

Original Article

The effectiveness of social skills training based on cognitive-behavioral principles in changing coping strategies of middle school students

Maghsoud Nader Pilehroud^{1*}, Bahman Aslani², Masomeh Esmaeili³ and Masomeh Ezadinia⁴

1. PhD Student in Clinical Psychology, Shahed University, Tehran, Iran.
2. M.A. in Psychology, Shahed University, Tehran, Iran.
3. M.A. in Psychology, Shahed University, Tehran, Iran.
4. M.A. in Psychology, Shahed University, Tehran, Iran.

Abstract

Stress is undoubtedly a part of students' lives and it may impact their ways of coping with the demands of life, as a result, social skills and coping skills can help students in these situations. The aim of this study was to determine the effectiveness of social skills training in changing students' coping strategies. The research method was experimental with pre-test-post-test and a control group. The population included middle school male students studying in Tehran during 2020-2021. In a multi-stage clustering sampling, 40 of them were selected and randomly assigned into experimental and control groups. To measure students' coping strategies in this study, Parker and Andler coping strategies questionnaire (CSQ) was used and the data were collected and analyzed using descriptive statistics and analysis of variance. The results showed a significant difference between the experimental and control groups in coping strategies after receiving social skills training. The results showed that among the coping styles, the problem-solving coping strategy scores increased and the emotion-oriented and avoidance styles decreased. The results showed the effectiveness of social skills training method on changing coping strategies of middle school students.

Keywords

Social skills, coping strategies, cognitive behavioral principles, students.

Received: 2021/07/12

Accepted: 2021/09/12

Available Online: 2021/12/20

Introduction

Sudden and wide-ranging changes in all aspects of children's lives create a critical stage which will naturally lead to problems and incompatibilities. Hence, given the importance of this period and the ways in which children can cope with these problems, providing the necessary information and knowledge to adolescents and acquiring the necessary skills to deal with the problems caused by these changes is considered very important and sensitive. Among the factors that could weaken stress, attention has been paid to expectations of self-efficacy, which are considered one of the most important determinants for student engagement, persistence, and success (Freire, Maria, Bibiana, Susana, & Valle, 2021). While using the wrong strategy in dealing with stressors can increase the problems, applying the right coping strategies can lead to positive results (Garayi, Mohammadi, & Asgharnejad, 2008). On the one hand, in adolescence, a person faces personal, social, occupational and family problems and

extensive physical and cognitive changes on the other hand. In order to adapt to them, special behavioral and cognitive strategies are required that are called coping methods. Lazarus and Folkman thought of stress as an interactive process between the person and their surroundings, in which the influence of stressful events on physical and psychological well-being is determined by coping (Freire et al., 2020). Lazarus considers coping as an active behavioral and cognitive effort of an individual to manage the exhausting demands (internal or external) of the person or the desires which are beyond his power (Freire et al., 2020). Coping strategies are behavioral and cognitive abilities which are used by an anxious person to control specific external and internal needs (Javidi & Garmroudi, 2019). Studies have shown an association between coping strategies with psychiatric disorders and mental health promoting resilience in adolescents (Parviniannasab, Rakhshan, Momennasab, Soltanian, & Bijani, 2021; Wong, Leung, & Onso, 2001). They also suggest a link between active coping strategies such as problem solving, rational analysis,

and better social adjustment (Kavsek & Seiffge-Krenke, 1996). Other studies indicate that the use of active coping strategies, such as problem-focused strategies, is associated with social search and better adaptation to stressful events (Rabiee, Molavi, Kalantari, & Azimi, 2009; Zarei, 2008). On the other hand, research has shown that there is a close relationship between coping skills and different aspects of socially unsafe behavior (Muratidou, Barkoukis, Zahariadis, & Armpatzi, 2007). Khakpour et al. (2021) in an article entitled *The effectiveness of cognitive-social problem-solving skills training on coping strategies and feelings of failure of adolescents with high-risk behaviors* showed that cognitive-social problem-solving skills training increases using positive coping strategies and decreases the negative ones, which in turn can improve peer relationships in the long run, which ultimately reduces their sense of failure. It was found that coping with problems and social skills constructs together provide considerably better results in the way students resolve their problems (Santos & Soares, 2020).

