

# Gender Differences Between in Test Anxiety Cognitive Style and Mental Health

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**Abstract: Introduction:** Cognitively, test anxiety comes along with specific worry thoughts including negative cognitive self-statements regarding academic failure. Additionally, test anxious individuals might experience social worry thoughts as they fear to be negatively judged by teachers, parents, and others (Lowe et al., 2008). Test anxiety is a combination of physical symptoms and emotional reactions that interfere with your ability to perform well on tests. Many students experience varying levels of test anxiety for a number of difference reasons. **Need of the Study:** One's cognitive style generally operates in an unconscious manner, that is, while an individual may be aware of the outcome of the information processing process, he or she is often unaware of the mental processes used to acquire, analyze, categorize, store, and retrieve information in making decisions and solving problems. **Samples:** 757 samples were taken from government aided, private schools among higher secondary students. **Statement of the Problem:** The researcher has identified the problem statements as "Gender Differences in Test Anxiety Cognitive Style and Mental Health". **Tools:** Research tools taken my study Test Anxiety, Cognitive Style and Mental Health.

**Keywords:** cognitive style, mental health, test anxiety.

## 1. Introduction

While people have the skills and knowledge to do very well in these situations, their excessive anxiety impairs their performance. The severity of test anxiety can vary considerably from one person to another. Some people might feel like they have "butterflies" in their stomach and while others might find it difficult to concentrate on the exam.

A little bit of nervousness can actually be helpful, making you feel mentally alert and ready to tackle the challenges presented in an exam. The Yerkes-Dodson law suggests that there is a link between arousal levels and performance. Essentially, increased arousal levels can help you do better on exams, but only up to a certain point.<sup>4</sup>

Once these stress levels cross that line, the excessive anxiety you might be experiencing can actually interfere with test performance. Excessive fear can make it difficult to concentrate and you might struggle to recall things that you have studied. You might feel like all the information you spent some much time reviewing suddenly seems inaccessible in your mind.

You blank out the answers to questions to which you know you know the answers. This inability to concentrate and recall information then contributes to even more anxiety and stress,

which only makes it that much harder to focus your attention on the test.

Cognitively, test anxiety comes along with specific worry thoughts including negative cognitive self-statements regarding academic failure. Additionally, test anxious individuals might experience social worry thoughts as they fear to be negatively judged by teachers, parents, and others (Lowe et al., 2008). Test anxiety is a combination of physical symptoms and emotional reactions that interfere with your ability to perform well on tests. Many students experience varying levels of test anxiety for a number of difference reasons.

## 2. Need for the Study

Cognitive style is less about the decisions that individuals actually make and more about the processes used to make them. Individuals vary in predictable ways along four dimensions of cognitive style, that is, they differ in the way in which they gather and process information. Much of the work using cognitive style (also called decision making style and problem-solving style) is derived from Jung's (1923) classic theory of psychological types.

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The dimension of cognitive style attempts to describe the ways in which individuals process and analyze information as part of a decision making or problem-solving process. How do people know what they know? Put another way, how do we analyze the information to which we have access and come up with conclusions. Whenever we make diagnose problems or attempt to attribute causes to certain behaviors or outcomes, we use either a deductive or inductive process. Those using an inductive approach rely on facts and evidence on which to base conclusions. Thus, the empirical approach is the preference for sensors. Diagnosis often takes the form of trial and error or reference to know situations, companies in the same situation or past problem episodes. On the other hand, intuitives make ample use of theories and mental models from which to drawn

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their conclusions and "facts" of a situations. ere are individuals who seem to "bounce back" from

NICHD Early Child Care Research Network, 2006). There are no comparable studies that have focused on identifying developmental patterns of cognitive vulnerability. The current study aims to fill the gap in this literature by both identifying developmental trajectories of negative cognitive style and examining predictors of these heterogeneous trajectories.

### 3. Samples

The researcher taken 757 samples from government, government aided, private schools among higher secondary students.

### 4. Statement of the Problem

The researcher has identified the problem statements as "Gender Differences in Test Anxiety Cognitive Style and Mental Health."

