



An Investigation on Coping Skills Training Effects on Mental Health Status of University Students

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Abstract

Background and Objectives: mental health status has long been under studies by psychologists, physicians, and religious scholars, and it is influenced by a set of physical, social, and cognitive factors. Considering the effectiveness of coping skills training in improving mental health, the current study was carried out to evaluate the effects of coping skills training on improving the mental health of students at Medical University of Ardebil. (numerous studies has shown the effects of coping skills on improvement of mental health status in different populations such as Given the importance of mental health in university students, this study was to determine if coping skills training has an improving effect on mental health in this specific population)

Methodology: an experimental research design was applied. The target population of this study included all students ($N = 112$) studying at the Medical University of Ardebil in fall semester of 2005-2006 who had scored 23 or higher in the GHQ-28 Questionnaire (which measures four subscales of anxiety, depression, physical symptoms, and social dysfunction). a sample of 80 students were selected through simple random sampling, and then they were randomly assigned to the experimental group (40 participants) and the control group (40 participants). Experimental group underwent a coping skills training twice a week for 4 weeks, while control group received no intervention. Finally, obtained data were analyzed using independent t test.

Findings: the results of this study showed that coping skills training is effective in Improving the mental health status of students particularly those with symptoms of somatization and anxiety, ($P < 0.001$). However, the effects of coping skills training on reduction of depression and social dysfunction of students were not significant.

Keywords: Coping Skills, Mental Health, University Students

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1. Introduction

Psychosocial abilities refer to a set of abilities and capacities used by the individual for effective coping with complications and situations of life. These abilities enable the individual to act in a positive and adaptive manner in his/her relationships with other people, the society as a whole, the culture, and his/her own environment and maintain his or her mental health [1].

Mental health is defined as a condition whereby any human being is capable of coping with his or her problems and dealing with himself or herself and others, as well as not failing in face of unavoidable

internal conflicts in order not to become isolated from the society [2].

Based on the plan proposed by the World Health Organization (2000), coping skills consist of ten distinctive skills including effective relationship, establishing effective interpersonal relationships, decision making, problem solving, creative thinking, critical thinking, self-awareness, empathy with others, coping with emotions (failure, anxiety, depression, and so on), and coping with stress [3].

These skills help the individual to cope with problems such as depression, anxiety, loneliness, exclusion, shyness, anger, conflict in interpersonal

relations, failure, and loss and the important point is that they can be learned [4].

In a study, Erfani Khanghahi showed that mental health can improve awareness, creation of positive attitude, and changes in self-concept of individuals, and it can be a useful strategy for initial prevention of mental problems [5].

another study showed that life skills training can improve the mental health in teenagers; however, it does not have a significant impact on their locus of control [6].

Ramesht and Farshad studied a sample of 500 university students and showed that coping skills training was effective in improving mental and physical health and mitigating behavioral and social problems [7].

In another study, King and Krishenbaum also concluded that coping skills training increased self-esteem and improved group interaction, while it led to a decrease in depression and isolation. In another study, Lennings showed that personal and social skills training increases self-reflection in individuals. Moreover, Alizadeh showed that social skills training is related to the mental health of university students [8].

Another study examined the effects of coping skills training on individuals with severe mental illness and found improved performance and quality of life in this population; however, this improvement cannot be generalized to other conditions [9].

Another study by Keefe et al. showed that coping skills training can mitigate pain, pain-related behaviors, and psychological problems of patients suffering from pain [10].

Hong evaluated the efficacy of coping skills training in reducing test anxiety (e.g. positive self-talk, inducing spirit of hope, relaxation induction, and so on) among 54 university students. The results showed that this training significantly reduced test anxiety [11].

[12].

In other studies showed the effects of coping skills trainings on increasing self-efficacy and assertiveness and decreasing the levels of interpersonal aggression and hostility. [13-14].

Smith et al. also showed that life skills training have a significant impact on leadership and management capabilities among youth [15].

In a study, Phuphaibul et al. evaluated the effects of life immunization training on coping behaviors and mental health of 13 to 19-year-old teenagers. The sample of the study included 1580 students, among whom 445 students were in the control group, 474 students were in the first experimental group (intensive training), and 661 students were in the second experimental group (non-intensive training). The results of the study show that after coping skills training, both experimental groups showed better coping behaviors compared to the

control group. They also showed that both experimental groups had a higher level of mental health [16].