Research findings show that the perception of social support has good predictive effects in problem solving and coping strategies in Internet addiction. Supportive family and friends have had a positive effect on avoiding individuals and optimally enhancing underlying strategies in reducing Internet addiction (Cevik & Yildiz, 2017). Despite the growing importance of "social skills" in the development of children, learning this skill is not the same for all children.

Most students have problems and deficiencies in social skills. This may make these students less accepted by normal peers. Thus, these students need to be taught social skills in an organized manner (Gresham, 2000). One of the main goals of the formal public education system is proper socialization of children and adolescents, because social growth and development is effective in line with socialization, adaptation and communication with others. Of all the organizations that play a key role in the socialization of individuals, the "school" is the first official place of children's social experience and plays a decisive role in this regard. Accordingly, any effort to develop "social skills" whether in the formal program or in extracurricular activities can play an important role in the process of social development of students, especially that the critical years of social development coincide with school age, including the period which is elementary, middle and high school (Javidi & Gholamroudi, 2019; Fatehizadeh, Nasr Esfahani, & Fathi, 2005).

Meijer (2010) showed in a study that coping with stress is effective on social adjustment. Studies have shown that people with social skills problems struggle with a variety of problems including poor academic achievement, dropout, depression, anxiety, isolation, and substance abuse (Ciarrochi & Scott, 2006). Lack of social skills can impair the ability to establish and maintain a satisfying relationship with friends, and lack

of friends or intimacy is associated with low self-esteem (Scharfstein, Beidel, Simsm, & Finnell, 2011).

A student with effective social skills establishes positive relationships with the teacher and his or her classmates and creates a conducive environment for learning (Gursimsek, Vural, & Demirsoz, 2008). Social skills are those skills through which individuals can engage in interpersonal interactions and the communication process, that is, the process in which people share their information, thoughts and feelings through verbal and non-verbal exchange (Ahmadi, Hatami, & Asadzadeh, 2012; Chari & Delavarpour, 2006).

Bruyan, Cillessen, and Wissink (2010) showed that children without social skills are more likely to be rejected by their peers. Based on the predictive power of relationships with peers, it seems that in a part of the social system such as school, if there are social problems in the child, weaker social skills are formed as a strategy in the child. In early childhood in preschool, if the child interacts with his peers, over time, this relationship becomes a friendship, otherwise lack of social skills leads to an unfavorable relationship with their peers such as rejection and victimization (Mize, 2005). With this in mind, formal teaching of social skills to all children, and especially to children with disabilities in social behaviors, is crucial (Dava, 2004). Life skills training had a positive and significant effect on social and coping skills (Javidi & Gholamroudi, 2019).

In the present study, we tried to study the effectiveness of social skills training in changing students' coping strategies, considering the positive effect of using effective coping methods on physical and mental health and considering that the degree of children's mastery of social skills in how they socialize and adapt to the conditions is effective.

Method

Participants

The population of this study includes middle school male students studying during 2019-2020 in Tehran. The number of participants in this study was 40 middle school students. Sampling was done in the first stage through cluster sampling, and in the next stage by randomly assignment of the participants to experimental and control groups. At first, one school was randomly selected from among the schools in a region. After performing the coping skills questionnaire, among the subjects who received a low score in the coping skills test, 40 people were randomly selected and in two groups of control and experiment, 20 people in the control group and 20 people in the experimental group.

In this study, social skills training based on cognitive-behavioral principles was the independent variable, after pre-test using social skills training guide package as a group among students in the experimental

group, social skills training was performed in 12 sessions of 45 minutes.

Instrument

Parker and Andler (CSQ) stress coping strategies questionnaire

Parker and Andler (CSQ) stress coping strategies questionnaire was used. The Parker and Andler Questionnaire was developed in 1990 by Parker and Andler to assess coping patterns (adolescents and adults) in stressful and critical situations, which is a self-report questionnaire. This questionnaire extracts three main coping methods: "problem-focused coping", "emotion-focused coping" and "avoidance-focused coping" (Motamedian, 2009). Parker and Andler revised the questionnaire, which was originally 70 items, to a 48-item form, in which each coping style has a separate scale of 16. The questions range from one to five on a Likert scale. It is assumed that "one" indicates that the subject does not perform such an action and "five" indicates that the subject performs such an action too much. Options "two", "three", "four", respectively means seldom, sometimes, most of the time. Various

