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Reducing Emotional and Behavioral Problems by Improving Life Skills and Self-Esteem of Institutionalized Children: Effectiveness of an Art-Based Intervention

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The present study aimed to evaluate the effectiveness of an art based intervention program on reducing emotional and behavioral problems by improving life skills and self-esteem of institutionalized children. Pre-test Post-test control group design was used for the purpose of the study. Scales used were the English caregiver version of the Strengths and Difficulties Questionnaire (Goodman, 1977), Urdu self-report version of the Strengths and Difficulties Questionnaire (Younis, Jami, & Masood, 2016) and Rosenberg's Self-Esteem Scale (Rosenberg, 1965). The Life Skills Assessment Scale was developed and validated. The study was conducted at Child Protection Bureau, Rawalpindi containing a sample of 28 boys aged 11 to 17. After screening based on the assessment of the teacher on The Life Skills Assessment Scale and SDQ, children were randomly assigned to control and experimental groups. Pre-test was conducted with the children using SDQ and Rosenberg's Self-Esteem Scale while the teacher had filled SDQ and the Life Skills Assessment Scale. The experimental group received four weeks of an art based intervention while the control group received regular classroom lectures on life skills. After post-test and analysis in SPSS 21, results confirmed that life skills and self-esteem of the experimental group improved significantly while emotional and behavioral problems decreased.

Keywords. Art-based intervention, institutionalized children, life skills, self-esteem, emotional and behavioral problems

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Most vulnerable or marginalized children in the world end up in institutional care. Institutional care is a system of support and arrangement of living provided to a group of children exceeding ten who do not have any parent or guardian taking care of them. Hence, in most cases, not only is there an absence of a mental health professional, the caregivers are not trained enough to deal with and understand the needs of the vulnerable children residing in the institute since the caregiver is already dealing with large groups of children on his own (Browne, 2009).

Ever changing social and economic conditions, wars and violence of other forms and natural disasters are some of the many reasons children seek shelter in institutional care. After the massive earthquake of October 2005, in Azad Kashmir alone, 18,769 children were orphaned (Children of Hope, 2013). According to another report by UNICEF, in the floods during 2011 that caused great damage in Pakistan, 2.4 million children were affected (Chaudhry, 2011). Since these disasters, several marginalized children ended up in alternative care available in the country. These forms of alternative care include orphanages, child care centers, and *madarasas*. Some children under care in Pakistan are in institutions because of sheer poverty that makes it impossible for the parents to support their children and drives them into signing them up for institutional care. Other reasons include divorced or separated parents, domestic violence or children who are lost and living on the streets (National Commission of Child Welfare & Development, 2007).

One of the institutions that provide shelter for these destitute children is Child Protection and Welfare Bureau. It is a project of the Punjab Government that was established under the Punjab Destitute and Neglected Children Act 2004. This bureau is where the current research was carried out. The bureau is working in seven districts providing all necessary functions from protection to rehabilitation by the help of a staff collaboration consisting of teachers, psychologists, child care workers and attendants among many others depending on the resources available in each branch of the bureau (Child Protection and Welfare Bureau, 2016).

Bhat, Rahman, and Bhat (2015) illustrated the mental health issues in institutionalized adolescents. It was concluded in their study as well, that better attention needs to be paid to institutionalized children and programs should be developed that specifically cater to the mental health of these children. Unfortunately, the conditions in these mental health institutions are below average at best that negatively affect the development of children residing in them on several different levels. Karas (2017) stated that the more we educate

those taking care of institutionalized children and the more focused policies and programs we form, the better it is for the children in need.

Several studies have been conducted that seek to explore the reasons as to why and in what cases children could experience emotional and behavioral developmental problems. U.S Department of Health and Human Services (2009) put forward some risk factors that may predispose a child towards developing emotional and behavioral problems. According to their report; insecure attachments, parental loss, parent drug abuse, parental conflict, dysfunctions in the family, peer rejection, failure in school performance and poverty are just some of the reasons why a child might develop emotional and behavioral problems in the long run. It can be evidently noted then, that children living in institutional care are already suffering from most of these above mentioned risk factors.

Apart from several studies highlighting the problems faced by children living in institutional care, there has been work done specifically to find solutions with intervention programs being one. Mcginnis (2012) studied psychosocial interventions for institutionalized children and orphans in depth and reviewed them with the purpose of evaluating existing interventions and identify the types available. Based on her results, the interventions could be fit into two categories; institution-based change and community-based programs. The author concluded that institution-based interventions proved to have stronger and more significant effects as compared to community-based programs. She further pointed out that these interventions can play a positive role in improving the quality of life of institutionalized children and meet the demands of their psychosocial needs. Such interventions are needed in Pakistan as well. According to Shujat (2015) conditions of vulnerable children in Pakistan makes it imperative to upgrade the existing intervention programs and also prioritize this situation. Art based interventions are those programs that focus on the product and the creative process leading to it through an amalgamation of therapeutic artistic activities that help promote change positively in individuals (Ezell & Levy, 2003).

There is research evidence that shows art-based programs to be effective for the improvement of mental health. Lipe et al. (2012) highlighted the importance of arts as intervention in mental health settings. The project was basically the outcome of a collaboration between a community healing arts program and college-based music therapy program. The sessions in the program were facilitated by art educators and artists. Results affirmed that a structured art-based intervention program has positive impact on mental health.

Kheibari, Anabat, Largany, Shakiba, and Abadi (2014) also highlighted the importance of expressive arts therapy in targeting clinical issues. This form of therapy is an amalgamation of activities ranging from artwork to poetry and drama. Their study illustrated the problems institutionalized children are suffering from i.e. both psychological and physical. The authors concluded that 90 minutes of expressive artwork led to a significant reduction in the anxiety of the participants. This was an experimental study performed with orphaned girls living under institutional care in Mashad, Iran. The girls were divided into two groups; the expressive art group and the control group. The control group did not receive any art sessions. It was found through pre and post assessments on the State Trait Anxiety scale that the anxiety of participants in the expressive art making group decreased significantly after the sessions whereas the control group did not show any decrease in the anxiety levels.