### 5. Objectives

To find out Impact of test anxiety cognitive style and mental health.

### 6. Hypothesis

There are no significant differences between Boy and Girls in Test Anxiety, Cognitive Style and Mental Health.

### 7. Introduction of Variables

#### A. Test Anxiety

Everyone should feel somewhat anxious before they begin to take a test. Anxiety becomes a problem when it begins to interfere with a student's ability to think logically or remember facts. Physical symptoms of real test anxiety include tense muscles, sweaty palms, a pounding heart, and feeling faint or nauseous. Cognitive symptoms include the inability to remember simple things, illogical thinking, and mental blocks.

Spielberger and Sarason (1989) define test anxiety as a situation-specific trait that refers to the anxiety states and worry conditions that are experienced during examinations. The level of anxiety can fluctuate over time in response to both internal and external stimulation. Observable behaviors of anxiety can be noticed during the completion process of a quiz. Some of those behaviors might include perspiration, excessive movement and questioning of instructions. Those behaviors are often compatible with the classification of high and low-test anxiety groups (Smith, 1965). There are also stable individual differences in the degree to which anxiety is manifested in any given situation. A disruption or disorganization of effective problem-solving and cognitive control, including difficulty in thinking clearly, can also lead to test anxiety (Freidman & Bendas-Jacob, 1997).

There are different factors that contribute to the development of test anxiety. One factor is self-concept, which is the overall sum of self-referent information that an individual has processed, stored and organized in a systematic manner

(Spielberger & Sarason, 1989). The self-concept can be viewed as an image of oneself. Worry of suffering a reduction of the self-image, particularly in the eyes of peers, leads to higher test anxiety levels (Freidman & Bendas-Jacob, 1997). Another factor that contributes to the development of test anxiety is self-awareness. It is defined as the feeling of being observed or evaluated by others. Other people's perception of the individual may have an impact on performance (Levitt, 1980). A more commonly recognized factor of test anxiety is the classroom climate. People, in general, have the need to manipulate and control their surroundings in order to produce a comfortable environment. In a classroom setting, however, there may not be the opportunity to control the surroundings. This opens the door to the possibility of different levels of arousal. The degree of arousal in relation to one's adaptation level will determine whether a positive or negative affective experience will result (Spielberger & Sarason, 1985). If an individual's experience is negative, then the test anxiety level will be higher leading to lower performance. Consequently, if an individual's experience is positive, then the test anxiety level will be lower leading to higher performance. Overall, it is important to consider motives, aptitudes, cognitive assessments of the task, and past experience when analyzing test anxiety and how it relates to performance (Smith, 1964).

#### B. Mental Health

Good mental health is a basic component of positive health and well-being. It is necessary to help us manage our lives successfully, and provides us with the emotional and spiritual resilience to allow us to enjoy life and deal with distress and disappointment.

Main Factors affecting mental health are 1) Hereditary Factor (passing of traits from parents to offspring), 2) Physical Factor (physical condition of the individual has a direct effect on mental health) and 3) Socio-cultural Factor (children develop attitudes and behavioral patterns from past experiences).

Low cognitive ability in childhood is also associated with adverse mental health outcomes in mid adulthood: higher childhood cognitive scores were associated with fewer symptoms of anxiety and depression in women (Feinstein and Bynner, 2004). In young adulthood through to later life there is a persistent relationship between low levels of mental wellbeing and neglect of self, neglect of others and a range of self-harming behaviours, including self-sedation and self-medication. Research on emotional adjustment looks at attachment and the security of attachments in close relationships in an attempt to establish a childhood contribution to adult resilience, notably in the face of adverse social environments e.g., fragmented or deprived neighbourhoods (Stansfeld et al 2004; Fagg et. al 2006).

#### C. Cognitive Style

Recent developments in the learning technology such as hypermedia is becoming widespread and offer significant contribution to improve the delivery of learning and teaching materials. A key factor in the development of hypermedia-based learning is cognitive style (CS) as it relates to users'

information processing habits, representing individual user’s typical modes of perceiving, thinking, remembering and problem solving.