A study by Mishara shows that after teaching skills for coping with stress, students will have a higher level of happiness and satisfaction and report lower levels of mental-educational pressure [17].

Emery et al. evaluated the effects of brief coping skills training on increasing the pain threshold in patients suffering from knee pain. This study was performed on 62 male and female patients suffering from knee bone arthritis with an average age of 63.3 years. After one 45-minute session of coping skills training, the results showed that coping skills training caused a significant increase in Nociceptive Flexion Reflex (NFR) threshold and a significant decrease in pain level. Moreover, the results show that after coping skills training, the anxiety state among participants was significantly reduced [18].

It can be said that improving the health of various classes of the society, particularly young students, is one of the basic concerns of any country, which must be considered from the physical, mental, and social dimensions. The mental aspect of health in many countries of the world has attracted less attention in the past due to the health priorities of the countries including infectious and contagious diseases [19]. However, new studies show that numerous and constant stress factors in everyday life of individuals (and particularly university students) not only cause physical, mental, and psychosomatic disorders [20, 21], but they can also reduce their educational accomplishments and performance [22, 23].

Therefore, if these stress factors are controlled through proper coping strategies, we can improve the physical and mental health of students, create ideal conditions for their educational accomplishment, and reduce the prevalence of psychosomatic disorders among male and female students [24].

2. Methodology

an experimental randomized block design was applied in this study. The statistical population of the study included all freshmen studying in the Medical University of Ardebil in fall semester of 2005-2006 consisting of 1200 students. study sample were selected through relative stratified sampling and simple random sampling methods in two phases.

At first phase of the sampling, a sample of 400 individuals using relative stratified sampling were selected as the share of male and female freshmen in different majors was first determined, and according to the size of the statistical population in various subgroups, the sample was recruited from each subgroup. Then, the GHQ-28 (General Health Questionnaire) was administered to the selected

sample. At the next stage (and before applying the independent variable) among those scored 23 or higher in the GHQ-28 questionnaire, 80 participants were selected using simple random sampling, followed by assigning them randomly into experimental and control groups. It is worth mentioning that selecting the sample size (n=80) was done based on the methodology of the study, which is experimental, and based on the proper formula. While a sample size of 15 individuals for each subgroup is sufficient for experimental studies [25], in the current study, 20 individuals were selected for each subgroup in order to increase the external validity of the design. At the next stage of the study, coping strategies were taught in eight group sessions during 4 weeks to the participants in the experimental group. The contents of the training sessions are summarized below:

At first session, the consultant first introduced herself to the group and talked about her interests, talents, and conditions for the group members and tried to establish a good relationship with the members and create connection and trust with the members. Then, the consultant thanked every group member for their participation and explained about the time and procedures in group sessions. She also talked about the importance and the benefits of teamwork and clarified the basic rules of the group including setting a common goal, the expectations of the members for the group, on-time presence at the session, confidentiality of the sessions and the fact that the members should keep the secrets of other members, the need for empathy among the members, the need for refraining from humiliating or blaming others, which were accepted by the group members. Then the consultant asked the individual members to introduce themselves and talk about their interests, desires, talents, and conditions for the group.

At the end of this session, a page for writing the "expectations of the individual from the group" was distributed among the members as homework. At second session, coping strategies were defined and eight skills for dealing with problems including use of support systems, problem solving, self-relaxation, maintaining internal control, among others, were explained and taught. At the end of this session, the members summarized the lessons of the session with the help of the group leader (the consultant) and the session concluded with distributing an exercise sheet for "mental relaxation at home" and setting the time of the next session.

At third and fourth sessions, after reviewing the homework of the previous session, depression and its symptoms as well as the main causes of depression were explained and the strategies for coping with depression including acceptance of the situations which are out of our control, reinforcing personal relations, doubting initial faulty

evaluations and revising them, maintaining sense of control, active implementation of the problem solving method, focusing on positive thoughts, detecting despair, and symptoms of the risk of suicide, among others, were taught. At the end of these sessions, a sheet for writing down daily thoughts was given to the members as homework. At fifth session, anxiety and its symptoms, its differences with stress, and strategies for coping with anxiety and stress were taught. At sixth session, skills for coping with loneliness and shyness including interpreting loneliness as something that can be changed, being the initiator of conversations, improving one's social skills, and exercising the social skill of responsiveness were taught.

