Test Anxiety and Self-Concept of University Students Enrolled in B Ed Honors Degree Program Funded by USAID

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Abstract

The major purpose of this correlational study was to identify the relationship between self-concept and test anxiety among students of B Ed Honors Degree Program of USAID. Population of the study comprised students enrolled in three universities of Pakistan (University of the Punjab, Lahore, University of Education, Lahore, Sardar Bahadur Khan University, Quetta). A sample of 219 students (184 females and 35 males) was selected through simple random sampling technique. An adapted questionnaire was used as data collection tool which consisted of two sub scales: one to measure test anxiety and the other to measure self-concept. Respondents had to respond on five point Likert scale type self-reported items. Instrument was validated through conducting pilot study (Cronbach Alpha .76). Data was analyzed through SPSS, t-test was applied to identify difference between self-concept and test anxiety of male and female students of B Ed Honors program. Nature of relationship between the two variables was calculated through Pearson r correlation coefficient. Major findings were reported and recommendations to respective universities were made.

Keywords: Test anxiety, self-concept, B Ed honors program

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Introduction

Research has proven that formal education increases number of tasks and level of difficulty at each of the stages, which consequently increases stress level among students (Hampel, 2008). Researchers also found test or assessment as one of the important stressors for students (Jindal-Snape & Miller, 2008), and an increase in the level of test anxiety over time (Whitaker et al., 2007).Generally, every individual feels varying level of tension during getting prepared for and taking tests. Research proved that reasonable and right amount of anxiety can enhance students' enthusiasm, attention and learning which results in enhanced performance on test (Cizek & Burg, 2006). Researchers also found that high level of test anxiety is linked with poor academic performance (Culler & Holahan, 1980; Dendato & Diener, 1986; Musch & Bröder, 1999; Rana & Mahmood, 2010).

Donaldson et al., (2002) referred test anxiety as "the set of (primarily) affective, cognitive and behavioral responses that accompany concern over possible negative consequences contingent upon performance in an evaluative situation" (p.262). Nicaise (1975) defined test anxiety as responses of a person that cause negative feeling about test and evaluation. Ringeisen and Buchwald (2010) characterized test anxiety as a feeling of incapability to learn or remember, a feeling of worry for test, and trouble in reading and understanding straightforward statements or instructions on an examination. Zeidner, (1998) and Whitaker et al., (2007) mentioned that lack of confidence, worry, emotional disturbance, mental obstruction are the indicators of test anxiety.

There are two dimensions of test anxiety, one is emotionality and other is worry (cognitive test anxiety). Psychological responses indicating emotionality factor of test anxiety include: increased heart beat; feeling of panic; faintness or sickness (Deffenbacher, 1980; Hembree, 1988; Morris, Davis, & Hutchings, 1981). Cognitive test anxiety (worry) is symbolized by the cognitive reactions of individuals to evaluative situations. Thoughts of individuals with high level of cognitive test anxiety mounted on: self-comparison with peers on performance; fear of failure consequences; low self-confidence in performance; undermining self-worth (Deffenbacher, 1980; Hembree, 1988; Morris, Davis, & Hutchings, 1981). Researchers found cognitive factor of test anxiety consistently associated with decreased performance (Hembree, 1988).

Self concept is considered as the cognitive aspect of one's own self. Theorists defined self-concept as a dynamic multidimensional construct (Byrne, 1988; Harter,

1985; Shavelson & Bolus, 1982). Self-concept is also defined as all of information that an individual possesses about his own self (Purkey, 1970; Schwarzer& Jerusalem, 1992). Individuals get their self-concepts during interacting with their environments (Bracken & Howell, 1991).

Franken (1994) suggests that self-esteem and self concept are related to each other, i.e. "individuals with good self-esteem have a clearly distinguished self-concept.... and individuals who come to know about themselves, can produce better outcomes by knowing what they can and what they cannot do" (p. 439). In a study, Zhi (2006) reported that test anxiety score was significantly negatively correlated with self-esteem scores. Xuet al. (2005) argued that improvement of self-concept reduces test anxiety of students. Zeidner & Schleyer (1999) found that negative self perceptions collapse self-concept of students which in turn enhance evaluative anxiety among students.

Professional training of prospective teachers is a task of dire importance. In Pakistani context, B.Ed (Hon) Degree Program has been launched with the assistance of USAID to impart training to prospective teachers. Under this program, special workshops are conducted where assignments are done through group activities considering individual importance of every learner. Teacher educators are trained to impart further training to prospective teachers. The present study was conducted to find out level of self-concept and test anxiety among prospective teachers so that gaps in this regard may be identified and suggestion to bridge these gaps may be given.

Objectives of the study

The study was conducted to achieve the following objectives:

- To find out the level of test anxiety and self-concept of male and female prospective teachers.
- To identify the difference in test anxiety and self concept among male and female prospective teachers.
- To identify the relationship between test anxiety and self concept of prospective teachers.
- To identify the difference in test anxiety and self concept of prospective teachers of three universities.

