

The Effect of Stress Management Teaching Skills to Reduce Student's Avoidance Coping Style

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Abstract

This study determined the effectiveness of stress management teaching skills in order to reduce student's avoidance coping style and negative attribution, as well as promotion of mental health among female students in Arak city during 2011-2012 school years. This research applied quasi-experimental– descriptive method and a pre-test - post-test with control group. Statistics population included high school girls in Arak city. Among them, 16 students who obtained optimum score from general health questionnaire (GHQ 28) were selected as the sample and then they were randomly divided into two experimental and control groups with 8 students. Experimental group learnt skills of stress management during 10 sessions (90 minutes for each session) and at the end of the sessions, the post-test was conducted on both groups. Results were analyzed by ANCOVA and it showed that skills of stress management teaching could be effective in reducing the students' avoidance coping styles and negative attribution, as well as promotion of mental health among female students.

Key words: Stress management, Avoidance coping, Negative attribution and Mental health

Introduction

People are facing with multiple stresses and pressures every day. Adolescence is a critical period (period of storm and stress to rebirth). It is one of the most stressful periods of everybody life. Teenagers are in a period of transition with rapid biological, behavioral, cognitive and affective changes. The developmental and unwanted changes can impose stress on them. Some Parts of these pressures are due to normal variations in normal growth such as hormonal changes and puberty as well as the changes that occur in conjunction with parents and the community. Furthermore, physiological and social changes can press them. Among these factors, we can refer to push for smoking from friends, family transfers, school change, difference and conflict between parents and the pressure for academic achievement, etc. In general, many factors could cause emotional and behavioral problems in children and adolescents. Mixture of these behavioral disorders can be interpreted as emotional and behavioral problems. Since these disorders are not accepted and contradicted with social norms, they always are big problems for children and adolescents. The World Health Organization estimated that 3 to 12 percent of children and adolescents are influenced by severe mental disorders during this period. These forms of psychological distress are manifested in different manners of behavioral disorders such as disobedience, aggression, breaking rules, depression, anxiety and various phobias, ran away from home and school, and smoking and alcohol consumption[1]. In coping with stress, there are two major ways. First, they should concentrate on the problem. In this

way, the subjects look at stress as an unsolved problem and main target. Second, they should concentrate on emotion. Here, subject does not solve the problem but try to reduce its emotional consequences. Some researchers compared people that used coping stress by reduction or avoidance with subjects that used encounter strategies for coping stress. In general, researches show that coping strategy is more successful than avoidance strategy. People who directly encounter with problems are not only more likely solving them but also they are controlling the future stress. In fact, some researchers believe chronic avoidance of problems are increasing the people's stress and health related problems [2]. Individual differences have important role in stress and coping processes. One of these variables is optimism. Optimism negatively is related to denial. Optimism helps to use coping and acceptance of life stress with a real approach [3]. Thus, attributional style separates people with and without coping strategies [4].

Attributes are attitudes, beliefs, and assessments that people used for describing the events that happen to them. Attributional style was introduced in 1970 for the first time. In fact, it was based on learned helplessness model of depression. Attribution is a logical and systematic process. During attribution individual evaluates a series of data and interprets the behavior of others. In some cases, documents may be correct, but, really, in many cases these evaluations are biased [5].

Usually, the unreal and mistaken attribution is considered in relation to events and this, in turn, increases stress and cause numerous psychological problems. For example, a person who is suffering from low self-esteem, largely attributes negative situation to internal reasons such as lack of his effort or his disabilities, and attributes positive events to good chance or simplicity of works.

But, the reality is different. In fact, his low self-esteem is imbued with a false attribution and even big success cannot increase it [6]. Generally, causal attributions are classified in three categories:

- Internal vs. external
- Stable vs. unstable
- General vs. particular

Some studies show that depressed persons, in comparing with normal people in their life use general, stable and internal attribution for negative events, and use particular, unstable and certain unstable and external events for positive events [7]. According to model of Meyer and Carver, optimism and pessimism are defined as expectations of generalized positive and negative outcomes, and they believe these are the main determinants of adaptation. In other words, optimism is associated with more positive psychological outcomes and in contrast pessimism is associated with more negative psychological outcomes [8].

