

Examining the Effects of Expressive Arts Therapy on Emotional Regulation and Self-Compassion in Adolescent Populations

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Abstract: Adolescent mental health is a critical global concern, given the unique challenges faced by this age group. Creating safe and non-judgmental spaces in educational settings is essential for promoting wellbeing and emotional expression. This study aimed to assess the impact of Expressive Art Therapy (EXA) on enhancing emotional regulation and self-compassion, and to determine the causes of lower self-compassion and poorer emotional regulation among adolescents. A quasi-experimental single-group pre-test-post-test mixed-method design was employed, 8 EXA sessions were offered over 8 weeks. Participants included 108 adolescents aged 13 to 15 from two mainstream schools in Western Maharashtra, selected via convenient sampling. Quantitative data was collected using the Emotional Regulation Scale (ERQ) and Self-Compassion Scale (SCS), with statistical analysis conducted using IBM SPSS Statistics Version 25. Qualitative data was gathered through expressive movement, artwork, skits, and interviews. Results indicated Significant increase in common humanity subscale scores for both boys and girls ($P=0.002$). Girls exhibited higher self-compassion scores than boys ($P=0.04^*$), though self-judgment subscale scores increased more in girls ($P=0.04^*$). Moderately positive correlation between self-compassion and emotional regulation scores among boys ($P=0.004$) was observed resulting in Pearson correlation coefficient of 0.380**. Qualitative analysis showed a 25% improvement in emotional control among 11 students and a 25% improvement in self-compassion among 22 students. The study highlights the benefits of EXA in addressing nonverbal communication related to attachment styles, stress, and anxiety. However, the lack of a control group, limited number of sessions, and small sample size limit the generalizability of the findings. Integrating successful EXA interventions into community centres and educational institutions could provide a supportive framework for adolescents.

Keywords: Self-Compassion, Emotional Regulation, Adolescents, Expressive Art Therapy

1. Introduction

Adolescents represent the largest cohort globally. Recognizing the critical importance of adolescent mental health, WHO and UNICEF hosted the "Leading Minds" conference to prioritize this issue on the global health agenda. It is alarming that only few children have access to programs that teach them how to manage difficult emotions. (<https://www.unicef.org/adolescence>). In India, adolescents face significant challenges, including mental health issues like anxiety and depression. Official reports indicate that 7.3% of Indians aged 13-17 had severe mental illness in 2015-2016 (The Hindu, 2022).

Adolescents navigate intense emotions, peer pressure, and academic stress, further complicated by societal expectations. Their developing prefrontal cortex, responsible for impulse control and emotional regulation, makes this period critical for physical and behavioural health (Sowell et al., 1999). This stage requires careful attention, as support or the lack thereof can significantly influence wellbeing and personality development. A strong child-parent relationship, characterized by feelings of support and closeness, enhances social competencies and facilitates better social adjustment (Allen et al., 1998; Smetana et al., 2006). Erikson's theory of psychosocial development emphasizes adolescence as a key period for identity formation, where individuals seek to assert independence from their parents and make personal decisions about their lives, such as their clothing, friendships, and activities. This quest for autonomy often results in challenging parental authority, risky behaviours, mood swings, and intense emotions. Expressive Art presents a promising approach to address these emotional and psychological needs.

Expressive Art Interventions (EXA) are diverse, incorporating various psychotherapeutic and kinetic principles. They engage the five primary senses along with proprioception, vestibular, and interoception. This approach facilitates nonverbal expression to uncover unresolved issues, regulate impulse control, build coping mechanisms, and empower self-awareness (Mittal & Mahapatra, 2022; Barre, 2005). These interventions provide a safe space to explore emotions, reduce self-harm, and calm the amygdala, promoting mindfulness and tranquillity (Health & Dang, 2016).

2. Methodology

Research Design-Quasi Experimental Single Group Pre & Post Test Design Using Mixed Method. Convenient Sampling of 108 Adolescents enrolled in 2 Main stream school in Western Maharashtra.

A group consent was taken from the school authorities and Students were informed about the study and necessary protocols.