Darewych (2013) utilized Bridge Drawing assessment in order to assess if the institutionalized children in Ukraine, who had been suffering from neglect and were separated from their parents, had the ability to draw and visualize a better future for themselves, expressing their hopes and dreams. The assessment was carried out while the children attended a life skill building camp. The results showed that the children might be suffering from a sense of disconnection from the society and feeling isolated as more than half of the children drew bridges floating in the air and not connected to any kind of support.

Bridge Drawing was designed by art therapists Hays and Lyons (1981) who theorized that this technique is based on the individuals potential to express his or her past and future aspirations in the form of drawing. Results of this study further validated the theory put forward by Frankl (2006) that those individuals who are separated from society may still have the ability to hope for a future for themselves. This ability only needs to be enhanced through proper interventions designed specifically for the vulnerable. Such an intervention will help to develop a platform for the children where they not only express themselves, but also discover what they are capable of achieving and aspiring for their own future even if they have been deprived in most cases. Children living in institutions have been isolated from the society and have no mentors or guides to teach them the skills necessary to survive in the real world.

These programs have proven to be effective in promoting life skills, self-esteem, and reducing emotional and behavioral problems in some cases. Life skills were described by World Health Organization in a publication regarding life skills education (World Health Organization, 1977). They were described as the extent to

which a person can deal and cope with the demands and challenges of everyday life in an effective manner. Having poor life skills is one of the significant issues that children in institutions suffer from. Children in institutions also suffer from issues of low self-esteem. A study on the self-esteem of institutionalized children was conducted by Hadush (2015). The results illustrated that all orphaned children living in institutions showed lower self-esteem as compared to the children who were raised in families living with their parents.

In one study Priyadarshini (2008) from the Nalandaway Foundation in India, studied how art-based interventions can be used in order to promote life skills in orphaned children. In Tamil Nadu, the conditions of orphans residing in government homes is as bad as the conditions of other institutional care system with neglect and abuse being prevalent. After 3 months of applying an art-based intervention on these children including music, drama, literature and fine arts, results from a qualitative analysis showed through the reporting of both the facilitators and children, that an art-based intervention was highly effective in improving life skills and also reducing depression.

An increase in life skills has been proven to be related to an increase in self-esteem as well and a reduction in emotional and behavioral problems, resulting in overall wellbeing (Gharamaleki & Rajabi, 2010; Mann, Hosman, Schaalma & Vries, 2004; Mutiso et al., 2018). Current art-based intervention was designed specifically for the purpose of this research based on literature review. Each activity was designed to achieve specific goals of positive psychological wellbeing including collage work, painting, clay modelling and role play. Literature also illustrates that painting aids in expression, improves self-awareness and self-efficacy (Hatami & Keshwarzi, 2016) increases compatibility (Moradpoor, Miri, Aliabadi, & Poorsadegh, 2013) personal management and problem-solving skills (Akbari & Akbari, 2013). Lastly, previous research also stated that role play activities enhance cognitive abilities (Fink, 1976) and strengthen verbal skills (Jackson & Back, 2011).

The basis of this art intervention was grounded in the learning from a particular theory. Social Development Theory put forward the idea cognition or consciousness is the outcome of our social interaction and social behaviors (Vygotsky, 1978). The theory provides us with three major themes, first is the more knowledgeable other (MKO) as evident by the name it illustrates attributes of any entity (person or machine) that has more information on the subject to be learned. This certain theme was very prominent in the intervention with the MKO shifting from researchers to peers among the learners, depending on the task (Mariage, Englert, & Garmon, 2011). Second

theme is social interaction, one of the most important elements on which cognitive development is based on according to the theory. Interaction among the peers was a key element in learning throughout the intervention. Lastly, the zone of proximal development (ZPD) which is the distance between the ability a learner has to perform a task through guidance and the ability to perform it independently.

In the present study all these three factors play an integral role and influence the workings of the art-based intervention that was designed. The More Knowledgeable Other (MKO) was a major theme during the course of the intervention. The children had apparently not been exposed to the type of art activities that were delivered to them and did need guidance in order to get familiarized with the materials provided to them in the first place. Hence, throughout the intervention as the activities got more elaborate and more children began to understand the process, it was interesting to note that the KMO kept shifting from the researcher to the children and then back, depending on the task at home.

The theme of social interaction was also prominent as activities were designed in such a way that they facilitated communication. Interaction was promoted be it between the research and the children or among the children themselves. This interaction took place in many forms. First, interaction was prominent when the instructions were being given and received. Second, it could be observed again when the children asked for help from each other or the researcher or shared objects among themselves. Discussions at the end of each session also promoted interaction among the group members.

Like other elements in Vygotsky's theory, zone of proximal development also highlights the importance of an adult mentor in the process of child development and learning (White, 2013). According to the theory, the whole premise of learning depends on this zone, described earlier. During the course of the intervention, this zone of proximal development played a vital role. The children were made to carry out the activities through the process of scaffolding, meaning, they were made to explore their own zone of proximal development as only few instructions were given now and then while the children regulated their own performance as they shifted from the point where they had very little or baseline knowledge about the task to the point where they discovered they were capable of doing more with the help of the researcher or mentor's guidance. According to the literature, Vygotsky's theory overall play an integral role by acknowledging the adult as mentor in the process of artistic development of the child through guided participation.