At seventh session, assertiveness and dealing with anger were explained and finally at eighth session, which was 90 minutes, the skills of previous sessions were reviewed and the students were informed that there was a possibility that their problems may happen again. Therefore, in case of symptoms relapse, they shouldn't get worried and they can visit a consultant.

In order to collect the required data, the GHQ-28 was utilized. This questionnaire includes 28 items, and it was developed by Goldberg and Hiller using factor analysis. It consists of four subscales, measuring physical symptoms, anxiety, depression, and social dysfunction. Each subscale includes seven items [19].

The results of a meta-analysis on 43 studies by Williams, Mary (Goldberg, 1988) reported an average sensitivity of 0.84 and an average specificity of 0.82 for this questionnaire. Moreover, the results of a pilot study in Gilan Province of Iran by Ya'ghubi, Nasr, and Shah Muhammadi showed that the sensitivity of this questionnaire at the best cutoff point of 23 (using Likert spectrum) is 86.5 percent and its specificity is 0.82. In this study, the reliability coefficient of the questionnaire using Cronbach's Alpha was 0.88. Moreover, the validity of the questionnaire was between 0.67 and 0.76, while its split-half reliability was 0.83 and its retest reliability was 0.85 [26].

In the current study, the reliability of this questionnaire using Cronbach's Alpha coefficient was equal to 0.89. Moreover, the reliability of the subscales of this questionnaire including physical symptoms, anxiety, social dysfunction, and depression, using Cronbach's Alpha coefficient, were 0.78, 0.86, 0.77, and 0.88, respectively. For data analysis, the statistical test for comparing means from two independent groups was used.

3. Findings

This section presents the comparison of mean scores of pretest-posttests of the two groups in the GHQ-28 and its components among the students.

Table 1 depicts the mean differences of the experimental and control groups for the GHQ-28 and its subscales. The obtained *t* value shows that the mean difference of pretest-posttest scores for physical symptoms in the experimental group is significantly higher than the mean difference of pretest-posttest scores for physical symptoms in the control group ($P < 0.001$). In other words, application of the independent variable has reduced the level of physical symptoms in posttest scores. However, in the control group, not only the level of physical symptoms didn't improve, but they also showed an increase.

Furthermore, the results showed that the mean difference for pretest-posttest scores of anxiety in the experimental group is significantly higher than the mean difference for pretest-posttest scores of anxiety in the control group ($P < 0.001$). In other words, application of the independent variable has reduced the level of anxiety in the posttest.

For the variables of social dysfunction and depression, the results show that although the mean difference of pretest-posttest scores in experimental group is higher than the mean difference of pretest-posttest scores in control group, but, this difference is not significant ($P > 0.05$). In other words, applying the independent variable slightly reduces the levels of social dysfunction and depression in the posttest.

The analysis of the data obtained from the GHQ-28 showed that the mean difference of scores for mental health (mental disorder) between the

experimental and control groups is significantly different ($P < 0.001$), that is, coping skills training is effective in reducing symptoms of mental disorder and increasing mental health of students suspected to mental disorder. Therefore, at the $P < 0.001$ level, we can emphasize the effects of coping skills training on improving the mental health of individuals suspected to mental disorders (Table 1).

4. Discussion

The results show that mean difference of mental health (mental disorder) scores in pretest-posttest is significantly different between the experimental and control groups ($P < 0.001$). In other words, coping skills training is effective in reducing the symptoms of mental disorder and increasing the mental health of students suspected to mental disorder. This result is in line with the results of Erfani and Khanghahi, who showed that mental health training can improve awareness, the creation of positive attitude and changes in the self-concept of individuals, thus, it can be a good strategy for initial prevention of mental problems [5]; and the results of Aghajani, who showed that teaching life skills improves the mental health of participants [6]; and the results of Ramesht and Farshad, who showed that teaching life skills can improve the mental health of students [7].

Moreover, while reviewing other studies, the results of the following studies are in line with the results of current study.

