

EXPLORING SELF-ESTEEM AND AGGRESSION IN YOUNG ADOLESCENTS WITH UNFAVOURABLE FAMILY CLIMATE: AN ART-BASED INTERVENTION

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ABSTRACT

Introduction: residing in unfavourable family climates has debilitating effects on the physical and mental health of its members. The symptoms become more pronounced in children due to their tender age and lack of coping skills. Major impact of having an unhealthy family environment is seen in children's sense of self-worth and externalising aggressive behaviour. This pilot study aimed to assess the impact of a 12-week art intervention on the levels of self-esteem and aggression amongst young adolescents.

Methodology: for the purpose of the pilot research 6 eligible young adolescents were selected and randomly allocated to experimental and control group. The 12-week art-based intervention was employed and self-esteem and aggression were measured before the start and after the end of the program.

Results: the descriptive analysis of the pilot research showed that mean of self-esteem increased from 25.67 to 31.67 and the mean of aggression showed a decrease 68.66 to 60.33. Wilcoxon signed rank test was used to assess whether the differences in the means are statistically significant or not. The analysis showed improvement in both the variables; however, the changes weren't statistically significant at 0.05 level. This might be due to a very small sample size that was selected for the research. The study, nonetheless, shows promising trends and requires validation with a larger sample size.

Keywords: Art-based intervention, self-esteem, aggression, young adolescents, family climate, pilot

INTRODUCTION

Adolescence is a period marked typically ranging from age 10 to 19 characterised by marked significant bodily changes, heightened emotional reactivity and sensitivity to social and environmental changes. This time can prove to be quite tumultuous as adolescents seek social validation from friends and undergo rapid cognitive changes as also stated in Erikson's 1950 book *Childhood and Society*. Erikson placed special emphasis on this stage as successful resolution of this stage leads to a coherent sense of identity and unsuccessful resolution leads to confusion that manifests as self-esteem issues, difficulty in forming social relationships, marked rise in aggressive externalising behaviour.

A supportive family environment plays a crucial role in this process. Families that encourage individuality provide emotional security, validation, and guidance, aiding identity development. Sarvar, et. al. (2022) explains how an adolescent's adjustment depends on their family environment and normal self-esteem. Children specifically in their formative years require constant interaction and emotional presence from their parents. 'Technoference', a term coined to show interferences caused by excessive smartphone usage, is disturbing the parent child relationship ergo making children feel unheard and unseen. In a literature review by Kildare & Middlemiss (2017) it was found that children of parents who use smartphones excessively start engaging in risky attention seeking behaviour that further leads to increased childhood injuries. Moreover, such parents are less responsive both verbally and non-verbally to the child's needs. Parental phubbing is also associated with increased risk of depression in adolescents (Xie & Xie, 2019).

A nurturing environment that allows for a free flow of information is a characteristic of a healthy family. Family structure provides minimal contribution to how secure a child feels. It is rather the type of environment family members create that proves to be important (Phillips, 2012). A study by Oliver and Paull (1995) concluded that positive perception of parenting and family cohesion by young adults strongly correlated to increased self-efficacy whereas negative perceptions related to increased depression. Similar findings were also reported in a study by Valsala, et. al. (2018) stating challenging family environments lead to significant changes in self-esteem of adolescents. In a study by Chandran and Nair (2015) emotional

intelligence was negatively correlated to parental control suggesting more restrictive the environment more it hampers the emotional growth of the adolescents. Girls reported having more unfavourable family climate as compared to their male counterparts (Mishra, 2019).

Family climate has proven to be one of the most important predictors of self-esteem in children. A favourable family would foster resilience, confidence and a positive self-concept. In a study it was found that ADHD causes families to turn hostile which in turn drives down the self-esteem of the child making them more susceptible to conduct disorder, thus uncovering a reciprocal relationship (Peris & Hinshaw, 2003; Psychogiou et al., 2007). Not only does an unsupportive environment ruin a child's self-esteem during the younger years, the deteriorating effects persist in adulthood with adults who reported to have an unwelcoming family environment scoring low on self-esteem (Orth, 2018).

