

Original Article

Effectiveness of Play Therapy Based on Cognitive Behavior Therapy on Physical Relational and Verbal Aggression of Preschool Children

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Abstract

Introduction: Aggression is overt, often harmful, social interaction with the intention of inflicting damage or other unpleasantness upon another individual. The present study was conducted with the purpose of studying the effectiveness of play therapy based on cognitive behavioral therapy on physical, relational and verbal aggression of preschool children.

Method: The research type was experimental with pre-posttest design. Population was all children who were accepted in a counseling center Kermanshah City. 20 mothers of children were assessed with Shahin aggression test and then assigned into 2 groups (experimental and control) randomly. 2 groups were diagnosed with aggression and also matching conducted based on inclusion-exclusion criteria. 8 sessions of cognitive behavior play therapy were conducted for experimental group. The data were analyzed through multiple analysis of covariance using the SPSS-22 statistical software.

Results: Research findings showed that there is a significant difference between experimental and control groups in physical aggression. Moreover, the findings indicated that cognitive behavior play therapy is effective on reducing relational and verbal aggression in preschool children.

Conclusion: The application of cognitive behavior play therapy is effective on reducing physical, relational and verbal aggression in these children. It could be concluded that Considering the capabilities of CBT, its application in children's behavioral problems, including aggression, is effective.

Declaration of Interest: None.

Key words: Cognitive Behavior Play Therapy, Preschool, Aggression.

Introduction

Aggression, which is one of the aspects of the human nature, is a multifaceted phenomenon that has many determinants. Aggression may show itself in different faces (1). Buss defines aggression as a response that delivers noxious stimuli to another organism (2). Epidemiology study shows that one common problem in pre-elementary schools is aggression (1, 2). Aggression is usually a behavior with the aim of inflicting physical or verbal injury on another person or damaging

people's assets. Aggression may show itself in different faces (3). Aggression shows anger cognition aspects and anger shows its emotional aspect (4). Aggression behavioral aspect can also be expressed in speech and verbal form. Aggression causes emotional, psychological, or physical damages to others such as hitting, kicking, punching, spreading dirty rumors about a person, deliberate exclusion of a person, labeling others, and making fun of others as aggressive behaviors and actions, by evolutionary psychology,

anger originates from organisms history and is mixed with human nature(5). This emotion helps a person survive, and facilitates in adaptive responses, particularly fight or flight from confrontation with danger is unique tools (6).

About half of aggressive behaviors include screaming or shouting and about 10% of anger events lead to aggression (7). In most cases, anger not only reduces human personal and social adaptability, but also makes problems in mental health and security of family and other social groups and in some other cases its extension increases until brings about real threats and bothering of other society members and it results in conflict with the law and penal authorities (8). Various factors relate to aggression.. Amini (9) knows family factors (addiction and contention) as the most important factor in crimes and aggression of students. In recent research by Nwakaego & Agbor (10), it was indicated that family relationships and religion are effective on aggression, but gender isn't effective on aggression. Fili (11) also showed that parenting styles influences pre-elementary school children aggression, more results indicated that authoritative style of parenting has significant and negative correlation with aggression.

There are various plans and methods to intervene children and youth's aggression (6). In this regard, one plan that can play a role in mental health and improving psychological condition is life skills training and anger management (12). Training plans of anger management tries to reduce the made aggression by anger to evaluate anger management plans. Studies show that these periods are effective (13). Domestic studies such as Mehrizi et al (6) have shown that anger management training has been effective on self-regulation skills and father-teenager conflicts to reduce aggression (14). Another useful plan that is effective for children is play therapy. Behavioral theories, environmental factors, and cognitive theories, thoughts perceptions, and interpretation of an individual about situations can be significant reasons of normal and abnormal behaviors. Cognition behavioral therapy (CBT) is a type of short-

