This helps individuals to visualize thought patterns; automatic thoughts of negative nature, cognitive distortions, and core beliefs of individuals become visible and concrete through imagery in the art therapy process. Structured interventions encourage change in the individuals. Specific art directives help individuals identify triggers, challenge irrational or negative beliefs, and rehearse coping skills. Art therapy also helps in problem solving as the therapeutic goals are explicit and measurable and are focused on reducing symptoms and building skills.

The transtheoretical framework and motivational interviewing provide a basis for understanding how readiness to change develops in stages. Art therapy treatment programs such as Holt and Kaiser's "First Step Series" operationalize these principles and guides clients to externalize ambivalence, visualize goals, and confront barriers they face for recovery. In this way, art therapy intervention works like a multidimensional intervention that addresses physiological regulation, emotional processing, cognitive restructuring, and motivational readiness, creating a coherent pathway from expressive engagement to change that is adaptive. The process of externalizing the substance use issue through tangible artwork enables the client to disassociate themselves from the issue and consider it from an alternative angle (Conner, 2017).

Hypotheses

On the basis of literature review it was hypothesized that

1. There will be a significant difference in resilience of participants post participation in art therapy intervention.
2. There will be a significant difference in readiness to change of participants post participation in art therapy intervention

METHOD

Sample

Through purposive sampling total 30 participants between the ages of 15 and 50 were included in this study, they were recruited from various rehabilitation centers of Islamabad and Rawalpindi. G*Power software was used to calculate the sample size for this study, guaranteeing enough statistical power to identify significant effects of the intervention.

Each participant must have a formal diagnosis of substance use disorder as defined by the DSM-5 criteria. Participants selected were at early stage of treatment at rehab centers i.e. within the first 30 days of treatment phase post detoxification process.

If a participant had any severe psychiatric co-morbidities, or currently participating in other expressive therapy programs while receiving treatment at the rehabilitation facility were also not included.

Table 1 shows the demographic characteristics of selected sample. It comprised of males with most within age range of 26 to 35. Majorly used substance by sample was chars followed by ice. Majority of sample stay in rehabilitation center at time of study was 5 to 15 days

Table 1

Summary of Demographic characterizes of the sample (N=30)

Variables	Category	F	%	SD	M
Willingness	Yes	30	100.0	.00000	1.0000
Age	15-25	9	30.0	.98553	2.1667
	26-35	10	33.3		
	36-45	8	26.7		
	46-55	3	10.0		
	Gender	Male	30	100.0	.00000
Primary substance used	Alcohol	2	6.7	2.422	4.17
	Chars	11	36.7		
	Cigarette	1	3.3		
	Gabica	3	10.0		
	Goli	1	3.3		
	Ice	8	26.7		
	Meth, Marijuana	1	3.3		
	Naswar	1	3.3		
	Opioids	2	6.7		
	Other substances	Alcohol	1	3.3	1.033
Cannabis		2	6.7		
Ice, marijuana, cig, naswar		1	3.3		
No		26	86.7		
Duration of stay (in days)	5-15	12	40.0	.944	2.07
	16-25	11	36.7		
	26-30	7	23.3		

Measures:

Demographic information form:

Demographic information form was used to collected the data related to participants that is; age gender, primary substance used, other substance used and duration of stay in days.

Brief Resilience Scale (Urdu Version):

The Brief Resilience Scale (Smith et al., 2008) is a tool that reflects the dynamic process of resilience and it evaluate an person's capacity to recover from stress and adversity. It is a self-report scale and has six items on a five-point Likert scale. It has three items that are reverse-scored. The reliability of this instrument is ranges from .80 to .91. Urdu version of this scale was used in this study. The translated version of this scale has a reliability of .60. The convergent validity is .50 and the discriminant validity is .71 (Khan et al., 2020).

Readiness Ruler:

The Readiness Ruler by Moyers et al. (2009) is a useful tool that is commonly used with Motivational Interviewing (MI) to measure a person's readiness to change a particular behavior.

The Readiness Ruler is a zero-to-ten scale and is two-dimensional. It has following rulers:

1. Importance Ruler that assesses the importance of change for the person.
2. Confidence Ruler that evaluates self-perceived ability, commitment, and intention to implement the change. The Readiness Ruler's predictive validity is supported by research, with odds ratios reported in the researches up to ~3.3 (Moyers et al., 2009).

Procedure

After ethical approval from ethical review committee of National University of Medical Sciences (NUMS), different rehabilitation centers were approach formally for data collection. After obtaining permission consenting participants meeting the inclusion criteria were recruited. They were given questionnaires before intervention for baseline assessment and post intervention to guage effect of intervention. There was no control group because this study used a single-group quasi experimental pretest -posttest group design. IBM SPSS Statistics version 25.0 was used for data entry, cleaning, and analysis. Descriptive statistical methods and inferential method like paired-samples t-tests was used to assess changes in participants' resilience and willingness to change ratings from pre-intervention to post-intervention.

