The Effectiveness of Cognitive Emotion Regulation Strategies on Self-efficacy Dimensions in Married Workers of Shahid Beheshti Hospital in Shiraz

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Abstract

Introduction: Self-efficacy refers to the judgment of individuals about their ability to perform a task or to adapt to a particular situation. In this vein, the purpose of this study was to investigate the effectiveness of training Grass's cognitive emotion regulation strategies on self-efficacy dimensions in married workers of Shahid Beheshti Hospital in Shiraz.

Methods: In this semi-experimental study, 40 married workers of Shahid Beheshti Hospital in Shiraz with mean age of 40 who received a low self-efficacy score were selected and randomly divided into two groups of 20 subjects including (1) control and (2) experimental groups.

Then, in the experimental group, Grass's cognitive emotion regulation strategies were trained in eight 90-minute sessions. Sherer's self-efficacy scale was used as self-efficacy questionnaire for pre-test and post-test. Data analysis was done using multivariate analysis of covariance (MANCOVA) in SPSS software at a significance level of $p \leq 0.05$.

Results: It was found that there is a positive and significant relationship between the training of Grass's cognitive emotion regulation strategies and increased self-efficacy in married workers of Shahid Beheshti Hospital ($p = 0.0001$).

Conclusion: It seems that by training cognitive emotion regulation strategies, an individual may find the desire to use his/her capabilities.

Keywords: Cognitive Regulation, Self-efficacy, Hospital Workers

Introduction

Self-efficacy refers to the judgment of individuals about their ability to perform a task or to adapt to a particular situation (1). According to this theory, self-efficacy beliefs affect the selection of individuals and the process of action they pursue. People tend to do things in which they feel gifted and empowered and are reluctant to do things that they feel unable to do. Self-efficacy beliefs determine how much energy people spend on their activities and how much they resist barriers (2). Self-efficacy is a central component of cognitive-social theory, which refers to one's belief and judgment about his ability to perform duties and responsibilities (3). Bandura (1) suggests that the perception of self-inefficacy is related to the beliefs and attitudes of individuals about their own ability to do a job or to adapt to a particular strain. He recognizes a person with high self-efficacy compared to a person with low self-esteem, in that a person with high self-efficiency shows more endeavor and perseverance in controlling difficult life conditions. Bandura has done a lot of research on self-efficiency and states that the beliefs that people have in their abilities has a dramatic effect on their abilities. In fact, self-efficacy beliefs determine how much time people have to spend on doing his or her work, how long they are dealing with difficulties, and how much they are malleable in dealing with different situations. Self-efficacy is defined as trusting a person's capacity to manage a difficult and challenging

situation (4). In general, self-efficacy is a person's belief of " I can" or "I can not" (5). In fact, self-efficacy and self-belief are the mediators between knowledge and practice that can be used to measure the ability of individuals to manage the challenges posed in the path to life (6).People with high self-efficacy are more interested in coping with new issues and have a lot of perseverance in solving problems (5). In general, self-efficacy influences the choices that individuals make, their ambitions, their efforts to attain goals and aspirations, the duration of stamina against obstacles and failures, their patterns of thought, the amount of stress experienced and their sensitivity to depression (7).Therefore, self-efficacy is essential in performing emotional and stressful occupations and has a moderating and maintaining role in the relationship between the needs of emotional jobs and mood disorder (8). One of the motivational and cognitive effects of self-efficacy is emotion regulation (9).On the other hand, self-efficacy may be under the influence of emotional control, and emotional control involves creating thoughts and behaviors that will make people aware of what kind of emotion they have, when this emotion emerges and how it should be expressed. When a person faces an emotional state, feeling good and optimistic is not simply enough to control his emotion; he needs to have the best cognitive function at this moment and strive to control his emotion. In other words, cognitive emotion regulation strategies refer to how people think after experiencing a negative or traumatic event. As people grow older, they develop their coping strategies and shift from elementary external and behavioral strategies to internal and cognitive strategies.One of these strategies can be the setting of emotions in dealing with issues. In the new approaches, the cause of emotional disturbances is attributed to defective cognitive controls, so that the inability to control the negative emotion stems from the existence of negative thoughts and beliefs about concern and the use of ineffective coping practices (10). People