Method

Sample

The sample consisted of 28 children, all boys, from Child Protection Bureau Rawalpindi, screened on Strengths and Difficulties Questionnaire, with mild to moderate emotional and behavioral problems. Sample was divided into two groups of 14 each. Children were aged between 7 to 15 years old (M = 11.29, SD = 1.97). The data for education level was taken; however, all students were at the same academic level at Child Protection Bureau according to the teacher, rendering the demarcation of education invalid for the purpose of the study. Most of the children were middle born and came to the bureau either because they were lost, in poverty or were admitted by a family member.

Instruments

Strengths and Difficulties Questionnaire (SDQ) (Parent and Self-Report Version in Urdu). It is a scale that measures emotional and behavioral problems and is used for many purposes including assessment, screening, evaluation of outcomes, and research (Law & Wolpert, 2014). In the current study, the scale served both the purpose of screening and evaluation of intervention. Urdu version of the scale was used for self-report by the children, developed by Goodman (1997) and translated into Urdu by Younis, Jami, and Masood (2016). The reliability of the scale was found to be .73. As the teachers and staff are playing the caregivers role at the Bureau at the same time, the English parent version was used for reporting by teachers and its reliability has previously shown to be .77 (Goodman, 1997). Both parent and self-report version consisted of 25 items in total with 5 Subscales measuring; emotional symptoms, conduct problems, hyperactivity, peer relationship problems and prosocial behavior. An impact supplement assessing the negative impact of emotional and behavioral problems on daily life is also provided. The response options consist of 0 = *not true*, 1 = *somewhat true* and 2 = *certainly*. High score on the total difficulty including emotional symptoms, conduct problems, hyperactivity, peer relationship problems means higher difficulties and high score on prosocial behavior means better prosocial skills. All negative items are reverse coded in the scale before analysis to gain the final score including items 7,11, 14, 21 and 25 (Law & Wolpert, 2014).

Rosenberg Self-Esteem Scale (Urdu Version). It measures global self-esteem. It is comprised of 10 items (Rosenberg, 1965).

Participants have to rate their responses on 4-point Likert scale response format (i.e., *strongly disagree*, *disagree*, *agree*, and *strongly agree*). This scale has been translated in Urdu by Sardar (1998) and improved by Rizwan (2010). The internal consistency was found to be .87 (Rizwan, 2010). The scale has no subscales. This was a self-repot scale filled by the children and high score means higher self- esteem. Reverse coded items include items 3, 5, 8, 9, and 10 (Rosenberg, 1965).

Life Skills Assessment Scale (LSAC). The Life Skills Assessment Scale was developed and validated for the purpose of the study. It has two versions developed in English; teacher version and self-report. Only teacher version was used in the current study. The scale has a total of 24 items with two subscales of 12 items each; interpersonal relationship and communication skills. Maximum score that can be obtained is 72 and higher score means better life skills.

Procedure

The study was conducted after taking permission from Child Protection Bureau Rawalpindi. The teacher who was closest to the children served the purpose of an assessor and filled the Strengths and Difficulties Questionnaire, on the basis of which children were screened and randomly assigned to two equal groups. Screening was done to assure that no children with severe emotional or behavioral problems were selected for the purpose of the study as the intervention is not designed for those experiencing severe difficulty. The teacher also provided assessment on the children by filling the Life Skills Assessment Scale as part of pre-test. Children filled Strengths and Difficulties Questionnaire Child Form and Rosenberg Self-Esteem Scale through structured interview as part of pre-test.

Art-based intervention was provided to children in experimental group for four weeks, three days a week and children in control group received no intervention but regular classroom lectures on life skills. Post-test was conducted at the end of the intervention using the same scales for teacher and children. The art-based intervention was developed after an extensive literature review of art techniques that have been fruitful in the past with vulnerable and institutionalized children. It was also taken into consideration, that such art activity should be incorporated that have known to enhance life skills in the past or have enhanced self-esteem. As depicted in the literature, a combination of several art techniques such as drama, fine arts, music and literature was extremely beneficial in improving life skills and mental health of children in Tamil Nadu, India (Priyadarshini, 2008).

Keeping in mind our inclusion criteria, activities that were finalized for the current intervention were; collage work, painting, clay modelling and role play. Guidance was also taken from qualified art educators who were art graduates and have been working with marginalized children using art for more than five years.

After finalizing the activities, they were scheduled in such a way that first week enhances team building among the group and the progressive weeks help in imbedding life skills and self-esteem learning while the last few sessions help in review and termination of the sessions. Each individual session was also planned and scheduled in such a way that the pattern of the session allowed for a warm-up, introduction, activity, discussion and clean up. Learnings from social development theory, explained previously, aided in application of the art-based intervention focusing on promoting learning through social interaction (Vygotsky, 1978). Following table helps sum up the intervention and the references each activity objective was based on.

Table 1

Art Intervention Forms and Duration of Each Activity with Objective during Four Weeks Sessions

Sessions	Form of Art Intervention	Duration	Objective
Week 1	Collage Work	2 hours (3 times a week)	Build cohesion, facilitate communication, reduce anxiety (Pifalo, 2002).
Week 2	Painting	2 hours (3 times a week)	Aid expression, improve self-awareness and self-efficacy (Hatami, Ghahremani, Kaveh, & Keshwarzi, 2016) Increase compatibility (Moradpoor, Miri, Aliabadi, & Poorsadegh, 2013) personal management, problem solving skills (Akbari & Akbari, 2013)
Week 3	Clay Modeling	2 hours (3 times a week)	Creativity (Anderson & Yates, 1999)
Week 4	Role Play	2 hours (3 times a week)	Enhance cognitive abilities (Fink 1976) and strengthen verbal skills (Jackson & Back, 2010)

After termination of the intervention, a final exhibition was held at Child Protection Bureau where all the art work by the children was displayed in the classroom. The children were also invited to see, serving as the final boost of self-esteem from this program.