Research Method

Following procedure was used to carry out the study:

Population

Population of the study comprised prospective teachers enrolled in three universities of Pakistan i.e. University of the Punjab, Lahore, University of Education, Lahore, Sardar Bahadur Khan University, Quetta.

Sample

A sample of 219 prospective teachers (184 females and 35 males) was selected from three universities through simple random sampling technique.

Research Instrument

Two adopted questionnaires were used as data collection tool. To assess the level of test anxiety "Westside test anxiety scale" developed by Driscoll (2004) was used. To identify the self-concept of prospective teachers "Roberson self-esteem Questionnaire" developed by Rosenberg (1965) was used. Respondents had to respond on five point Likerttype scale for self reported items. Instrument was validated through a pilot study. Reliability index (Cronbach alpha) was .76 which is statistically acceptable.

Procedure of Data Collection

After obtaining written consent from the heads of three universities, the prospective teachers were contacted and briefed about the purpose and nature of study. They were assured that information taken from them will be kept in confidence and will only be used for research purpose. Similar instructions were given to all prospective teachers to avoid measurement related errors. The filling up of one questionnaire took fifteen minutes approximately.

Analysis and Interpretation of Data

Data was analyzed through SPSS, t-test was applied to identify difference of self-concept and test anxiety between male and female prospective teachers of B Ed Honors program. Nature of relationship between the two variables was calculated through Pearson r correlation coefficient. The data were analyzed and results were presented in tabular form with interpretations under each table.

Table 1
Descriptive statistics for test anxiety and self-concept score

Variable		Test Anxiety Score	Self concept Score
Male	High	13 (37%)	23 (66%)
	Low	22 (63%)	12 (44%)
Female	High	91 (49%)	76(41%)
	Low	93(51%)	108(59%)
Total		219	219

Table 1 shows that number of male prospective teachers having low test anxiety was more than the number of male prospective teachers with high level of test anxiety. Moreover, male prospective teachers had higher self concept. Table also shows that percentage of female prospective teachers (49%) having high test anxiety was greater than that of male (41%) prospective teachers. Similarly percentage of male prospective teachers with high self concept (66%) was greater than that of female (41%) prospective teachers. It showed that overall males have lower test anxiety and higher self concept than female prospective teachers.

Table 2
Group Statistics for mean difference between male and female prospective teachers for test anxiety and self concept scores

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean
Test Anxiety Score	Male	35	19.86	6.81	1.15
	Female	184	22.07	8.76	.65
Self-concept Score	Male	35	30.83	8.77	1.48
	Female	184	25.6	6.82	.50

Table 2 depicts that female prospective teachers had greater mean score for test anxiety (M= 22.07, SD= 8.76) than male prospective teachers (M =19.86, SD= 6.81) whereas male prospective teachers had higher self-concept mean score (M=30.83, SD= 8.77) than female prospective teachers (M=25.6, SD=6.825).

Table 3

Independent sample t-test for difference in test anxiety and self-concept between male and female prospective teachers of B Ed (Hon)

Variables	F	t	df.	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Test Anxiety	3.90	-1.41	217	.158	-2.21	1.56
Self- Concept	2.95	3.96	217	.000	5.23	1.32

Table 3 shows that there was no significant difference between mean scores of level of test anxiety of male (M =19.86, SD= 6.81as given in table 2) and female (M=22.07, SD=8.76) as given in table 2) prospective teachers of B Ed (Hon) with t(217)=-1.41, p=.158. Table also reveals that there was significant difference between mean scores of level of self concept of male (M=30.83, SD= 8.77) and female (M=25.6, SD=6.825) prospective teachers of B Ed (Hons.) with t(217)=3.96, p = .000. Results suggested that over all male prospective teachers had low level of test anxiety than female prospective teachers whereas they had high self concept than female prospective teachers.

Table 4

Correlation matrix for test anxiety and self- concept

Scale	Test Anxiety	Self Concept
Test Anxiety	1	-.55[**]
Self Concept	-.55[**]	1

Table 4 shows that there was significant negative correlation between test anxiety and self concept of prospective teachers. The correlation coefficient r = -.55 is significant at p< 0.05.

Table 5

ANOVA for difference among mean scores of test anxiety and self concept of prospective teachers in three universities

		Sum of Squares	df	Mean Square	F	Sig.
Test Anxiety Score	Between Groups	720.567	2	360.283	5.18	.006
	Within Groups	15035.881	216	69.611		
	Total	15756.447	218			
Self Concept Score	Between Groups	1053.300	2	526.650	10.447	.000
	Within Groups	10888.490	216	50.410		
	Total	11941.790	218			

The one-way AN OVA for test anxiety, F(2 , 216) = 5.18, MSE = 360.28, P =.006 demonstrated statistically significant differences among test anxiety scores of three universities. One-way ANOVA for self-concept, F(2, 216)=.000, MSE=526.65, p=.000 demonstrated that there was also statistically significant difference among self concept scores of three universities.

