Effect of cognitive-behavioral play therapy in the self-esteem and social anxiety of students
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Abstract
Self-esteem and lack of social phobia are considered amongst the components of mental health. These features are more likely to be created during the early years of life like any other mental aspect. Hence, the present research aimed to investigate the effectiveness of cognitive-behavioral play therapy in self-esteem and social anxiety of student. The statistical population included all the students in Tehran, from whom a sample of 24 was drawn through multi-stage cluster sampling. They were randomly assigned into the experimental and control groups. The data gathering tools included Rosenberg's Self-Esteem Scale and Connor Social Phobia Inventory. The experimental group underwent the group play therapy while the control group received no treatment. The findings indicated that group play therapy was effective in the increase of self-esteem and decrease of social phobia among the students. Therefore, it is recommended that children’s counseling and therapy centers as well as school officials employ the necessary interventions to enhance health, improve self-esteem, and decrease social phobia with regard to the necessary constructs for the improvement of children’s and adolescents’ mental health.

Keywords: Anxiety, Cognitive-Behavioral, Play Therapy, Self-Esteem

Introduction
Recently, the enhancement of children’s and adolescents’ health has been in the limelight and the majority of this age range has received outpatient health services [1]. Solving the problems among the children and adolescents has both preventive and curative aspects because in many cases, their unsolved problems may turn into complicated problems. The underlying notion of many psychological theories is the hypothesis that human beings are motivated by self-improvement and seek for positive self-concept and self-esteem [2]. Self-esteem is a subject being in the limelight of research and it is often associated with words such as self-assurance, self-worth, etc. It helps others to have real and precise perception of their abilities and good features [3]. Different theorists such as Baumeister, Heatherton & Tice [4] and Meyers [5] have focused on the significance of self-esteem. They have recognized self-esteem as an invaluable shield against anxiety and depression and also a
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core fundamental factor in social and emotional
adjustment. Self-esteem is personal judgment
about one’s abilities and values that involves
some notions such as self-value, self-concept,
and self-knowledge [6]. There is a mutual
relationship between individuals’ perceptions
of their abilities and their self-esteem [7]. The
individuals’ self-esteem increases as a result of
their positive evaluation of their performance. If
the individuals are provided with opportunities
by which they can acquire some skills as well
as demonstrate their abilities and performance
and, as a result, have positive evaluation of
them, it can exhibit positive impacts on their
self-esteem. Particularly, this is much more
beneficial if such opportunities are provided
in social situations because self-esteem is the
amount of value that individuals attribute to
self as a person. This feature is acquired in
interpersonal relationships as a reflection of
others’ opinion about the individual and learning
how to cope with different problems [8].

Basically, the origin of many psychological
problems is social relationships. Social anxiety
disorder or social phobia can be experienced as a
result of lacking in social skills and appropriate
social capabilities. This phobia as an anxiety
disorder is defined as persistent fear of others’
negative evaluations [9]. Individuals suffering
from this type of anxiety have constant specific
fear of embarrassment when they are exposed to
others’ negative evaluations in social situations
or while doing an activity in the presence of
others [10]. Cognitive theories consider biased
information processing as an important factor
in creating and maintaining social anxiety
disorders [11]. Surely, children and adolescents
have their own specific needs and features and
it is necessary for them to receive appropriate
treatments.

Play therapy is employed to treat emotional
and behavioral issues in children because it is
in harmony with their diverse developmental
needs [12]. According to Piaget [13], play
is a tool for expressing self and establishing
relationship for children who are not fully
developed in their abstract thinking. Playing
provides individuals with opportunities to
experience social relationships, become
successful, make mistakes, and be able to
overcome their fears in public. Integration
of this therapy with cognitive-behavioral
approach can be an appropriate strategy to
increase self-esteem and decrease anxiety. It
provides for child active interaction with peers
and active cooperation during the therapy [14].

One of the most significant positive aspects of
cognitive-behavioral play therapy is that the
objectives and methods of therapy are totally
specific [15]. This therapy is also very suitable
for individuals who have problems in orally
expressing their emotions [16]. Thanks to this
therapy approach, they can acquire skills in
controlling their behaviors [17].

The techniques used in play therapy include
tracking, retelling the content, reflection of
emotions, and restoring the responsibility to
the child [18]. According to Piaget [13], play is
a tool to facilitate child’s cognitive growth and
help children reach their final stage of growth
at the age of 11 and participate in social-based
games. Play therapy provides good opportunity
for children to establish secure relationship in
order to explore and express the self and to be
benefited from the constructive interaction with
peers [17]. Play therapy enhances children’s
insight, problem-solving and coping skills
and helps them bridge between experience
and perception [12]. Research shows that play
therapy is an appropriate treatment for a wide
range of problems [19].