Results

Once the intervention was completed and post-test assessments had been carried out, the data for all 28 participants were entered in to the Statistical Package for Social Sciences (SPSS 21) for analysis. Several analyses were employed in order to achieve objectives of the current study which was to check for the effectiveness of an art-based intervention program on life skills, self-esteem, emotional and behavioral problems in institutionalized children. Descriptive statistics, including mean, standard deviations, skewness and kurtosis, were assessed of all the data available for the purpose of gaining a clear understanding, along with assessing the reliabilities of the scales used in the study, that is, Teacher Report Life Skills Assessment Scale, Rosenberg Self-Esteem Scale and Strengths and Difficulties Questionnaire, both teacher and child versions. The correlations among variables were obtained using Pearson Product Moment Correlation. To check for the differences in pre-test and post-test conditions, Paired Sample *t*-test and Independent Sample *t*-test was carried out on the data. Paired Sample *t*-test was carried out to check whether a difference had occurred in experimental group and control group within pre-*t*est and post-test conditions while Independent Sample *t*-test was carried out to see for the differences between the experimental group that received the art-based intervention and the control group that received lectures.

Table 2 shows correlations between scales and subscales in pre-test condition. Life skills are shown to be positively correlated with both its subscales that is interpersonal relationships and communication skills, this further reflects the construct validity of the scale as a positive relationship is shown between the total and its subscales. Life skills are also shown to be positively correlated with prosocial behavior, as reported by teacher and self-esteem and prosocial behavior as reported by children. This shows that as life skills increase, so does prosocial behavior and self-esteem.

Furthermore, it can be seen in Table 2 that interpersonal relationships are negatively correlated with emotional and behavioral problems as depicted by total difficulty score rated by teacher,

showing that as interpersonal relationships improve, emotional and behavioral problems decrease. A positive relationship can be seen between communication skills and prosocial behavior as well meaning that an increase in communication skills may also increase prosocial behavior. A positive relationship is also shown between interpersonal relationships and prosocial behavior as reported by child.

Table 2

Correlations Between Scales and Subscales of Pre-test on Sample (N=28)

S.No	Scales	1	2	3	4	5	6	7	8	9	10
1	LSAS	-	.88**	.59**	-.66**	.66**	-.52**	-.34	.51**	.45*	.08
2	IR		-	.14	-.74**	.54**	-.49**	-.22	.46*	.42*	.08
3	CS			-	-.12	.47*	-.25	-.34	.29	.20	.03
4	SDQ (TD)				-	-.29	.09	.23	-.06	-.42*	-.09
5	PS					-	-.50**	-.35	.37	.19	.16
6	SDQ (IMP)						-	-.16	-.32	-.23	.09
7	RSE							-	-.25	-.01	-.32
8	SDQ (TD; CV)								-	.19	.32
9	PS									-	.36
10	SDQ (IMP)										-

Note. LSAS = Life Skills Assessment Scale Teacher Version; IR = Interpersonal Re5lationships; CS= Communication Skills; SDQ (TD) = Strengths and Difficulties Scal6e Total Difficulty Score; PS = Prosocial Behavior; RSE = Rosenberg Self-Esteem Scale; SDQ (TD; CV) = Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP) = Strengths and Difficulties Impact Score.

** $p < .05$. ** $p < .01$.

Descriptive statistics were also computed to check for the normality of the data before it can be inferred statistically. This normality was shown through computing mean, standard deviation, skewness and kurtosis. Alpha reliabilities of all scales and subscales were also calculated and are reported in Table 3. It is evident that all data for the total sample in pre-test condition is normally distributed. This can be observed by the skewness and kurtosis values which are all within -1 to +1 or -2 to +2 ranges according to the criteria of normal distribution (Bulmer, 2012). Reliabilities for all scales and subscales are also given which are all in the normal range. The alpha values for all the scales ranges .59 for communication skills to .89 for strengths and difficulties impact score.

Table 3

Descriptive Statistics of Variables for the Sample in Pre-test Condition (N = 28)

Scales	*k*	α	*M*	*SD*	Ranges		Skew	Kurt
					Actual	Potential		
LSAS	24	.80	46.4	6.77	1.46 - 2.50	1-3	.15	-.91
IR	12	.88	22.6	5.54	1.08 - 2.75	1-3	.08	-.85
CS	12	.59	23.8	3.20	1.42 - 2.50	1-3	.06	-.45
SDQ (TD)	20	.70	19.2	5.75	.44 - 1.40	0-2	-.34	.28
PS	5	.50	4.54	1.88	.40 - 1.60	0-2	.41	-.60
SDQ IMP)	8	.94	7.18	5.54	0.00 - 1.75	0-2	-.10	-1.48
RSE	10	.64	17.0	5.20	.80 - 3.00	0-3	.40	.30
SDQ (TD; CV)	20	.65	17.64	5.89	.52 - 1.44	0-2	.07	-.92
PS	5	.66	5.64	1.77	.60 - 1.60	0-2	-.02	-1.34
SDQ IMP)	8	.89	6.75	6.69	0.00 - 2.63	0-2	.51	-.85

Note. k = No of Items; Skew = Skewness; Kurt = Kurtosis; LSAS = Life Skills Assessment Scale Teacher Version; IR = Interpersonal Relationships; CS = Communication Skills; SDQ (TD) = Strengths and Difficulties Scale Total Difficulty Score; PS = Prosocial Behavior; RSE = Rosenberg Self-Esteem Scale; SDQ (TD; CV) = Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP) = Strengths and Difficulties Impact Score.

For the main analysis, Paired Sample *t*-test was conducted to check for differences in experimental and control groups separately, within pre-test and post-test conditions. Independent Sample *t*-test was conducted to compare experimental and control groups in pre-test and post-test condition separately. All significant findings are reported in the next section.