studies have been performed using Cronbach's alpha coefficient to assess CISS validity (Bahrami, 1997). In Iran, it was first translated and standardized by Dr. Akbarzadeh and was used in the study of coping styles with adolescent stress in Tehran (Hajian, 2007). A review of research conducted in Iran, including Akbarzadeh (1992), Ahmadi (2001) and Eslami (2001) shows that the test has a good internal correlation. The validity coefficient of this questionnaire was equal to 0.813 in Qureshi study (1996) (Hajian, Sharifi Daramadi, & Bahrami, 2010).

Procedure

In this study, social skills training based on cognitive-behavioral principles was the independent variable, after pre-test using social skills training guide package as a group among students in the experimental group, social skills training was performed in 12 sessions of 45 minutes.

Results

This section provides a summary of responses to treatment for all participants.

Table 1. Comparison of mean, standard deviation and mean standard error in the two experimental and control groups under the problem-focused subscale

Subscale	Group	level	Mean	SD	MSD
Problem- Focused coping	experiment	Pre-test	39.75	2.179	0.629
		Post-test	48.91	4.461	1.287
		Follow-up	47.83	3.737	1.078
	control	Pre-test	40.16	2.037	0.588
		Post-test	41.91	2.968	0.856
		Follow-up	39.91	3.704	1.069

According to Table 1, it can be seen that the mean scores of the experimental group were below problem-focused scale in the pre-test stage but this mean increased in the experimental group. It has been relatively stable in the follow-up stage. It is also

observed that the mean of the control group did not change much in the three stages and the control group that did not receive any intervention had lower mean scores in the problem-focused style in all three stages.

Table 2. Mean comparison, standard deviation and mean standard error in the two experimental and control groups under the emotion-based scale in three stages: pre-test, post-test and follow-up

Subscale	Group	level	Mean	SD	MSD
Emotion Focused Coping	experiment	Pre-test	51.66	5.515	1.592
		Post-test	43.75	1.815	0.524
		Follow-up	43.41	1.928	0.556
	Control	Pre-test	48.16	3.010	0.868
		Post-test	49.58	4.962	1.432
		Follow-up	50.08	4.813	1.389

According to Table 2, it can be seen that the mean scores of the experimental group were higher in the pre-test stage (51.66) in the emotion-focused scale and after receiving the intervention and in the post-test stage was able to reduce this average (43.75) and the amount of emotional confrontation has been reduced among the experimental group and in the follow-up phase, this reduction has had the necessary stability. It is also

observed that there is not much difference between emotion-based scores between the control group in the pre-test and post-test stages, and because this group did not receive intervention, their mean scores did not decrease below the emotion-based coping scale. Also, in the follow-up phase, this average did not decrease and even increased slightly.

Table 3. Mean comparison, standard deviation and mean standard error in the experimental and control groups under the avoidance scale in three stages: pre-test, post-test and follow-up

Subscale	Group	Level	Mean	SD	MSD
avoidance - Focused coping	experiment	Pre-test	49.33	5.382	1.553
		Post-test	43.16	3.352	0.967
		Follow-up	44.15	2.367	0.683
	control	Pre-test	45.75	3.194	0.922
		Post-test	47.41	4.561	1.316
		Follow-up	47.05	4.535	1.309

As can be seen in Table 3, there was a large difference in the mean of avoidance scores between the means of the two groups in the pre-test and post-test stages and after receiving the intervention. According to the table above, it can be seen that the mean of avoidance scores in the pre-test stage in the experimental group was high (49.33) and after receiving the intervention, this average decreased and reached (43.16) in the post-test stage. Also, this decrease in mean in the experimental group in the follow-up stage

was stable. Also, in the control group that did not receive any intervention, it is observed that the mean of avoidance scores did not change much and this group used the avoidance strategy more.

In this section, the results of the test of hypotheses 1 to 3 are presented. According to the number of dependent variables in the first hypothesis, the analysis of variance test was used. In the second and third hypotheses, independent t-test was used to test the significant difference between the groups.

