

TEST ANXIETY AND COPING STRATEGIES AMONG COLLEGES STUDENTS

ABSTRACT

The present study is aimed to explore the relationship between test anxiety and coping strategies among college students. Sample consisted of 150 college students (75 female and 75 male) whose age range was 16-21 years. Test Anxiety Scale (Sarason & Gordon, 1983) and Coping with Problem Experiences Scale (Hasting, 2005) were used for data collection. Results showed that test anxiety is negatively correlated with coping strategies. Moreover, active avoidance coping strategies are positively correlated with test anxiety whereas, problem focused coping strategies are negatively correlated with test anxiety. Female students scored high on the variable of test anxiety as compared to male students while, male students scores high on coping with problem experiences as compared to female students. Hence, it can be concluded that the effect of test anxiety can be reduced by using problem-focused coping strategies. At the end, practical implications were discussed and suggestions for future research were made.

Keywords: Test anxiety, coping strategies, Active Avoidance Coping, Problem –focused coping

INTRODUCTION

Test anxiety is a special case of general anxiety and it is an unpleasant feeling or emotional state that has both physiological and behavioral components and is experienced in formal testing or other evaluative situations (Sandra, 2004). Sansgiry and Sail (2006) defined it as the reaction to stimuli that are associated with an individual's experience of testing or evaluating situations. Birenbaum and Nasser (1994) claimed that test anxiety has become one of the most disruptive factors in school and other settings where testing is performed. It has been estimated that 30% of all students suffer from various levels of test anxiety (Shaked, as cited in Lufi et al., 2004).

The most widely discussed anxiety types are the state anxiety and trait anxiety. State anxiety is a transitory emotional state or condition of the human beings that is characterized by subjective, consciously perceived feelings of tension, and by heightened autonomic nervous system activity. State anxiety may differ in intensity and fluctuate

over time as a function of perceived threat (Schwarzer & Spielberger, 1982). In contrast, trait anxiety refers to relatively stable individual differences in anxiety proneness that is, to differences between people in the tendency to respond with elevations in state anxiety when a circumstance is perceived as threatening. Test anxiety, the focus of this study, is one form of state anxiety.

According to Vogel and Collins (2005), there are different factors that cause the development of test anxiety. These include the self-concept and climate of classroom. Sansgiry and Sail (2006) stated that many other factors can also lead to the development of test anxiety. Students' past experiences and beliefs, which have been shaped by a complex interaction of factors, may result in unique reactions to a test situation and it may lead to test anxiety. These may include their past experiences with courses and their perceptions of course load, as well as their ability to manage time. Causes of test anxiety can be explained by two models: first the "interference model" and second the "learning-deficit model". According to the interference model, test anxious students are distracted or nervous due to task-irrelevant cognitions and negative thoughts during test taking. However, the learning-deficit model proposes that it is students' ineffective study habits during preparation for a test that causes them to be anxious and affects performance on the test.

Coping is broadly conceived as an array and overt behaviors pattern by which organism can actively prevent, alleviate, or respond to stress inducing circumstances (Lazarus, as cited in McGrath, 1990). The term coping refers to persons active efforts to resolve stress and to create ways of handling new situations at each life stage. In other words coping response is what you think and deal with demands. Thus, coping is ongoing, dynamic, interactional process. Your repeated pattern of coping becomes your coping style (Schaffer, 1992).

Coping strategies have been conceptualized as the cognitive and behavioral plans that individuals use to control their environmental surroundings and to lessen any stress that may occur when environmental demands surpass individuals' resources (Folkman and Lazarus, as cited in Collins & Onwuegbuzie, 2003). These are rational and conscious ways to deal with the anxieties of life (Riaz, 2002). While coping is a goal-directed process in which the individual orients thoughts and behavior towards the goal of resolving the source of stress and managing emotional reactions and distress (as cited in Compass, Smith, Saltman, Thomsen, & Wadsworth, 2001).