Mean Comparison on Study Variables Across Experimental and Control Groups on Pre-testing Conditions

It can be seen in Table 4 that before the intervention was provided, there is nonsignificant difference on all study variables between the experimental group receiving the art-based intervention and the control group receiving general classroom lectures. Results reassure that both groups were on the same level before the commencement of the intervention. Mean differences were also calculated across control and experimental groups in the post-testing

condition to check what changes occurred in the comparison between the groups after the intervention. This was computed using an Independent Sample *t*-test.

Table 4

Means, Standard Deviations, and t-Values of Variables across Experimental and Control Groups on Pre- testing Conditions (N=28)

	Experimental (n = 14)		Control (n = 14)			95% *Cl*	
Scales	*M*	*SD*	*M*	*SD*	*t*(26)	*LL*	*UL*
LSAS	45.64	7.01	47.21	6.69	-.61	-6.90	3.75
IR	21.36	4.88	23.86	6.05	-1.20	-6.77	1.77
CS	24.29	3.43	23.36	3.00	7.66	-1.58	3.43
SDQ (TD)	20.00	5.05	18.50	6.48	.68	-3.01	6.01
PS	4.50	2.10	4.57	1.70	-.10	-1.56	1.41
SDQ (IMP)	7.50	5.68	6.86	5.59	.30	-3.73	5.02
RSE	18.71	6.04	15.36	3.67	1.78	-0.53	7.24
SDQ (TD; CV)	16.93	5.12	18.36	6.69	-.63	-6.06	3.20
PS	6.07	1.59	5.21	1.89	1.30	-0.50	2.21
SDQ (IMP)	7.29	8.00	6.21	5.32	.42	-4.21	6.35

Note. LSAS = Life Skills Assessment Scale Teacher Version; IR = Interpersonal Relationships; CS= Communication Skills; SDQ (TD)= Strengths and Difficulties Scale Total Difficulty Score; PS= Prosocial Behavior; RSE= Rosenberg Self-Esteem Scale; SDQ (TD;CV)= Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP)= Strengths and Difficulties Impact Score; CI= Class Interval; LL= Lower Limit; UL= Upper Limit.

Mean Comparison on Study Variables Across Experimental and Control Groups on Post- testing Conditions

Table 5 shows the mean differences across groups after the intervention was given, in the post-testing conditions. It is evident that all differences in life skills, emotional and behavior problems and self-esteem are significant. This validated the objective of present study as there is high values of life skills and self-esteem of the experimental group compared to the control group and a significant decrease in the emotional and behavioral problems as reported by both teacher and children in experimental group as compared to the control group. The Cohen's *d* for all differences showed a large effect size. Life skills and self-esteem of the experimental group improved after the intervention and emotional and behavioral problems decreased, proving our hypothesis.

Table 5

Mean, Standard Deviation, and t Values of Variables across Experimental and Control Groups on Post- testing Conditions (N=28)

Scales	Experimental (n = 14)		Control (n = 14)			95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	*t* (26)	*LL*	*UL*	
LSAS	56.07	5.53	42.29	6.22	6.20***	9.22	18.36	2.49
IR	28.50	3.16	23.07	4.97	3.45**	2.19	8.66	1.30
CS	27.57	3.46	19.21	2.78	7.05***	5.92	10.79	2.66
SDQ (TD)	8.79	3.26	20.64	5.94	-6.54***	-15.58	-8.13	-2.47
PS	9.00	1.47	6.57	2.17	3.46**	0.99	3.87	1.31
SDQ (IMP)	1.50	3.86	5.21	5.51	-2.07*	-7.41	-0.02	-0.78
RSE	25.43	2.68	15.07	4.23	7.73***	7.60	13.11	2.92
SDQ (TD; CV)	6.86	3.63	20.71	5.40	-7.97***	-17.43	-10.28	-3.01
PS	8.21	0.58	6.14	2.21	3.39**	0.81	3.33	1.28
SDQ (IMP)	0.71	2.67	3.43	5.30	-1.71	-5.98	0.55	-0.65

Note. Life Skills Assessment Scale Teacher Version; IR = Interpersonal Relationships; CS = Communication Skills; SDQ (TD) = Strengths and Difficulties Scale Total Difficulty Score; PS= Prosocial Behavior; RSE = Rosenberg Self-Esteem Scale; SDQ (TD;CV) = Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP) = Strengths and Difficulties Impact Score; CI = Class Interval; LL = Lower Limit; UL = Upper Limit; *df* = 26, CI = Class Interval, LL = Lower Limit, UL = Upper Limit.

*$p < .05$. **$p < .01$. ***$p < .001$.

Mean Comparison on Study Variables Across Pre-test and Post-test Conditions of Experimental Group

Paired sample *t*-test was conducted to obtain a clear understanding of the differences between pre-test and post-test conditions. Table 6 shows the mean differences, standard deviations and t-values of the experimental group on life skills, emotional and behavioral problems (both teacher and children reporting) and self-esteem across pre-test and post-test conditions. It is evident that all differences are significant. Cohen's d was also calculated to understand the extent of the difference and as all values showed a large effect size indicating a strong change. Hence, life skills and self-esteem did significantly improve in the experimental group after the intervention and a reduction in emotional and behavioral problems is observed, further reaffirming our hypothesis.

