

Social Skills Training as a Classroom Program among a Group of Female Students of a Primary School

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Objective: The main objective of this study is to compare the efficacy of social skill training as a classroom program in schoolgirl students of a primary school with a control group.

Method: The 4th grade school girls of two classes in a primary school and at least one of their parents or caregivers participated in this study and they were allocated in the case and control groups. The student's age range was 9-11 years. The social skill education program was designed for primary school children by child and adolescent psychiatry department of Shahid Beheshti University of Medical Sciences .

Demographic characteristics were recorded in a designed questionnaire , and included name, age, prior history of psychiatric and medical condition, and prior history of participation in a social skill education program .

Achenbach Child Behavior Check List parent's report form (CBCL) was used before and after the study in the case group to evaluate the efficacy of the program interventions and, it was also used for the controls at the same times .

The change of mean scores, inter and intra groups, and the categorical shifts were compared using repeated measure ANOVA and Chi square statistical methods of analysis by the SPSS-15 statistical software.

Results: The total number of 66 students with the mean age of 9.80 ± 0.49 years participated in the study: 39 students were assigned to the experimental group and 27 students to the control group.

The comparison of the mean age revealed no statistically significant differences between the two groups. The results showed an increment in internalizing problems and total competence and also in affective, anxiety, oppositionality and conduct problem scores which are statistically significant. The percentage of change in behavioral problems was compared between the cases and controls after the interventions. Based on the results, 25.6% of the intervention group got worse in internalizing problems after the intervention compared to the 3.7% in the control group which is statistically significant.

Conclusion: Social skill training in classroom settings may worsen some behavioral problems in girls; therefore, this type of training needs standard settings .

Key words: Behavioral symptoms, Girls, Psychological techniques, School health services, Students

Iran J Psychiatry 2009; 4:155-159

Many children and adolescents have psychosocial risk factors that make them vulnerable for psychiatric disorders (1) Various studies have indicated that there are different forms of preventive programs to promote mental health for students at schools; social skill training is the main part of these programs. Children who exhibit social skills deficits experience negative consequences (2). Recently many studies have evaluated the effect of social skill training programs in different situations and in high risk children. Wang et al have evaluated the effectiveness of social skills in a group of children with behavioral problems and compared them with a control waiting list and they found significant improvement (3). Recent studies also show that social skill training in different age groups

including preschool (4), school age (5) and adolescents (6) have positive effects but most of these interventions have been performed in clinics and on children with psychiatric or behavioral problems and also on high risk children and adolescents. Several studies have investigated the effect of social skill programs on specific situations including HIV, drug abuse and bullying and showed considerable preventive effects (7, 8). Many studies have suggested that parental involvement in social skill intervention may lead to better outcomes (9). Most of the studies have reported positive results. Accordingly many countries have established mental health program at schools and enrolled the students in social skill training programs. In Iran, many cultural and educational

societies and schools perform these interventions in classroom settings by including all the students of the class in a group. However, the question is that is it possible to perform these interventions in a classroom setting with all students (large numbers) in weekly basis during the course of school programs or it does it need standard situations. The current study was designed to evaluate the effectiveness of a multicomponent social skill educational program for childhood behavioral and emotional promotion at schools as a part of a school mental health program. This study was also performed in a classroom setting with all students. The intervention used in this study is a 6 month group work for primary school children and their parents.

Materials and Methods

This classroom social skill education program was designed by the child and adolescent psychiatry department of Shahid Beheshti University of Medical Sciences for primary school children who lived in a geographic area of Tehran (10). The students attended in this program weekly in 10 sessions. The program's duration was equivalent to the time-span of a school term. The total duration of each session was 90 minutes. Educational sessions were conducted in the classroom with of all students participating. This educational program was performed by a child and adolescent psychiatrist.