Compelling evidence about coping style suggested that they are main mental predictors. Studies on adolescents showed that even in unchanged situations, depression positively and inversely related to constructive coping as well as problem-centered styles have positive relation with avoidance or non-constructive styles. They suggested that the future interventions should focus more on preventive strategies for reduction non-adaptive coping and increasing problem-centered coping [4].

Coping strategies, which frequently considered with coping styles, can be adaptive or non-adaptive. These styles are also main predictors of mental stresses [8]. Coping inherently is not bad or good, but it includes fertilized or non-fertilized strategies. Coping also can be named (effective) or (inefficient). Effective coping occurs when the problem is defined and alternative solutions are proposed and acted. Non-effective coping refers to management and it defines emotions which are likely related to target configuration, especially when events are out of person control [8].

Another categorizing was found in studies of Billings and Moos (1981) [9], Pearlin and Schooler (1978) [10]. They introduced coping style as encounter and avoidance style and demon-

strated that there is poor correlation between them. Studies on adolescents showed that depression has positive relation with avoidance or non-constructive style [4]. Many psychologists have suggested that future preventive interventions should focus on reducing the use of non-adaptive coping and promoting problem-centered coping. On the other hand, it seems that attribution style is prior to coping strategies. One category of attribution style (pessimism versus optimism) includes internal, constant and pervasive attribution for pessimism style with negative consequences and external, temporary and specific attribution for optimism style again with negative consequences. Alloy and his colleagues showed that people with optimistic attribution (e.g. more hopeful people) are better than those with pessimistic attribution to cope with stress [11]. Powell and Enright (1991) presented evidence that optimistic people are more resistant to stress and this resistance is due to selecting better ways for coping [12]. Zoutra and Alexy (2003) in a longitudinal study on college students found that optimists are less likely to use avoidance coping [13]. Pessimistic thinking can change with treatment intervention. In other words, optimism - pessimism as a style of thinking (cognitive style) can be taught and can be changed. Furthermore, coping is a process that will change over time and it is the product of maturity, changing conditions and experience. Therefore, education can help to the development of coping styles and positive attribution in schools, and particularly girls' schools. According to Dai Pour research (1997), those worried girls who blame themselves are more pessimist and they have negative views of themselves, and significantly use avoidance (infertile) coping styles. Specifically, high school girls, more than guidance school girls, use avoidance styles [14]. In a review of preventive intervention programs for adolescents, Roberts (1992) concluded that there is no truly comprehensive plan. However, some studies of Clark et al (1993, 1995) and Compass (1995) reported positive results for programs that promote the healthy development of young people in selected groups. Ordinary method for transmission of such programs is intervention programs with targeting groups of individuals [8].

Finally, because of an increase of stress in adolescence periods, we should try to help young people for learning coping styles in order to promote their physical and mental health that is the final purpose of this study. The objectives of this paper are as follows:

- The effect of skills of stress management teaching to reduce the students' avoidance coping style
- The effect of skills of stress management teaching to reduce the students' negative attribution style
- The effect of skills of stress management teaching on promoting the students' mental health.

Method

The recent article is following a quasi-experimental design in which the researcher purposely manipulate independent variables and study and measure their effects on dependent variables. The method of gathering information is pretest-posttest with control group and the effectiveness of skills of stress management teaching on reducing the students' avoidance coping style and negative attribution style and promoting mental health among female student were examined.

Participants

The participants include all first year students in high school in Arak city in 2011-2012 school year. They were selected randomly and divided into experimental and control groups. Both groups were examined with pre-test. They answered to two questionnaires about coping for adolescents and attribution style for children and adolescents. Experimental group were taught skills of stress management during 10 sessions (90 minutes for each session) and then both groups answered to three questionnaires.