Table 4. Results of one-way analysis of variance for problem-based subscale in two stages of pre-test and post-test for experimental and control groups

Problem-based subscale differences	Total squares	Df	MS	F	Significance
Among groups	425.042	1	425.042	20.970	0.000
Inter-groups	445.917	38	20.269		
Total	870.958	38			

Table 5. Results of one-way analysis of variance for emotion-based subscale in two stages of pre-test and post-test for experimental and control groups

Emotion-based subscale differences	Total squares	Df	MS	F	Significance
Among groups	522.667	1	522.667	13.069	0.002
Inter-groups	879.883	38	39.992		
Total	1402.500	38			

Table 6. Results of one-way analysis of variance for avoidance subscale in two stages of pre-test and post-test for experimental and control groups

Avoidance-based subscale differences	Total squares	Df	MS	F	Significance
Among groups	368.167	1	368.167	8.399	0.008
Inter-groups	964.333	38	43.833		
Total	1332.500	38			

According to the results of the above tables, the calculated values of F are statistically significant at the level of $P < .05$. It indicates that the two groups are significantly different in the post-test phase under the scales of coping strategies. This difference is due to the effect of social skills training, which has improved the

performance of the experimental group. Therefore, the null hypothesis is rejected and we conclude with 95% confidence that there is a significant difference between the coping levels in the two groups. Therefore, the first hypothesis is confirmed.

Table 7. Independent t-test for variable post-test

Level	T-test	df	Significance level < .05	Standard deviation error difference
Experimental Pre-test Control	1.98	38	0.06	1.80
Experimental Post-test Control	-2.60	38	0.01	1.63
Experimental Follow-up Control	-2.76	38	0.01	1.47

According to the results in the table above, which is related to the independent t test, it indicates that the values of t obtained in the post-test stage as well as the follow-up stage for the avoidance subscale were (2.60) and (2.76) which are statistically significant at the level of $P < .05$. Therefore, it is concluded that the independent variable or social skills training has been able to be effective on the experimental group that these results, as shown in the tables above in the follow-up stage, have relative stability. Therefore, according to these results, the third hypothesis, which was the reduction of avoidance, is confirmed and the null hypothesis is rejected.

Discussion

The aim of this study was to investigate the effectiveness of social skills training on changing students' coping strategies. The results of this study show that social skills training during 12 sessions of 45 minutes has been able to significantly change the average scores of students' coping strategies. Based on the results of multivariate analysis of variance, the values of F were obtained to compare the differences between the variables in the two groups and in the problem-based subscale (20.97), emotion-based subscale (13.06) and avoidance subscale (8.39), respectively. It is stated that all three are statistically significant at the level of $P < 0.05$ and the first hypothesis of the research is confirmed with 95% confidence. This indicates that social skills training has been able to help students with weaknesses and disabilities in coping strategies to benefit from better coping strategies during one semester. Also, in the second hypothesis, based on the results of independent t-test of emotion-based strategy for two independent groups, the value of t in the post-test stage was (-3.82) and (-4.45) in the follow-up stage with degrees of freedom (22), which is statistically significant in the level of $P < 0.05$, so the second hypothesis of the research is confirmed with 95% confidence. Also, the third hypothesis, based on the results of independent t-test of avoidance strategy for two independent groups, the value of t in the post-test stage was (-2.60) and was (-2.76) in the follow-up stage with degrees of freedom (22), which is statistically significant at the level of $P < 0.05$, so the third hypothesis of the research is confirmed with 95% confidence. Also, these results have been relatively stable in the follow-up phase, which is also shown by the tables above. Therefore, referring to the findings in the table, there is a significant difference between the students of the experimental and control groups in terms of coping and its components. In other words, social skills training has reduced emotional coping and avoidant coping and also increased problem-based coping in the experimental

group according to the means of the control group and the control group. Also, the results of this study and its components is consistent with the findings of Khakpour, Mohammadzadeh, Sadeghi, and Nazak (2021), Bornman et al. (2007), Gresham, Bavoorn, and Cook (2006), Ahadi, Ghaffari, Bani Jamal and Ahqar (2011) and Jamshidi (2002). The most important findings of this study are that teaching social skills to students, in addition to influencing their coping strategies, can lead to their acceptance among peers, social competence, and individual competence, which is in line with Jimmy (2010) study on high school boys and girls (Ghaffari, Banijamali, Ahadi, & Ahghar, 2011).