term psychotherapy helping people reach to thoughts and emotions perceptions on their behaviors. Psychotherapy has a rich history of research and practical work. At the beginning of 20th century, Anna Freud (1928), Melanie Klein (1932) wrote about psychoanalytical application for children, and Lowenfeld (1935) wrote about children permission to play with teachers to understand their world (Elahi, 2015). Garavand and Nourifar (2014) in study on the effectiveness of music therapy found that this therapy is effective on reducing their aggression significantly. Elahi (15) studying the effectiveness of play therapy on aggression reduction and anger control of pre-elementary school children found that this therapy is effective on anger aggression reduction. Pouyamanesh and Farabi (16) in a comparative research about the effectiveness of rhythmic plays on children anger reduction with learning disorder and mental retardation found that rhythmic plays have more effect on children with learning disorders. Sarpulaki and Kolahi (17) found that play therapy is effective on reducing students' aggression.

Asghari Nekah and Khadivi zand (18) showed that play therapy is effective on aggression reduction of boy pre-elementary school students. Dean, Tjosvold. & fang Su concluded in their research that cognitions have principal and potential role to anger and sadness events, and free discussions (useful discussion) form social shape of people in critical events (anger and sadness) and strengthen their social relationships (19). Farajzadeh et al (20) found out the effectiveness of group education on aggressionamong adolescents. Ahangarzadeh and Izadi (21) studied the effect of anger management education on mental health and found out that training anger management skills have a positive effect on mental health. Another research by Maleki and Fallahi (22) under the title of "group education effect of anger control on 12-15 year-old boy students concluded that group education of anger control influence the anger reduction of 12-15 year-old boy students. Masaebi (23) research was done with the aim of studying the determination of education effect on anger control among 2-15- years old boy students

and their social adaptation. It has significant effect of anger management education on anger reduction and increasing students' adaptability. Sadeghi, Ahmadi, Aabedi (24) confirmed group education effect of anger control by emotional-behavioral- intellectual technic on students' anger reduction. Results of Mohammadi research (25) showed that aggressive students don't have sense of empathy in family. Actually, they are not supported by family members in hardships.

Aggression harms to an individual, object, or another system (26). What has made many concerns about aggressive behavior is extension aggression among youth particularly school students. Youth is defined as a period between childhood and adolescence (27). Children are the most vulnerable social group. Research findings indicate that this problem is on the rise among students. Turshizi and Saadatju (27) research showed that 54.1% of boy students and 52.8% of girl students are aggressive. Bazargan, Sadeghi, and Gholamali Lavasani (28) in a research showed that verbal aggression is common in Tehran guidance school and is done in the form of insults, slander, and humiliation of others. Aggressive behaviors of students in school may be physical or verbal. Verbal aggression includes insults, threats, humiliation, hitting, and removing tools, and similar actions; anyway, the aim of each behavior is bothering others.

A child in educational environment for any reason by verbal and physical aggression will face a sense of insecurity and negative image of school and teachers, leading to academic failure or dropping out of school. Therefore, they will see the catastrophic effects of these behaviors during life in their adolescence. Moreover, aggression in children and students make disorder in teacher's training, relationship among students, and relationship among students and teachers, therefore, it makes the bed for crimes and drug abuse in a person. In view of the social and individual effects of aggressive behaviors in teenagers as the active force of country and the effects of aggression in various individuals and social aspects of children and teenagers on the one hand and lack of research with direct aim of proper play therapy with children such as

behavioral psychotherapy on the other, the main objective of this research is studying the effectiveness of group play therapy by behavioral cognition technic on physical, verbal, and relational aggression of pre-elementary school students.

In accordance with the mentioned objective, hypotheses are as follows: Group Cognitive behavior play therapy can reduce effective physical, verbal, and relational aggression of pre elementary school students.

