CHAPTER I: INTRODUCTION

Introduction

Stress is any situation or event that evokes negative thoughts and feelings in a person. The same stressful situation is not stressful for all people, and all people do not experience the same negative thoughts and feelings when stressed. One of the models of stress that is useful in understanding stress among students is person–environment (P-E) model (French, 1973). The fundamental premise of P-E fit theory is that stress arises from misfit between the person and environment. The core element of the theory depicts three basic distinctions central to P-E fit theory. The first and most basic distinction is between the person and environment. This distinction is a prerequisite for the conceptualization of P-E fit and provides the basis for examining reciprocal causation between the person and environment. The second distinction is between objective and subjective representations of the person and environment. The objective person refers to attributes of the person as they actually exist, whereas the subjective person signifies the person’s perception of his or her own attributes (i.e., the person’s self-identity or self-concept). The third distinction is between fit defined in terms of abilities-environmental demands and needs- environmental supplies. Analogously, the objective environment includes physical and social situations and events as they exist independent of the person’s perceptions, whereas the subjective environment refers to situations and events as encountered and perceived by the person (Harrison, 1978). According to one variation of this model stressful events can be appraised by an individual as ‘challenging’ or ‘threatening’. When students appraise their education as a challenge, stress can bring them a sense of competence and an increased capacity to learn. When education is seen as a threat, it can elicit feelings of helplessness and sense of loss of inadequacy (Whitman, 1985).

A critical issue concerning stress among students is its effect on learning. The Yerkes-Dodson Law (1908) postulates that individuals who are under low or high stress learning is least and research support the notion that excessive stress is harmful to students’ performance.

Mechanisms explain why students perform badly under stress include ‘hyper vigilance’ (excessive alertness to a stressful situation resulting in panic—For example,
over studying for an exam) and ‘premature closure’ (quickly choosing a solution to end a stressful situation-for example, rushing through an exam) (Whitman, 1985).

Stress is associated with impairment of health, and negative emotional experiences which is detrimental to quality of life and sense of well being (Sinha, 2000). Out of number of stress faced by adolescents and young adults, academic stress emerges as significant mental health problem in recent years (Rangaswamy, 1995). It has been estimated that 10% to 30% students experience academic related stress that affects their academic performance, psychological adjustment along with their overall emotional and physical well being. Information load, high expectations, academic burden or pressure, unrealistic ambitions, limited opportunities, high competitiveness are some of the important source of stress which creates tension, fear, and anxiety. Poor academic performance, diminished popularity, depression, attention difficulties, somatic complaints, and substance abuse are commonly observed problems among the victims of academic stress without being aware of alternative means to cope with problems (Sinha, 2000).

Therefore, by identifying the students having stress (academic stress) can help them to cope with stress and its related variables such as depression, low self-efficacy, and poor academic performance. Research show that among therapeutic techniques, Cognitive Behavior Therapy (CBT) appeared effective remedial method for reducing stress and depression and enhancing self-efficacy and academic performance (Cormier & Nurius, 2003; Barbabasz & Barabasz, 1981; Webb, Brigman and Campbell 2005; Brigman & Campbell, 2003; Sapp & Farrell, 1995; Brett & Arline, 2005).

The present study is an attempt to investigation of the effectiveness of CBT on academic stress, depression, self efficacy and academic performance among high school students in Iran.

**Research questions**

Many students show poor performance in school because of various types of school stress e.g. academic stress, teachers, friends, time pressures, parents’ expectations and bullies (Scott, 2011). This may lead to anxiety, depression, low self-efficacy and poor academic performance in these students. So it is important to identify these children and use the suitable intervention to reduce their stress. Earlier studies have shown that
cognitive behavior interventions reduce stress, depression and increase the academic achievement of student in high schools (Barret, 1998; Kimberly & Smith, 2009). Present study, is an attempt to verify the following research questions: 1. Does CBT decrease academic stress? 2. Does CBT increase the academic achievement of students? 3. Does CBT decrease the students’ depression? 4. Does CBT improve student’s self efficacy?

**Need for the present study**

Though, CBT is effective in reducing stress, depression and increased academic performance, for the following reasons present study is attempted.

There are several factors which may leads to academic stress in the students. Number of changes occurs rapidly during the adolescent period namely physical, physiological, psychological, cultural, interpersonal, biochemical and hormonal and so on. If the individual is poorly equipped to handle this crisis he/she may find it extremely difficult to adjust to these rapidly changing events. Each of these factors individually or in combination may result in creating stress in the individual. The individual may experience stress, adjustment problem, anxiety and depression. Further, biochemical and hormonal changes that take place endogenously can lead to increased sexual interest, curiosity and sexual activity (for which individual maybe poorly equipped) may create more anxiety, stress, self doubt and adequacy about himself leading to further increase in stress. Because of activation and release of sexual hormones (estrogen in girls and androgen in boys) may cause the young one to show different types of behavior that represent their gender identity. During this period the bodily changes that occurs (such as face acne, base voice and so on) can have influence their self esteem while comparing themselves with other peers may also lead to development of negative self esteem (ex. I am inadequate, poorly equipped, inferior, etc) which may contribute to severe stress and anxiety about themselves.

