

## Effectiveness of the Self-Regulation Techniques on the Emotion-Focused Coping Style of Female Students of Tehran University

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The present study aims at investigating the effectiveness of self-regulation techniques on the emotion-focused coping style. The sample of this study consists of 600 female students, aging from 20 to 35 years old, studying at the foreign language department of the Islamic Azad University-Central Tehran Branch. These students were selected through a cluster random sampling method. Participants responded to the stress-coping methods questionnaire designed by Billings and Moss (1981). After scoring the questionnaires, the students who had used the emotion-focused coping style were identified, 30 of whom were selected and distributed randomly into experimental and control groups. After holding 8 ninety-minute sessions of teaching self-regulation techniques, the participants of experimental and control groups took the post-test. Analysis of variance for repeated measures was applied to analyze the study data. Based on the obtained results, the significance level calculated for the emotion-focused coping group was below the 0.05 significance level and the calculated power effect was higher than 0.05. Therefore; based on the results, it turned out that teaching self-regulation techniques has been effective in changing the emotion-focused coping style.

**Keywords:** self-regulation; emotion-focused coping style, problem-focused coping style

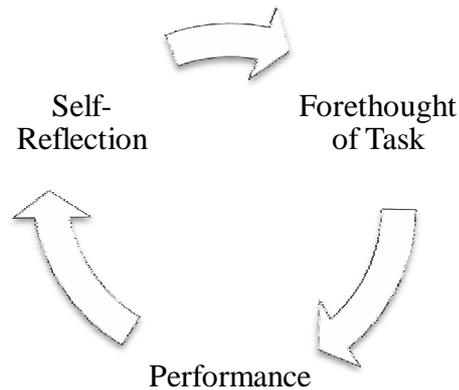
In a recent extensive literature review of self-regulation conducted by Post, Boyer, and Brett (2006), four distinct periods of study on self-regulation, from 1891 to 2006, were detected: Precursory (1891-1950), Emergent (1950-1970), Contemporary (1970-1990), and Expansionist

(1990 to present) periods. While a wide range of definitions and conceptions of the “learner self-regulation” had emerged during these two decades, Post et al. (2006) reported that a great deal of the literature written during the current Expansionist period have incorporated a decisive social-cognitive perspective in which the social environment is assumed to influence the self-regulatory process (Maddrell, 2008).

Many recent articles on SRL have cited a definition by Pint rich (2000) describing SRL as “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior; guided and constrained by their goals and the contextual features in the environment” (p. 453). This concept of SRL parallels what Zimmerman (2000) calls a “Triadic Definition of SRL” involving the interaction of 1) personal self-regulation involving the adjustment of cognitive and affective states, 2) behavioral self-regulation involving self-observing and strategically adjusting performance, and 3) environmental self-regulation involving observation and adjustment of environmental conditions. Zimmerman (2000) describes these interactions as occurring within a self-regulatory goal setting, monitoring, and evaluation loop, as shown in Figure 1, including forethought of task, performance, and self-reflection. While some variations of this social-cognitive conception of SRL exist, most scholars suggest an iterative process in which a self-regulated learner establishes a desired learning goal, monitors progress and regulates cognitive, behavioral, and environmental conditions to optimize learning process (Boekaerts & Cascallar, 2006).

In another definition, self-regulation is “a process in which learners systematically control their thoughts, emotions, and behaviors to achieve their intended goals (Schunk & Zimmerman, 1997). In fact, self-regulated learners are able to monitor their learning process and change their learning techniques to fulfill their homework (Butler & Winne, 1995). According to social-cognitive theorists’ viewpoint, self-regulated learners

are excited, independent and meta-cognitively active participants of their own learning (Zimmerman & Martinez-Pons, 1990).



**Figure 1. Self-Regulatory Loop**

Due to its effect on educational and behavioral outcomes, self-regulation is a desirable strategy. Utilizing self-regulatory techniques in educational issues, it is a method of active, rather than passive, engagement (Zimmerman, 2001).

In social cognitive theory, self-regulation includes self-observation, self-judgment, and self-reaction. People engage in learning activities to obtain knowledge, attain problem-solving strategies, complete assignments and fulfill experiences. Based on their observations, judgments, and reactions to their own perceptions; learners will be aware of their goal fulfillment degree. Factors affecting an individual's judgment include standards, goals, significance of achieving goals, and functions documents (Kadivar, 2009).

