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PREVIEW

**The Role of Culture and Other Predictors
in Test Anxiety**

By

Sarah I. Rubin, M.S. Ed.

PREVIEW

**A Doctoral Project Submitted in Partial Fulfillment of
The Requirements for the Degree Of Doctor of Psychology
In the Department of Psychology at Pace University**

New York

1999

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PSY.D PROJECT FINAL APPROVAL FORM

NAME: Sarah I. Rubin

TITLE OF PROJECT: The Role of Culture and Other Predictors
in Test Anxiety

DOCTORAL PROJECT COMMITTEE:

PROJECT ADVISOR: Alfred Ward, Ph.D.
Name
Associate professor of Psychology
Dept. of Psychology, Pace University
Title Affiliation

PROJECT CONSULTANT: Florence Denmark, Ph.D.
Name
Professor of Psychology & Chairperson
Dept. of Psychology, Pace University
Title Affiliation

FINAL APPROVAL OF COMPLETED PROJECT:

I have read the final version of the doctoral project and certify that it meets the relevant requirements for the Psy.D. degree in School-Clinical Child Psychology.

Alfred W. Ward
Project Advisor's Signature

6/10/99
Date

Florence L. Denmark
Project Consultant's Signature

6/10/99
Date

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PREVIEW

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Abstract

The nature of test anxiety, what causes it, and how one can treat it has been an area of concern to psychologists and educators for many years. Test anxiety research has prospered because test situations occur frequently and assume much importance in the lives of many people in all school environments, public and private, grade school through college. Estimates on the prevalence of test anxiety among a school aged population range from 10-30%. Test anxiety is a pervasive condition among college students.(Clawson, 1981) These implications demand that the factors that impact test anxiety be looked at, so that methods for reduction of test anxiety can be tailored to the student, and implemented by school psychologists, perhaps thereby reducing test anxiety, and ultimately improving students performance.

Test anxiety has been described as involving unpleasant emotional reactions that can be characterized by subjective feelings of tension, apprehension, nervousness, and uncertainty, continuing throughout an evaluative situation, such as a test. While a moderate level of test anxiety may enhance a student's performance in this situation, higher levels of test anxiety have been shown to interfere with the student's optimal level of performance. (King, Ollendick, & Gullone, 1991) In more severe cases of test anxiety, sometimes the student will refuse or skip going to school altogether, to avoid the anxiety provoking testing situation (King, et al. 1991). Test anxiety has been found to be correlated with poor performance and relating inversely to individuals' self-esteem, and

directly to fears of negative evaluation, defensiveness and other forms of anxiety. Other conditions that have been found to relate to test anxiety have been gender, with females reporting higher levels of test anxiety, and grade level with students in higher grade levels reporting higher levels of test anxiety.(Hembree, 1988)

Much of the literature on test anxiety has focused on it's impact upon performance and possible explanations for it's occurrence. Studies on test anxiety done in the past have mainly been conducted using United States populations and primarily Caucasians. These studies, can at most, be tentatively applied to other national populations. (Zeidner, 1990) In the past, results from the culturally sensitive test anxiety studies that have been done, have related their results to aspects of individualism and collectivism that are related to the student's cultural background. However, the findings of how an individual's culture may impact upon the construct of test anxiety among a university population are neither consistent nor sufficiently well established (El-Zahhar & Hocevar, 1991).

While research alludes to some link or overlap between test anxiety, performance, self-esteem, trait anxiety, cultural or ethnic background, and other demographic variables such as gender, there are not enough studies to properly assess the connection and therefore to ultimately devise interventions that will assist university students, with sensitivity to their individual needs in regards to their test anxiety. Aspects of self-esteem, an individual's culture, anxiety levels, gender, and other demographic factors would seem to be important aspects to look at together when investigating factors that impact upon test anxiety.

Based on the presented literature the following hypothesis was generated: 1)

Cultural variables, which include cultural values, ethnicity, and assimilation would significantly contribute to the prediction of test anxiety above that of traditional known predictors of self-esteem, trait anxiety, and gender. To test this hypothesis this study looked at factors that have previously been shown to have a variable effect upon the outcome of test anxiety, in addition to looking at how the students cultural background and cultural values may effect the outcome of test anxiety. This was looked at by studying a population of culturally diverse inner city students and included the broad ethnic grouping of Hispanics, African Americans, Asians, and Caucasians.