Hasting, Bown, Kovshoff, Espinosa, Ward, and Remington (2005) identified the structure of parental coping in families of children with autism through factor analysis of Brief-COPE (Carver, 1997) and reported four factors that include, 1-Active avoidance coping include all the items from Brief COPE subscales for the use of behavioral, self-blame, substance abuse, venting of emotions and one item from distraction scale. 2-Problem-focused coping included all the items from the original Brief-COPE subscales for active coping, planning, seeking emotional social support, and one item from seeking emotional social support scale. 3-Positive coping included items from the subscales of Brief COPE for the use of humor and positive reframing, and one each item from the

acceptance and emotional social support scales and 4-Religious/Denial Coping is a mixed factor that included all the Brief COPE items for religious coping and denial.

Aysan, Ferda, Thompson, Dennis, Hamarat, and Errol (2001) conducted a study in which a group of high school juniors and high school seniors in Izmir (Turkey) completed measures of test anxiety, coping skills, and perceived health status both before and after a major exam period. The study indicates that students with high test anxiety used less effective coping mechanisms and tended to have poorer perceptions of their health. Prior to the exams, juniors showed higher test anxiety and used less effective coping mechanisms than seniors. After the exam periods, improvements were seen for both age groups on perceived health, but scores of younger students remained significantly higher than scores of seniors on one of the key measures of test anxiety.

Some researchers explored gender differences in coping behavior and found that women are more likely than men to use avoidant coping process like distraction, passivity, hostile reaction and wishful thinking. However compared with men, they found that women reported reliance on both approach that is avoidant coping and avoidance coping (Thompson & Hamarat, 2001; Tamres, Janlcki, & Helgeson 2002). In a recent meta-analysis by Tamres et al. (2002), the authors found that women tend to engage in a wider variety of coping strategies when faced with stressful events than men. Similarly, women have been found to report greater stability of coping strategies over time (Arthur, as cited in Liliana, 2000).

Thousands of students suffer from test anxiety especially college students. Their test scores hardly ever reflect what they have learned relative to course content. Rather, their test scores are a reflection of the degree of composure they are able to master during the testing situation. As they progress to higher grade levels, these high-anxious students become yet more anxious and the negative gap between test anxiety and measures of achievement becomes wider. It was estimated that 25% of college students have performance-debilitating test anxiety. Many of these students' academic performance deficiencies are really the net result of poor test coping skills (Sandra, 2004).

Rationale of the Study

Test anxiety has been studied broadly in western countries but not much studied in eastern countries especially in Pakistan so the present research will help to fill the gaps in people's knowledge and the students to know about effective style of coping with test anxiety. Test anxiety not only can cause children to rush through testing in order to escape from unpleasant physical experiences (Rubenzer, 1988), but also it may create an "invisible disability" of achievement stress that can badly affect throughout a student's academic career (Hill & Wigfield, 1984). The "flight or fight" response is often experienced as a part of test anxiety which can lead to major changes in attitude and effort that may include outbursts, withdrawal, overactive behaviors, avoidance of school, fatigue, and other depressive symptoms (Rubenzer, as cited in Liliana, 2000).

Currently, college students all over the world are being faced with an increasing level of anxiety related to their test situation. Aysan, Thompson, and Hamarat (2001) noted that students are now necessary to learn much more information than in previous years. For

students in order to achieve a sense of life satisfaction while in college, they must have, they must know different coping strategies which are needed to deal with various stressors (Aysan et al. 2001). Each year, many students find themselves trying to cope with the distress they experiences due to upcoming examination. Since students generally find examinations to be aversive and have been found to become more nervous as examination approach, academic success may depend on student's ability to utilize adaptive coping strategies when preparing for tests. The present study aims at examine the phenomena of test anxiety among college students and the coping strategies they use to cope with test anxiety (Edelmann & Hardwick, as cited in Baker, 2003).

Hypotheses

The study was conducted to test the following hypotheses:

1. There is a relationship between coping strategies and test anxiety.
2. Problem focused coping strategies are negatively correlated with test anxiety whereas; active avoidance coping strategies are positively associated with test anxiety.
3. Female students use more active avoidance coping strategies whereas, male students use more problem focused coping strategies.

METHOD

Instruments

In the study, following scales were used:

Test Anxiety Scale.

Test Anxiety Scale was developed by Sarason and Gordon (1953) to measure the level of test anxiety. It had 37 true-false items. The total number of "true" answer was the student's test anxiety score. A score of 12 or below ranked the respondent in the range of low test anxiety. A score of 12 to 20 ranked the respondent in the medium range. Score above than 20 indicated high test anxiety.

