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EFFECTIVENESS OF COGNITIVE BEHAVIOR THERAPY IN REDUCTION OF ACADEMIC STRESS AND ENHANCEMENT OF ACADEMIC PERFORMANCE IN UNIVERSITY STUDENTS

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ABSTRACT

Academic stress among the students of university remained an issue that hinders their academic performance despite adequate efforts. The present study investigated the effectiveness of Cognitive Behavior Therapy (CBT) for academic stress and academic performance in university students. The research was based upon multiple case study design and the sample consisted of total 30 students with the average age range of 19 to 30 years. The Academic Stress Scale (ASS) by Kohn and Frazer 1986 was used to scrutinize subjects with higher level of stress while the academic performance was obtained from their grades from last two semesters. The selected sample was administered with the psychological treatment by utilizing two techniques of CBT (Imaginal exposure and cognitive restructuring) with 10 sessions per subject. The results of paired sample t-test showed the reduction in academic stress and an enhancement in academic performance at post-test. The study has implications and suggest future research direction.

Keywords: *Academic, Stress, Performance, Cognitive Behavior Therapy*

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INTRODUCTION

Being part of university after college although seems to be a positive change in a human being's life but these changes lose their significance if they bring negative associations along. For example, those who left their homes to get into a university may feel homesickness and desire to be back at home. And if they cannot, it becomes problematic (Vingerhoets, 1997). Especially for young people leaving home and staying apart may be a stressful situation. (Strobe, Vliet, Hewstone & Willis, 2002). Like homesickness there are many other factors which contribute together to interrupt a student's academic performance. The factors can be lack of attention, loneliness, test grades and performances, peer popularity, depression, relational and behavioural problems (Zyromski & Joseph, 2008).

Academic achievement is found to be associated with the level of anxiety they feel and the level of motivation they possess in their school life (Zyromski & Joseph, 2008). How the ones understudy approach and master the academic tasks and assignments is directly linked or connected to the belief of a student about his ability to perform and complete that specific task (Roeser, Strobel, & Quihuis). Because of above mentioned factors students encounter anxiety or stress and it affects their academic achievement (USQ, Crandall, Preisler, &Aussprung, 1992).

Stress can be considered as anything which produce negative emotions and thoughts in a person. The level of stress varies for every person and situation to situation as well. Not every person feels and thinks the same way in a stressful situation or event (Khanehkesh, 2014). There are certain models which illustrate the connection between the stress and academics of the students, one of those models is person-environment model. According to one category of this model the person may perceive the stress as challenging or threatening (Lazarus, 1966). When students consider their stress as challenging, they bring the concept of competence which helps them to grow, but if the student take the stress as threatening it creates feelings of helplessness and sense of loss (Khanehkesh, 2014).

The stress regarding academics, negatively affects the academic achievement (Crandall, Preisler & Aussprung, 1992). Academic stress can be considered as a mental disturbance with reference to apprehended frustration which is associated with academic failure, stress about that disappointment or even the attention to odds of that disappointment (Gupta & Khan, 1987). The academic stress is negatively associated with the academic performance (USQ, Crandall, Preisler & Aussprung, 1992). The low grades are a constant problem among those

students who didn't have an alternative plan to cope with academic stress (SerapAkgun, 2000). The academic stress especially in Pakistani society has been reported the highest among the medical and management students (Waqas, 2014; Ahmad, 2013) which may affect the academic performance (Stewart et al. 1999).

For the management of such anxiety and stress many stress reduction programs are offered in different psychological forums. (Credit & Garcia, 1999; Kiselica, Baker, Thomas, & Reedy) such programs include many psycotherapeutic techniques from CBT such as role playing, relaxation techniques, problem solving, and stress management techniques (Braswell & Kendall, 2001).CBT is a type of psychological therapy which is based upon modification of maladaptive thoughts and related behaviours with the purpose of positive influence on emotions (Norcross & Goldried, 2005).

Further studies regarding effectiveness of cognitive behaviour therapy on academic stress among high school students suggest that CBT was very effective therapy for reduction of academic stress among high school students (Keshi, 2015). Another study's aftereffects demonstrate that CBT training can be viable in mitigating pining to go home and the issues that the understudies may experience when they enter another college environment (Shahmohammadi, 2011).