Frequent exposure to parental fights, high unrealistic academic pressure, authoritarian parenting styles are some of the most common reasons why children develop externalising aggressive behaviour in Indian families. Such parenting styles do not allow for emotional availability and emotional expression. Delinquents, in a study, reported to have more controlling and conflict-ridden families as compared to non-delinquents (Sharma, 2012) highlighting a relationship between family climate and problematic behaviour. The debilitating effects of poor family climate manifest in aggressive behaviours by adolescence with males showing more aggression as compared to females (Kumar et. al., 2018). Similar findings have also been reported in a study by Jain (2017) where adolescents from poor family climate exhibited more aggression in contrast to adolescents with cohesive families. Over demanding and rejecting parenting styles is strongly related to aggression in adolescents (Devi, 2019).

Traditional methods of therapy and intervention for children struggling with mental health issues prove to be rather expensive and inaccessible often leading families with limited resources to deal with their children's declining mental health. Art-based interventions provide an unhindered and creative outlet for people to deal with their issues by encouraging introspection and bringing their problems to the surface in a fun and non-invasive manner. Art interventions have also been proven to be helpful in dealing with PTSD symptoms in adolescents (Lyshak-Stelzer, 2007). Decrease in aggressiveness in adolescents was noted in a study by Kasimova and Biktagirova (2016) wherein art intervention led to reduction in aggressive tendencies by facilitating self-discovery and emotional harmony. Art provides a safe medium for children to fully express themselves by engaging in artful creations like painting, sculpting, drawing, etc. art therapy has been proven to be especially useful with symptoms of PTSD and has the capacity to be moulded according to client needs (Versitano et al., 2025). Art has also proven to be beneficial with alleviating anxiety and depression in paediatric cancer patients with benefits extending to stress and anger (Zhou et al., 2025). Art is also known to enhance self-concept and improving peer relationships (Huang et al., 2021).

Art as a medium of expression is highly underutilised in the Indian context. Factors such as the high cost of therapy, limited accessibility, and a deep-rooted social stigma surrounding mental health support often discourage individuals from seeking such interventions. Harnessing the power of art-based interventions can provide an inclusive and cost-effective avenue for emotional expression and healing. By promoting awareness and reducing stigma, art therapy can become a valuable and approachable resource for enhancing the mental well-being of children and adolescents in India.

The aim of the present study is to use these art-based activities in a systematic manner across a span of 12 weeks to foster a sense of self-esteem in children who perceive their family climate as unhealthy and to lower their aggression by healthy means.

NEED AND IMPORTANCE OF THE STUDY

There has been an increasing concern over the emotional well-being of adolescents with respect to their family climates. Despite growing conversations, limited research in the Indian context have examined the impact of art-based activities on self-esteem and aggression of children with unfavourable family climate. This study aims to address significant research gap by examining adolescents in the Indian familial context and addressing the psychological issues dysfunctional Indian families create. Conducting a pilot study was imperative to assess the feasibility of the intervention plan including the session structure, duration, materials and checking the engagement of the children participating before applying the intervention to a larger group of population. Preliminary findings of this pilot research would also help in understanding the trends among the variables and establish relevance and validity of the art-based activities in addressing the psychological issues faced by these children.

METHODOLOGY

Objectives

1. To evaluate the effectiveness of art-based interventions in improving self-esteem among young adolescents.
2. To assess the impact of art-based interventions on reducing aggression levels in adolescents.

Hypotheses

1. There will be significant difference on the level of self-esteem in pre and post intervention among the adolescents in the experimental group with an unfavourable family climate.
2. There will be significant difference on the level of aggression in pre and post intervention among the adolescents in the experimental group with an unfavourable family climate.

