

Management of Stress among Trainee-teachers through Cognitive-Behavioral Therapy

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ABSTRACT :

This study examined the effectiveness of cognitive-behavioral therapy in managing stress among some trainee-teachers of Bentolhoda Teacher Education Center, in Boushehr City, Iran. The one hundred and twenty participants employed for the study were randomly assigned into experimental and control groups based on their 24 or more scores on General Health Questionnaire₂₈. All the participants were administered the Beck Depression Inventory before and after treatment. The students in experimental group one received cognitive-behavioral therapy, while the control group had none. Treatment lasted 12 weeks of twelve sessions. The pre and post treatment scores of the students on depression were subjected to Mixed ANOVA. The results indicated that the experimental group had significant reductions in their levels of depression than the control group after treatment. The therapeutic implications of the findings for treating stress and other related problems were discussed.

Key words: Trainee-teachers, Management, Depression, Cognitive-behavioral Therapy

INTRODUCTION :

Stress is a significant problem among students in the teacher education center. The young student population has always been vulnerable to stressful life conditions especially in pursuit of higher professional education in a highly competitive environment (Saipanis, 2003; World Health Organization, 1994). A student's life is subjected to different kinds of stressors. Some studies indicate that teacher trainees face unique academic challenges that render them more vulnerable to stress and depression than students of other disciplines (Bayram & Bilgel, 2008). Previous studies suggest high rates of psychological morbidity, especially depression and anxiety, among teacher students all over the world (Nerdrum, Rustoen, & Ronnestad, 2006; Ovuga, Boardman, & Wasserman, 2006; Voelker, 2003; Wong, Cheung, Chan, Ma, & Tang, 2006).

In college students, some stress is motivating, whereas too high a level interferes with teaching. Excessive stress can be harmful to a student's academic performance and students who perceive their stress as very high experiences depression, anxiety, attrition and serious health problems (Evans & Kelly, 2004).

Stress management is defined as techniques and programs that are designed to help people to modify their appraisal of stressful situations or to deal more effectively with the symptoms of stress, or both (Murphy, 1996). There are various kinds of intervention techniques and programs such as, cognitive-behavioral training, personalized feedback based on systematic assessment, meditation, relaxation training, and physical fitness training (Bunce, 1997; Murphy, 1996). Accumulated experience from individual-focused interventions shows that cognitive-behavioral training is more active than other techniques in enhancing psychological resources, responses, and reducing complaints (Ganster & Murphy, 2000; Van der Klink, Blonk, Schene, & Van Dijk, 2001).

The general approach in cognitive behavioral therapy for depression involves guiding patients through a number of structured learning experiences. Patients are taught to monitor and write down their negative thoughts and mental images to recognize the association between their thoughts, feelings, physiology, and behavior. They learn to evaluate the validity and utility of these cognitions, test them out empirically, and change dysfunctional cognitions to reflect a more adaptive viewpoint. As therapy progresses, patients learn to identify, evaluate, and modify underlying assumptions and dysfunctional beliefs that may have predisposed them to depressive reactions. The therapist also teaches (or reactivates) adaptive coping skills such as breaking down large problems into smaller, more manageable steps, and decision-making by cost-benefit analysis. Activity scheduling, self-monitoring of mastery and pleasure, and graded task assignments are commonly used early in therapy to help patients overcome inertia and expose themselves to potentially rewarding experiences (Beck, 1976).

A number of studies have investigated the efficacy of cognitive behavioral interventions in reducing teacher trainees depression and stress. Such intervention programmes have included training in coping skills and in relaxation skills. In these studies, cognitive-behavioral approach which has other sets of strategies that have been shown to be effective in reducing depression was adopted (Azizi, Borjali and Golzari (2010); Bramham, 2009; Butler, Fennell, Robson & Gelder (1991; Hamdan-Mansour, Puskar, & Bandak, 2009; Hyun, Chung & Lee, 2005; Pedram, Mohammadi, Naziri, & Aeinparast, 2010; Scott, Tacchi, Jones, & Scot, 1997; Simon et al, 2010).

Purpose of the study: The purpose of this study was to evaluate the effectiveness of a cognitive-behavioral approach to stress management for teacher trainees based on Beck (1976) cognitive therapy. The effects of the programme on self-report depression measures were examined.

Hypotheses: It was hypothesized that: Cognitiv behavior therapy has a significant positive effect in the management of stress of teacher trainees.

METHOD

Research design: The research adopted a 2x2 factorial pretest-posttest experimental control group design in which there were experimental and control groups. The experimental group alone was exposed to the effect of CBT while the control group is kept immune to the effect of this special variable.

Sample: One hundred and twenty teacher trainees employed for the study who had a score of 24 or more on General Health Questionnaire₂₈ were selected from trainee-teachers of Bentolhoda Teacher Education Center, in Boushehr City, Iran. The 120 participants were randomly assigned into the experimental group that received training and one waiting list control group by dip hand method.

