

## The effect of coping methods in reducing anxiety among girls with premenstrual syndrome

Roya Motavalli<sup>1\*</sup>, Vida Sadrolmamaleki<sup>2</sup> and Serap Ejder Apay<sup>3</sup>

1. Instructor, Department of Midwifery, Ardabil Branch, Islamic Azad University, Ardabil, Iran.

2. Assistant Professor, Department of English Teaching, Ardabil Branch, Islamic Azad University, Ardabil, Iran.

3. Associate Professor, Department of Midwifery, Ataturk University, Erzurum, Turkey.

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### Abstract

Premenstrual syndrome is one of the most common problems of reproductive age, which is seen in varying degrees in 85-90% of women during the reproductive age. Also, in 20-40% of cases, people suffer from physical or mental problems and disabilities such as anxiety. Girls with premenstrual syndrome need to use effective coping strategies and methods due to various psychological problems. Coping strategies reduce the severity of stress and its physical and psychological consequences and make the person adapt to different stresses. This research was a quasi-experimental study with pre-test and post-test design and a control group. The population of the present study included high school girls in Ardabil, who were selected by multi-stage cluster sampling. From this population, 32 people were randomly assigned to an experimental and a control group. Then, the questionnaire of premenstrual syndrome symptoms and Beck Anxiety Scale were completed in two stages before and after the test, and in the meantime, a training program for coping techniques was administered to the experimental group in 10 two-hour sessions. Data analysis was performed using ANCOVA of SPSS. The results of data analysis showed that coping strategies training program changes and decreases anxiety ( $F=16.01$ ,  $p = .0001$ , Partial  $\eta^2=0.35$ ) scores of students with premenstrual syndrome. Therefore, according to the results, it can be said that most of the emotional problems of people and behaviors related to those emotions are rooted in their irrational expressions when faced with situations or events that are not to their liking. Therefore, people's awareness of how cognitive, emotional and behavioral elements are related to events and examining them in the form of practice and experience can control emotions such as anxiety.

### Keywords

Anxiety  
Coping methods  
Premenstrual syndrome

### Introduction

Girls with premenstrual syndrome, often avoid activities such as social and class participations, and sometimes need medical care in hospitals. They hurt themselves and experience mental problems; they may even commit suicide (Momeni & Zalipour, 2014). Studies

reveal that they show early menarche and depressive syndrome (Lotfi Kashani, Vaziri, Akbari, Jamshidifar, Sanaeie, 2014, Ali Akbari, Haghshenas, Alipour & Mohtashami, 2015). Alcalá'Herrera and Marvan indicated the relationship between premenstrual syndrome and depression. The afflicted women have used ineffective coping strategies (Alcalá'Herrera & Marván, 2016).

Based on some studies, although taking medicine in

some cases may improve their mental health, other studies demonstrate the positive effect of cognitive - behavioral therapy on emotion regulation of the subjects with premenstrual syndrome (Noorani, Dadi Giushad, Ismaili, & Sepehri Shamloo., 2013). Those utilizing cognitive - behavioral therapy experience less stress and anxiety (Momeni, & Zalipour, 2014). Samdani (2015) reports the same result: cognitive - behavioral therapy can reduce physical and mental problems of girls with premenstrual syndrome; it can enhance the effectiveness of coping techniques training on the subjects (Samdani, 2015). Furthermore, they emphasize the effectiveness of coping strategies and stress-management skills training on increasing the subjects' mental health (Shirbim, Sudani, & Shafiabadi, 2008, Sadeghi Movahed, Narimani, & Rajabi, 2008) rising their tolerance and adaptation and on decreasing stress and depression (Zolanourian, & Shaterian Mohammadi, 2016, Okhovat, Kaviani, Shafiabadi, 2002, Ejei, Rezaei, Gholamali, Lavasani., 2011, Chen, Gilmore, Wilson, 2016).

In fact, since the coping techniques provide the individuals with appropriate tolerance for facing the challenges of life, the best method is the one which reduces the personal tension, giving the sense of relaxation and taking an optimistic view. Subsequently, the coping techniques are highly correlated with subjects' mental health (Zolanourian & Shaterian Mohammadi, 2016). Ghazanfari and Ghadmpoor (2010) demonstrate the role of problem-solving method in decreasing depression and of emotion-based method in increasing subjects' mental health (Ghazanfari & Ghadmpoor, 2008).