According to Hall (1904) adolescent period is accompanied by disturbance and emotional instability, and he attributed this to psychological, physical and physiological changes leadings to confusion and poor self concept. Arnett (1999) pointed out that adolescents experience stress and disturbance more than any other age group. According to Erikson (1968) psychosocial crisis of this period is ego identity versus identity distortion. Unsatisfactory solution to this crisis can lead to increased stress, anxiety and
depression and will affect their self efficacy to solve this crisis (identity crisis) in an appropriate manner (Weiten, 2002). During this stage of life the young ones are under the influence of peers. This dependency and belongingness to peer group can have negative effects on individual leading to disturbed interpersonal relation with parents which may leads to disturbed emotional relationships, increased aggression, depression, stress and anxiety which in turn may affect their academic performance.

Present study aims at studying the high school children in Iran, because these adolescents are exposed to new subjects for the first time, (e.g. Physics, Chemistry, Geometry, Algebra and so on) and in the process of learning and mastering the subject contents may create new set of stresses and anxieties. Further, type of school (school environment), teacher’s factor, and changes in medium instruction, Parental pressures and expectations (to excel in the class) may result in academic stress in the students.

Increased interest and excessive use of computer, internet, mobile, mass media, spending more time for these and less time for academic activity may play an important role in increasing stress and depression.

Adolescence is also the age of schooling. In this period (special between 15-17) students think more about the college, they have to move based on their parents expectations, because most of the parents tend their children enter to the medical science, law and engineering colleges. Therefore, it needs hard efforts from the students to meet the parent’s expectations and this may leads to stress in the students.

The above factors cumulatively may result in severe stress, depression, poor coping strategies and low self efficacy in these students, leading to neglect of academics, poor academic performance and sometimes resulting in school dropout. If the students with high stress, poor performance and depression can be identified at an early stage and appropriately addressed (to cope with academic stress, depression) with suitable intervention techniques (CBT), students will benefit and become a useful citizen of the nation. Further early identification and intervention will prevent the individual from future adjustment problems. In the long run these intervention techniques equip the individual in future to handle similar kind of stressful situations more effectively and adequately.
Aim

This investigation is designed to study the efficacy of Cognitive Behavior Therapy on academic stress among high school students.

Objectives

1. To study the effectiveness of cognitive behavior therapy on academic stress among high school students.
2. To study the effectiveness of cognitive behavior therapy on depression among in high school students.
3. To study the effectiveness of cognitive behavior therapy on academic performance among in high school students.
4. To study the effectiveness of cognitive behavior therapy on high school student’s self efficacy.

Hypotheses

1. Cognitive behavior therapy is effective in decreasing Academic Stress.
2. Cognitive behavior therapy is effective in decreasing Depression.
3. Cognitive behavior therapy is effective in increasing Academic Performance.
4. Cognitive behavior therapy is effective in the increasing student’s Self Efficacy.

Research variables

Dependent variables in this study are: Academic Stress, Depression, Self Efficacy and Academic Performance.

Independent variable is Cognitive Behavior Therapy. Further, in the present study variables such as groups (experimental and control groups), gender and grades considered as second independent variables or mediator variables.

Definitions of variables:

A) Theoretical definitions

Stress

According to Manktelow (2003) Stress, a universal phenomenon is considered to be a condition in which people respond physiologically, psychologically, behaviorally
and socially to life changes. These changes may be occurring through family of related experiences, pathways, education, and outcomes caused by a range of different events or circumstances.

**Academic stress**

Academic stress is a significant source of stress for many students (Hashim, 2003), covering not only examinations but also other academically related stressors such as fear of logging behind in the homework, writing assignment, working on individual and group projects, time pressure, lack of financial support, concern about academic ability, scheduling classes and required motivation to study (Tyrrel, 1992). For many students, the pursuit of higher education is a time of transition marked by a set of demands specific to the setting. Academic stress is the product of a combination of academic related demands that exceed the adaptive resources available to an individual. If a student is unable to cope effectively with academic stress, then serious psychosocial-emotional health consequences may result (Scott, 2008).