Tools

Stress management: Stress management was measured by a modified version of the Beck Depression Inventory (BDI) (Beck & Steer, 1987). The BDI is a 21-item measure of the presence and degree of depression. Each item assesses an attitude or symptoms of depression. Examples of the items are "My future seems dark to me", "I do not expect to get what I really want." Responses are multiple choice, with each responses weighted 0-3, depending on the severity of the symptom/item. Total scores range from 0 to 63 with higher scores indicating greater degrees of depression. The split-half reliability and internal consistency estimates of the 21-item have been found to be .90 and .86 respectively (Hains & Szyjakowski, 1990). For the present study, the split-half reliability was established to be .84 (N=100). To find out validity of the BDI, it was correlated with two external criteria General Health Questionnaire (GHQ₂₈; Goldberg, 1981) and State – Trait Anxiety Inventory (STAI; Spielberger,1983). The correlation using Pearson product moment formula was found to be 0.82 (N=100) with GHQ, and 0.87 (N=100) with State – Trait Anxiety which are significant at 0.00 level. This shows the test has concurrent validity.

Procedure: The study was conducted in three stages: Pre-treatment, treatment and post-treatment. In the pre-treatment stage, the measures of general health questionnaire₂₈ was administered to 500 teacher trainees out of which 120 respondents who had general health score of 24 and above were selected for the study. The selected respondents were divided into two groups. The experimental group (N=60) consisted of teacher trainees randomly chosen from various fields of study. A group of 60 teacher trainees who have been harmonized with the experimental group in terms of demographic specification (age, residence, locality, marital state, and field of study) comprised the control group. The participants in experimental group one received 12 sessions of cognitive-behavioral therapy, while the control group had none. At the beginning and end of the treatment, measure of depression was administered to all the experimental and control groups.

Treatment: The treatment programme was arranged in twelve training sessions for twelve weeks with each session lasting ninety minutes at the rate of one sessions per week.

Experimental group: The participants in the experimental group were treated with cognitive-behavioral therapy that consisted of four main parts: presentation of a conceptual framework (the conceptualization phase), relaxation training, cognitive restructuring and rehearsal and application phase. They were also exposed to coping skills such as refuting irrational thoughts, irrational thoughts stopping, distraction techniques, distortion techniques, relaxation and time management.

Control group: The control group was met two times for pre- and post-test sessions. They were given general counseling after administration of post-test to avoid any contamination.

Post treatment: The post-treatment assessment stage of the study was done a day after the last session of treatment programme . The measures of depression was administered to the experimental and the control groups after treatment under similar conditions as in the pre-treatment stage. In evaluating the training the participants expressed happiness, about the treatment received and at their improved situation.

Data analysis: Mixed ANOVA was employed at the .05 level of significance on the data collected in order to determine the effects of the treatment on the participants' depression.

RESULTS

As a frame of reference for this section, the means and standard deviations for the measures of depression Table 1.

Table 1
Group difference in means scores of depression at different assessment phases

Group	N	Pre		Post	
		M	SD	M	SD
Experimental	60	12.93	4.82	5.60	4.06
Control	60	13.83	9.38	15.43	12.09

Table 1 gives the number of cases, mean, and standard deviation obtained by the experimental group and the control group for the variable depression at the pre and post assessment phases.

The table shows that the mean scores obtained by the experimental group and the control group at the pre assessment phase are 12.93 and 13.83, and the standard deviations are 4.82 and 9.38 respectively. This shows that the experimental group and the control group differ only slightly in mean scores of depression at the pre assessment phase.

The mean scores of the experimental group and the control group at the post assessment phase are 5.60 and 15.43, and the standard deviations are 4.06 and 12.09 respectively. This shows that there is a notable difference between the experimental group and the control group in mean scores of depression at the post assessment phase.

In order to test the hypotheses set, 2 (group) by 2 (assessment) Mixed ANOVA was conducted on the depression variable. The results obtained are presented in Table 2.

TABLE 2
Results of Mixed ANOVA for the variable depression (Group x assessment)

Source	Sum of Square	df	Mean Sum of Square	F-Value
Between assessment	493.06	1	493.06	15.52**
Between group	1728.06	1	1728.06	16.41**
Group x assessment	1197.06	1	1197.06	37.68**
Error	3747.86	118	31.76	

Note: **F-value is significant at 0.01 level.

Table 2 shows that the F-value for between the assessment phases of depression is 15.52, which is significant at 0.01 level. This means that there is significant difference between the experimental group and the control group in the mean scores of depression among the pre, and post assessment phases. There is a reduction in depression for the experimental group in the post assessment phase (M=5.60) (vide table 1) which is not found for the control group (M=15.43).