Measures

Family climate scale (high school) by Dr. Beena Shah (2001) measures the home environment of adolescents. The entire scale consists of 90 items and is divided into 10 sub-scales namely: restrictiveness v/s freedom, indulgence v/s avoidance, partiality v/s fairness, attention v/s negligence, acceptance v/s rejection, warmth v/s cold relations, trust v/s distrust, dominance v/s submissiveness, expectation v/s hopelessness, open communication v/s closed communication. The test-retest reliability is established for all the dimensions of the scale. Correlation co-efficient ranges from 0.69-0.83 for all 10 dimensions. Validity of the scale was tested against the judgement of 20 judges. The inter-dimensional correlation also supported high validity.

Rosenberg's self-esteem by Morris Rosenberg (1965) measures the global self-worth of an individual. The internal consistency (Cronbach's alpha) of the scale ranges from 0.77-0.88 and the test-retest reliability has been established at 0.85. Each item has 4 responses: strongly agree, agree, disagree and strongly disagree. 5 items of the scale are reverse scored (items 2, 5, 6, 8, 9). The range of the score lies between 10-40 with higher scores indicating higher self-worth.

IIP Aggression questionnaire by K.K. Srivastava (2015) is a tool used to measure aggression in children and adolescents. The questionnaire has a total of 30 items with 6 possible responses for each item ranging from like extremely to dislike extremely. The Split-half reliability of the scale is established at 0.79 (males) and 0.82 (females) and the test-retest reliability of the scale is 0.78. Construct validity of the scale has been established by calculating the correlation with aggression scale by Mathur and Bhatnagar (2012) and it came out to be 0.71 showing significant construct validity.

Sampling and participants

Simple random sampling technique was employed initially to gather a larger sample size for screening purpose. Upon screening, purposive sampling technique was employed to invite the eligible candidates for their participation in the research. 6 students (4 girls 2 boys) provided their consent and hence they were divided equally into control and experimental groups. The participants were class 9 students of Noida with the mean age of 13.66. Participants who reported to have psychological issues or were on medication were excluded from the study. Such participants were also excluded from the study who had previously engaged in art therapy sessions.

Table 1. Demographic details of all the participants (N=6)

Demographic variable	Categories	Frequency	Percentage
Age	13	2	33.33%
	14	4	66.67%
Class	9 th	6	100%
Gender	Female	4	66.67%
	Male	2	33.33%
	Others	0	0
Religion	Hindu	6	100%
Residing with family	Yes	6	100%
Type of family	Nuclear	3	50%
	Joint	3	50%
	Single parent	0	0
Ordinal position	Only	1	16.67%
	Youngest	1	16.67%
	Middle	1	16.67%
	First born	3	50%
Witnessed family violence	Yes	2	33.33%
	No	4	66.67%
Psychological ailment	Yes	0	0
	No	6	100%

RESEARCH DESIGN

Pre-post research design with a control group.

Procedure

Family climate scale was administered on a large population in order to screen the sample for participants. Upon selecting 6 eligible candidates, the self-esteem scale and perceived stress scale were administered to collect pre-test data. Art based activities were conducted with the participants on a weekly basis for 12 weeks. The intervention had activities such as mandala, pin-pointing stress, artful affirmations and handful of positivity amongst others. After end of every session, the participants were given a weekly homework of gratitude journaling that they were required to show in the next sessions. Post-test data was collected on the last session after completion of all the activities.

Data analysis

Demographic characteristics of the participants were laid down in tabular form to provide a clear information regarding the information on participants. The data was analysed and reported using Jamovi 2.6.24 software. Descriptive statistics

was used to describe the mean and standard deviation of the data. Paired sample t-test (student's t-test and Wilcoxon's test) were used to report the findings of the study.