Table 6

Means, Standard Deviations, and t Values of Variables across Pre-test and Post-test Conditions of Experimental Group (N = 14)

Variables	Pre-test		Post-test				95% CI		
	M	*SD*	*M*	*SD*	*r*	*t*	*LL*	*UL*	Cohen's *d*
LSAS	45.64	7.01	56.07	5.53	.72	8.02***	-13.24	-7.62	-1.67
IR	21.36	4.88	28.50	3.16	.77	8.40***	-8.98	-5.31	-1.74
CS	24.29	3.43	27.57	3.46	.72	4.76***	-4.78	-1.79	-0.95
SDQ (TD)	20.00	5.05	8.79	3.26	.69	11.46***	9.10	13.33	2.64
PS	4.50	2.10	9.00	1.47	.20	7.28***	-5.84	-3.16	-2.48
SDQ (IMP)	7.50	5.68	1.50	3.86	.48	4.39**	3.05	8.95	1.24
RSE	18.71	6.04	25.43	2.68	.67	5.37***	-9.42	-4.01	-1.44
SDQ (TD; CV)	16.93	5.12	6.86	3.63	.12	6.37***	6.66	13.49	2.27
PS	6.07	1.59	8.21	0.58	.32	5.30***	-3.02	-1.27	-1.79
SDQ (IMP)	7.29	8.00	0.71	2.67	.28	3.19**	2.12	11.02	1.10

Note. Life Skills Assessment Scale Teacher Version; IR = Interpersonal Relationships; CS = Communication Skills; SDQ (TD) = Strengths and Difficulties Scale Total Difficulty Score; PS = Prosocial Behavior; RSE= Rosenberg Self-Esteem Scale; SDQ (TD;CV) = Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP) = Strengths and Difficulties Impact Score; *df* = 26; CI = Class Interval; LL = Lower Limit; UL = Upper Limit; *df* = 26, CI = Class Interval, LL = Lower Limit, UL = Upper Limit.

$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Mean Comparison on Study Variables Across Pre-test and Post-test Conditions of Control Group

Paired sample *t*-test was also conducted for the control group on the same variables across pre-test and post-test conditions. Table 7 shows the mean differences and t-values for the control groups before and after the regular classroom lectures. It can be seen that apart from a very few significant differences in life skills, communication skills, total difficulty score as reported on the parent version of the Strengths and Difficulties Questionnaire and its prosocial subscale. A decrease in life skills is shown. Another difference is shown with a decrease in communication skills where the Cohen's d was 1.43 indicating a large effect. An improvement is shown however in prosocial behavior according to teacher rating with a Cohen's d of -1.03 indicating a large effect size.

Table 7

Means, Standard Deviations, and t Values of Variables across Pre-test and Post-test Conditions of Control Group (N=14)

Variables	Pre-test		Post-test				95% Cl	
	M	*SD*	*M*	*SD*	*r*	*t*	*LL*	*UL*
LSAS	47.21	6.69	42.29	6.22	.87	5.64***	3.04	6.82
IR	23.86	6.05	23.07	4.97	.93	1.26	-0.56	2.13
CS	23.36	3.00	19.21	2.78	.75	7.49***	2.95	5.34
SDQ (TD)	18.50	6.48	20.64	5.94	.82	-2.13*	-4.31	0.03
PS	4.57	1.70	6.57	2.17	.53	-3.89**	-3.11	-0.89
SDQ (IMP)	6.86	5.59	5.21	5.51	.50	1.11	-1.56	4.84
RSE	15.36	3.67	15.07	4.23	.67	0.33	-1.59	2.16
SDQ (TD; CV)	18.36	6.69	20.71	5.40	.63	-1.66	-5.43	0.71
PS	5.21	1.89	6.14	2.21	.60	-1.87	-2.00	0.14
SDQ (IMP)	6.21	5.32	3.43	5.30	.51	1.97	-0.26	5.83

Note. Life Skills Assessment Scale Teacher Version; IR = Interpersonal Relationships; CS = Communication Skills; SDQ (TD) = Strengths and Difficulties Scale Total Difficulty Score; PS = Prosocial Behavior; RSE = Rosenberg Self-Esteem Scale; SDQ (TD;CV) = Strengths and Difficulties Total Difficulty Score Child Version; SDQ (IMP) = Strengths and Difficulties Impact Score; *df* = 26; CI = Class Interval; LL = Lower Limit; UL = Upper Limit; *df* = 26, CI = Class Interval, LL = Lower Limit, UL = Upper Limit.

*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

The aim of the present study was to check the effectiveness of an art-based intervention in reducing emotional and behavioral problems of institutionalized children through increasing their life skills and self-esteem. It was hypothesized that the art-based intervention will increase life skills and self-esteem of institutionalized children and reduce their emotional and behavioral problems, while nonsignificant difference will be seen in the control group that received classroom lectures only. Differences between the experimental and control groups were studied with the help of Paired Sample *t*-test and Independent Sample *t*-test.

Literature in the past has indicated art-based interventions to be benefiting for vulnerable children by helping them cope better, regulate their emotions and mood and also increase their self-esteem

and empathy (Coholic & Eys, 2015). As control group was in the same institute, it was decided that to fulfill ethical demands the control group received general lectures on life skills included in their normal classroom routine. The control group could not be a wait-list group as enough resources and time was not available to carry out the same one- month intervention with the same art supplies right after the intervention provided to the experimental group.

After conducting pre-test, the current study utilized an art-based intervention lasting a total of four weeks, delivered three days a week for two hours on each alternative day. The activities included collage work, painting, clay modelling and role play. Each activity was designed to promote life skills and increase self-esteem. All art sessions were based on learnings from Vygotsky's (1978) theory of social development, being the basis of the current study's theoretical framework, social development theory promoted psychosocial development through promoting social interactions and learning from each other. As the life skills scale developed also focused on interpersonal relationships and communication skills, this theory seemed to go well with the objectives of the study. All sessions were based on social interactions and discussions among the group and sharing of knowledge between researcher and the group.