At critical stages of life and in challenging situations, all people often seek a way to overcome their problems. However, sometimes the stress resulting from encountering unpredictable situations and sudden changes make individuals unable to systematically control their behavioral

reactions and emotional states, inhibit them and achieve compatibility. The so-called self-regulatory techniques include the use of cognitive and meta-cognitive techniques, and finally, the evaluation of outcomes.

Teaching self-regulatory techniques are based on the principles of cognitive behavioral therapy (CBT) approach and include methods like identifying stress and the mental and physical methods of dealing with it, knowing human limitations, setting goals for life, managing emotions and feelings, assertiveness, self-control, skill-training, time management, assertion training, guiding self-dialog, self-esteem, investigating and changing negative self-dialog, relaxation, transcendental meditation, and so on.

Coping is considered as a series of responses that serve to control or reduce emotional pressure resulting from facing external pressures like chronic diseases in life (Rice, 2001; translated by Forughan, 2007). In other words, it refers to a process based on that an individual attempts to resolve a stressful situation and deals and copes with it. Emotion-focused coping aims at curbing one's emotional responses to stressful situations through cognitive and behavioral approaches (Sarafino, 2002; translated by Mirzaee et al., 2008). Therapeutics acts as a diagnostic training in detection and identification of insufficient activation and helps clients to develop new cognitive and behavioral patterns. The cognitive-behavioral theories of Cramuldez, Lazarus, Bandura, Maishenbam, and Mahoni focus on the clients' behavior strengthening, cognitive reconstructing, and achieving special goals. Due to their focus on problem-solving and learning the goals set by clients, these theories are significant (Janbozorgi & Nuri, 2009).

Some methods people use to cope with stress increase their attention to stressful situation. Most of the problem-based methods are like this. Some other methods, especially emotion-focused ones, make people avoid their problems. But if individuals can do something to solve their problems, the loss of its negligence may be more than its benefit (Sarafino, 2002; translated by Mirzaee et al., 2008). Studies suggest that men tend to use

problem-based techniques to cope with stressful events while women tend to use emotion-focused techniques. However, since education and occupation levels of men and women are different, there is no difference between their selected methods (Green Glass & Noguchi, 1996 quoted in Sarafino, 2002; translated by Mirzaee et al., 2008). The results indicate that social roles significantly influence the coping patterns of men and women. Findings of Billings and Moos (1981) showed that people with higher income and education level use more problem-based techniques. That is to say that the social experiences of disadvantaged people cause them believe that they can hardly handle their lives. In general, disadvantaged people who are more likely to face stressful events are less likely to cope effectively with them.

Cognitive therapy is perhaps one of the most-studied health systems of the past decade. In 1983, Miller and Berman released a review of the quantitative researches evidences obtained on the effectiveness of the cognitive-behavioral treatment of various disorders. Focusing on 48 studies, this review revealed that the cognitive-behavioral therapy had not been considered superior to any proposed or placebo treatment. At that time, there was no strong evidence to prove the superiority of cognitive behavioral therapies over psychotherapies (Prochaska & Norcross, 1999; translated by Seyed Mohammadi, 2007). Despite all advantages and abundant applications of the cognitive therapy, there are still many questions about its overall effectiveness, its differential efficiency in treating disorders, the nature of the experimental and control groups, the efficiency of treatment and sustainability of treatment results (Beutler et al., 2006 quoted by Janbozorgi, 2009). In spite of several studies investigating the effects of various cognitive-behavioral methods on different types of mental diseases and disorders and the evidence proving the positive effect of self-regulatory learning techniques, no study has ever been conducted to directly investigate the effects of self-regulatory techniques on coping styles.

Nickdle's (2006) results showed that the internet-using students utilize more self-regulatory skills than non-users do. There was no significant difference regarding the compatibility between the two groups (emotional, social, and general). Moreover, the internet-using students showed higher educational compatibility than those non-users. The research findings also revealed that the self-regulatory learning of students continuously using internet for scientific and educational purposes is higher than that of those students who never use internet for scientific and educational purposes. Lussier et al. (1977) found out that the safe attachment style has a positive correlation with problem-based technique and the unsafe/two-sided attachment style correlates positively with the emotion-focused technique. The husbands of the unsafe/two-sided attachments as well as those of the safe attachment women using problem-based techniques had higher marital adjustment and the wives of the unsafe/two-sided men using the emotion-focused techniques showed a higher adjustment. Finally, using problem-based technique reduces the negative correlation between unsafe/two-sided or avoidant attachment and marital adjustment, while avoidant techniques increase the negative correlation between unsafe/two-sided attachment style and marital adjustment. The results of another study conducted by Ansi (2011) showed that, in cognitive behavioral therapy for obesity, self-regulation is considered as a strong predictor for changing behavior. But self-regulation is rarely directly measured in an intervention study. so far, no study has been conducted to directly investigate the effect of teaching self-regulatory techniques on coping styles. Therefore, the present study aims at investigating the effects of self-regulatory techniques on emotion-focused coping style.