who have the ability to understand and regulate their emotions and others can build stronger social support networks and, consequently, feel more empowered. In helpless situations, these people rather than dialogue and negotiation tend to practice (11). The ability to regulate and manage the person's emotion enables individuals to recognize the emotion in themselves and others. An inappropriate approach to the emotions that are commonly referred to as negative emotion such as: sadness, anger, and anxiety can have unpleasant effects on the health of the body and mood of individuals. There are a wide range of strategies to regulate the emotions (12). Emotion regulation can lead to an increase and promotion in the intellectual capacity of an individual and improve individual's self-perception and increase self-efficacy beliefs (13). Implementation of emotional regulation increases the positive view of self and attempts to rise the positive experiences of the future, and thereby increases the sense of qualification and self-efficacy of the individual (14).Various interventions have been implemented to increase self-efficacy (15) and emotion regulation adjustment (16). Mouton, Hansenne, Delcour and Close (2013), in their research, have shown the relationship between emotion regulation and self-efficacy (18). Mikolajczak and Luminet (2008) by examining the relationship of emotion regulation found that emotion regulation with a sense of efficacy and the assessment of stressful events was a challenge and an opportunity to learn, rather than a threat to security (19). Andries (2009) found that more self-efficacious individuals have high emotional management and good emotional control.These individuals are more successful than others in terms of personal and social relationships. As research suggests, self-efficacy can be improved and enhanced by emotion regulation. Researchers also argue that individuals who can't adjust their emotional responses to daily events, feel more intense and prolonged periods of

distress; periods that can ultimately lead to anxiety and depression (20).Accordingly, the empirical support of theories that focus on the role of emotions and the regulation of emotions in mental disorders and their maintenance is now increasing. The emotion regulation refers to a heterogeneous set of processes with which emotions are regulated. In light of these processes, individuals can influence what emotions they feel and how they show their feeling. The significance of this structure is so much that it is even related to the evolution of civilization, because civilization can be defined as a coordinated social exchange that requires us to regulate how we feel and show emotions (21).Cognitive emotion regulation is an emotional excited information management with conscious cognitive strategies (22). Emotion regulation signifies what emotions to experience, when to experience them and how to express them (23).

Gross (24) believes that emotion regulation strategies are important factor in well-being and successful performance in interactions. Therefore, it seems that one of the most important factors in reducing the efficiency of employees is the lack of individuals' recognition about their emotions and their cognitive effects, and how to manage and control these emotions, which reduces their self-efficacy. Given that working in hospitals is hard and stressful, it is necessary to pay attention to cognitive emotion regulation, which can have positive effects on patients and family life of hospital staff, increase self-efficacy and job efficiency and help the organization achieve its goals; it can also be a good model for counseling centers, which is likely to be achieved through strategic training emotion regulation strategies. In this regard, the aim of this study was to investigate the effectiveness of teaching cognitive emotion regulation strategies on self-efficacy dimensions in married workers of Shahid Beheshti Hospital in Shiraz.

Methods

In this semi-experimental study, after obtaining permission from Shahid Beheshti Hospital in Shiraz, firstly a list of married workers of about 700 people was prepared. Then, from among the different workersof the hospital, 200married workers who fulfilled the conditions for conducting the research were invited to participate in this study and samples were selected according to the morgan table.

It should be noted that all research goals were described in a briefing session for these individuals. Subsequently, 40 people with mental health, no psychotic disorders, a minimum degree of diploma, no history of any drug abuse, no psychedelic and psychiatric drugs, which had been married for one to five years and had at least one child, and also gained a minimum score in the General Self-efficacy Sherer's questionnaire (25), were selected as statistical samples.

Entry requirements:

1. Minimum diploma education.
2. Being married for 1-5 years and having at least one child.
3. Having mental health and not having acute psychological disorders.
4. Not taking psychiatric and psychotropic drugs.
5. Not being addicted.

Subjects were randomly divided into two groups of (1) control and (2) experimental. The experimental group were trained emotional regulation strategies for eight sessions, one session each week, and one hour and a half each session. The control group did their daily activities during this period. At the end of the training period, again, the control and experimental groups completed General Self-efficacy Sherers questionnaire (GSES, 1982) based on which three components of the desire to initiate the behavior, the desire to continue the effort to complete the behavior and to resist the barriers existed and included 17 questions on the Likert scale that ranged from totally disagree to totally agree.

Scale scoring is the way to give each item from 1 to 5 points. Questions 1, 3, 8, 9, 13 and

15 are scored from right to left, while the rest of the questions are scored in reverse order, from left to right. So the maximum score that a person can get from this scale is 85 and the minimum score is 17 (25). It should be noted that the reliability calculated by Cronbach's alpha for General Self-efficacy questionnaire is 76.0, the validity of this scale is obtained through construct validity. In a research study that was conducted by Barati for assessing the reliability and validity of this scale, the scale was applied to 100 subjects who were third grade high school students; the correlation (0.61) obtained from two scales of self-esteem and self-assessment and self-efficacy confirmed the construct validity of this scale (32).Also, in Samadi's study (33), the reliability of 0.740 was obtained, using alpha coefficient. Observing ethical issues and indorsing the human rights of the subjects were of the major issues that were taken notice of in this study. Initially, the participants were enlightened that at each stage of the research they could withdraw; also the information obtained from the subjects would remain confidential.