Independent sample *t*-test on the pre-test condition revealed that there were no significant differences among both the control and experimental groups however for self- reported peer problems the groups did differ. This was before the intervention was provided and on a self-report version of the Strengths and Difficulties Questionnaire. It can either be attributed to the already established low reliability of this particular scale and the fact that it was the children's first exposure to the measure. However, for the post-testing conditions significant differences were seen after the intervention was provided between the experimental and control groups among all of the study variables. The experimental group that received the art-based intervention scored higher on both self-esteem and life skills and also showed lesser emotional and behavioral problems as compared to the control group confirming our hypothesis where it was assumed that the experimental group will perform better on the aforementioned variables after the art-based intervention as compared to the control group that did not receive the intervention.

Previous research has stated that art interventions can promote health and psychological wellbeing (Darewych & Bowers, 2017). The general behavior of the children in experimental group did significantly change before the intervention even came to its end.

They were more willing to take part in material distribution and clean up. They also became more obedient where they began to listen as to how they should sit in the group even if they are done with their work earlier instead of roaming around in the classroom. And they were more prone to help each other out instead of causing disturbance.

To check for differences in one group across conditions, Paired Sample *t*-test was also conducted. For experimental group, the results showed that significant difference was present, and the group had improved on life skills, emotional and behavioral problems and self-esteem. Art has previously shown to be effective in increasing self-esteem of young female juveniles who are institutionalized from an early age as art making gave them a sense of creativity and accomplishment that they had previously lost (Hartz & Thick, 2005). Art was also helpful in improving emotional and behavioral problems of young children living in correctional institutions. According to the study, arts helped as the catharsis that children in correctional institutions required and served as a safe outlet to release negative emotions, thereby reducing their manifestation in the form emotional and behavioral problems (Koiv & Kaudne, 2014).

Life skills of orphans have also been improved using arts as an intervention in India (Priyadarshini, 2008). Prosocial behavior of the children also significantly improved after the intervention was given as reported by both teacher and children. It has been previously shown that art-based activities do increase empathy and prosocial behavior among children, mostly because the process of these activities is planned in such a way that it promotes the importance of teamwork (Priyadarshini, 2008). It was observed during the intervention that once the group cohesiveness feeling was developed among the children through week one, that is, collage week, the interactions began to improve and helping behavior also increased. There were, however, significant differences observed in the control group as well in the before and after classroom lecture comparison. The results of paired sample *t*-test showed that life skills and communication skills of the control group decreased while total difficulty as reported by teacher increased. Given that the control group was not completely blinded by the situation and being in the same institute was aware of the experimental group receiving art-based intervention the difference was understandable. Hence, they started to react to the situation and had to be handled carefully by including a worksheet activity in their lectures and also promising and delivering to them a day of art activity at the end of the

intervention. Prosocial behavior of the control group however, improved after the classroom lectures.

Limitations and Suggestions

It would have been more ethical if the teacher gave the general classroom lectures as part of their curriculum instead of the researcher themselves. This may aid in keeping the control group blinded from the intervention more effectively. It would also have been more ethical to provide the exact same intervention to the control group after the termination of the study, which could not be done in the present study due to constraints of resources and time. Instead, as promised to the control group they were delivered a day of art activities of their choice once the research had terminated at Child Protection Bureau. Future research could also make use of a facilitator to enhance productivity and efficiency, and larger sample size to increase analysis options.

Conclusion

With an increasing number of vulnerable children in Pakistan who are living in institutions and require immediate attention, this intervention plan could serve as a module that can be implemented in childcare institutes to develop life skills in children and also reduce their maladjustment. The study concluded that an art-based education is highly effective in increasing life skills and self-esteem and reducing emotional and behavioral problems of institutionalized children. Each technique used in the art-based intervention was designed so that it caters to one or an amalgamation of life skills and self-esteem education be imparted to the children. A highly significant increase in life skills was observed after the art-based intervention was provided, proving that there is a very close connection between art-interventions and life skills teaching. Being a three-fold intervention plan with multi informant assessment, several other connections were also discovered.

References

Akbari, O., & Akbari, M. (2013). Self awareness and communication skill training in foster Adolescents. *Journal of Practice in Clinical Psychology, 1*(3), 177-182.

Anderson, A., & Yates, G. C. R. (1999). Clay modeling and social modeling: Effects of interactive teaching on young children's creative art making.

Educational Psychology: An International Journal of Experimental Educational Psychology, 19(4), 463-469.

Bhat, A. A., Rahman S., & Bhat, M. S. (2015). Mental health issues in institutionalized adolescent orphans. *The International Journal of Indian Psychology, 3*(1), 57-77.

Browne, K. (2009). *The risk of harm to young children in institutional care.* London, UK: Save the Children.

Bulmer, M. G. (2012). *Principles of statistics*. New York: Courier Cooperation.

Chaudhry, R. (2011). Vulnerable children struggle to cope with the aftermath of floods in Pakistan. *UNICEF*. Retrieved from https://www.unicef.org

Child Protection Bureau. (2016). *2015-2016 Annual Report of the Child Protection Bureau*. Retrieved from http://cpwb.punjab.gov.pk/system/files/Annual%2015-16.pdf

Children of Hope. (2013). SOS children's village and children of hope, Pakistan. Retrieved from http://www.childrenofhope.ca/index.php/sos-children-villages

Coholic, D. A., & Eva, M. (2015). Benefits of an art-based mindfulness group intervention for vulnerable children. *Child and Adolescent Social Work Journal, 33*(1), 1-13.

Darewych, O. (2013). Building bridges with institutionalized orphans in Ukraine: An art therapy pilot study. *The Arts in Psychotherapy, 40*(1), 85-93.

Darewych, O. H., & Bowers, N. R. (2017). Positive arts interventions. Creative clinical tools promoting psychological wellbeing. *International Journal of Art Therapy, 23*(2), 62-69.

Ezell, M., & Levy, M. (2003). An evaluation of an arts program for incarcerated juvenile offenders. *Journal of Correctional Education, 54*(3), 108-14.