### Method

This article is an experimental study. In this regard, a pretest and a posttest were administered on two experimental groups and one control group. The sample consists of 600 female students, 20 to 35 years old; studying at foreign language department of the Islamic Azad University–

Central Tehran Branch. Participants were selected randomly using a cluster sampling method. The moderating variable was the level of education and the intervening variables included social-economic status, peer groups, marital status, employment status and level of interest in learning. The pretest questionnaires were distributed among the subjects. After scoring the questionnaires, 67 subjects who had used emotion-focused coping style were identified. The researcher randomly selected 30 participants from among them and assigned 15 participants to the experimental group and the other 15 were considered as the control group. From among the 15 participants in the experimental group, 13 subjects took educational classes. Then, the researcher assigned the same number of the participants to the control group.

Eight sessions were held, each lasting 90 minutes. After completion of each session, the participants discussed subject matters and shared their ideas with each other for about 30 minutes. In addition, worksheets, as “homework”, were distributed among participants to enable them evaluate the high-pressure events they had experienced, and took notes about their emotions and feelings towards the topic in certain circumstances in order to review them in the next session. Every session was held based on a specific schedule, to fulfill the objective of teaching self-regulation, presenting a series of theoretical information for enhancing the participants’ insight and fulfilling practical exercises. Details of teaching self-regulatory techniques in 8 ninety-minute sessions were described in a syllabus, as follows:

Session 1: An introduction to stress and the ways to cope with it: the process of stress, teaching relaxation techniques

Session 2: The mental and physical methods to cope with stress

Session 3: The use of study skills, preparation for the exam

Session 4: Setting short-term and long-term goals, identifying limitations and managing of emotions and feelings

Session 5: The change in lifestyle, mental management and time management

Session 6: training assertiveness, investigating assertiveness concepts, investigating and changing the negative self-dialog

Session 7: improving teamwork spirit and social and interpersonal skills

Session 8: pursuing a self-study program, fostering self-confidence and self-esteem, preventing depression and anxiety

### **Instruments**

*The stress-coping method questionnaire by Billings and Moos (1981).* the stress-coping method questionnaire was designed and developed by Billings and Moos (1981) in order to measure different methods of coping with stress.

This questionnaire consists of 19 items measuring three cognitive coping techniques (6 items), behavioral coping techniques (6 items) and avoidant coping techniques (7 items). Furthermore, this questionnaire measures the two coping strategies; problem-based and emotion-focused. Each participant can answer the questions by choosing one of the alternatives (Never << 0 >>, Sometimes << 1 >>, Often << 2 >>, Always << 3 >>). In this questionnaire, each participant's score ranges between 0 and 57. The questionnaire items related to each component are as follows:

Avoidance coping: items 3 – 6 – 9 – 12 – 15 – 18 – 19

Cognitive coping; items 1 – 4 – 7 – 10 – 13 – 16

Behavioral coping: items 2 – 5 – 8 – 11 – 14 – 17

Furthermore, the questionnaire's items focus on the two more general categories including:

Problem-based coping: items 1 – 2 – 5 – 7 – 8 – 10 – 11 – 13 – 14 – 16 – 17

Emotion-focused coping: items 3 – 4 – 6 – 9 – 12 – 15 – 18 – 19

In Purshahbaz's research (1995), the reliability of retesting the whole questionnaire reported as ( $r=.77$ ), cognitive coping as ( $r=.83$ ) and avoidance coping as ( $r=.60$ ). On the other hand, Dehghani (1993) calculated the alpha Cronbach of this questionnaire as above .90.

### Results

Table1 demonstrates descriptive indicators of emotion-focused coping style, i.e. the means and standard deviations of pretest and posttest of control and experimental groups. As observed, the mean of emotion-focused coping style in the control group posttest (10.08) is reduced, compared to pretest's (12.46).