Inclusion criteria:

Participants in the age group of 13-15 in selected schools from Western Maharashtra

Exclusion criteria:

Students who were absent for any session.

Participants from schools not included in the selection.

Participants with any physical or cognitive handicap.

Each intervention was conducted for one hour per week over a period of eight weeks. Intervention commenced with a brief check-in (5mins) to ascertain the overall pace/mood of the attendees. Themed warm-up activities (10mins) were conducted, utilizing movement, questions, or abstract

thinking exercises. This was followed by an in-depth exploration of the session's main theme (30min) as mentioned in Table no 1. Finally, the session concluded with a debriefing segment where participants shared their reflections and expressions (15mins)

Table 1: EXA Interventions

Week No	Theme	Emerging Theory	EXA Technique
1	Sociometry	Conformity	Paper pencil
2	Developmental stages	Experience of coexisting	Embodiment
3	Attachment theories	Rigidity/repressed anger towards authority	Art based
4	Self-Exploration	Splitting - ability to humanize	Drama and Role Play
5	Reaction Vs Response	Universality	Symbolic movements
6	Self-Compassion	Uniqueness and Similarities	Active Listening
7	Resource Building	Identifying safe social connection	Shared Leadership
8	Ending and Closure	Revived Self image	Group Art work

The scientific tools used in the research for quantitative were Emotional regulation scale (ERQ) and Self-Compassion Scale. (SCS). To understand the attachment style and provide insight into a person's functioning Qualitative data was collected by Bird Nest Drawing (BND), Bridge Drawing and Social Atom.

The SCS (Neff 2003) is appropriate for 8th grade reading level and up with 26 item scale and 6 subscales corresponding question cluster. This included Self-Kindness, Common Humanity, Mindfulness as continues scores and Self-Judgment, Isolation and Over-identification as reverse scored measured on 5point Likert type Scale. The ERQ (Gross & John, 2003) is a 10-item scale on 7-point Likert-type scale designed to measure Cognitive Reappraisal and Expressive Suppression. The BND (Kaiser, D.1996) is a projective technique art-based

intervention to identify attachment Styles. The Bridge drawing (Hays, R. & Lyons, S.1981) tool is used to provide insights into an individual's perception of their environment and individual perceives their environment in terms of stability and movement or stagnancy. The Social Atom Genogram originated by J. L. Moreno (1930) particularly useful in understanding how people view their relationships and surroundings, which can inform therapeutic approaches and interventions.

3. Results

There was a notable increase in the mean score from 12.3 ± 3.2 to 13.5 ± 3.5 , with a significant difference observed ($p = 0.002$) in Subscale Common Humanity component of Self -compassion Score as mentioned in Table no 2.

Table 2: Comparison of Pre-test and Post-test Average scores of Self-Compassion

Self-Compassion Scale total	Pre/Post	Mean	SD	P
Self-Kindness	Pre	15.7	4.2	0.15
	Post	16.2	4.0	
Self-Judgment	Pre	14.9	3.7	0.451
	Post	14.6	3.5	
Common Humanity	Pre	12.3	3.2	0.002
	Post	13.5	3.5	
Isolation	Pre	10.9	4.0	0.19
	Post	11.5	3.4	
Mindfulness	Pre	13.0	3.1	0.103
	Post	13.6	2.8	
Over-identified	Pre	12.0	6.5	0.38
	Post	11.5	2.9	
Total self-compassion	Pre	79.0	14.7	0.143
	Post	80.8	13.9	

In the Self-Judgment Items Subscale Mean percentage change of $-4.1\% \pm 31.7$, with a mean rank of 48.7 was noted in boys whereas mean percentage change of $7.5\% \pm 31.3$, with a mean rank of 60.7 was noted in the girls. There was

a significant difference between boys and girls ($p = 0.04^*$). It suggests that boys experienced a decrease in self-judgment by an average of 4.1%, while girls experienced an increase of 7.5%. These changes were statistically

significant. This indicates that there may be differences in how boys and girls perceive and judge themselves as seen in Table no 3.