Training sessions protocol for teaching emotion regulation strategies: Session 1: Initiation

Agenda:

1) The familiarity of the members of the group with each other and the initiation of the interactive relationship between the leader of the group (advisor) and the members;

2) The statement of the major and minor objectives of the group and the dialogue among members of the group on personal and collective goals;

3) The expression of the logic and stages of intervention; and

4) The declaration of the guidelines and regulations of participation in the group.

Session 2: Selection of position;

Purpose: Providing emotional training;

Agenda:

Recognizing emotion and stimulating positions by training different types of emotions performance, information on different dimensions of emotion and the short-term and long-term effects of emotions.

In-session assignment: Experiencing emotional states.

Session 3: Selection of position;

Purpose: Assessment of the degree of vulnerability and emotional skills of the members;

Agenda:

(1) Self-assessment with the aim of recognizing ones own emotional experiences;

2) Self-assessment with the aim of identifying an individual's degree of emotional vulnerability;

3) Self-assessment with the aim of identifying an individual's regulatory strategies.

Session 4: Reforming the position;

Purpose: Changing the stimulating position of emotion;

Agenda:

1) Preventing social isolation and evasion;

2) Teaching problem solving strategies; and

3) Training interpersonal skills (dialogue, self-expression, and conflict resolution).

Session 5: Expanding Attention;

Purpose: Attention change;

Agenda:

1) Stopping ruminating and worry;

2) Training attention.

Session 6: Cognitive Evaluation;

Purpose: Changing the cognitive assessment;

Agenda:

1) Identifying wrong assessments and their effects on emotional states; and

2) Training reassessment strategy.

Session 7: Adjusting target response;

Purpose: Modifying behavioral and physiological consequences of emotion;

Agenda:

1) Identifying the extent and manner of using the inhibition strategy and examining its emotional consequences;

2) Exposure;

3) Training emotional release, relaxation and reverse action.

Session 8: Reassessment and removal of application barriers;

Agenda:

1) Assessing the achievement of individual and collective goals;

2) Applying skills learned in the natural environment outside of the session; and

3) Reviewing and removing barriers to doing assignments. Data analysis was done using multivariate analysis of covariance (MANCOVA) in SPSS software and at significance level of 0.05.

Results

Table 1 shows the mean and standard deviation of self-efficacy scores and its dimensions in the pre-test and post-test of control and experimental groups. The results of Table 2 show the assumption of equality of covariance or the relationship between dependent variable in the two groups, which did not show a significant difference. Thus, we can use multivariate analysis of covariance (MANCOVA).

The results of MANCOVA in Table 3 show that the difference between the two groups in terms of three variables has reached a significant level (p = 0.0001). Therefore, the research hypothesis has been confirmed. The

effectiveness of training the emotional regulation strategies on workers self-efficacy was 90%; in other words, 90% of the difference was due to group membership.

The results of the above table and the observation of the significant levels obtained (p = 0.0001) in the rows of the group show that the difference between the two groups is significant with regard to all the components of self-efficacy (p = 0.0001).

The differences are 81%, 75% and 78% respectively; that is, 81% of the total variance or individual differences are in the desire to initiate the behavior, 75% in the desire to continue the effort to complete the behavior and 78% in the resistance to the barriers component in the two groups.

Table 1 shows the mean and standard deviation of the pre-test scores for self-efficacy variable and its dimensions. In descriptive terms, the mean score of experimental and control groups in the pre-test is not significantly different. On the other hand, in the post-test, all scores in the experimental group are less than the control group.

Table 1. Mean and standard deviation of self-efficacy and its dimensions

| Variable | Experimental | | | | Control | | | |
| | Pre-test | | Post-test | | Pre-test | | Post-test | |
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self-efficacy	34.05	4.6	61.15	5.5	34.65	2.9	34.50	3.2
Desire to initiate behavior	11.85	1.2	21.80	2.8	11.55	1.7	11.85	1.9
Desire to continue the effort	10.25	2.4	17.25	2.1	10.45	1.9	10.85	1.5
Resistance to the barriers	11.95	1.7	22.10	3.3	12.65	1.5	11.80	2.06

Table 2. Box test results on the assumption of equality of Co-variances in self-efficacy dimensions

Index	Level
Box	10.967
F value	1.67
Degree of freedom 1	6
Degree of freedom 2	10462.189
Level of significance	0.1

Table 3. Results of MANCOVA of the self-efficacy components in two groups

Index	Value	F	df	p	ETA Coefficient	Statistical power
Wilks Lambda	0.099	109.227	3	0.0001	0.90	1.00