Ethical Considerations

After receiving formal approval from the Institutional Review Board (IRB) and written consent from the administration of the rehabilitation facility, this study was carried out. Before taking part, each subject was given written informed consent. To ensure confidentiality, all demographic data was anonymized. Participants were informed that participation is voluntary and that stopping at any moment won't interfere with their continued medical care or affect them negatively.

RESULTS

Findings of study suggest that The findings showed that resilience had increased significantly ($t(29) = -4.83, p < .001$), with a mean change of -2.13 (95% CI $[-3.04, -1.23]$). Similarly, to test hypothesis "There will be a significant difference in readiness to change post intervention among participants" paired-samples t-test was used and there was a significant improvement in readiness to change ($t(29) = -4.80, p < .001$), with a mean difference of -2.43 (95% CI $[-3.47, -1.40]$).

Table 2

Paired Sample t-Test Comparing Readiness to Change and Resilience Pre and Post Intervention (N=30).

	Variables	Mean	SD	95% confidence interval		t	df	p
				Lower	Upper			
Pair 1	Pre-Resilience -Post-Resilience	-2.13333	2.41737	-3.03599	-1.23067	-4.834	29	<0.001
Pair 2	Pre-Readiness to change -Post-Readiness to change	-2.43333	2.77530	-3.46965	-1.39702	-4.802	29	<0.001

DISCUSSION

The present study was conducted to evaluate the impact of structured art therapy program on resilience and readiness to change among substance users. The results offer strong support for both hypotheses, showing significant differences in the scores of both resilience and readiness to change after the five sessions of art therapy program. This suggests that art has a healing power that can make a person ready to bring positive changes in this behaviour by decreasing denial of the problem and by increasing the awareness or need to make positive changes to improve health.

Present study findings supported hypothesis 1, which states that there will be a significant difference in resilience post intervention among participants. Results showed a significant increase in resilience from preintervention assessment (M=16.73, SD=5.07) to post intervention assessment (M=18.87, SD=4.51). The findings showed that resilience had increased significantly ($t(29) = -4.83$, $p < .001$), with a mean change of -2.13 (95% CI [-3.04, -1.23]). It is similar to the results of previous research on populations that abuse substances. For example, Raghobi and Kahkha (2022) found that expressive art therapy program significantly improved the resilience scores of participants diagnosed with substance use disorder. A prior study examined the impact of combining art therapy (engraving method) with (REBT) on enhancing resilience and self-esteem. The findings demonstrated that students' resilience and self-esteem increased when REBT and art therapy were used (Roghanchi et al., 2013). Recent research on the effectiveness of integrated Islamic art therapies on stress and resilience in undergraduate students revealed that the Islamic Art Interventions considerably decreased participants' stress levels and greatly increased their resilience. (Rafiq & Ahmad, 2023).

Present study provided evidence supporting hypothesis 2, which states that there will be a significant difference in readiness to change post intervention among participants. Results showed a significant increase in readiness to change from preintervention assessment (M=15.60, SD=3.86) to post intervention assessment (M=18.03, SD=1.79). The paired-samples t-test showed significant improvement in readiness to change ($t(29) = -4.80$, $p < .001$), with a mean difference of -2.43 (95% CI [- 3.47, - 1.40]). It is similar to the results of previous research on populations that use

substances. Ho et al. (2021) showed that among healthcare workers who also abused drugs, a mindful-compassion art therapy approach was conducted and it resulted in long-lasting improvement in readiness to change. A study conducted in Taiwan investigated the efficacy of art therapy demonstrated significantly higher scores in the stages of change related to reflection, action, and overall readiness, according to post-treatment results (Hsiao et al., 2024).

Hence it can be inferred that art therapy sessions have proved to be quite effective in improving the resilience and readiness to change of substance users, providing supportive evidence for not much employed intervention in this particular group .

Limitations and Recommendations

Although the study findings are very effective however there were limitations which are discussed along with recommendations for future researchers

- A small sample size was utilized so findings may not apply broadly to others dealing with substance use. Future studies should research on larger groups for more generalizability.
- Without a comparison group and full random assignment, the design makes it hard to say for sure that improvements came only from the art sessions, things like ongoing talks with counselors or personal drive could also explain shifts. Future studies should include control group. Clear cause-and-effect links show up better when study groups are picked by randomization. Randomized control trials are recommended for future.

Implications

This study has several implications. These findings are helpful in clinical settings as well as for policy makers. Art therapy can be used alongside traditional therapies like cognitive behavioural therapy which will help in improving client's readiness to change and resilience. Art therapy should be included in rehabilitation centers' treatment plans as it can be a good way to increase emotional expression among people.

Conclusion

This research was conducted to see the effectiveness of structured art therapy program on Readiness to Change and Resilience in Substance Users. Result findings suggest that the structured art therapy program indeed improve the readiness to change and resilience among substance users. Art therapy can be a means to express ourselves and visualize our thoughts and fears. It can be used to move from denial of a problem to recognition of the issue and realization of importance of taking necessary steps towards behaviour change. It can also improve resilience and helps individuals face stressful situations. It is important to include creative therapies such as art therapies in treatment plans.

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