Table no 3: Comparison of Percentage change in mean scores of self-compassion subscales between boys and girls.
Qualitative Analysis

Total self-compassion scale	Gender								
	Boys (N=56)			Girls (N=52)			Total		P
	Mean	SD	Mean Rank	Mean	SD	Mean Rank	Mean	SD	
% change Self-Kindness Items subscale	4.0	32.1	51.8	10.8	36.1	57.4	7.3	34.1	0.4
% change Self-Judgment Items subscale	-4.1	31.7	48.7	7.5	31.3	60.7	1.5	31.9	0.04*
% change Common Humanity Items subscale	7.0	36.1	50.3	28.7	88.6	59.0	17.4	67.3	0.1
% change Isolation Items subscale	22.7	98.4	50.8	19.8	51.7	58.5	21.3	79.1	0.2
% change Mindfulness Items subscale	8.5	54.1	50.5	9.6	24.5	58.8	9.1	42.3	0.2
% change Over-identified Items subscale	4.1	39.5	54.0	1.9	28.7	55.1	3.0	34.6	0.9

The Qualitative Data as emerged through.

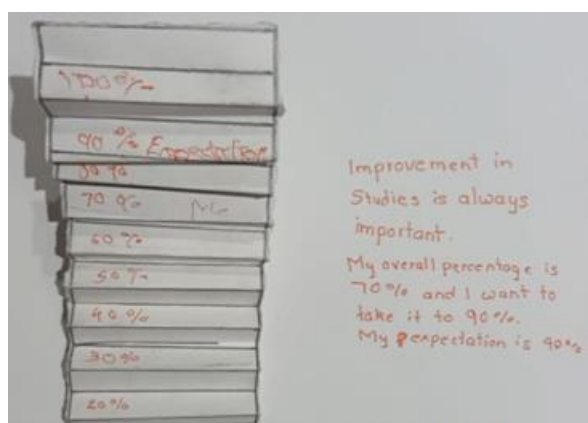


Figure 1: Constant aversive stimuli or reward can indeed shape operant behaviour (seen in most school goers) which may lead to adoption of very regimental ideologies. This develops in a rigid emotional expression or a reluctance to show vulnerability

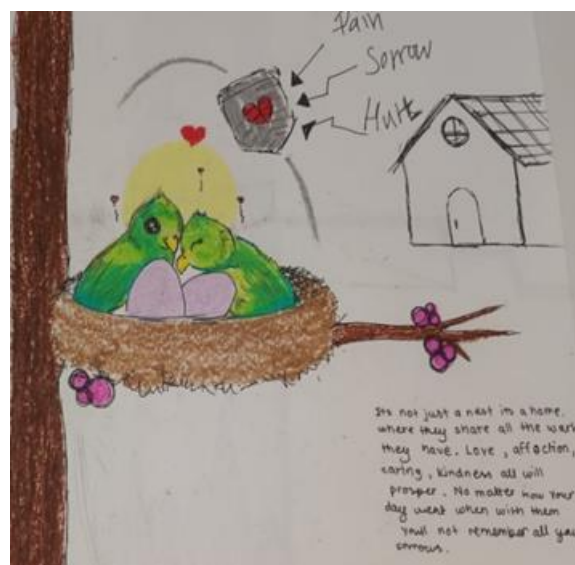


Figure 2: When attachment to the primary caregiver is secure, individuals often develop a strong sense of self-compassion and emotional regulation. EXA effectively addresses both the positive qualities and resources individuals possess, while also helping them manage areas of weakness.

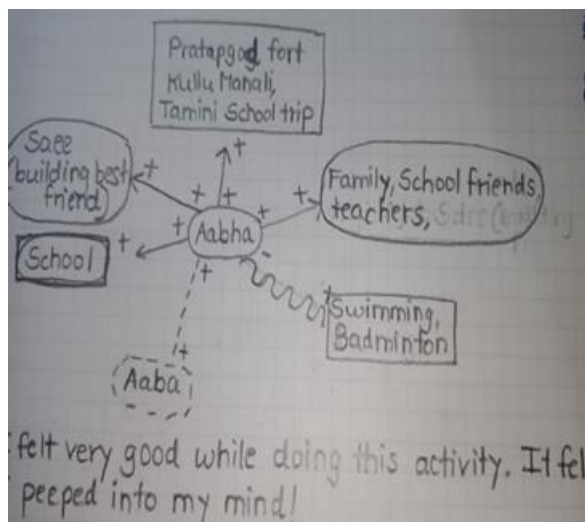


Figure 3: Expressive Art Enhanced individuals' ability to be resourceful and utilize available resources effectively. Understand their personal relationship