Children's sessions

The content of children's sessions aimed to enhance their social skills at home and at school, and to decrease their problematic behaviors at home and at school. We used cognitive behavioral skills such as verbal self instruction, self talk, performance evaluation, self reinforcement, modeling of skills, behavioral rehearsal and positive reinforcement. Group work was used to practice the skills in the classroom, and homework was given to the children to extend the learned skills in social circumstances. The contents of this program were as follows:

1. Team work and cooperation skills: the main goals were practicing cooperation; understanding the main differences between group work and working alone, the advantages and disadvantages.
2. I am a unique person: the goal was to enable the subjects to become conscious of their strengths and weaknesses and recognize their limitations.
3. Self awareness: this session helped the students to learn about their feelings, thoughts, the relation between thoughts, feelings and behaviors, and making a real perspective about their strengths and weaknesses.
4. Feelings and emotions (part 1): expressing emotions and obtaining the abilities to recognize the ways to express and experience a range of emotions verbally and nonverbally. Feelings and emotions (part 2): handling sever feelings and

knowing that in what situations they may experience such feelings.

5. Communication (part 1): The definition of communication and good listening skills; the main parts of good listening skill and the ways to practice.
6. Communication (part 2): This session was designed to recognize different parts of a communication such as: verbal and nonverbal communication; the importance of nonverbal communication in social interactions; and understanding the value of coordination between verbal and nonverbal communication.
7. Communication (part 3): The definition of assertiveness and differentiating between assertiveness, passivity and aggression.
8. Critical thinking: To gather the understanding that they need to process all inputs from the environment.
9. Problem solving and decision making: this session was designed to educate children to choose appropriate ways for problem solving.

Parents' group

Through the course of the program, at least one of the student's parents was participating in all the 5 sessions of the parents' group. The parents' group aimed to: a) develop parents' understanding of factors underlying their children's behavior; b) assist parents to become more aware of, and to have a great understanding of their feelings; c) explore parents' difficulties in parenting styles and to attempt to promote them. The interventional techniques used in these sessions were cognitive restructuring, psychoeducation and group discussion.

Teachers' meetings

Teachers' meetings were held twice during the course of the program. The general aims of the meetings were to inform the teachers of the nature, objectives and strategies used in the program and to discuss the ways by which teachers could handle children's difficult behaviors in class.

Participants

The participants were all the 4th grade students of two classes at a primary school, and at least one of their parents or caregivers. Social skill training was a routine program for the 4th grade students of this school , and this program was performed in classroom setting with th participation of all the students. Therefore, we didn't change the last program. The students' age range was 9-11 years. The students with the prior history of serious psychiatric disorder or medical handicaps, those who participated in another social skills education programs, or those children whose parents did not allow their participation were excluded from the study. The students were divided to cases and controls randomly according to classroom classification.

Measures

Demographic characteristics were recorded in a designed questionnaire, and included information about name, age, prior history of psychiatric and medical condition, and prior history of participation in a social skill education program.

Achenbach Child Behavior Check List parent’s report form (CBCL) was used to evaluate the efficacy of the program’s interventions (11). Achenbach’s version of the behavior problems section of the CBCL has 118 items and two ‘broad-band’ scales, titled: externalizing and internalizing scales. High scores on the externalizing and internalizing scales are indicative of more severe behaviors. Adequate reliable and valid data are available for the CBCL in the Iranian population.

Questionnaire administration

The parents filled the questionnaires before and after the interventions. The parents of the control group were requested to complete the questionnaires twice during the course of the school term.

Ethical issues

Oral consent was obtained from the students and their parents (both cases and controls). Because of the long duration of the interventions (as long as a school term) and because this program was designed for 4th graders, it was impossible to perform these interventions for the controls as a waiting group. Therefore, we informed the parents about these limitations and about our decision to share with them the results of the study. We also shared the rate of the study’s efficacy with the parents to help them to use appropriate strategies for participation in similar programs in the future.

Statistical analysis

All statistical analyses were concluded using change mean scores from pre to post intervention to ensure that the magnitude of the changes in children’s behavioral problems for the case and control groups was

compared. For changes in a child’s behavior to be regarded as ‘clinically significant’ on the CBCL, the child’s score was required to show a categorical shift toward a normative level of functioning. This was assessed using the nonclinical, borderline and clinical range based on cut off points identified for Iranian population on the CBCL externalizing and internalizing scales. Children in the borderline clinical range were deemed to show clinically significant improvement if their scores moved to the non clinical range post interventions. Children in the clinical range showed clinically significant improvement if their scores moved in to either borderline or non clinical range after the interventions. The change of mean scores, inter and intra groups, and the categorical shifts were compared using repeated measure ANOVA and Chi square statistical methods of analysis by the SPSS-15 statistical software.