The F- value for between group (experimental group and control group) is 16.41, which is significant at 0.01 level. This means that there is significant difference between the experimental group and the control group in depression.

It can be seen that the F- value for the interaction (group x assessment) is 37.68, which is also significant at 0.01 level. So it could be said that cognitive behavior therapy is found to be effective in reducing depression. The interaction effect is explained below by using Figure 1.

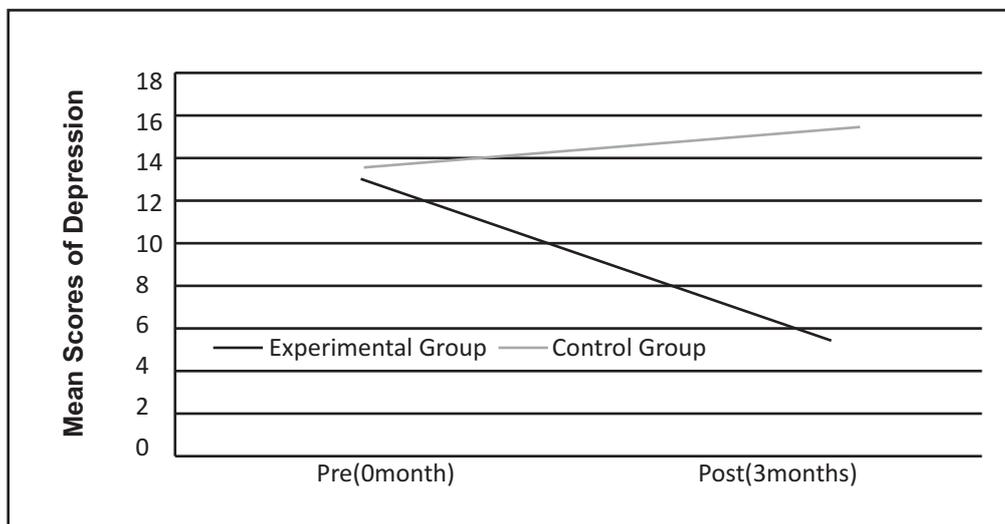


Figure 1. Comparison of mean scores of depression at different assessment phases experimental group and the control group

Figure 1 shows a decrease in mean scores of depression for the experimental group and an increase in mean scores of depression for the control group obtained from pre assessment phase to post assessment phase. The slope of the lines indicates the rate of improvement found in the experimental group. This is due to the positive effect of CBT in the experimental group.

DISCUSSION

The depressed individual suffers from a negative view of self, experience, and future. They perceive themselves as inadequate, deserted, and worthless. The negative view of the world is apparent in the belief that they have been burned with enormous demands and impenetrable barriers which exist between the individual and their goals. The world appears devoid of pleasure, or gratification and the future is viewed pessimistically, reflecting the belief that the current problem will only become worse.

the findings of this study support the usefulness of CBT for decreasing depression among students. Depressed students tend to have negative views about themselves, the world, and the future (Beck, 1993). Kendall (1993) emphasized that CBT was especially effective for depressed students in terms of developing positive ways to view the world because CBT uses cognitive techniques to produce changes in thinking, feelings, and behavior. Thus, the cognitive component in CBT in this study (i.e., the identification of cognitive distortion associated with negative emotional states in high-risk situations) helped decrease depression among the participants. This result demonstrates that the cognitive techniques in CBT used in this study can be useful for other depressed groups of individuals with cognitive distortion.

This result also is in agreement with many previous research findings. Research conducted by Bramham, 2009; Butler, Fennell, Robson & Gelder, 1991; Hamdan-Mansour, Puskar & Bandak, 2009; Hyun, Chung & Lee, 2005 and Pedram, Scott, Tacchi, Jones, & Scot, 1997 showed that CBT is effective in reducing depression. Azizi, Borjali and Golzari (2010); Mohammadi, Naziri, & Aeinparast, 2010 and Simon et al, 2010 have also observed that CBT is effective in reducing depression.

CONCLUSION

The purpose of this study was to investigate the effectiveness of cognitive behavioral approach in managing stress among teacher trainees. Based on the findings, it could be concluded that cognitive-behavior technique was efficacious in reducing the depression levels of the participants at the end of treatment. Furthermore, the reduction was maintained twelve weeks after the end of the treatment.

The study also showed that the treatment programme could be used with groups of participants as well as with individuals successfully. An important implication of the findings from this study is that the cognitive-behavioral approach

has the potential to reduce depression among teacher trainees and it is thus suggested that practicing counselors, psychologists or therapists working with stressed clients should use the approach as an integral part of their counseling intervention strategies. It is instructive to note that while stress management is potent in reducing stress among teachers there is need to identify all the aetiologic factors and something positive done about them.

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