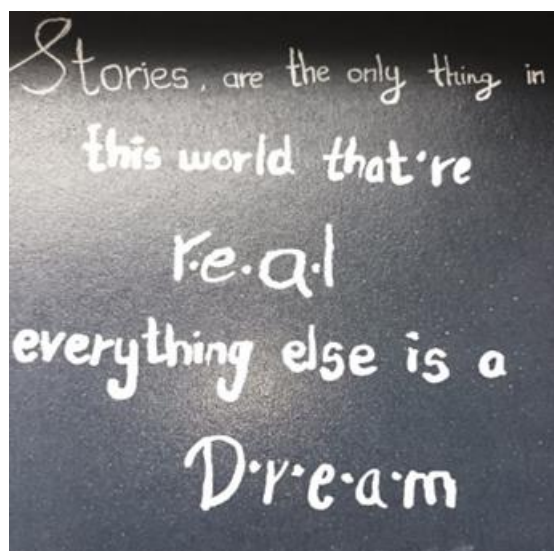


Figure 4: EXA provided a safe environment for individuals to explore various aspects of themselves and their experiences and facilitated the exploration of one's own story and experiences.

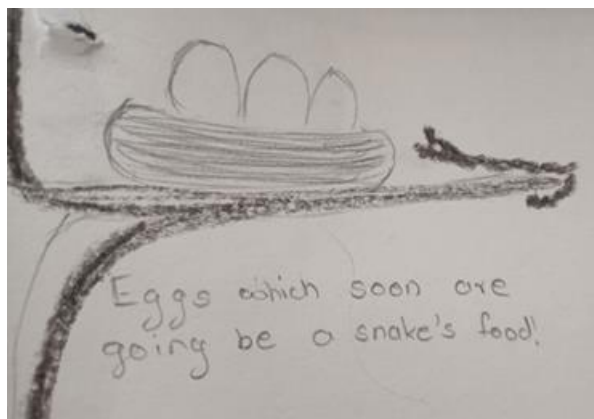


Figure 5: A case of abuse and neglect was identified. This form of expression was often more accessible and

liberating than verbal communication, especially for those who found it challenging to articulate their experiences.

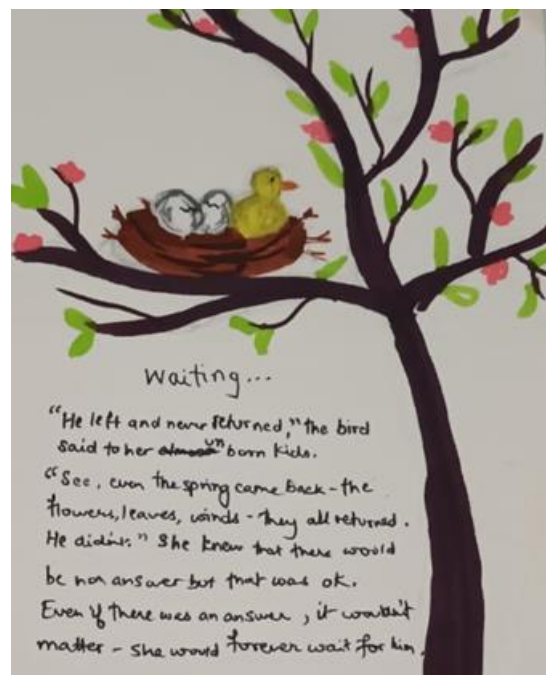


Figure 6: The sessions allowed participants to express their thoughts, feelings, and ideas through art work and other expressive forms. Their art work expressed underlying issues with parents and primary care givers. (Few also expressed how friends and peers were taking each other for granted. Some also represented how losing family member affected their subconscious.