Table 4. Results of the post-test MANCOVA of self-efficacy dimensions in both experimental and control groups

Source	Self-efficacy dimensions	Sum of Squares	df	Mean squares	F	P	Effect Size	Statistical power
Group	Desire to initiate behavior	990.02	1	990.02	116.6	0.0001	0.81	1.00
	Desire to continue effort to complete the behavior	409.60	1	409.60	115.8	0.0001	0.75	1.00
	Resistance to barriers	1060.90	1	1060.90	137.5	0.0001	0.78	1.00
Error	Desire to initiate behavior	225.75	38	5.94				
	Desire to continue effort to complete the behavior	134.30	38	3.53				
	Resistance to barriers	293.00	38	7.71				
Total corrected	Desire to initiate behavior	12539.00	40					
	Desire to continue effort to complete the behavior	8440.00	40					
	Resistance to barriers	12846.00	40					

Conclusion

With regard to the overall effect on self-efficacy, the findings of this study are consistent with the findings of Yu (26), Gerits, Derksen and Verbruggen (27) and Rathi and Rastogi (28), Penrose (29) and Skaalvik and Skaalvik (30). Also, the results of this study indicated the positive effect of teaching cognitive emotion regulation strategies on the desire to initiate behavior in married employees of ShahidBeheshti Hospital in Shiraz. In relation to the dimension of behavioral initiation, Meule et al. (13) in their research showed that cognitive emotion regulation improves the intellectual ability of individuals and expands one's self-awareness and increases self-efficacy beliefs. Based on the results of this research, the training of cognitive emotion strategies increases the desire to initiate behavior. To explain the results of this dimension, it can be said that by teaching the cognitive emotion strategies, the individual, through understanding his emotions and feelings, increases his rational and intellectual thinking as well as his beliefs in relation to his capacity and also focuses his activities upon achieving his intended goals.Besides, the results of this study showed that training cognitive emotion strategies improved the desire to continue effort to complete the behavior in the married staff of ShahidBeheshti Hospital in Shiraz. In this

dimension of research, there was no research, but Andries (19) showed that those who feel more self-efficacious are more successful at the individual and social levels than others. According to the researcher, in explaining the results of this dimension, one can say that by training the strategies of cognitive emotion strategies, the person is able to better recognize his own feelings and emotions, and with the desire to use opportunities and belief in his capabilities shows more perseverance in performing assignments; he also actively strives and chooses challenging goals and strives more diligently, which will increase the desire to continue effort to complete the behavior and increase self-efficacy. Concerning the component of resistance to obstacles, the results of this study showed that training cognitive emotion regulation strategies improved the resistance to barriers in married employees of Shahid Beheshti Hospital in Shiraz. There was no study in this dimension of research, but Mikolajczak and Luminer (18) regarding cognitive emotion regulation in assessing stressful events, concluded that individuals see it as a challenge and an opportunity to learn. Also, Fooladchang*et al.* (31) in an investigation concluded that training emotion regulation made people better able to cope with problems and obstacles and hence act more efficiently. In explaining the results of this dimension, one can say that by training cognitive emotion regulation strategies, a person is apt to use his capabilities and in dealing with risky situations, he does not suffer from disappointment and attempts to do more; he also works more efficiently, resists barriers and encounters challenging issues, hence he can improve his performance and increase self-efficacy. In researcher's opinion, those who have a lot of negative emotions tend to have severe reactions in relatively stressful or undesirable situations, and include those who strongly criticize themselves; they act to blame themselves and are too sensitive to the abuses imposed on them, and this negative emotional characteristic in the long run reduces self-

efficacy. As a result, by training cognitive emotion regulation strategies, they gain better recognition of their emotions and the physiological and cognitive effects of these emotions and better know their weaknesses and strengths. Thus, their sense of competence and adequacy expands through their efforts to increase their strengths and achieve their goals; also confidence in their abilities to challenge the problems elevates and resistance to barriers in them increases as well. There are some limitations in this study, including the need for caution in generalizing the results. Because the results of this study were obtained from married workers of Shahid Beheshti hospital in Shiraz, a follow-up procedure was not considered. Accordingly, it is suggested that the research results should be followed up in the future research; also, as a research technique holding interview sessions ought to be implemented in the procedure of data collection.

Conclusion

The results of this study showed that training cognitive emotion regulation strategies improved the self-efficacy dimensions of married workers of Shahid Beheshti Hospital in Shiraz. Regarding the results, it is suggested that cognitive-emotion regulation training courses should also be implemented in other groups.

Ethical issues

Not applicable.

Authors' contributions

All authors equally contributed to the writing and revision of this paper.

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