Methods

This research is quasi-experimental with pretest - posttest design and a control group. Statistical population of this research includes all pre-elementary school children who referred to Hami counseling center by their parents in Kermanshah to solve the problem of aggression in 2016. Students were selected by goal oriented, convenience sampling method . Thus, questionnaires were distributed among students by permission of their parents and 2 of the qualified students with the maximum problems based on Shatin aggression questionnaire were selected randomly and divided into two 10-member groups, one of which was experimental group and the other control group. Behavioral cognition play therapy was executed in 2 months in 8 sessions for members of experimental group. After post test stage Intervention sessions were conducted for control group. These sessions were also held for the members of control group who also used these trainings. The entrance criteria and conditions to research include getting scores higher than cut off point: 42, and exit criterions were using psychiatric drugs and age ≥ 7 years. The sample [as two control (6 female, 4 male) and experimental (5 male, 5 female) groups] was integrated based on variables of age and education. In addition, independent variable in this research is behavioral-cognition play therapy and dependent variable is physical, verbal, and relational aggression of children. The initial interview was based on children agreement and coordination with mothers to participate and select members to complete it . Sessions focusing on keeping order, reciprocal respect, helping with removing problems of

other members, listening to other members were held once in a week and each session was 60 minutes.

Table 1. The summary of play therapy intervention sessions (cognition-behavioral protocol of play therapy)

Session	Content and subjects of behavioral-cognition play therapy
First	Child familiarity with therapist and other children of group by playing, stating group regulations, stating intervene goals with children.
Second	Child familiarity with various emotions by playing with several games.
Third	Child familiarity with sense of anger, using anger measurement, identification incorrect confrontation technics while anger
Fourth	Child familiarity with anger triggers for anger and cognitive errors
Fifth	Child familiarity with physical and behavioral symbols of anger
Sixth	Child familiarity with anger control technics
Seventh	Child familiarity with anger control ways
Eighth	Summary and review on anger management ways

Shahim aggression questionnaire: This tool was designed by Shahim (29) and its reliability and validity for elementary school students of Shiraz city. Scoring of this questionnaire was based on Likert spectrum from 1-seldom, 2-once a month, 3-once a week, 4- most days. This questionnaire has 3 independent measuring scales from 21 individual cases. 7 cases study physical aggression, 8 cases study relational aggression, and 6 cases study verbal aggression. Shahim (29) reported Cronbach's alpha coefficient 0.91 for total questionnaire, and validity of questionnaire was confirmed by factor analysis with principal axis and items oblique rotation also extracted 3 specific value factors that determined variance percentage.

Results

MANCOVA test was used to analyze data to control the effect of pre-test and post-test. Levene test was used to analyze pre-

assumption of variance equality in MANCOVA. Multiple analysis of covariance was used for controlling pretest effect and analysing. Levens test for equality variance showed physical aggression [$f(1,8)=-1/19$, $P>0/05$], relational aggression [$f(1,8)=-3/40$, $P>0/05$], verbal aggression [$f(1,8)=-3/86$, $P>0/05$] & aggression [$f(1,8)=-1/20$, $P>0/05$].

Table 2. The results of descriptive analysis in two phases

variable	Phase	Experimental group		Control group	
		Mean	SD	Mean	SD
Physical aggression	Pre-test	21.2	3.85	21.3	2
	Poste-test	18	3.43	21.3	1.82
Relational aggression	Pre-test	27.8	3.55	27.2	4.61
	Poste-test	21.4	2.11	27.4	4.3
Verbal Aggression	Pre-test	20	2.4	19.7	1.33
	Poste-test	17.7	2.35	19.69	1.32

Table 3. presents mean and standard deviation of variable in pre- post test. As the table shows there is a difference between pre- post test numbers in experimental group.

Table 3. The results of multivariate tests between groups

Test	Value	Df hypothesis	Df error	F	Sig
Pillai's Trace	0.833	4	15	13.757	0.001

Table 3. shows that eta square is .83 and observed power is close to 1, in other words By controlling pretest effects, significant levels, indicate that there are significant differences between experimental and control groups at least in one of the dependent variables. To realize the differences, the results of the MANCOVA presented in Table 4.