Instruments

In recent study, the following instruments were used:

Adolescents coping scale

Scale for coping adolescents (ACS) is an Australian instrument that was designed in 1993 by Erica Frydenberg and his colleagues Ramon Lewis for measuring coping in adolescents aged twelve to eighteen. This scale has a general form and a specific form [15]. It contains reliable coefficients between 0.62 to 0.86 (M= 72) in specific form and scales between 0.54 to 0.84 (M=0.84) in general form [8]. Alpha coefficients for measure the coping was reported to be at least 0.44 [14]. Glay Shaw et al. (1989) reported reliability of retesting after 5 months that was approximately 0.60. Andler and Parker in assessment of their factors, reported ranges between 0.51 to 0.73. Acceptable minimum alpha level generally was about 0.65 [15].

General health questionnaire (GHQ₂₈)

This is a self-reported screening questionnaire in clinical settings and its aim is tracking those who have a mental disorder. This questionnaire has four subscales including somatic symptoms, anxiety and insomnia, social functioning disorders and depression. Goldberg calculated Cronbach's alpha coefficient of 0.98 for the experiment and reported high acceptable reliability for it [16]. Taghavi calculated that overall reliability coefficient of the test is between 0.50 to 0.68, and the internal consistency is 0.9 by using Cronbach alpha for whole questionnaire and the reliability coefficient of subscales is between 0.60 to 0.80 [17].

Attribution Questionnaire in children and adolescents

The questionnaire (CASQ) is a self-report scale for assessing attribution style which was developed in 1984 by Peterson and Seligman. Attribution style is a process through which an individual interprets events and the behavior of himself and the others. This questionnaire has six dimensions including internal and external, stable and unstable, general and special. In a study, Cunningham and colleagues (2002) reported correlation alpha of 0.53. Internal consistency, in the study of Garber and Hillman (1995) was .19; in the study of Dixon and Arenz (1992) was .19, and in the study done by Hoxma et al (1992), it was .56. On the other hand, among eighth grade students, this questionnaire, in period of 6 months ($r=0/6$), indicated that these scales are reliable [4].

Results

H1: Teaching skills of stress management are effective for reducing the students' avoidance coping style in Arak city.

ANCOVA was used to test this hypothesis. But, two preconditions should be met before doing it including variance equity in groups and significant relationship between pre-test and post-test scores. For determining the equality of variances, F-test was used. Table 1 shows the results.

Table 1. The equality of variances for avoidance coping scores in experimental and control groups in pretest

sig	df ₂	df ₁	F
.78	14	1	.076

As observed in the above table, F value is equal to .076 with freedom degree (1,14). As the significance level is less than 0.05, we can conclude that there is no significant difference between experimental and control groups in pre-test in variance of avoidance coping scores.

Table 2 shows that there is a significant relation between avoidance coping rate for experimental and control group in post-test.

Table 2. Results of ANCOVA posttest scores in experimental and control group

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Avoidance coping pretest	67/891	1	67/891	39/25	.000
Group	53/476	1	53/476	30/91	.000
Error	22/484	13	1/73		

As it is observed in the above table, there is a significant relation between avoidance coping rate for experimental and control group in pre-test ($F=39.25$; $P= .000$). Also, the F value of 30.91 is significant at the level of .005. therefore, we can conclude that there is a significant relation between avoidance coping rate for experimental and control group in post-test, which is related to teaching stress management skills.

Table 3. Mean and standard deviation of avoidance coping scores in experimental and control groups at post-test

Group	N	Mean	SD
Experimental	8	8.21	2.29
Control	8	11.91	2.76

As it is clear from table 3, the mean of avoidance coping scores in experimental group after considering the pre-test effect as covariate is 8.21 and for control group is 11.91. Therefore, the mean in experimental group is less than control group and it can be concluded that skills of stress management are effective for decreasing student's avoidance coping style.

H2: Teaching skills of stress management are effective for decreasing the students' negative attribution style in Arak city. ANCOVA was used to test this hypothesis. However, two preconditions of this test should be met before doing this analysis.