**Table 1**  
**Descriptive Indicators of Emotion-Focused Coping Style**

Number	Standard deviation	Mean	Group	
13	3.256	12.46	Experimental	Emotion-focused coping style pretest
13	3.288	14.15	Control	
13	1.498	10.08	Experimental	Emotion-focused coping style posttest
13	2.862	14.77	Control	

To investigate the effect of teaching self-regulatory techniques on changing the emotion-focused coping style, analysis of variance with repeated measures was used. Summary of the results is given in Table 2.

Table 2 demonstrates the test results of comparing within-subject (pretest and posttest), according to three -source factor, factor by group, and Error factor.

**Table 2**  
**The Test of Comparing In-Subject (Pretest and Posttest)**

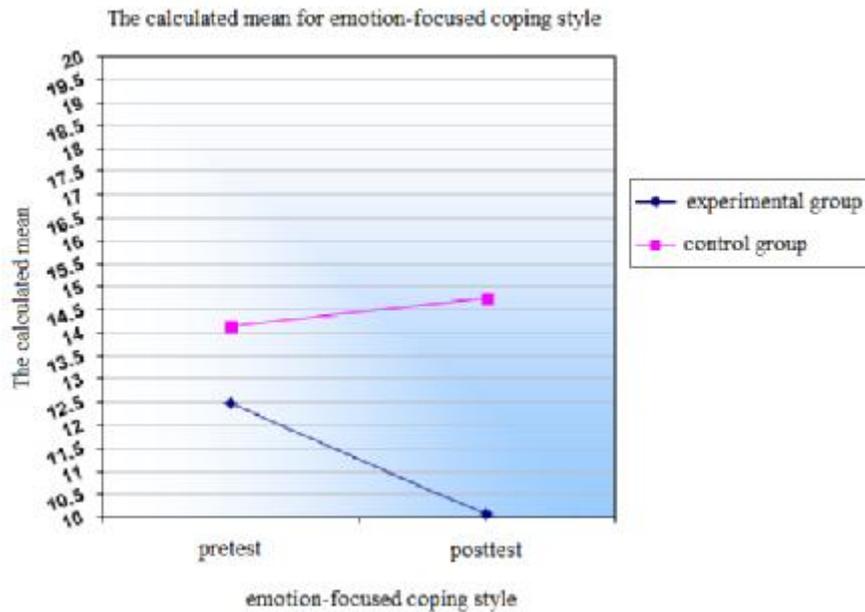
Source	Sig.	F	The mean squared	Degree of freedom	Type III Sum of Squares
Factor 1	.034	5.078	10.173	1	10.173
Factor 1*group	.001	14.602	29.250	1	29.250
Error (factor 1)			2.003	24	48.077

The results depicted in Table 3 demonstrate that the calculated significance level is lower than 0.05. In addition, the calculated power effect is higher than 0.05; therefore, teaching self-regulatory techniques have an effect on changing emotion-focused coping style.

Having a careful glance at the graph, it can be noted that the mean pretest score of the experimental group (12.46) has reduced to (10.08) in posttest, but the mean score of the control group has increased from 14.15 to 14.77. In the horizontal axis, the word 'pretest' shows the mean score of the pretest and the word 'posttest' shows the mean score of the posttest in both experimental and control groups.

**Table 3**

**The Linear Graph of the Mean Scores of the Emotion-Focused Coping Style**



Considering the pretest and posttest means of control and experimental groups in this graph, it is revealed that teaching self-regulatory techniques has reduced the emotion-focused coping style in experimental group. Due to the fact that reduction in the mean score of emotion-focused coping style reveals the use of problem-based coping style; it can be stated that, by manipulating the independent variable, the experimental group makes use of the problem-based coping style more than the control group does. Moreover, since the calculated significance level is below the significance level of 0.05, research hypothesis has been confirmed.

### Discussion

According to the cognitive approach, interactions that make a person consider an event as “stressful” are called “cognitive assessment” (Cohen & Lazarus, 1983; Lazarus & Folkman, 1984; Lazarus & Lerner, 1978). Stressful events that occur to us usually depend on our assessments. Any