Conclusion

Many educators have placed increasing emphasis on developing social skills to improve broader social capabilities for students with behavioral problems. On the other hand, the main purpose of these students is to help them adapt to different living environments, as well as to teach social skills, communication methods, help students in making friends and acceptance by peers and social development of these students to make it somewhat smoother and easier. (Jalili Abkenar, 2010). Also, one of the limitations of this study was that because it was done only on males and in a smaller community, its results could not be generalized to all levels of society, so it is better to do it in other studies on both genders and at a larger level.

Therefore, it is suggested that a practical social skills curriculum be developed as a subject for all elementary and middle school students.

Disclosure Statement

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

ORCID

Maghsoud nader: <https://orcid.org/0000-0002-7497-3652>

References

- Ahmadi, M S.; Hatami, HR.; Asadzadeh, H. (2012). The effect of communication skills training on social adjustment and academic achievement of high school students in Zanjan. *Social Psychology Research*, 2(5)2012.
<https://www.sid.ir/fa/journal/ViewPaper.aspx?id=210019>
- Almeida Santos, Z., & Soares, A.B. (2020). The impact of social skills and coping strategies on problem solving in psychology university students. *Ciencias Psicológicas*, 14(2), e-2228.
 doi: 10.22235/cp.v14i2.2228

- Bornman, B A. Mitelman, A. Beer, D. (2007). Psychotherapeutic relaxation: how it relates to Levels of aggression in a school within inpatient child psychiatry a pilot study the artsin psychotherapy, *Retrieved*, 1/4/2007. doi: abs/pii/S0197455607000214
- Bruyan, E H., Cillessen, A. H., Wissink, IB. (2010). Associations of peer acceptance and perceived popularity with bullying and victimization in early adolescence. *Journal of early adolescence*, 30 (4), 543-566. <https://hdl.handle.net/11245/1.331803>
- Cevik b., yildiz, M.(2017). The role of perceived social support coping and loneliness in predicting internet addiction in adolescent. *Journal of education and practice*. 8(12)64-73. <https://files.eric.ed.gov/fulltext/EJ1140618.pdf>
- Chari, M., Delavarpour, M .(2006). Do shy people lack communication skills? *Quarterly Journal of Iranian Psychologists*. 3. 123-135. <https://www.sid.ir/en/journal/ViewPaper.aspx?id=105316>
- Ciarrochi, J., Scott, G. (2006). The Link between Emotional Competence and Well-being: A Longitudina Study. *British .Journal of Guidance & Counselling*.34,231-243. doi: 10.1080/03069880600583287
- Dava, K. (2004). Social skills in student with disabilities. *Intervention in School and Clinic*, 43 (3), 186-192.
- Faraji, A.; Arian Pouran, Sa.; Abdi, A.(2010). The role of coping styles and social support in distinguishing high and low anxiety students. *Quarterly Journal of Educational Psychology*, Year 6, Issue 19. doi: 10.22054/jep.2011.6026
- Fatehizadeh, M.; Isfahani, A R.; Fathi, F. (2005). Qualitative evaluation of high school performance in creating and developing students' social skills. *Journal of Psychology*, Ninth Year, No. 2. <https://www.sid.ir/fa/journal/ViewPaper.aspx?id=18812>
- Folkman, S., Lazarus, R S.(1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*,NO 21, 219-239. doi: 10.2307/2136617
- Freire Carlos, Ferradás María del Mar, Regueiro Bibiana, Rodríguez Susana, Valle Antonio, Núñez José Carlos.(2020). Coping Strategies and Self-Efficacy in University Students: A Person-Centered Approach. *Frontiers in Psychology*,11,2020, doi: 10.3389/fpsyg.2020.00841
- Garayi, B.; Mohammadi, Da.; Asghar Nejad.(2008).Relationship between behavioral disorders, coping styles and strategies in students. *Journal of Psychiatry and Clinical Psychology*, Fourth Year, No. 1. <http://ijpcp.iuims.ac.ir/article-1-413-en.html>