4. Discussions

The randomized controlled study at The Imperial College London (2022) concluded that art-based interventions improved self-expression and safety optimism among children. This aligns with our findings where children discussed family, school, and peer relationships. Their study included 62 children aged 7-10 from four schools, each participating in one of four art modalities. In contrast, our study involved 108 children aged 13-15 from two schools using all four expressive art modalities. Both studies emphasize the importance of incorporating arts therapies and qualitative methods in future research to assess children's mental health and well-being. Additionally, our study included quantitative assessments.

A library research study by Rofiqah (2023) in Malaysia examined the influence of social support on self-compassion and flourishing among adolescents, finding that higher social support is associated with greater self-compassion. This observation aligns with our bird nest intervention and subsequent interviews. Rofiqah's study also found that females are more likely than males to criticize themselves and focus on negative aspects. A parallel study by Emily Kristin Beasley and Alex C. Garn (2013) on 319 adolescent girls confirms that self-judgment in girls can be more radical due to societal, psychological, and developmental factors, with females typically reporting lower on measures of global self-concept.

Similarly, in our mixed-method study, a comparison of mean percentage changes in the Self-Judgment Items Subscale between boys and girls revealed a significant difference, with a p-value of 0.04*.

A mixed-method pilot case study at a private high school in the USA (Ingram 2013) used improvisation and planned movement formation in dance/movement therapy over six sessions with four adolescent girls. The study found improvements in the Rosenberg Self-Esteem Scale, self-expression, autonomy, and self-acceptance. Similarly, our study showed a statistically significant percentage change in mean scores on the Self-Compassion Scale between girls and boys ($P=0.04$), focusing on increased self-compassion scores post-intervention among adolescents from two schools.

In Chapter 20 of "Self-Compassion in PTSD," Christine Braehler and Kristin Neff (2020) explain that compassion is inherently relational, emerging from the recognition that imperfection is a universal human experience. This concept of common humanity is based on interconnectedness, distinguishing self-compassion from self-acceptance, which focuses solely on oneself. This idea is reflected in our study, where the comparison of pre-test and post-test average scores on the Self-Compassion Scale subscale for common **humanity** showed a statistically significant improvement ($P=0.002$).

Two studies conducted in Texas (Neff, Kirkpatrick & Rude, 2006) explore the link between self-compassion and psychological health. Self-compassion involves being kind to oneself during pain or failure, seeing personal experiences as part of the human experience, and mindfully holding painful thoughts rather than over-identifying with them. Study 1 found that self-compassion, unlike self-esteem, protects against anxiety during an ego threat and is linked to more connected language when writing about weaknesses. Study 2 found that increased self-compassion over a month improved psychological well-being, and therapist ratings of self-compassion matched self-reports. Similarly, our research showed that boys exhibited a positive correlation between self-compassion and emotional regulation. The Pearson correlation coefficient was 0.380, with a p-value of 0.004, indicating a statistically significant relationship.

Thematic Outcomes of Qualitative Data

The session explored resourcefulness and the value of a supportive network. While the quantitative data lacked statistical significance, qualitative insights indicate that the study outcomes were achieved.

- **Being Resourceful:** Identifying and utilizing available resources effectively. This includes knowing where to find information, how to acquire new skills, and how to use tools and support systems to their advantage.
- **Asking for Help:** Recognizing that seeking assistance from others is a strength, not a weakness. Discussions emphasized the importance of building a network of peers, mentors, and educators who can provide guidance, support, and collaboration.

Limitations:

- The absence of a control group prevented comparison between case and control pre-test and post-test scores.
- The sample size was small and selected through convenience sampling, limiting the generalizability of the findings.
- Data was collected via self-reported questionnaires, which could introduce bias.

Since participants were experiencing this unique therapeutic setup for the first time, initial sessions focused on openly expressing their distress. While necessary for building emotional regulation and self-compassion, these sessions affected the study's internal validity.

5. Conclusion

EXA effectively addresses both the positive qualities and resources individuals possess, while also helping them manage areas of weakness. Through self-love and self-compassion practices, EXA encourages individuals to cultivate a supportive and nurturing relationship with themselves, leading to improved emotional well-being and healthier relationships with others.

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