Results

A total of 66 students with the mean age of 9.80±0.49 years participated in the study: 39 students were assigned to the case group and 27 students to the control group. Participants’ age range was 9-11 years and the mean age of the participants was 9.87±0.50 and 9.70±0.46 for the cases and controls respectively. The comparison of mean age revealed no statistically significant differences between the two groups (p=0.163). All the participants were from the urban areas .

Using the Iranian population cut off scores for the CBCL, the proportion of cases and controls on the externalizing and internalizing scales were calculated and compared before the intervention. It should be noted that no significant differences were observed between the two groups. The comparison of mean scores on the externalizing and internalizing scales, social competence and the total CBCL score revealed no statistically significant differences.

For the case versus control group comparison of pre and post intervention, the analysis of variance was

Table 1. Results on measures of child behavior

CBCL sub scales	Case group (n= 39)		Control group(n= 27)		Effect of group	
	pre	post	pre	post	f	p
CBCL – Externalizing	55.79±10.32	55.07±10.68	55.40±9.78	51.51±10.50	1.255	0.267
CBCL – Internalizing	51.84±8.44	55.25±9.29	54.02±10.20	49.37±8.74	6.549	0.013
CBCL – Total problem	57.74±10.35	59±10.35	58.34±10.81	53.18±10.11	3.885	0.053
CBCL – Social	39.66±6.41	38.81±7.38	40.09±6.67	39.81±6.52	0.152	0.698
CBCL – Activity	48.42±14.05	46.43±12.49	50.77±14.04	49.42±11.99	0.357	0.552
CBCL – School	37.39±3.55	38.63±6.23	39.56±5.29	37±4.76	3.93	0.052
CBCL – Total competence	45.12±5.94	43.68±6.13	46.18±7.66	44.51±6.96	0.001	0.046
CBCL - DSM						
Affective	53.76±9.05	54.46±9.01	51.97±9.84	47.74±10.38	4.124	0.046
Anxiety	54.71±9.27	57.79±8.53	59.25±8.97	55.70±7.39	6.661	0.012
Somatic	54.02±9.53	52.65±8.15	52.11±9.06	48.88±5.34	1.301	0.258
ADHD	53.30±10.20	53.87±10.55	55.06±11.13	49.74±9.80	3.644	0.061
Oppositionality	51.84±7.63	55.51±9.09	56.04±8.55	51.51±7.58	7.754	0.007
Conduct	53±8.86	55.92±9.92	54.22±9.78	50.88±8.85	4.366	0.041
problems						

Table 2: Clinical significance of change in children’s behavior in case and control groups

Scale/category	Treatment group (n=39)			Control group (n=27)			P
	Improve % (n)	Same % (n)	Worse % (n)	Improve % (n)	Same % (n)	Worse % (n)	
CBCL – Externalizing	28.2 (11)	48.7 (19)	23.1 (9)	18.5 (5)	70.4 (19)	11.1 (3)	0.205
CBCL – Internalizing	7.7 (3)	66.7 (26)	25.6 (10)	18.5 (5)	77.8 (21)	3.7 (1)	0.040
CBCL – Total problem	41 (16)	30.8 (12)	28.2 (11)	48.1 (13)	33.3 (9)	18.5 (5)	0.659
CBCL - Affective	10.3 (4)	76.9 (30)	12.8(5)	7.4 (2)	81.5 (22)	11.1 (3)	0.894
DSM Anxiety	12.8 (5)	69.2 (27)	17.9 (7)	29.6 (8)	55.6 (15)	14.8 (4)	0.240
DSM Somatic	10.5 (4)	81.6 (31)	7.9 (3)	16 (4)	84 (21)	0	0.310
ADHD	12.8 (5)	69.2 (27)	17.9 (7)	29.6 (8)	59.3 (16)	11.1 (3)	0.220
Oppositionality	2.6 (1)	76.9 (30)	20.5 (8)	11.1 (3)	81.5 (22)	7.4 (2)	0.152
Conduct problems	7.7 (3)	74.4 (29)	17.9 (7)	14.8 (4)	81.5 (22)	3.7 (1)	0.170

concluded using repeated measure ANOVA. These results showed an increment in internalizing problems and total competence and also in affective, anxiety, oppositionality and conduct problem scores which are statistically significant (See Table1).