Some academic stress is normal for students, new stressors may arise because of exposure to new educational concepts for the first time on their life (such as mass media, internet, computer and so on), adjusting to new social setting (for example, change in medium of instruction, changing of residence, migration, peers pressure and shifting from one school to another one) and taking on a larger workload. Too much academic stress can contribute to depression, anxiety and physical illness (including headache and stomach ulcer) which can in turn negatively affect academic performance (Dedeyn, 2008).

**Depression**

Depression is the most common psychiatric disorder. It is a disabling condition that adversely affects a person's family, work or school life, sleeping and eating habits, and general health. Incidence of depression has increased every year in the past century, and now one out of six people will experience a depressive episode (First, Frances & Pincus, 2004).
Depression is typically characterized by low mood, low self-esteem, and loss of interest or pleasure in normally enjoyable activities. According to DSM-TV-TR the criteria for Depression are characterized as following:

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

A.1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). Note: In children and adolescents, can be irritable mood.

A.2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others).

A.3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains.

A.4. Insomnia or hypersomnia nearly every day

A.5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feeling of restlessness or being slowed down).

A.6. Fatigue or loss of energy nearly every day.

A.7. Feeling of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).

A.8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observe by other).

A.9. Recurrent thoughts of death (not just fear of dying), recurrent suicide ideation without specific plan or a suicide attempt or a specific plan for committing suicide

B. The symptoms do not meet criteria for a mixed Episode.
C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The symptoms are not due to the direct physiological effects of a substance (e.g., during of abuse an addiction) or a general medical condition (e.g., hypothyroidism).

E. The symptoms are not better accounted for by bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicide ideation, psychotic symptoms, or psychomotor retardation (First, Frances & Pincus, 2004).

**Self-efficacy**

Self-efficacy refers to one’s personal beliefs in their ability to organize and execute a course of action required to reach a desired goals (Bandura, 1986). Operationally, academic self efficacy refers to the level of confidence one has in their ability to execute a course of action or attain a specific performance outcome (Solberg et al, 1998). Academic self efficacy refers to one’s belief in performing academic tasks, and how successfully they believe they can carry out the given academic tasks at desired designated levels (Torres & Solberg, 2001).

**Academic Performance**

Academic performance is successful accomplishment or performance in a class or courses, which is typically summarized in various types as grades, marks, score or descriptive commentary. Academic performance really means three things: 1) The ability to study and remember facts, 2) being able to study effectively and see how facts fit to gather and form larger patterns of knowledge and being able to think for yourself in relation to facts, 3) being able to communicate your knowledge verbally or write down on paper (Pandey & Faiz, 2008).

**Cognitive Behavior Therapy**

A Cognitive Behavior Therapy is a form of psychotherapy for modifying everyday thoughts and behaviors, with the aim to positively influence emotions. The
general approach developed out of behavior modification and cognitive therapy, and has become widely used for the management of psychological disorders. The particular therapeutic techniques vary according to the particular kind of client or issue, but the technique commonly include keeping a diary of significant events and associated feelings, thoughts and behaviors; questioning and testing assumptions or habits of thoughts that might be unhelpful and unrealistic; gradually facing activities which may have been avoided; and trying out new ways of behaving and reacting.

Relaxation and distraction techniques are also commonly included under CBT and are widely accepted as an evidence-based, cost, effective psychotherapy for many disorders. The techniques are also commonly adopted as self-help manuals and increasingly self-help software packages (Norcross & Goldried, 2005).

Cognitive behavioral therapy interventions in high school would mainly be concerned with helping students realize three things: how their thought patterns affect their behavior; how they can take control of these thought patterns and how they can apply interventions to effect behavior change (Hall & Hughes, 1989).

B) Operational definition

B.1. Academic Stress

In this study academic stress is operationally defined as stress measured by Scale for Assessing Academic Stress (SAAS, Sinha, Sharma and Mahendra, 2001).

B.2. Depression

In this study depression is operationally defined as depressive symptoms measured by Children Depression Inventory (CDI, Kovacs, 1992).

B.3. Self Efficacy

In this study self efficacy is operationally defined as general self efficacy measured by General Self Efficacy Scale (GSES, Schwarzer & Jerusalem, 1995).

B.4. Academic Performance

In this study academic performance is referred to as percentage of marks obtained by the students in term exams of that particular academic year. This will be obtained by the researcher from the concerned institution at the beginning and the end of the academic year for the purpose of the study.
B.5. Cognitive Behavior Therapy

CBT was operationally defined as the psychotherapeutic approach based on learning principle in which intervention consists of identifying and modifying the maladaptive, mediating and maintaining cognitive, perceptual, behavioral, affective, physiological and environmental factors. Modification implies eliminating / reducing the maladaptive behavior (academic stress and depression) and instilling /strengthening the adaptive behavior (self efficacy and academic performance).