Results of a regression analysis showed unique contributions of Western vs. Eastern cultures, self-esteem, gender, and state anxiety such that people who are test anxious tend to come from a Western culture, have lower self-esteem, are female, and have state anxiety. Set-wise regression analysis indicated that culture does not contribute to the prediction of test anxiety above and beyond known predictors of test anxiety. Outcomes of this study are discussed in relation to possible enhancements of school psychologists methods for working with test anxious students.

Introduction

The nature of Test Anxiety (TA) and how one can treat it has been an area of concern to educators and psychologists for many years. Test anxiety research has been prolific, perhaps because testing situations occur so frequently and assume great importance in the lives of many individuals. The process of testing applies to students of all ability levels to monitor progress, diagnose problems, measure aptitudes and intelligence, screen for admission to schools, and place admitted students in their classes. An estimated number of 10 million students at the pre-college level are affected by TA and the condition is quite prevalent in college as well (Spielberger, Anton & Bedell, 1976). King, Ollendick, and Gullone (1991) estimate the pervasiveness of test anxiety among a school age population to range from 10%-30%. As one gets older it has been shown that there is an increase in self-report of test anxiety. It has been speculated that this trend in self report is related to increased exposure to tests as the student spends more time in school, as well as the perceived importance of the results of testing (King et al., 1991).

Previous studies have found test anxiety related to other aspects of an individual. Test anxious students have been found to achieve lower academic grades than their less anxious peers of equal ability (Sarason, 1963; King et al., 1991). It has been found that test anxious students experience difficulty in reading and comprehending instructions and also problems with recalling and organizing material. Poor performance on tests creates further anxiety, and a cyclical pattern may be established between test anxiety and

performance (King et al.1991; Campbell, 1986). In a meta-analysis done by Hembree (1988) which looked at the results of 562 studies on test anxiety, it was found that poor performance related inversely to an individual's self esteem, and directly to fears of negative evaluation, defensiveness and other forms of anxiety. Test anxiety has also been found to relate to an individual's gender with previous studies indicating that females report a higher level of test anxiety (Zeidner, 1990).

It cannot be denied that test anxiety has a profound impact on the many students who have it. Much research has been done on test anxiety and its negative impact on the university student's academic performance. Fewer studies have looked at the student's self-esteem, gender, and other forms of anxiety, and their impact upon test anxiety, and fewer still have looked at the effect of a student's cultural/ethnic background on level of test anxiety. The majority of previous studies have isolated test anxiety and it's relationship with one variable, without being sensitive to a variety of other factors that may impact resulting relationships. The findings of how an individual's culture may impact upon the construct of test anxiety among a university population are neither consistent nor sufficiently well established (Sender, 1989).

This study examined the impact of several variables upon test anxiety in an urban university population. These variables being previously identified as anxiety level, (Hedl, 1990), gender (Hembree, 1988), level of self-esteem (Ollendick & Meyer, 1984), and age (Hembree, 1988). Additionally, there is some research indicating that one's culture is related to TA level (Markus & Kitayama, 1991). Previous studies have not separated within one study the impact these different variables have upon an individual's level of test anxiety.

Literature Review

Definitions of Test Anxiety

Test anxiety has been defined as “An unpleasant emotional reaction to an evaluative situation in a classroom. This emotion is characterized by subjective feelings of tension, apprehension and uncertainty and by activation and arousal of the autonomic nervous system, which continues throughout the evaluative situation” (Guida, & Ludlow, 1989, p.181). Spielberger, et al. (1976) explain test anxiety as “The tendency of people to respond to nervousness induced by the testing situation with worried negative self centered thoughts and statements. Those with high TA respond to testing situations with intense emotions” (Clawson, Firment, & Trower, 1981, p.212). These individuals regard testing as a threat to their self- esteem. Highly anxious individuals who are contemplating the possibility of failure may experience increased heart rate and perspiration. Both general anxiety and test anxiety are usually defined as complex states that include cognitive, emotional, behavioral, and bodily aspects (Sarason, 1988).

Much of the literature on test anxiety has focused on it's impact upon performance and possible explanations for it's occurrence. It has been repeatedly shown that high levels of test anxiety are associated with relatively low cognitive levels at both the school and university level (Spielberger, Gonzales, & Taylor, 1978; Zeidner, 1990). Teachers and other educators have observed students displaying various levels of anxiety while taking tests and in other school activities in which their performance is evaluated. While a moderate level of anxiety may enhance a student's performance in an evaluative

situation, higher levels of anxiety have been shown to interfere with optimal performance (King, et al. 1991).