Table 1. The Results of the *t* Test for Comparing the Mean Differences of Pretest-Posttest Scores in Two Groups for GHQ-28 and its Subscales

Variable	Group	<i>m</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>P</i>
Physical symptoms	Experimental group	7.00	3.25	60	-2.36	*
	Control group	9.12	3.78			0.02
physical symptoms	Experimental group	3.80	4.22	60	4.61	***
	Control group	-0.56	3.17			0.001
Anxiety	Experimental group	5.40	2.91	60	-2.67	**
	Control group	7.93	4.36			0.01
Difference of pretest-posttest scores for anxiety	Experimental group	5.20	4.42	60	4.81	***
	Control group	0.31	3.53			0.001
Social dysfunction in posttest	Experimental group	9.86	2.99	60	-2.25	*
	Control group	11.62	3.14			0.028
Difference of pretest-posttest scores for social dysfunction	Experimental group	1.40	4.62	60	1.21	0.22
	Control group	0.12	3.58			
Depression in the posttest	Experimental group	4.06	4.51	60	-1.37	0.17
	Control group	5.62	4.42			
Difference of pretest-posttest scores for depression	Experimental group	2.33	2.79	60	0.53	0.59
	Control group	1.87	3.79			
Mental disorder in the pretest	Experimental group	39.06	11.91	60	1.12	0.26
	Control group	36.06	9.06			
Mental disorder in the posttest	Experimental group	26.40	10.85	60	-2.97	**
	Control group	34.31	10.08			0.004
Difference of pretest-posttest scores for mental disorder	Experimental group	12.66	11.20	60	4.71	***
	Control group	1.75	6.56			0.001

** $P < 0.01$

*** $P < 0.001$

Corrigan and Basit showed that coping skills training can improve performance and quality of life for people with severe mental illness [9]. Phuphaibul et al. show that after coping skills training, the experimental group shows better coping behaviors compared to the control group, and they have a higher level of mental health [16]. Mishara shows that after teaching skills for coping with stress, students report lower levels of mental-educational pressure [17].

based on these findings it seems that people with lower levels of mental health and those who are suffering from mental disorders such as anxiety and depression, are often individuals who do not have enough information about these disorders and they don't know the skills for coping with these disorders. As we know, in coping skills training, strategies such as problem solving, expressing feelings, setting goals, decision making and planning, identifying and recording negative thoughts and replacing them with positive thoughts, mental relaxation, building positive mental imagery, making use of support systems, facing problems, being control-based, and other methods are taught to individuals. Therefore, people who learn skills and strategies for coping with life challenges will be less exposed to mental disorders. For instance, people suffering from anxiety are in a constant state of fear of being crazy. However, by teaching them to take control and identify the symptoms of anxiety, and explaining to them that anxiety will not lead to mental breakdown, while teaching the above-mentioned coping skills to them, they will gradually regain their mental health.

The second hypothesis postulated that coping skills training is effective in reducing physical complaints of the students. The obtained results showed that the mean difference for the pretest-posttest scores of physical symptoms in the experimental group is significantly higher than the mean difference for the pretest-posttest scores of physical symptoms in the control group. In other words, applying the independent variable reduced the physical symptoms in the posttest. However, in the control group, not only the scores of physical symptoms in the posttest were not reduced, but they also showed a slight increase. This result is in line with the findings of previous studies. For instance, Ramesht et al. argue that teaching life skills is effective in improving physical health [7]. Keefe et al. showed that coping skills training can mitigate pain and pain-related behaviors [10]. In another study, Emery et al. show that brief coping skills training causes a significant increase in pain threshold and a significant decrease in pain level [18]. How it could improve physical symptoms?

Moreover, a significant difference was found in anxiety subscale between groups showing the reduction of anxiety in experimental group. This

finding is also in line with The study of Hong who argued that coping skills training is effective in reducing anxiety [11].

With regards to variables of social dysfunction and depression, the results showed no significant difference between groups however there was a reduction in respective scores in experimental group. In other words, coping skills training slightly reduced social dysfunction and depression in experimental group.

These findings are not supported by previous studies. Ramesht and Farshad concluded that life skills training was effective in reducing behavioral and social problems [7]. In a study, Weitlauf et al. showed that teaching coping skills would increase self-efficacy beliefs and assertiveness among participants and would significantly reduce interpersonal aggression and hostility for the participants [13]. In their study, Sukhodolsky et al. showed that coping skills training improved interpersonal relations and reduced aggression and behavioral problems in trained individuals [14].

5. Conclusions

Based on the results of the current study, it can be concluded that coping skills training will slightly reduce depression and social dysfunction.

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