Fink, R. S. (1976). Role of imaginative play in cognitive development. *Psychological Reports, 39*(3), 895-906.

Frankl, V. E. (2006). *Man's search for meaning*. Boston, MA: Beacon Press.

Gharamaleki, N., & Rajabi, S. (2010). Efficacy of life skills training on increase of mental health and social skills of the students. *Procedia-Social and Behavioral Science, 5*, 1818-1822.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*(5), 581-586.

Hadush, E. (2015). *The level of depression and self esteem among institutionalized and non institutionalized orphans* (Unpublished master's thesis). Addid Adaba University, Addis Adaba, Ethiopia. Retrieved from http://etd.aau.edu.et/bitstream/handle/123456789/11120/Eyerusalem%20Hadush.pdf?sequence=1&isAllowed=y

Hartz, L., & Thick, L. (2005). Art therapy strategies to raise self-esteem in female juvenile offenders: A comparison of art psychotherapy and art as therapy approaches. *Art Therapy, 22*, 70-80.

Hatami, F., Ghahremani, L., Kaveh, M. H., & Keshavarzi, S. (2016). The effect of self awareness training with painting on self-efficacy among orphaned adolescents. *Journal of Practice in Clinical Psychology, 4(*2), 89-96.

Hays, R., & Lyons, S. (1981). The bridge drawing: A projective technique for assessment in an art therapy. *The Arts in Psychotherapy*, *8*(3), 207-217.

Jackson, V. A., & Back, A. L. (2011). Teaching communication skills using role-play: an experience-based guide for educators. *Journal of Palliative Medicine*, *14*(6), 775-780.

Karas, D. (2017). *The connections between early institutionalization and brain development*. Retrieved from https://bold.expert/the-connections-between-early-institutionalization-and-brain-development/

Kheibari, S. Z., Anabat, A. M., Largany, S. F. H., Shakiba, S., & Abadi, M. E. H. (2014). The effectiveness of expressive group art therapy on decreasing anxiety of orphaned children. *Practice in Clinical Psychology*, *2*(3), 135-14.

Koiv, K. & Kaudne, L. (2014). Impact of integrated arts therapy: An intervention program for young female offenders in correctional institutions. *Scientific Research Publishing, 6*, 1-9.

Law, D., & Wolpert, M. (2014). *Guide to using outcomes and feedback tools with children, young people and families*. London: Press CAMHS

Lipe, A. W., Ward, K. C., Watson, A. T., Manley, K., Keen, R., Kelly, J. & Clemmer, J. (2012). The effects of an arts intervention program in a community mental health setting: A collaborative approach. *The Arts in Psychotherapy*, *39*(1), 25-30.

Mann, M., Hosman, C. M., Schaalma, H. P., & Vries, (2004). Self-esteem in a broad spectrum approach for mental health promotion. *Health Education Research, 19*(4), 57-72.

Mariage, T. V., Englert, C. S., & Garmon, M. A. (2000). The teacher as "more knowledgeable other" in assisting literacy learning with special needs students. *Reading and Writing Quarterly*, *16*(4), 299-336. doi:10.1080/10573560050129196

Mcginnis, H. (2012). *Psychosocial interventions for orphans and institutionalized children: A review*. Paper presented in Society for Social Work and Research Sixteenth Annual Conference, Washington University, USA.

Moradpoor, J., Miri, M. R., Aliabadi, S., & Poorsadegh, A. (2013). Effectiveness of training self awareness and assertiveness skills on self esteem and compatibility of mothers of mentally retarded children. *Modern Care, 10*(1), 43-52.

Mutiso, V., Tele, A., Musyimi, C., Gitonga, I., Musau, A., & Ndetei, D. (2017). Effectiveness of life skills education and psychoeducation on emotional and behavioral problems among adolescents in institutional care in Kenya: A longitudinal study. *Child and Adolescent Mental Health*. doi:10.1111/camh.12232.

National Commission for Child Welfare and Development (2007). *Children in institutional care: An assessment*. Ministry of Social Welfare and Special Education, Pakistan.

Pifalo, T. (2002). Pulling out the thorns: Art therapy with sexually abused children and adolescents. *Art Therapy, 19*(1), 12-22. doi:10.1080/0742 1656.2002.10129724.

Priyadarshini, H. (2008). *Life skills building in orphans and vulnerable children through arts based training program*. Retrieved from www.unesco.org/culture/en/artseducation

Rizwan M (2010). *Self-esteem deficits and suicidal tendencies among psychiatric patients* (Unpublished doctoral dissertation). Institute of Clinical Psychology, University of Karachi, Karachi, Pakistan.

Rosenberg., M. (1965). *Society and adolescent self image*. New Jersey: Princetn University Press, USA.

Shujat, Q. (2015). *The state of children in Pakistan*. Retrieved from Mohtasib Website:http://www.mohtasib.gov.pk/wafaqimoh/userfiles1/file/SOCP%2 0-%20Draft%20Option%2001.pdf

U.S. Department of Health and Human Services (2009). Risk and protective factors for mental, emotional and behavioral disorders across the life cycle. Retrieved from http://dhss.alaska.gov

Vygotsky, L. (1978). Interaction between learning and development. *Readings on the Development of Children, 23*(3), 34-41.

White, C. M. (2013). A qualitative case study: Adults as contributing factors to artistic and aesthetic development in early childhood. *Art Education Projects, 14*, 1-73.

World Health Organization. (1997). *Life skills education for children and adolescents in schools: Introduction and guidelines to facilitate the development and implementation of life skills programs*. Geneva, Switzerland: Author.

Younis, S., Jami, H., & Masood, S. (2016). *Strength and Difficulties Questionnaire Urdu Version*. Retrieved from https://www.sdq info.org/py/ sdqinfo/b3.py?language=Urdu

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