Cognitive Style is one of the commonly researched measures of learner differences (Oughton & Reed, 1999). It represents an individual’s psychological differentiation that determines the individuals’ responses and functioning in numerous situations that includes stable attitudes, choices, and habitual strategies related to an individual’s style of perceiving, remembering, thinking and solving problems (Saracho, 1998). A widely cited definition based on Messick’s (1984) defined cognitive style as individual differences in preferred ways of organising and processing information and experience (Chen & Macredie, 2002; Sadler-Smith, 2001; Triantafillou, Pomportsis, & Demetriadis, 2003).

Cognitive Style can be classified as either field dependent (FD) or field independent (FI). FD individuals prefer to be guided in their learning processes, employ less analytic approaches to learning (require more instructional guidance to assist them to find out relevant and meaningful information to reduce disorientation) (Chou, 2001; Oughton & Reed, 1999; Tinajero & Paramo, 1998). On the other hand, FI individuals employ less guided but more analytical and autonomy approach to learning (Chou, 2001; Oughton & Reed, 1999; Tinajero & Paramo, 1998).

Anxiety about interpersonal rejection, as well as with lower levels of comfort with closeness and dependence in relationships. Furthermore, insecurely attached participants were more prone to low engagement with services than were participants who had more secure attachment styles. This finding, that insecure attachment was related to an avoidant style of coping (i.e., sealing over), which in turn predicted less engagement with services, is in line with attachment theory and previous research showing the vulnerability of insecurely attached persons in coping with stressful life experiences (Bowlby, 1969; Mikulincer, 1998). Again, this is in keeping with previous research showing that insecurely attached persons tend towards interpersonal distance (Klohn & Bera, 1998) and negative, mistrusting beliefs about other people (Collins & Read, 1990; Mikulincer, 1998). It seems likely that mental health professionals are also viewed in this way by patients who seal over and have insecure attachment styles, which in turn contribute to lower engagement with services (Adshead, 1998; Tait et al, 2003). In other words, low engagement with psychiatric services and case managers may, in part, re- services and case managers may, in part, reflect attachment concerns. An alternative explanation is that low engagement with psychiatric services is a rational response to maladaptive care strategies adopted by mental health care professionals (Adshead, 1998), or where services are inappropriate or insensitively delivered to clients (Tait or insensitively delivered to clients (Tait et al, 2002). Indeed, researchers have suggested that the formation of a trusting relationship between mental health care professionals and service users is a task for both parties (Tait et al, 2002).

### 8. Definition of Variables

#### A. Test Anxiety

An uneasiness or apprehension experienced before, during, or after an exam because of concern, worry, or fear.

#### B. Mental Health

Mental health describes a level of psychological well-being, or an absence of a mental disorder.

#### C. Cognitive Style

The term cognitive style is associated with stable, trait like consistency in personal approach to attending, perceiving, and thinking or, cognitive styles are particular personality determined modes of perceiving, remembering, thinking, and problem solving. Another definition - cognitive styles represent stable traits that distinguish the learners according to consistencies in interacting with environment. Cognitive styles might be understood better by comparing them to construct of cognitive ability within a dichotomy based conceptual framework.

### 9. Statistical Analysis

#### A. Critical Ratio

Table 1

Multiple comparison of test anxiety within various sub group classified on the basis of Gender

School	Class	Group	Gender	No.	Mean	S.D.	C.R
Govt.	XI	Arts	Boys	40	39.24	5.76	0.427
			Girls	48	38.69	6.29	
		Science	Boys	31	38.64	6.79	0.97
			Girls	24	38.36	6.29	
	XII	Arts	Boys	43	38.72	6.8	0.2688
			Girls	24	38.33	4.97	
		Science	Boys	35	37.23	5.52	3.61
			Girls	30	41.38	3.66	
Govt. Aided	XI	Arts	Boys	48	41.44	5.5	4.428
			Girls	44	35.65	6.89	
		Science	Boys	23	41.07	5.61	1.33
			Girls	20	39.06	4.26	
	XII	Arts	Boys	45	36.14	5.46	2.48
			Girls	37	39.0	4.93	
		Science	Boys	20	37.75	6.94	0.38
			Girls	23	37.0	5.75	
Private	XI	Arts	Boys	25	39.65	5.41	0.438
			Girls	25	40.36	6.03	
		Science	Boys	27	39.91	5.19	1.87
			Girls	26	37.3	4.96	
	XII	Arts	Boys	40	37.09	6.17	0.9
			Girls	23	38.57	6.33	
		Science	Boys	28	37.86	4.65	0.405
			Girls	47	38.39	5.94	