Test anxious students may show physiological signs of stress such as breathing irregularly, having increased heart rate, nausea, and the shakes. Holroyd, Westbrook, Wolf and Badhorn (1978), found that highly test-anxious individuals reported increased levels of state anxiety and worry, performed more poorly, and reported more physiological reactivity than low test anxiety subjects (Fernandez & Allen, 1989). Test anxious students may be diligent students who do not cope as well as their peers under situations of evaluation. Prior to evaluations, these students become less task oriented and more passive and dependent on others. In more severe cases of test anxiety, sometimes the student will refuse to go to school, rather than facing the anxiety provoking situation of an examination (King et. al., 1991).

Test Anxiety is something that impacts students at almost all age levels, and in all school environments public and private, grade school through university. The continued pervasiveness of test anxiety demands that the factors that impact it continue to be looked at so that methods for reduction of test anxiety can be tailored to the student and thereby ultimately improve their performance.

Theoretical Framework

Initial studies of test anxiety were conducted at Yale University. Based on a Test Anxiety Questionnaire created by Mandler and Sarason (1952), groups of students were categorized as being high or low test anxious. On subsequent intelligence tests low anxious students outperformed their high anxious peers. Mandler and Sarason interpreted the difference in performance to in part be due to individuals' learned

psychological drives. Two kinds of drives were said to be initiated by the testing situation. There are task-directed drives, which stimulate behaviors to reduce the drive by completing the task. Next, there are the learned anxiety drives which are represented by off task behaviors which are manifested as feelings of inadequacy, heightened somatic reaction, anticipation of punishments, loss of self-esteem, and attempts to leave the testing situation. The task directed drives and the learned anxiety drives are simultaneously incompatible behaviors. People with strong anxiety drives are prompted to enact the task irrelevant behaviors that impair performance. Low test anxious persons are assumed to be less burdened by self-centered tendencies, and therefore can attend more easily to task directed behaviors that ultimately enhance achievement (Hembree, 1988).

Sarason , Davidson, Lightwall, Wile, and Ruebush (1960) expanded upon this theory of the origins of test anxiety. They believed it originated in the child's interactions with parents before they entered school. It was thought that a child may experience evaluation fears due to feeling pressure from parents who may have set unrealistically high expectations of them. It is believed that in the test anxious child, parental judgements of performance are negative and derogative which may cause repressed feelings of hostility and aggression in the child. Thus, he or she may become anxious and low in self-esteem. Strong critical reactions by parents are said to lead children to become very sensitive to adult reactions. Anxious children thereby become strongly motivated to obtain praise and avoid criticism and failure. Parents of high anxious children perhaps provide less support for their children's attempts at achieving, reject children's bids for attention and withhold reinforcement following successful task completion. Repeated

failure experiences also diminish children's perceptions of their ability and lead some children to think their failures are due to a lack of ability. Sarason (1980) later viewed test anxiety as a personality characteristic developing during the child's interactions with parents which is stabilized during the preschool years. Therefore it is claimed parents of highly anxious examinees tend to be aversive towards the child, ignore the child's need for security and fail to offer constructive help in problem solving. Current research and theory points to test anxiety as resulting from a developmental history of success and failure experiences in evaluative situations (Zeidner, 1990).

Other researchers have suggested an information processing model also referred to as the study skills deficit model, to help explain the outcome of TA. Such a model would explain the performance deficit of high TA students in terms of their difficulties encoding and organizing information, as well as problems in retrieving information in a test situation. Proponents of this theory believe that poor academic performance of high TA students is due to inadequate study skills, resulting in poor knowledge of the material (Naveh-Benjamin, 1991). Tobias (1985) raised several issues regarding the skills-deficit model. He states that the skills deficit model assumes that students who are poorly prepared for an examination have elevations in TA that are caused by their own cognitive awareness of their inadequate mastery. He argues that this assumption does not explain the research reports of students with good study skills who continue to be highly TA. If this is accurate, then students should have little reason to be anxious, as their test anxiety scores cannot be explained by deficits in either study skills or test-taking skills. Apparently something other than deficit skills is responsible for student's anxiety (Naveh-Benjamin, 1991). Tobias (1985) argues that the study skills deficit model makes