Table 4. Equality of variance for negative attribution scores in experimental and control groups during pretest

sig	df ₁	df ₂	F
0.38	14	1	0.8

As it is observed from the above table, with the F value of 0.8 and freedom degree (1,14), the effect is non-significant ($P=0.38$). As the significance level is less than 0/05, we conclude that there is no significant difference between experimental and control groups during post-test.

As it is clear from table 5, F value of 104.33 with degree of freedom (1,13) has an accepted significant level ($0.000 < 0/05$). Thus, we conclude that there is a significant relation between negative attribution scores for experimental and control group in pre-test. Also, F value (83.05) of post-test scores with degree of freedom (1,13) is significant. Therefore, we can conclude that there is a

significant relation between negative attribution scores for experimental and control group in post-test.

Table 5. Results of ANCOVA posttest scores in experimental and control group

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Avoidance coping pretest	56.756	1	56.756	104/33	0.000
Group	447.198	1	447.198	83/05	0.000
Error	69.994	13	5.38		

Table 6. Mean and standard deviation of negative attribution style scores in experimental and control groups at post-test

Group	N	Mean	SD
Experimental	8	31.87	5.66
Control	8	40.12	7.62

In order to see which group had a better performance, table 6 shows the results. The mean of experimental group after considering the pre-test effect as covariate is 30.59 while it is 41.41. In other words, the mean of experimental group is less than control group and it can be concluded that skills of stress management are effective for reduction of student's negative attribution style.

H3: Teaching skills of stress management are effective for promotion mental health of female students in Arak city.

Table 7. Equality of variance for mental health scores in experimental and control groups at pretest

sig	df ₁	df ₂	F
0.38	14	1	0.8

As it is observed from the above table, F value is equal to 0.157 and as its significance level is less than 0.05 ($P > .05$), we can conclude that there is no significant difference between experimental and control groups in pretest in variance of mental health scores and this can meet the first condition.

Table 8. Results of ANCOVA for posttest scores in experimental and control group

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Avoidance coping pretest	30/817	1	30/817	34/66	0/000
Group	24/263	1	24/263	27/29	0/000
Error	11/558	13	0/889		

As it is evident from table 5, F value is equal to 34/66 and its significant level is reported to be less than 0/05. Thus, we conclude that there is a significant relation between mental health scores for experimental and control group in pretest.

Regarding posttest scores, according to the above table, F value of 27.29, with degree of freedom (1,13) is significant (.000 <0.05). Therefore, we conclude that there is a significant relation between mental health scores for experimental and control group in post-test.

Table 9. Mean and standard deviation of mental health scores in experimental and control group at post-test

Group	N	Mean	SD
Experimental	8	5/75	1/38
Control	8	7/87	2/03

According to table 9, the mean of experimental group is 5.57 and for control group is 8.05. Mean in experimental group is less than control group. Therefore, we come to this conclusion that skills of stress management are effective for reduction of students' mental health.

Discuss and conclusion

First hypothesis predicted that teaching skills for stress management can reduce the students' avoidance coping style. The results indicated that there is a significant relation between scores of avoidance coping in experimental and control groups for post-test. In other words, skills of stress management teaching could be effective in reduction of students' avoidance coping styles.

Findings of recent study is consistent with the research of Cunningham et.al(200), Davidson et.al(1997), Billings and Moos (1984), Blake and Andover(1988),Forsythe and Campas(1987), Folkmann and Lazarus (1986),Jacobs et.al (1994), and Daei Pour (1997).