- Ghaffari, s., Banijamali, H. Ahadi, G. Ahghar.(2011).The investigation of the effectiveness of social skill training in theory of mind improvement in aggressive students and the assessment of it's effective stability. *Journal of procedia- social and behavioral sciences*, 30. 1519-1525. doi: 20.1001.1.22285516.1397.9.34.1.7
- Gresham, F M.(2000). Social skills training with handicapped children: *A review of Educational Research*,51(1), 139-176. doi: 10.3102%2F00346543051001139
- Gresham, F.M; Baovan, M., Cook, Cr. (2006). Social skills training for teaching replacement behaviors; remediating acquisition deficits at risk student. doi: 10.1177%2F019874290603100402
- Gresham, F.M: Watson, T.S. & Skinner C.H (2001). Functional behavior assessment: principles, procedure, and future directions, *school psychology review*.30, 150- 172. doi: 10.1080/02796015.2001.12086106
- Gursimsek, I., Vural, D. E., Demirsoz ,E. S. (2008). The relation between emotional intelligence and communication skills of teacher candidates. doi: 10.1080/02796015.2001.12086105
- Jalili, A., Seyedeh, S. (2010). Social skills training. *University of Social Welfare and Rehabilitation Sciences*, 1(14).2010.
- Javidi, K., & Garmaroudi, G. (2019). The Effect of Life Skills Training on Social and Coping Skills, and Aggression in High School Students. *Novelty in Biomedicine*, 7(3), 121-129. doi: 10.22037/nbm.v7i2.21256
- Khakpour, N.; Mohammadzadeh, .; Sadeghi, Jamal; N., Tabar, H.(2021). The effectiveness of cognitive-social problem-solving skills training on coping strategies and feelings of failure of adolescent girls with high-risk behaviors. *Journal of Psychiatric Nursing*. Volume 9, Number 1. <http://ijpn.ir/article-1-1734-fa.html>
- Mehmet Akif Ersoy Universitesi Egitim Fkultesi Dergisi. December,1-11. <https://dergipark.org.tr/tr/pub/ebed>
- Meijer, S A. (2010). Styles and locus of control as predictors for psychological adjustment of adolescents with a chronic illness. *Journal of Social Science & Medicine*. 4, 504-509. doi: 10.1016/s0277-9536(01)00127-7
- Mize, J. (2005). Social Skills intervention and peer relationship difficulties in early childhood. Quebec: *Centre of Excellence for Early Childhood Development* (1-7). Available at: <http://www.child-encyclopedia.com>
- Parviniannasab AM, Rakhshan M, Momennasab M, Soltanian M, Bijani M. The relationship between coping strategies and resilience among adolescents with beta-thalassemia major. *J Child Adolesc Psychiatr Nurs*. 2021 Nov;34(4):329-334. doi: 10.1111/jcap.12339. Epub 2021 Jun 17
- Rabiee, M.; Rumi, H.; Kalantari, M.; Azimi, H. (2009). The relationship between effective attitudes and coping strategies with mental health. *Journal of Educational Research and Psychology; Faculty of Educational Sciences and Psychology, University of Isfahan*, Fourth Year, No. 2. https://nea.ui.ac.ir/article_19054.html?lang=en

- Scharfstein, L.A.; Beidel, D.; Smis, V.K.; Finnell, L. (2011). Social skills deficits and vocal characteristics of children with social phobia or Asperger disorder: A comparative study. *Journal of abnormal child psychology*, 39:865-875. doi: 10.1007/s10802-011-9498-2
- Wong, D.K.; Leung, S. S.K.; Onso, C. K. (2001). Differential impacts of coping strategies on the mental health of Chinese in hospitals in Hong Kong. *International Journal of Nursing Practice*, 7, 188-198. doi: 10.1046/j.1440-172x.2001.00298.x
- Sadock, B.J. and Sadock, V.A. (2007) Kaplan & Sadock's synopsis of psychiatry: Behavioral science/clinical psychiatry. 10th Edition, Lippincott Williams & Wilkins, Philadelphia.. Volume II, translation, Rezaei, Farzin. 2006. <https://psycnet.apa.org/record/2007-08825-000>
- Zenozian, S.; Gharaei, V.; (2009). The effectiveness of problem solving training in changing students' coping strategies. *Journal of Psychology, University of Tabriz*; Fifth year, number 20. https://psychologyj.tabrizu.ac.ir/article_4179.html?lang=en