Brief COPE.

Coping of Problem Experience (COPE) scale was originally developed by Carver (1989). Its Urdu translated version (Akhtar, 2005) was used to identify the coping strategies used by the student to lessen their test anxiety. Brief COPE was a briefer form of COPE Inventory. It was consisted of 28 items categorized into 14 subscales and they were Self Distraction, Active Coping, Denial, Substance Abuse, Use of Emotional Support, Use of Instrumental Support, Behavioral Disengagement, venting, Positive Reframing, Planning, Humor, Acceptance, Religion, Self Blame. Items were arranged in a 4-point Likert-type scale.

In the present study factor structure of Hasting (2005) for Brief COPE was used. It had four subscales namely; Active Avoidance Coping, Problem-Focused Coping, Positive Coping and Religious Denial Coping .The items were summed for each subscale separately to get a total score on all four categories. The high scores on each subscale showed more use of that particular coping strategy and low score indicated less use of that coping strategy.

Sample

The sample was taken from the students of Rawalpindi colleges that included the Post Graduate College for Women, Kashmir Road Rawalpindi and F.G College for Boys. The total sample was of 150 students in which 75 were girls and 75 were boys and their age range was 16-21 years (Mean age =18.4). The education level of the students was graduation. Purpose convenient sampling technique was used for data collection.

Procedure

The students were approached from their classes. They were informed about the purpose of research and were asked for their willingness to take part in the research. The students were given instructions and were requested to give their answers honestly and accurately as they could not to leave any statement unanswered. They were also ensured that information provided by them will be kept confidential and will be used for research purpose only. Researcher had paid special attention to give similar instructions to both boys and girls. As researcher had used two scales in the study so there were first administration of "Test Anxiety Scale" on student to measure the level of their anxiety in test situations then the administration of second scale that was "Brief COPE" was used to find out different coping strategies of students. After the completion of data respondents were thanked for their participation and cooperation.

RESULTS

The present study was conducted to investigate the relationship between test anxiety and coping strategies used by students. For its psychometric properties, reliability and item total correlation of the test scores were computed. *T-test* and correlation were also computed to find out differences and relationship between the variables. Table 1 shows the alpha reliability of test anxiety scale. The reliability (.86) shows that this scale is highly reliable for the research in measuring test anxiety among students. Table 1 also shows the alpha reliability of Brief Cope Scale and its subscales. It means that it is reliable scale for measuring the coping strategies among college students.

Table 1

Alpha Reliability of Brief COPE & subscales of Brief COPE and Test Anxiety Scale (N=150)

Scale name	No. of items	Alpha coefficients
Breif COPE Scale	28	.69
Active Avoidance Coping	10	.64
Problem –focused coping	7	.77
Positive coping	7	.66
Religious/Denial	4	.42
Test anxiety scale	37	.86

Table 2 indicates that there is a negative correlation between test anxiety and coping strategies which is statistically significant ($p < .05$). Table 2 indicates that there is a

negative correlation between test anxiety and problem focused strategies which are statistically significant whereas. Results also indicate that there is a positive correlation between Test anxiety and Active Avoidance Coping strategies that is statistically significant ($p < 0.01$).

Table 2

Correlation Coefficients of Problems-focused coping strategies and active avoidance coping strategies with test anxiety

	Test Anxiety Scale	<i>P</i>
Problem-focused coping strategies	-.48	.01
Active Avoidance coping strategies	.48	.01
Coping Strategies	-.18	.05

Table 3 shows that comparison between male students and female students on Test Anxiety Scale. Significant gender difference was found between female and male students. The results indicate the female students are more test anxious than male students. There is considerable difference in mean score on Test Anxiety Scale. The mean score of male students on Test Anxiety Scale ($M = 16.44$) is less than the mean score of Test Anxiety Scale by female students ($M = 23.29$) which indicate that female students show high level of test anxiety than male students. The Results are significant ($t = 6.21, p < .01$)

Table 3

Comparison between Male and Female Students in Test Anxiety and Utilization of Coping Strategies ($N=150$)