Table 6
Tukey HSD for Test Anxiety

Institution	N	Subset for alpha = 0.05	
		1	2
University of the Punjab	31	19.52	
University of Education	159	21.35	
S.B.K.Women University	29		26.07
Sig.		.579	1.00

The table 6 reveals the mean scores of prospective teachers of three universities. Prospective teachers of University of the Punjab had the lowest (19.52) and prospective teachers of Sardar Bahadur Khan University had the highest test anxiety score (26.07). The mean score of the prospective teachers of University of Education was 21.35.

Table 7
Tukey HSD for Self-Concept

Institution	N	Subset for alpha = 0.05		
		1	2	3
S.B.K. Women University	29	21.86		
University of Education	159		26.53	
University of the Punjab	31			30.23
Sig.		1.00	1.00	1.00

Table 7 shows the mean scores of prospective teachers of three universities regarding self-concept. Prospective teachers of University of the Punjab had the highest (30.32) and prospective teachers of Sardar Bahadur Khan University had the lowest mean score on self-concept (21.86). The mean score on self-concept of prospective teachers of University of Education was 26.53.

Table 8

ANOVA for difference among mean scores of three universities on test anxiety and self-concept

Dependent Variable	(I) institution	(J) institution	Mean Difference (I-J)	Std. Error	Sig.
Test Anxiety scores	University of Education	University of the Punjab	1.83607	1.63808	.502
		S.B.K.Women University	-4.71676*	1.68469	.015
	University of the Punjab	University of Education	-1.83607	1.63808	.502
		S.B.K.Women University	-6.55284*	2.15543	.007
	S.B.K.Women University	University of Education	4.71676*	1.68469	.015
		University of the Punjab	6.55284*	2.15543	.007
Self-concept scores	University of Education	University of the Punjab	-3.69750*	1.39397	.023
		S.B.K.Women University	4.66623*	1.43363	.004
	University of the Punjab	University of Education	3.69750*	1.39397	.023
		S.B.K.Women University	8.36374*	1.83423	.000
	S.B.K.Women University	University of Education	-4.66623*	1.43363	.004
		University of the Punjab	-8.36374*	1.83423	.000

Table 8 shows the details of ANOVA test for mean difference in test anxiety and self-concept scores of prospective teachers of three universities.

Conclusion and Discussion

Keeping into consideration the focus of study regarding relationship between test anxiety and self-concept, it was found that here was negative relation between two constructs, and overall male prospective teachers had lower test anxiety and higher self concept than female prospective teachers. It shows that due to better self concept they had lower level of test anxiety. This major finding is consistent with those of studies conducted by Xu et al. (2005) and Zeidner & Schlever (1999) who found that high level of self-concept helps in decreasing test anxiety among students. The later researchers also investigated that self-concept of students gets affected badly due to negative self perception which results in increased test anxiety among students.

Another important result of the study reflects that self-concept and test anxiety are strongly associated with each other which shows consistency with a finding reported by Hembree (1988) who asserted that low performance of students is associated with cognitive factor of test anxiety which may get increase through self-comparison with peers on performance, apprehension of failure, decreased self-

confidence, and defeating self-esteem (Deffenbacher, 1980; Hembree, 1988; Morris, Davis, & Hutchings, 1981).

Another significant finding of the study reveals that male prospective teachers had lower level of test anxiety as compared to female prospective teachers which is consistent with several research studies which explored that females have higher levels of test anxiety than males (Chapell et al., 2005; Cassady & Johnson, 2002; Bandalos et al., 1995; Mwamwenda, 1994). Cassady and Johnson (2002) further reiterated that prospective teachers' gender makes differences regarding levels of test anxiety. Both male and female students feel test worry on the same level, but females have greater level of emotionality. Majority of the male prospective teachers have low level of test anxiety which shows that they are less vulnerable of low performance on test. This finding is of interest as it is in line with the findings of the study reported by Zeidner (1990) who concluded that dissimilarity in test anxiety scores of males and females is due to gender difference on the basis of scholastic ability.

Recommendation

In the light of findings of the study, it is recommended that universities which are running prospective teachers training programs should take measures for the improvement of self concept in prospective teachers especially in female prospective teachers. It will certainly help them in controlling their test anxiety and making their performance better in tests. Furthermore, there should be special lectures for prospective teachers on teaching them how to get prepared for tests to reduce test anxiety among them. Additionally, teachers should provide vicarious experiences of success to prospective teachers so that they may forget their fear of failure and improve their self confidence and reduce test anxiety. Further research studies should be conducted to find relationship between test anxiety and self-concept in prospective teachers of children with disabilities.

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