The coping strategies reduce stress and its upcoming physical and mental consequences. If the girls with premenstrual syndrome are not equipped with effective coping skills, they will lack ability to understand their emotional states and of others; therefore, they will be frangible facing various crisis and represent behavioral problems such as aggression, depression and anxiety (Karekla & Panayiotou, 2011).

Given the cognitive problems of girls with premenstrual syndrome and their severe depression, accompanied with ineffective use of coping strategies, the symptoms and problems would have been intensified. The aim of this paper is to determine the effect of copying techniques training on the girls with premenstrual syndrome, and to reduce their anxiety.

## Method

### Participants

This study was a quasi-experimental research – with pre-test and post-test design and a control group, with an applied objective. The statistical population of the present

study included high school girls in Ardabil, Iran. The subjects were selected by multi – stage cluster sampling method. Considering the similar studies and based on the statistic pool of the study, the samples-with 80% true score and 5% error score- included 16 students assigned into each experimental and control groups. The former received the coping techniques training, then the questionnaire of premenstrual syndrome symptoms was distributed in the experimental group. They are asked to be completed in two stages before and after the test.

In this study, the subjects were divided into two groups: experimental and control. They answered the questionnaire about anxiety. The experimental group was taught the coping strategies. Then the subjects participated in the post-test.

Using the common methods of descriptive statistics, the mean and standard deviations of the tests have been calculated. Data analysis was performed using ANCOVA in SPSS, version 20.

## Instrument

### The Coping Skill Training

The coping skill training contains various cognitive – behavioral instructions with the aim of contribution to the subjects who participated in 10 two-hour sessions, so that they could keep their control in irritating conditions and manage their stress to recover physical and mental health. It was Jacobsen (1938) who first proposed the copying techniques. Then, Clench (1992) manipulated it (Zolanourian & Shaterian Mohammadi, 2016). Later this training pack has been used by Mowqar, Shafiabadi and Delavar (2004) and Zolnoorian and Shaterian Mohammadi (2016) in Iran (Zolanourian & Shaterian Mohammadi, 2016, Mowqar & et al, 2004). The questionnaire of premenstrual syndrome symptoms was developed by Andicut, Nee and Harrison (2005). They aimed at helping the experts to evaluate the behavioral disorders due to premenstrual syndrome and symptoms in different phases. The questionnaire contains 50 items and the subjects were asked to answer them on Likert Scale (from severe to none). The validity and reliability of the questionnaires in many Iranian researches have been %82 -%92 (Noorani & et al, 2013).

### Beck Anxiety Scale

Beck Anxiety Scale has been developed by Beck in 1988. It contains 21 symptoms of anxiety. The subjects should answer the items, using 1, 2, 3 to indicate weak, mild and severe cases. The scores ranging from 0-23 indicate weak anxiety. The scores of 24- 28 indicate mild anxiety and the scores over 29 indicate severe anxiety. ( $\alpha$  Cronbach is %99 and the coefficient correlation is %89. Kaviani and Mousavi (1387) demonstrate the validity and

reliability of the test as %72 and %83, and ( $\alpha$ ) Cronbach as %92. (Piri, 2016).

## Results

The subjects in both experimental and control groups were 15-18 years old. The mean of the experimental group was 16.44 and that of control group was 16.69. Both groups were homogenous regarding the age factor.

**Table 1.** The mean and standard deviation of the dependent variable in experimental & control groups

Variable	Pre- Test	Experimental Group		Control Group	
		M	SD	M	SD
		28.38	31.18	28.81	3.31
	Post- Test	22.94	2.97	27.63	4.19

According to Table 1, the mean of anxiety in pre- & post- tests in experimental group were 28.38 and 22.94 respectively. The results have been analyzed by ANCOVA. Prior to this analysis, we used Levin Test to determine the default frequency of variances