Cunningham, Brandon and Frydenberg (2002), in a study, evaluated the effectiveness of comprehensive school-based program for teaching optimistic thinking, on increase children strategies resources (pre-teens). The results showed that children who participated in the program, in comparison with the control group, had significant improvements in efficiency and reduced the depressed attribution style as well as counterproductive (avoidance) strategies such as worry, wishful thinking, lack coping, and ignoring the problems [4]. Davidson et al (1997) taught coping skills to adolescents with insulin-dependent diabetes. Their purpose was to review the application coping skills by teaching effective ways to manage stressors which related to diabetes (insulin-dependent). The results showed that proper use of skills training for adolescents with diabetes may help them to cope with diabetes can have healthy and long-term adjustment with diabetes [18]. Billings and Moos (1984) reported that active problem solving, reconstruction of events meaning, and avoidance coping could promote physical and mental health [9]. Blake and Vandiver(1988) in a study entitled "healthy relationship with stressful life changes,, social support and coping", concluded that the use of active cognitive coping directly and the use of avoidance coping inversely related to health conditions [19]. Forsythe and Compas understood when individual assessed situation controllable, problem centered encounter would related with more chaotic [20]. Folkman and Lazarus (1986) found that couples with relatively severe depression, tended to use avoidant coping with situations and events through inactive aggressive behaviors [21]. Jacobs et al (1994) studied about 67 people who their spouse were lost or spouses' patients who their lives were threatened .the results after 13 months, reflected the fact that people were rarely used from concentrate problem-solving Plans, had higher scores on the depression scale[22].

Daei Pour in his research about Tehran adolescent found out attachment and avoidance strategies are more girlish, because these strategies had no significant correlation in boys [14].

Regarding the second hypothesis, it was predicted that teaching stress management skills could reduce students' negative attribution. The results indicated that there is a significant difference between negative attributions scores in experimental and control groups at post-test. Findings of this study demonstrated the effectiveness of training stress management skills to reduce negative attribution style.

The results of this study are consistent with findings obtained from the study of Wortman (1998), Amini Khoei, Nazari (1374), Judge (1998), Selye (1976) and Cunningham et al (2002). Vertman(1998) believes Americans, because of genetic components, are more pessimistic than Asian Americans. Nevertheless, less democracy atmosphere in Asian communities, made them relate their success to some factors such as chance, accident, protect of power authorities, not to their efforts. Thus, they think that failure is permanent and lasting [23].

Amini Khoei (1998) compared the locus of control, irrational beliefs and coping strategies among addicts with non-addicts and found out the orientation of addicted group source, in comparison to non-addicted group, is more outward, and in coping strategies (emotional-centered and problem-centered), there is a significant difference between the two groups, but these differences were not salient[24].

Nazari(1995)compared attribution style(revised theory of learned helplessness) in depressed women with normal women and concluded attribution style in depressed women for bad events usually was internal, general, and stable while, for good events, it was external specific and instable. With anxious women, he concluded the attribution style for bad events was more internal, general, and stable, and for good events, it was more external, specific and instable [25].

In a meta-analysis about the relationship between attribution style and depression in children, Judge (1998) found that high levels of depressive symptoms related with pessimistic attributions including internal - stable-and general [26].

Selye (1976) found a significant correlation between depressed attribution style with variables such as suicide, lack of coping, and decrease of tension among 88 seventh grade students [27]. Cunningham's plan to implement a comprehensive program for teaching optimism thinking skills among four groups(fifth and sixth grade students).After the program, the children showed a significant increase in the effectiveness of coping, along with a reduction in depressive attribution style and infertile coping strategies, including worry, wishful thinking, and lack of coping [4].

Regarding the last hypothesis, it was predicted that teaching stress management skills could promote students mental health. The results indicated there is a significant difference between mental health scores in experimental and control groups at post-test. Findings of this study demonstrated the effectiveness of training stress management skills to promote mental health. Our findings are consistent with the findings of Ghamari (2003), Kafi (1996), Mohammadian (1995), and Jacobs et al (1994).

Kafi(1996), in the study of the relationship between tension and mental health, concluded adolescents with less worry about tension have more mental health[28].

Mohammadian (1995) studied the relation between personality traits such as stress, coping with suicide in Ilam city and found suicidal individuals experienced more stressful events [29]. Jacobs et al (1994) studied about 67 people who lost their spouses or their spouses were patient. After 13 months, the results reflected the fact that those with less concentrate planning acquired higher scores on the depression [22].

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