RESULTS

Table 2. Descriptive statistics of the control group

	N	Mean	Median	SD	SE
SE PRE	3	25.7	27	2.31	1.33
SE POST	3	25.3	26	2.08	1.20
AGG. PRE	3	68.7	61	15.95	9.21
AGG. POST	3	68.3	60	17.10	9.87

Table 3. Paired Samples T-Test: Control group (N=3)

			Statistic	df	p
SE PRE	SE POST	Student's t	1.000	2.00	0.423
		Wilcoxon W	1.00 ^a		1.000
AGG. PRE	AGG. POST	Student's t	0.500	2.00	0.667
		Wilcoxon W	4.00		0.773

Table 4. Descriptive statistics of the Experimental group

	N	Mean	Median	SD	SE
SE PRE	3	25.7	27	2.31	1.33
SE POST	3	31.7	30	3.79	2.19
AGG. PRE	3	68.7	61	15.95	9.21
AGG. POST	3	60.3	55	12.86	7.42

Table 5. Paired Samples T-Test: Experimental group (N=3)

			Statistic	df	p
SE PRE	SE POST	Student's t	-3.46	2.00	0.074
		Wilcoxon W	0.00		0.250
AGG. PRE	AGG. POST	Student's t	4.49	2.00	0.046
		Wilcoxon W	6.00		0.250

DISCUSSION

The aim of the preliminary pilot study was to assess whether a 12-week art-based intervention program has any effect on the self-esteem and aggression of adolescents. The intervention program employed activities such as mandala creation, clay dough activities, story writing etc. The program was conducted on 6 school going adolescents where the pre-test scores were collected before the start of the intervention program and post-test scores were collected soon after the last session. Paired sample t-test was conducted separately for the control group and experimental group to assess changes in both the psychological variables. From table 1, we can see that as expected the control group, which did not receive any intervention, does not show any statistically significant changes in both self-esteem ($p=0.423$) and aggression ($p=0.667$). Descriptive statistics from table 2 support these findings with only minor differences being observed in the mean scores; self-esteem changed from 25.7 to 25.3 and aggression changed from 68.7 to 68.3. These findings confirm the fact that the behavioural and emotional states of the participants did not change during the duration of the study due to absence of any obvious psychological input. This successfully creates a baseline for comparison to the experimental group.

In contrast, the experimental group showed promising outcomes. There was a notable decrease in aggression scores from pre-test to post-test as indicated by the Wilcoxon test ($p=0.046$), suggesting that the intervention had a positive impact on regulating the aggressive behaviour of the adolescents. In a study by Nasernejad et. al. (2024) a few weeks of hourly art therapy session led to a decline in aggressive symptoms of adolescents with ADHD as well as an increase in empathy. Although not statistically significant ($p=0.074$), self-esteem showed an increase suggesting meaningful trend in expected direction. Again, the descriptive analysis reinforces our findings with our mean self-esteem increasing from 25.7 to 31.7 and aggression decreasing from 68.7 to 60.3. The results of this pilot study align with the research done by K. George et. al. (2024) where a 4-week art therapy intervention led to significant improvements in the self-esteem of children and adolescents.

The results did not cross the conventional statistically significant mark due to a very small sample size that was employed for the purpose of the pilot study. However, the descriptive statistics is indicative of the intervention's efficacy. The results of both the variables for both the groups match our expected flow of direction, thus preliminarily supporting the idea that engaging in creative expression fosters emotional regulation and reduces behavioural dysregulation amongst adolescents.

CONCLUSION

The findings of the pilot study are promising and indicate that art-based interventions can be utilised for improving adolescent's mental health. The absence of visible statistical difference in the scores of the control group confirm our assumptions that the changes in the experimental group has occurred due to the intervention and not some external factors. A larger sample is required to get statistically significant results.

This pilot study needs to be emulated to a larger population size to get more robust and significant results. The intervention can also be provided through online platforms and to a varied population to get make the activities more generalised.

Conflict of Interest: This is an original piece of research work and the authors declare no conflict of interest.

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