sort of change in the relationship between individual and environment, regardless of its effect on our reassessments of the events, its importance and our probable reactions; might influence our concept of stressful events. The process of reassessing or reviewing also impacts our subsequent attempts to cope with stressful events (Lazarus & Folkman, 1984, pp. 142-143; quoted by Sarafino, 2002; translated by Mirzaee et al., 2008). Since self-regulatory techniques focus on direct problem solving, people trained during this course learn to assess and solve the problems more efficiently by evaluating the available facilities. Moreover; assuming that cognition influences behavior and that cognition can be controlled and changed, it might be concluded that the cognitive events-like setting and implementing goals-that allow people to turn their thoughts to motivation can be controlled. In addition; meta-cognitive control, as the process of goal setting, and self-control are functional methods of teaching self-regulatory techniques. In the research conducted by Yamasaki et al. (2006), the relationship between positive effect and negative effect, on one hand, and reported use of problem-based coping methods and emotion-focused coping style, on the other hand, were investigated in a longitudinal study. The results revealed some significant gender-based differences. Positive impact of using cognitive reinterpretation strategy to cope with problems during the second period on men was higher than its impact on women. On the other hand, the positive impact of using cognitive reinterpretation in the first period on women mostly appeared during the second period. The obtained results show that there is no reciprocal relationship between positive impact and using cognitive reinterpretation as a strategy to cope with problems.

The social and individual supportive role of coping strategies (problem-based and emotion-focused) in the equilibrium relationship between health and treatment of stress, especially job stress, can be observed in the research conducted by Button (2008). The results revealed that none of the coping strategies were effective, while the levels of social support, based on the adverse or beneficial reported job stress level, were effective.

The research of Aghayusefi (2001), titled “investigating personality traits and coping styles”, compares the effects of therapeutic coping and muscular gradual relaxation on depressed female students. Statistical results revealed that depression is affected by deep personality factors, superficial factors and coping strategies. As therapeutic coping is being focused on changing coping strategies, it can implement the two effective coping strategies to treat depression successfully. Moatamedin (2004) conducted a research titled “the effect of teaching strategies for coping with illogical beliefs (based on cognitive approach) on changing these beliefs and achieving marital satisfaction”. Results of the statistical tests of multivariate analysis of variance, two-way ANOVA and Tukey test showed that differences between experimental group and control group, in terms of marital satisfaction, after the educational intervention has been significant ( $0.001 < p$ ). Generally, the results revealed that teaching the strategies of coping with illogical beliefs (based on cognitive approach) has increased marital satisfaction and reduced illogical beliefs. It is obvious that the teaching based on cognitive behavior therapy is effective on coping styles since results of the present study have proved that teaching self-regulatory techniques is also effective on changing emotion-focused coping style.

To explain the above-mentioned finding, it can be mentioned that all self-regulatory programs are designed to change the existing patterns of responding. Controlling and improving the habits requires meticulous daily exercises. In other words, there is no brief, shortcut or spontaneous way to gain new skills. Strengthening self-regulation in references and achieving more favorable and stable results requires the use of techniques a person has learned. While, acquiring self-regulatory techniques, participants learn to control their stress and use mental and practical skills. They assess their own daily attitudes toward stress and challenge their own methods of perception and interpretation of their life events.

Self-controlled learners perform their educational assignments self-confidently, strictly, and wisely. Most importantly, they know when to

process information. They actively search for information and whenever they run into an obstacle such as unsuitable situation, use their personal innovation to overcome their problems. Pintrich and DeGroot (1990) recognize three components of self-regulation in learning: first, self-regulation in learning includes meta-cognitive techniques learners use for programming, controlling, changing, and improving their cognitions. Second, meta-cognitive techniques are used for controlling assignments and efforts and third, the cognitive techniques are used for learning, retrieving, and comprehending.

Theoretically, a person using self-regulatory techniques and meta-cognitive techniques applies cognitive and meta-cognitive techniques for performing and fulfilling his/her assignments or solving his/her problems. Such a person has a special goal and attempts to change techniques to solve the problems. Facing problems, a self-controlled person acts self-confidently, strictly, and wisely. Most importantly, he/she knows when to process the available information. Such a person learns to actively search information. Facing obstacles, he/she finds a solution to overcome them. Therefore, it is obvious that teaching self-regulatory techniques, focused on problem-solving skills and techniques can be effective in changing the use of emotion-focused techniques. The findings of the present research also prove the effectiveness of self-regulatory techniques on the emotion-focused coping style.

Since the present study investigated the effectiveness of self-regulatory techniques on female students' emotion-focused coping style, it is an interesting idea to conduct the same research on male students in order to investigate the role of gender. Furthermore, such a research can be conducted on non-student groups to investigate the effect of the dependent variable, self-regulatory techniques, on variables like autonomy, self-esteem, the source of control, learned helplessness etc. Considering the research findings, it is suggested that the effect of teaching self-regulatory techniques be investigated in three-month, six-month or one-year periods, in order to determine the sustainability of the teaching results.

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