Studies have shown the positive impacts
of play therapy and cognitive-behavioral
therapy in the increase of self-esteem and
decrease of anxiety. Stanger et al. [20] have
investigated the effectiveness of group play
therapy in the improvement of phobia and
anxiety. The results of their research revealed
that group play therapy exerts positive effects
in the decrease of symptoms and problems of
children’s social phobia. Moreover, Baggerly
& Parker [21] concluded that group play
therapy has positive impacts on self-esteem,
anxiety, depression, social skills, and self-
acceptance. Braton et al. [12] reviewed over 82
studies and concluded that play therapy leads
to the improvement of anxiety, self-esteem, self-concept, behavioral changes, cognitive abilities, and social skills. Williams, O'Moore, Mason, and Andrews [22] in a study on the impact of internet-based cognitive-behavioral therapy on social anxiety concluded that this type of therapy has influential and positive impacts. Fracalanza, McCabe, Taylor & Antony [23] investigated the role of cognitive-behavioral therapy in the decrease of major depression symptoms, bipolar disorder, and social anxiety. Their results revealed the positive impact of cognitive-behavioral therapy in the decrease of participants’ social anxiety.

Yet, not much attention has been devoted to the effectiveness of cognitive-behavioral therapy. This research aimed to implement this intervention and investigate its effectiveness. Many of the children and adolescents are beset with some problems in the realm of mental health. Treatment of such problems is difficult using adult-related interventions. Therefore, play therapy can exhibit more benefits owing to its age appropriateness. Self-esteem has crucial impact on children’s and adolescents’ mental health and social anxiety may negatively affect their life quality. Therefore, with regard to the above-mentioned literature, the present research aimed to determine the effectiveness of group play therapy with cognitive-behavioral approach in students’ self-esteem and social anxiety. The present research hypothesizes include: 1) group play therapy with cognitive-behavioral approach will increase self-esteem and, 2) group play therapy with cognitive-behavioral approach will decrease social anxiety.

**Method**

The present research employed a semi-experimental method with pretest, posttest and control group design. Group play therapy with cognitive-behavioral approach was conducted on the experimental group and the scores on social anxiety and self-esteem were compared with the relevant scores of the control group. The statistical population included all the female students in the age range of 12-13 in the first district of Tehran in 2015. 24 participants was selected and assigned into the experimental and control groups (n=12 in each group). The experimental group participated in eight one-hour weekly sessions of play therapy with cognitive-behavioral approach. One school was selected through convenience sampling and an announcement was released to invite the students to participate in a counseling group. The inclusion criteria were as follows:

- Age range of 12-13 years
- Parental consent to participate in the research
- Lack of physical or mental disorder except for social anxiety and self-esteem problems
- The participants’ mean age was 12.92 years.

The data gathering tools included Rosenberg’s self-esteem scale and connor social phobia inventory.

Rosenberg’s Self-Esteem Scale was designed and developed by Rosenberg to measure self-esteem. It is a short, simple tool applicable for any age range or educational level [24]. It has 10 items scored on a 4-point Likert scale from “strongly disagree” to “strongly agree”. Greenberger, Chen, Dmitrieva & Farruggia [25] have administered this questionnaire on 197 Estonian students and reported its psychometric properties as following: internal consistency: 0.84, test-retest reliability on 78 students (2 weeks of time interval): 0.84, test-retest reliability on 82 students (5 months of time interval): 0.67, and test-retest reliability on 81 students (1 year of time interval): 0.62. All the coefficients were statistically significant and acceptable.

Connor Social Phobia Inventory was designed by Connor, Davidson & Churchill [26] to measure social phobia. This questionnaire evaluates 3 clinical area of social phobia including fear, inhibition, and physiological symptoms. This 17-item, self-report questionnaire is scored on a 5-point Likert scale. This questionnaire has highly acceptable levels of reliability and validity. Its test-retest reliability has been reported as 0.78 and 0.89. The internal consistency in a normal group has been reported to be 0.94 (total scale), 0.89 (fear component), 0.91 (inhibition component), and 0.80
Group play therapy with cognitive-behavioral approach
The therapeutic protocol of this research was a combination of Feeling, Expectation, Attitude, and Result (FEAR) program and a researcher-made protocol. FEAR program is a collection of anxiety-management skills. In the first stage or F, the child and therapist identify different feelings and their relations to body. In the next stage or E, the child learns cognitive and perceptual parts and identifies internal conversations and anxiety-provoking thoughts and seeks to cope with them. In the next stage or A, the therapist introduces ideas or attitudes that are useful in revealing the role of attitude and actions on what is felt. This part is focused on problem-solving as a tool in coping with anxiety. In the final stage or R, the concepts of rewards to performance or efforts are explained for the child [15].
A summary of the sessions is presented below:

First session: Subject: children’s and therapist’s introducing
Objective: Familiarity of children and therapists with each other and some activities in group sessions