**Table 2.** Variance Frequencies of Variable "Anxiety" Based On Levin Test

Variable	F	df <sub>1</sub>	df <sub>2</sub>	P
Anxiety	0.064	1	30	0.802

**Table 3.** Results of ANCOVA of Groups with Variable "Anxiety"

Variable	Source of Changes	Sum of Squares	DF	Mean of	F	P	ETA
Anxiety	Group	155.83	1	155.83	16.01	0.0001	0.35
	Error	282.21	29	9.73			
	Total	21025	32				

Considering the scores of pre-test, the results of COVA of the groups with Variable "Anxiety" have revealed a significant difference between the scores of the experimental and control groups regarding variable "Anxiety" in the subjects with premenstrual syndrome. ETA has been 0.35. In other words, the implementation of coping strategies training has caused 0.36 percent change in the score of subjects with premenstrual syndrome.

## Discussion

One of the main objectives of the psychological studies is to develop and explain theories and models that would enhance experts' knowledge and insights about subjects' behaviors and recover students' mental health through using collaborative therapy.

When people face some problems, they show different reactions ranging from cognitive- emotional to behavioral ones. These reactions may result in problem-solving or

experiential avoidance. The aim of present study was to point at the effectiveness of coping techniques training on reducing anxiety and premenstrual syndrome symptoms in girls.

Considering the subjects' scores on pre-test, data analysis showed that coping strategies training resulted in significant differences in the students' scores in the experimental and control groups and reduces anxiety in subjects with premenstrual syndrome about 0.35. Therefore, it can be said that the coping strategies training program decreases the anxiety of the afflicted subjects.

Parallel with the findings of researches by Asadi, Aminian and et al, Akbari and et al, Chen and et al - though performed in different ways - the present study revealed that the coping strategies had a significant effect on reducing anxiety (Asadi, 2015, Aminian & et al, 2014, Akbari & et al, 2013, Chen & et al, 2016). As Lotfi Kashan et al pointed that stress management skills training may result in reduction of stress and distress (Lotfi Kashani & et al, 2014). Chen et al (2016) indicated the effectiveness of stress management training in reducing daily stress (Chen & et al, 2016). Ghazanfari and Ghadampoor accounted for coping strategies of problem-based and emotion-based training in the subjects referring to significant differences in the variances of anxiety, depression, self and social damages. The increased use of emotion-based training accords with the intensive anxiety, depression and physical damage, and the reduced use of problem- solving training correlates with the increased disorder of social interactions. The emotion-based strategies influence physical and behavioral symptoms; while, the problem- solving strategies affect personal and interpersonal interactions (Ghazanfari & Ghadampour, 2008).

Based on rational-emotional method proposed by Ellis, the findings of the study can be used to account for the close relations between what an individual says and how she expresses herself. In other words, most of the emotional problems of people and behaviors related to them are rooted in their irrational expressions when faced with unwilling events and situations (Hajizad & et al, 2016). Those who act irrationally facing with less likely situations call any undesired acts disasters and count them agony. Therefore, girls' awareness of how cognitive, emotional and behavioral elements relate to events and examining them in the form of practices and experiences can control emotions (Pashaei & et al, 2009). Meanwhile, according to Lazaro's Theory of stress exchange pattern, stress is the result of interaction between individual's cognition and environment. Indeed, the individual's interpretation of the surrounding events and self-assessment play a fundamental role. Stress occurs when the situation is evaluated as threatening, challenging or disastrous. Beck believes that individuals' assessments of events and conditions may influence their reactions (Abolghasemi & Saedi, 2012). Therefore, it is expected

to realize a change in perceived stress level by shifting our assessments.

## Conclusion

In general, an awareness of anxiety and the use of coping strategies training can improve people adaptation. So they need to use effective coping strategies to reduce the severity of stress and its physical and mental consequences. They make people adapt to different styles in intensions.

In the present study, the most important delimitation was the inability of the follow-up stage. The study was confined to the high school students in Ardabil that made generalization cautious, and was considered as another limitation. The coping strategies can be modified to be used in different educational settings by extending the training program which reduces students' anxiety. It is suggested that some workshops, with the aim of teaching lifestyles to girls, be set up in local sites. They seem to improve students' mental health through the implementation of coping strategies.

## Conflict of interest

The authors of this article declare that there was no conflict of interest

## ORCID

**Roya Motavalli** <http://orcid.org/0000-0001-7352-9210>

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