At the point when the students rival each other, attempt to awe the educators by taking in their addresses by heart, got caught into poor interpersonal associations with the kindred understudies, neglect to present the assignments on time and get impolite with their companions as well, then, they most likely fall in the issue of academic stress (Fair, 2003). To set up the expanded exam-educational programs in a brief span on constant premise to have an extreme encounter for their exams is a wellspring of academic stress among students (Abouserie, 1994).

The heaping up scholarly stress causes physical and mental side effects of pathology among students (Maryam 2015). The educational stress increments with the variables of having insufficient time to finish the syllabus, poor people address room's course of action, having no hold on finishing the allocated work in time and the hectic semester-tenure (Awino, 2008). The restricted time span for the composed exams makes the mental environment of the students drained (Erkutlu, 2006). The entire messed up circumstance drives the student to act in odd conduct in the educational settings and in addition makes an impediment in the method for the students to accomplish their academic set-targets furthermore makes snags in

the voyage of the student's interpersonal associations with their academic and non-academic eco-frameworks (Fair, 2003).

There are a few techniques which may diminish these side effects of academic stress from students and these incorporate; rescheduling the regular schedule action outline, giving a sound social support, satisfying all the made responsibilities, time administration abilities and some kind of psychological reappraisal (Murphy, 1996). So the main objective of the current study is to evaluate the effectiveness of Cognitive Behavioral Therapy (using imaginal exposure and cognitive restructuring) to reduce academic stress and enhance academic performance in university students.

Following hypotheses are formulated for the present study:

1. After receiving CBT there will be reduction in academic stress level at post-test compared to academic stress level at pre-test in students.

2. After receiving CBT there will be improvement in academic performance level at post-test compared to academic performance level at pre-test in students.

METHOD

Participants

University students who scored high on Academic Stress Scale (Kohn & Frazer, 1986) with low academic performance were taken as targeted population. Purposive sampling was used to avoid type II error. The data was collected from 75 university students, out of which 50 university students were identified with higher level of academic stress (scoring 88 out of 175 as cutoff score). Out of which, 30 students were further scrutinized on the basis of their last two semester's CGPA scores less than 2.5 for low academic performance. The sample consisted of students from different BS and MS programs of different universities, excluding first and final semester. The academic record of the participants was collected from exam section as which 26 were males and 04 were females. The age range of participants was 19 years to 30 years.

Measures

Academic Stress Scale (ASS)

Academic Stress Scale (ASS) by Kohn and Frazer (1986) was used to assess the level of stress among participants of research. It is a 35 item scale which is used to measure student's perceived academic stress on a Likert type scale of 1-5 where 1= not at all stressful and 5 = extremely stressful. High scores represent high stress among students. While considering the psychometric properties of the scale, its Cronbach's Alpha Coefficient is .92, which is quite satisfactory (Kohn & Frazer, 1986).

Procedure

The sessions were conducted by the author who had completed supervised training in Cognitive Behavior Therapy .The present research was completed in following three phases:

Phase I: Pre-Assessment

After getting permission from high authorities of universities, Academic Stress Scale along with informed consent was administered on university students and the sample was selected who scored high on Academic Stress Scale (N=30) were taken as subjects for therapeutic sessions.

Phase II: Intervention Phase

Step1-Case Formulation and Goal Setting

In this step the cognitive errors of the students were identified with the help of assessment, presenting problems, and situations they face. For e.g. I fear I'll fail in the exam.

Step II-Application of CBT Techniques

Following techniques of CBT were used in combination.

1. *Psychoeducation Phase:* In this phase of intervention, the therapist provides information regarding the presenting problem of the client and assists him to

understand the importance of psychotherapy followed by different salient phases of therapy in relation to the specifications of each client.

2. *Imaginal Exposure:* The client is assisted with imaginative exposure to the feared situation through a step-by-step process. To deal with the negative emotions and thoughts of the future a very beautiful and very efficient process (guided imagery) was used in which the participant's power of visual imagination was used.

3. *Cognitive Reconstruction.* This is the main technique of CBT and aims at bringing change or brings to better thinking and false beliefs of the client which basically lie under every negative thought. In this technique, to get a better idea of the professional relationship the therapist tries to familiarize her/himself to the cognition, emotions and the behaviour of the client. To deal with the automatic negative thoughts and negative beliefs of the participants a technique of cognitive restructuring (thought challenging) was used to alter his/her negative thoughts into positive and more adaptable ones so that the participant may work effectively and efficiently. The negative thoughts were replaced with positive and motivating thoughts.