Second session: Subject: Card playing
Objective: Identifying different feelings in children and providing the necessary conditions for the catharsis of feelings

Third session: Subject: Playing with ball
Objective: Helping children for identifying positive and negative emotions and expression of emotional experiences

Fourth session: Subject: The game of magic tricks and reading short poems in the group
Objective: Learning how to identify the thoughts and feelings without fear and anxiety in the group

Fifth session: Subject: Measuring different parts of children’s body
Objective: Identifying the physical states of the body and receiving positive feedbacks

Sixth session: Subject: Game of bubble thoughts
Objective: Identifying anxiety-provoking thoughts in social situations

Seventh session: Subject: Short and imaginary role-playing exercise
Objective: Improvement of self-esteem in group members

Eighth session: Subject: Implementation of relaxation, desensitization, and relieving stress
Objective: Decrease of stress in the presence of others

Univariate covariance analysis was used in SPSS-18 to test the research hypotheses and estimate the significance of independent variable effects on dependent variable.

Results
The mean score of social anxiety in the experimental and control groups were 30.416 and 30.583, respectively. The mean score of self-esteem in the experimental and control groups equaled 21.583 and 26.500, respectively. Mean and standard deviation of the research’s variables completely have been presented in Table 1.

Table 1 Mean and standard deviation of the research’s variables in the experimental and control groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Pretest Mean</th>
<th>SD</th>
<th>Posttest Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social anxiety</td>
<td>Experimental</td>
<td>30.416</td>
<td>6.200</td>
<td>22.500</td>
<td>5.385</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30.583</td>
<td>7.012</td>
<td>29.667</td>
<td>7.854</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Experimental</td>
<td>21.583</td>
<td>3.528</td>
<td>32.750</td>
<td>4.223</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>26.500</td>
<td>6.302</td>
<td>29.416</td>
<td>7.329</td>
</tr>
</tbody>
</table>

Levene’s test, Kolmogorov-Smirnov test, and slope of regression homogeneity were used to assess the necessary presumptions of covariance analysis. The results have been presented in the Table 2.

Table 3 shows presumption of the homogeneity of regression coefficients. Results indicates on regression coefficients. Also Kolmogorov-Smirnov test shows the normality of groups.
The results of Levene’s test indicate that the null hypothesis is not rejected and the observed F is not significant at p>0.05 and therefore, the homogeneity of variance or homoscedasticity exists in the scores. Based on the results of slope of regression homogeneity in Table 3, the estimated F that is not significant (p>0.05, F=2.844) and covariance analysis can be employed because the data don’t support the assumption of slope of regression homogeneity. The estimated Z in Kolmogorov-Smirnov is equal to 0.488 at significance level of 0.634 and the data distribution of posttest is normal for the experimental and control groups. Therefore, the assumptions for covariance analysis are confirmed and we can use covariance analysis for investigating the research’s second hypothesis.

As observed in Table 4, there is significant between-group difference between the mean score of social anxiety (Eta square: 0.240, p<0.05 and f=5.225). It can be concluded that group play therapy has been effective in the increase of self-esteem by 0.191 percent.

The second hypothesis of the research put forward that group play therapy with cognitive-behavioral approach will be effective in the decrease of students’ social anxiety. The results of Levene’s test in Table 2 indicate that the null hypothesis is not rejected and the observed F is not significant at p>0.05 and therefore, the homogeneity of variance or homoscedasticity exists in the scores. Based on the results of slope of regression homogeneity, the estimated F that is not significant (p>0.05, F=2.661) and covariance analysis can be employed because the data don’t support the assumption of slope of regression homogeneity. The estimated Z in Kolmogorov-Smirnov is equal to 0.790 at significance level of .561 and the data distribution of posttest is normal for the experimental and control groups. Therefore, the assumptions for covariance analysis are confirmed and we can use covariance analysis for investigating the research’s first hypothesis.

As observed in Table 4, there is significant between-group difference between the mean score of social anxiety (Eta square: 0.240, p<0.05 and f=6.617). It can be concluded that group play therapy has been effective in the decrease of social anxiety by 0.280 percent.

**Discussion**

In recent years, the subject of children’s and adolescents’ mental health has received especial attention. Timely diagnosis and treatment of psychological problems in children is surely of great benefit because
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Table 5  Univariate covariance test for the effectiveness of group play therapy with cognitive-behavioral approach in the decrease of students’ social anxiety

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source of change</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>Level of significance</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>Pretest</td>
<td>27.510</td>
<td>1</td>
<td>27.510</td>
<td>0.59</td>
<td>0.44</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>305.697</td>
<td>1</td>
<td>305.697</td>
<td>6.617</td>
<td>0.01</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>970.157</td>
<td>21</td>
<td>46.198</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17634.000</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changing the emotional and behavioral patterns in adulthood is far more difficult. Self-esteem that is established and modified during childhood plays a crucial role in individuals’ mental health [1]. A vast number of children suffer from social anxiety. Therefore, the present research aimed to employ a suitable intervention among children to increase their self-esteem and decrease their social anxiety. To this end, group play therapy with cognitive-behavioral approach was selected. Cognitive-behavioral approach has been effective in the cohesion of therapy sessions and it has specific, tangible objectives and strategies [15]. Our results indicated that group play therapy could be effective in increasing the self-esteem by 19 percent and decrease of social anxiety by 28 percent. These results are in line with the results reported by Stangier et al. [20], Baggerly and Parker [21], and Danger et al. [28].