Coping strategies	Male Students ($N = 75$)		Female Students ($N = 75$)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Test Anxiety	16.44	7.07	23.29	6.41	6.2	.01
Problem focused	21.58	4.18	19.14	4.42	3.6	.01
Active Avoidance	24.30	4.90	26.18	4.90	2.4	.01

$df = 148$

Table 3 shows the gender difference between male and female students in utilizing coping strategies. Significant gender difference was found ($t = 3.6$) between female and male students. The result indicates that male students utilize more problem-focused strategies in coping their test anxiety than female students. There is considerable difference in mean scores on male and female students. The mean score of female students ($M = 19.14$) is less than the mean score of male students ($M = 21.58$) which indicate that male students use more problem- focused coping strategies than female

students. Result of the table 3 also indicates that female student use more active avoidance coping strategies to cope their test anxiety than male students. There is considerable difference in mean score on male and female students. The mean score of female students ($M = 26.18$) is less than the mean score of male students ($M = 24.30$) which indicate that female students use more active avoidance coping strategies than male students.

DISCUSSION

The present research is aimed to analyze and measure the reported level of test anxiety and to explore the methods and strategies which students used to cope their test anxiety during their examinations. The findings of the present research have significant and acceptable reliability on both scales i.e. for test anxiety scale ($r = .86$) and for Brief Cope ($r = 0.69$) (see table 1).

The previous literature review on the relationship of test anxiety and coping strategies of students shows that both variables are negatively correlated (Aysan, Ferda, Thompson, Dennis, Hamarat, and Errol, 2001). The results of present study also showed that there is a negative correlation between test anxiety and coping strategies (see table 3). The magnitude of correlation is $r = -0.18$ ($p < 0.05$).

The literature review reports differences in test anxiety level of males and females. Billingham and Katherine (2005) conducted two studies related to influences of sex differences in test anxiety. In both studies, females had higher scores than males on Test Anxiety Scale. The present study also shows that female students showed high score ($M = 23.29$) on Test Anxiety Scale than male students ($M = 16.44$). Some researchers have found gender differences in the use of various coping strategies but there are inconsistent findings regarding gender differences in the use of problem focused coping strategies or active-coping strategies. Some studies indicate that males use problem-focused strategies more often than females (e.g., Brems & Johnson, 1989; Stone & Neale, 1984) and some researches indicate that women use them more than men (e.g., Billings & Moos, 1981; Ptacek, Smith, & Dodge, 1994); whereas others find no differences (e.g., Hamilton & Fagot, 1988). But the results of present study shows that females show more active avoidance coping strategies while men use more problem-focused coping strategies. Our findings are in line with the findings of Morris and Engle (2004) who examined the use of cognitive coping strategies in meeting the stressfulness of a testing situation and the relation of these strategies to performance and test anxiety. The findings of the study were that rationalization and isolation was associated with better performance while pre-occupation and resignation associated with higher anxiety and poorer performance, and denial is associated with lower anxiety.

According to Whatley, Foreman, and Richards (1998) problem-focused coping was often associated with higher exam scores as well as lower levels of anxiety in stressful situations. Similarly the results of present study support the hypothesis that test anxiety is negatively associated with problem-focused coping strategies. The magnitude of correlation is $r = -.48$ insignificant ($p < .01$) (see table 2).

The results of present study indicate that test anxiety is positively correlated with active avoidance coping strategies i.e. the magnitude of correlation is $r = .48$ ($p < 0.01$), (see table 2). Likewise earlier researches also suggested that emotion focused coping and active avoidance coping (i.e. doing unrelated activities) had been found to be associated with higher levels of anxiety in exam situations (Zeidner, 1995). It can be concluded that, There is significant difference between scores of female students and male students in level of test anxiety. Moreover, there is significant difference between scores of female students and male students in their coping strategies in relation to the test anxiety.

Limitations and suggestions

Purposive convenient sampling technique was used for data collection. Respondents who participated in the study were volunteers who agreed to be the part of the research. It can be inferred that some kind of bias can indulged when dealing with convenient sampling. The cross-sectional nature of current investigation prevents us from examining causality. The sample selected was not large enough to make the results generalizable. The entire sample was taken from the government institutes so for the future studies collect data from the private institutes also and administer it on large sample. Intervention plans can be devised to mitigate the effect of test anxiety among college students. The results of study are found to be reliable and can be used for further researches.

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