### 10. Discussion

- Girls have more test anxiety than boys in private school sector. Government and government aided students have less test anxiety than private school students
- Students who are studying in all the three types of management i.e., government, government aided, and the private school have not significantly differ in their resilience
- As well as both boys and girls are not differ in their cognitive style, mental health.

Table 2

Multiple comparison of cognitive style within various sub group classified on the basis of Gender

School	Class	Group	Gender	No.	Mean	S.D.	't'
Govt.	XI	Arts	Boys	40	18.12	4.52	3.16
			Girls	48	21.02	3.98	
	Science	Boys	31	17.64	4.53	0.913	
		Girls	24	18.85	5.12		
	XII	Arts	Boys	43	19.27	1.62	0.019
			Girls	24	19.29	4.84	
Science	Boys	35	6.57	1.94	2.97		
	Girls	30	8.13	2.24			
Govt. Aided	XI	Arts	Boys	48	16.52	3.32	4.06
			Girls	44	19.5	3.69	
	Science	Boys	23	15.62	4.24	1.39	
		Girls	20	17.56	4.78		
	XII	Arts	Boys	45	15.95	3.72	3.37
			Girls	37	19	4.35	
Science	Boys	20	17.14	3.34	2.08		
	Girls	23	19.52	4.13			
Private	XI	Arts	Boys	25	19.92	4.67	0.18
			Girls	25	19.68	4.6	
	Science	Boys	27	17.17	5.68	0.37	
		Girls	26	16.55	6.34		
	XII	Arts	Boys	40	19.38	4.09	1.7
			Girls	23	21.51	5.15	
Science	Boys	28	19.43	3.12	0.1		
	Girls	47	19.52	4.65			

Table 3

Multiple comparison of mental health within various sub group classified on the basis of Gender

School	Class	Group	Gender	No.	Mean	S.D.	'p'
Govt.	XI	Arts	Boys	40	75.44	9.17	0.83
			Girls	48	75.5	9.47	
	Science	Boys	31	71.38	10.17	1.92	
		Girls	24	76.78	10.48		
	XII	Arts	Boys	43	75.63	9.47	0.23
			Girls	24	76.17	9.08	
Science	Boys	35	76.65	9.8	0.611		
	Girls	30	78.38	12.58			
Govt. Aided	XI	Arts	Boys	48	76.84	9.15	2.07
			Girls	44	72.92	9.0	
	Science	Boys	23	79.63	11.0	1.28	
		Girls	20	83.13	6.71		
	XII	Arts	Boys	45	75.45	5.68	0.85
			Girls	37	77.26	11.89	
Science	Boys	20	77.32	9.24	0.57		
	Girls	23	75.87	7.04			
Private	XI	Arts	Boys	25	76.31	9.78	0.908
			Girls	25	78.86	10.07	
	Science	Boys	27	78.26	8.36	1.04	
		Girls	26	75.71	9.33		
	XII	Arts	Boys	40	69.8	12.49	2.1
			Girls	23	75.32	8.29	
Science	Boys	28	73.81	7.77	0.328		
	Girls	47	73.17	8.77			

### 11. Conclusion

This study on determination of mental health and cognitive style of students indicated that no significant relationship among variables. Teachers should take the necessary actions to enhances the students to develop mental health and cognitive improvement. vision of the future, humanistic approach, excellence and integrity are the required attributes of the students of tomorrow. If educational institutions could be granted the requisite autonomy, they would become the

repositories of the nation’s culture and the lead the nation of greater heights.

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