Table 4. The results of Tests of Between-Subjects Effects

Source		Type III Sum of Squares	Df	Mean Square	F	P	Partial Eta Squared	Observed Power
Physical aggression	Pre-test	10.496	1	10.496	1.877	0.192	0.118	0.248
	group	45.327	1	45.327	8.128	0.013	0.367	0.755
	error	78.096	14	78.096				
Relational aggression	Pre-test	4.935	1	4.935	1.212	0.290	0.080	0.177
	group	203.816	1	203.816	50.03	0.001	0.871	1
	error	57.024	14	57.024				
Verbal aggression	Pre-test	0.749	1	0.749	1.735	0.209	0.110	0.232
	group	26.579	1	26.579	61.582	0.001	0.815	1
	error	6.042	14	6.042				
Regression	Pre-test	1.130	1	1.130	.061	0.808	0.004	0.56
	group	755.357	1	755.357	41.04	0.001	0.746	1
	error	257.634	14	257.634				

Table 4 present that there is are significant differences between experimental and control groups in physical aggression ($P < 0.013$, $f = 8.128$), relational aggression ($P < 0.001$, $F = 50.039$), verbal aggression ($P < 0.001$, $F = 61.582$) and aggression in whole ($P < 0.001$, $F = 41.047$). the effect size indicated that from .36 to .81 percent of changes in post test referred to the independent variable (play therapy based on CBT).

Conclusion

The objective of this research was to determine the effect of group play therapy by cognition-behavioral techniques in reducing children aggression. Results of the present research showed that group play therapy by cognition-behavioral techniques reduces aggression. Based on the results of the present research, there is significant difference between experimental and control groups about the aggression mean scores in post-test. It means aggression is reduced in experimental group after executing play therapy by cognition-behavioral ethnic, which is in agreement with the obtained results from Asghari Nekah and Khadivizand (18), Maleki and Fallahi (22), Sadeghi et al. (24).

Cognitive behavior therapy has many potentials. It can be claimed that cognition-behavioral therapy for its high potentials make children identify their related emotions to aggression and connect with their emotions in sessions gradually. When children know their emotions thermometer for interaction with plays, they learn correct and incorrect ways of

confrontation with anger and consequently act more efficiently and in a self-controlled manner in anger-provoking situations. On the other hand, training cognition-behavioral play therapy based on anger control makes children identify the emotions while getting involved in practical plays and discover ability of anger control in three fields of verbal, physical, and relational fields. Furthermore, the effectiveness of cognition-behavioral play therapy is noticeable. It follows that the mechanism behind this approach is to increase their effectiveness in managing aggressive behaviors with changes in children's thoughts. This therapy is an important method that makes a person rely on his/her abilities and have social relationships with a more positive view, which by itself leads to modifying others about the surrounding events that is effectively used in more aggression control. This occurs by having trainings as identification various anger symbols, challenging cognition errors, and coping with them.

In cognitive behavior therapy children get more familiar with their feelings and emotions. Concerning the explanation of this finding, it can be said that the children learn more about the strategies of anger management in the form of play. Another explanation is that this cognitive behavior play therapy in physical aspect make children connect with their physical emotions better, using training, breathing practice, and muscle relaxation techniques, and they will be more aware of their emotions and consequently connect with themselves better. It is about relational aspect

of these children that their behavior resources are reinforced against anger-provoking situations. Therefore, they don't respond based on previous methods and know they have other ways to cope with anger-provoking situations such as brave behaviors or leaving the situation. Anyway, paying attention to children aggression in childhood is quite necessary. Aggression in children and students make disorder in teachers training, relationship among students, and relationship among students and teachers, therefore, it makes the bed for crimes and drug abuse in a person. Some children have ADHD criteria and should be treated with medicine, in this research a failure to diagnose ADHD was an entrance criterion.

These findings can be used in counselling and treatment of children and teenagers, because the obtained results show the significant effectiveness of group cognition-behavioral play therapy. Since this study was executed on children in Kermanshah city, generalization of the results of this research to other ethnic groups in other region of country and in other cultures might not be safe. On the other hand, the studied children were from a specific section; therefore, these results can't be definitely generalized to children in other ages. External validity of this research maybe threatened because of goal oriented sampling method. It is suggested other studies be done in the field. Moreover, the follow up step was not considered in the present research, so the early effects of this intervention isn't clear.

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