4. *Other Supporting Techniques:*

    I. *Deep breathing.* An exercise which is used to bring attention to present moment by developing awareness of physical sensations, feelings, thoughts, and their effects. To decrease the negative effects of thoughts and emotions related to negative experiences regarding academics deep breathing helps in instant reduction in intensity.
    II. *Homework assignments.* This is the practical zone in which the client attempts to perform whatever learnt at the session. It may also include behavioural trials.

Phase III: Post Assessment Phase

In this phase after intervention the Academic Stress Scale was re-administered in order to check the level of the academic stress in students.

Statistical Analysis

The data was analyzed through Statistical Package for Social Sciences-21. Descriptive statistics, Cronbach's alpha reliability and t-test analysis were used in the present study.

RESULTS

Table 1
Frequency and Percentage of Demographic Characteristics of Participants (N=30)

Demographics	*f*	%
Age (Years)		
19-22	17	56.6
23-26	13	43.3
Gender		
Male	26	86.7
Female	4	13.3
Education		
BS	25	83.3
MS	5	16.7

Table 2
Psychometric Properties of Academic Stress Scale in Pre-Assessment and Post-Assessment Phase (N=30)

Scales	*M*	*SD*	*α*
Academic Stress Scale- Pre-test	137.8	17.88	.97
Academic Stress Scale-Post test	58.9	10.73	.90

Table 3
Paired sample t-test analysis showing differences between Pre-test and Post-test on Academic Stress and Academic Performance (N=30)

Variables	*Pre-Test*		*Post-Test*		*t*	*p*
	M	*SD*	*M*	*SD*		
Academic Stress	137.8	17.88	58.9	10.37	21.86	.00*
Academic Performance	2.89	.31	3.03	.31	8.50	.00*

*$p<.05$, $df= 29$

DISCUSSION

The present study aimed to determine the effectiveness of Cognitive Behavior Therapy (CBT) for academic stress and academic performance in university students. The results (Table 3) regarding Hypothesis-1 revealed that application of CBT techniques significantly reduced the scores of academic stress in post testing. The results (Table 3) of the study regarding Hypothesis-2 show that the level of academic performance significantly increased post-test (M=3.03) than for pre-test.

The findings are consistent with other researches of the field. A study conducted to assess effectiveness of CBT to reduce stress among students revealed that CBT intervention reduced stress related to explanation of ideas, faced by students in school (Bryant, 2011). Another study on effectiveness of CBT for management of stress among university students demonstrate that CBT stress management can be viable in reducing pining to go home and the issues that the students may experience when they enter another college environment (Shahmohammadi, 2011). In a research done on middle school students to check effectiveness of CBT for academic achievement it was discovered that the techniques of CBT are very effective for academic achievement in small group sessions and there is positive correlation between the academic achievement and CBT (Zyromski, & Joseph, 2008). Further research on effectiveness of CBT on academic stress among high school students revealed that CBT techniques decreased the academic stress and as a result academic performance increased in high school students (Keshi, 2015). In another study for the school student's

academic stress reported that yoga and CBT had a great influence on decreasing academic stress of students and increasing mental wellbeing in a three month's intervention plan (Sharma, Shrivastava, Malhotra, Singh, & Singh, 2010). In a research on children with stress showed that CBT increased student's performance, and their cognition for better behaviours and decreased stress levels (Durlak, Fuhrman, & Lampman., 1991). In Jordan another study measured the effectiveness of CBT for students with mild to moderate depressive symptoms. The findings of the study showed that students had bring down scores on perceived stress, bring down depressive indications, less utilization of evasion adapting systems, and more utilization of approach coping strategies (Hamdan-Mansour, Puskar., & Bandak, 2009). A study on the children with mild learning disability shows that after completing the intervention plan the students had low level of stress and higher the social skill and improved the study related performances (Beauchemin , Hutchins, & Patterson, 2008)

The present study highlighted the relationship between academic stress and its relation to academic achievement in university students. Usually in case it remains unidentified and untreated, the academic achievement may be compromised hence affecting the lifelong career impact. Professional Psychological help through Cognitive Behavior Therapy has been proven effective in such cases.

The present study, like other studies do have certain limitations like sample size, confounding factors etc. may have played some role as well. Such intervening factors impact the generalization for generic scenarios. Furthermore, the expertise of therapist is also crucial in intervention studies. However, it is concluded that students, going through academic stress can get benefit from different techniques of CBT to reduce the stress related to academics and enhance achievement.

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