Danger and colleagues [28] found out that group play therapy can significantly reduce children's anxiety especially anxiety for talking. Braton et al. [12] have studied the effectiveness of group play therapy in self-concept, behavioral changes, social skills, and anxiety. The results of their research indicated that when children do not receive fear-provoking stimuli in social conditions and also receive positive feedbacks from the therapist and peers, their anxiety decreases and they enjoy playing with peers. According to Kazdin [15], special strategies are employed in group play therapy with cognitive-behavioral approach. Children are taught to be assertive in the presence of others. They learn to control their thoughts, provide and receive feedbacks and also cope with failures. These types of learning can be effective in the improvement of their self-esteem. In this play therapy, the therapist has an active role. S/he uses timely positive and assuring sentences to lift children’s spirit. The therapist must consider five facets of: 1) acceptance and communication; 2) practical knowledge about the stages of growth and its related matters; 3) sincere respect and love for children; 4) understanding the systems and their mutual interactions; and 5) self-care [27]. Children are encouraged for internal conversation and learn to use positive sentences about themselves. In our therapy sessions, the dynamics of group and mutual respects in conversations and behaviors were obvious. All the participants used positive feedbacks, expressed their opinions freely, and participated in the interactions. They were more open to constructive criticism as compared to the earlier therapy sessions, as well. They were also more relaxed and showed more dependence on and closeness with others and actively participated in the process of problem-solving and decision-making. All these could be effective in the improvement of their self-esteem.

One of the reasons leading to children’s social anxiety is their lack of skill in making friends and establishing friendly relationship with peers. Therefore, they often dono have a pleasant experience of being in public. They may show significant changes if they are provided with opportunities to have pleasurable experiences of social settings. According to Baggerly and Parker [21], group play therapy increases the level of responsibility, self-control, and self-acceptance. During our therapy sessions, we tried to teach children the correct ways of establishing relationships. They were even advised to select appropriate words and gestures while making friends. Modeling was also used as an effective method so that children were required to loudly repeat the therapist’s sentences in low voice. Children
were taught about understanding others’ points of views and feelings in different situations. Children who suffer from social anxiety and avoid establishing relationships with others are often forced to create bond with others and actively participate in the group and give feedbacks.

Playing establishes a link between child’s internal and external world helping him to gain control over objects. Moreover, playing lets children demonstrate the mastery over their thinking, feeling, and experience. Often, children are confronted with different problems in verbally expressing their feelings while playing helps them show their feelings [29]. Behavioral-cognitive therapy can also increase their efficacy in the treatment of anxiety and enhancement of self-esteem. Moreover, it can be successful especially while mixed with group play therapy. Siahkalroudi and Bahri [30] reported that group play therapy based on cognitive-behavioral approach can increase children’s social skills and self-esteem.

Conclusion
Group play therapy caused the students to more freely express their experiences and feelings. Furthermore, group playing led children to have interaction with one another and get exposed to different attitudes and viewpoints. Of course, paly therapy may stop children’s problems and symptoms in a few sessions but more fundamental changes need more sessions to be held [12]. We are bound to carry out more studies to fully investigate the positive effects of play therapy. This research intended to involve children in playing games; however, they did not have complete knowledge of some of the games. Moreover, this research was carried out on girls. It is recommended that similar researches be conducted on the features of mental health in different age ranges as well as shedding light on gender differences.

When entering school, children may show mental problems such as anxiety and lack of self-esteem due to different and improper education styles, unfavorable biological, personality, and environmental factors. School environment can create a situation by which mental problems decrease and students’ mental health and abilities increase. The implication of proper interventions that are in harmony with age-related factors and school environment can play a significant role in this area. Play therapy can really attract students and help them express their feelings actively and derive benefits. Most schools lack in appropriate environment for the employment of such interventions; however, more effort can be invested in this area. The researcher faced some difficulties in sampling; therefore, the results doesn’t have high generalization. It’s recommended that more similar research be carried out in terms of mental problems among children and adolescents.

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Study design: HH and MH
Data collection and analysis: MA
Manuscript preparation: MH

Conflict of Interest
"The authors declare that they have no competing interests."

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