The percentage of change in behavioral problems was compared between cases and controls after interventions. According to these results, 25.6% of the intervention group got worse in internalizing problems after intervention in comparison to the 3.7% in the control group which is statistically significant. (See Table 2)

Discussion

The present study has evaluated the efficacy of classroom setting social skill training in a group of elementary school girls in comparison to a control group. As the social skill training efficacy may depend on cultural properties, the results of this study may be most useful in the design of mental health school programs, especially social skill training for Iranian students. According to the results of this study, the mean differences of internalizing problems, total competence scores and also affective, anxiety, oppositionality and conduct problem sub scales increased in the intervention group in comparison to the control group. However, the comparison of the participants' percentage of change showed no differences in all the subscales except for internalizing problems which got worse after interventions. It means that in our study social skill training in the classrooms with the total size of students did not ameliorate behavior problems in girls and increased internalizing problems. It may depend on the large number of students who attended the classes as a group and the few sessions of training for each skill. The large size of the students may limit the influence of interventions and restrict the trainer to check the learned skills by each student appropriately. Few sessions of skill training with large number of participants may just increase the knowledge of students and not their skills. For example, increment in self awareness of emotions without enough skills in their management may increase the internalizing problems. Therefore, this method may affect the effectiveness of interventions

and demonstrate that performing the social skills in class setting is not effective and needs standard settings with standard number of participants and enough training sessions for each skill. Many studies in the literature have evaluated the efficacy of social skill training programs. Some of them have investigated this effect in children with special problems including ADHD, and conduct problems and have reported positive results (12, 13). According to the study of Antshel et al which was conducted on 120 children, aged 8 to 12 with ADHD, 8 sessions of social skill training improved children's assertion and cooperation skills (14). Webster-Stratton et al in another study have reported improvement in externalizing behaviors at home and aggression behavior at school in 99 children aged 4 to 8 years with early onset conduct problems (15). Wang et al in another study have investigated the social skill training program in a group of children with behavior problems. In this study, 50 children aged 7 to 14 years with behavioral disorder are compared with 51 children in a waiting list. The results showed that social skill program is acceptable and helpful in improving psychosocial competence in children with behavioral problems (3). The gender groups in previous studies were mixed. Some studies have investigated the efficacy of these programs in community samples. According to the study of Sawyer et al, Rochester social problem solving program improved the ability of children to cope with potentially difficult social situations amongst children in 3rd and 4th grades of primary school. However, the program did not reduce the prevalence of teacher reporting or mother reporting of children emotional and behavior problems (16). Our study show opposite results and this may be due to the different method of our intervention. In addition to the methodological properties of the study, these results may be under the influence of some other limitations too. The small sample size of the study and the sampling method which have included students of two the classes of a single school are the two most important limitations. These may have considerable impact on the overall results and make the generalization of results unjustified. We compared the intervention group just with a control group and we didn't compare them with

a standard intervention group and this may be another limitation of this study which may affect the interpretation of the results. Furthermore, the effect of interventions on internalizing problems may depend on gender differences in expressing behavioral problems considering the prominence of internalizing problems in girls and because parents can report externalizing problems better than internalizing problems and this may be another limitation of the results. Performing other studies with larger sample size and the comparison of usual methods with standard ones are proposed for future studies.

Conclusion

These results indicate that the mean score of internalizing problems increased in cases in comparison to the controls. These results also indicated that the percentage of the case group whose behaviors improved post intervention in clinical range was the same as the control group except for internalizing problems which got worse after the intervention. Accordingly, social skill training in classroom setting is not effective and needs standard settings and standard number of sessions.

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