

Experiences of Test Anxious Undergraduate Students: An Interpretative Phenomenological Study

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Abstract



The current study was conducted to explore test anxious students' lived experiences to understand demands and challenges faced by test anxious students at the university level. A purposive sample comprised of six test anxious undergraduate students was drawn from a public university. Interpretative phenomenological analysis (IPA) was the main method that was used to assess data. Qualitative interviews were conducted for data collection, and data was transcribed for further analysis. Several emergent themes were generated, and it was attempted to identify the interconnections among them. Common and frequent themes summarized the experiences shared by test anxious students. Worry cognitions, emotional reactions, the preparation phase, the performance phase, and the test reflection phase were the main themes that emerged from the data. Findings revealed that test anxiety influenced students' cognitive as well as their emotional well-being. The study had identified test anxiety as a multifaceted phenomenon with multiple manifestations and provoking factors that influence the preparation, performance, and test reflection phases. The study addressed test anxiety as a real experience that needs to be managed. The study provided an indigenous framework to educationists and psychologists for devising therapeutic interventions for test anxious undergraduate students.

Keywords: Test Anxiety, Undergraduate Students, Qualitative Research, Shared Experiences

Introduction

We live in a test-conscious era, where tests and examinations are considered imperative tools to judge one's abilities, competence, and accomplishments. Individuals are evaluated concerning their level of academic achievement. Moreover, their professional career also depends on their academic achievement. The competitive environment has been considered a prominent source of test anxiety among students, especially at higher education levels (Zeidner, 1998). Test anxiety is a specific form of anxiety experienced by an individual when he is being assessed (Colwell, 2013; Zeidner, 1998). Test anxiety can be defined as "*The set of phenomenological, physiological and behavioral responses that accompany concern about possible negative consequences or failure on the examination or similar evaluative situation*" (Zeidner, 1998, p. 17).

Anxiety is the general phenomenon that every individual experiences in evaluative situations but for some of the test anxiety drastically hinders their learning and test performance (King & Ollendick, 1989; Wittmaier, 1972). However, experiencing an adequate level of anxiety before the test is considered normal; in fact, such test anxiety may enhance students' concentration, memory, and motivation when preparing for exams (Salend, 2011). Alpert and Haber (1960) defined this kind of test anxiety as facilitating anxiety, which provokes students to perform better in testing situations. However, test anxiety has detrimental effects if it is stretched out for an extended duration (Barrows, Dunn & Lloyd, 2013). Alpert and Haber (1960) used another term that is debilitating anxiety; in contrast to facilitating anxiety, debilitating anxiety significantly hinders test performance.

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In literature, cognitive and affective aspects of test anxiety have been discussed thoroughly. These dual dimensions of test anxiety are categorized as emotionality and worry. Emotionality is the affective component of test anxiety, which is described by physiological reactions to testing situations. It implicates the manifestation of physical and emotional reactions to evaluation, which can be sweating, dizziness, high level of heartbeat, panic attacks, or sickness feeling (Hembree, 1988; Liebert & Morris, 1967). On the other hand, worry is the cognitive aspect of test anxiety; it comprises cognitive reactions related to testing anxiety and defines the concerns about being evaluated during an exam. Students dealing with the worry component of test anxiety may experience fear of failure, low self-esteem, feeling ill-equipped for tests, negative self-evaluation, and overly concerned about evaluation (Cassady & Johnson, 2002).

Test anxiety models describe the multifaceted nature and specify the situational and personal factors that may cause test anxiety and address its consequences (Zeidner, 1998). Wine (1971) proposed a model named the "attention interpretation model of test anxiety". This model suggested that high test anxious students are more likely to be preoccupied with irrelevant thoughts (e.g., negative self-evaluation, worry regarding test and preparation). These pessimistic thoughts distract them from the task-relevant activities and effectively restrict them to use their time for test performance. On the contrary, the skills-deficit model proposed that students who have poor study habits experience high test anxiety levels, which results in lower test performance. During the test preparation phase, highly test anxious students encode learning material inappropriately and cannot recall poorly learned material during evaluation (Culler & Holahan, 1980).

Initial researches were generally limited to examining the phenomenon of test anxiety and its consequences during evaluative situations. However, to conceptualize test anxiety, students' experiences throughout the learning and evaluation process are imperative to be studied (Cassady, 2004). Literature categorized the complete learning-testing cycle into three phases, i.e., test preparation, test performance, and test reflection phases (Cassady, 2010; Schutz & Davis, 2000). Test anxiety is manifested differently throughout these three phases of the learning-testing cycle. Students have widely reported that they knew the material before the test, but the learned material strangely became fugitive during the performance phase. More often, students with ineffective study skills and poor conceptual clarity are seemed to experience retrieval failure. They usually perform insufficiently regardless of the test's difficulty level, time given for finishing the test, or test design. Students with effective study skills also reported facing retrieval failure because of experiencing test anxiety (Cassady & Johnson, 2002; Covington & Omelich, 1987; Schwarzer & Jerusalem, 1992).

After the completion of the test, the test reflection phase begins. In reaction to the test, this phase is commenced with the attributional biases. For instance, students with high levels of test anxiety tend to maintain externalized attributions for their good performance in the exam (e.g., the test was easy) and are more likely to have internalized attributions for poor performance (e.g., they failed because of their poor learning abilities). The attributions related to failure may lower one's self-efficacy and affects future performance (Bandalos, Yates & Thorndike, 1995; Cassady, 2004). The students' internalized attributions related to failure make them perceive the upcoming tests as a threat rather than a challenge. When students ascribe their failure to the external locus of control, they become helpless and avoid test preparation for the next exam.

Researchers have also attempted to explore the experiences of anxious test students. For instance, Encandela et al. (2014) explored the phenomenon of test anxiety by collecting qualitative responses from medical students. The study suggested that students tend to experience irritability, nervousness, and apprehensions during exam preparation. It was also indicated that their cognitive abilities are greatly affected due to test anxiety. Sideeg (2015) attempted to study the symptoms and consequences of test anxiety among students. It was concluded that test anxiety adversely affects students' cognitive functioning and tends to have low self-esteem, concentration, and retrieval problems, worry regarding parental attitudes, and even suicidal ideations. Headaches, sleeping and appetite problem, nausea, and dizziness were reported as the common physiological symptoms of test anxiety. Moreover, it was also suggested that high test anxious students are inclined to avoid test preparation and often fail to complete the test.

Indigenous literature also distinguished test anxiety as one of the major academic problems that can adversely affect academic performance (Khalid & Hasan, 2009; Rana & Mahmood, 2010). The study aimed to explore the lived experiences of test anxious students in the Pakistani context as

very limited research has been conducted to explore this domain indigenously. Several types of research have been conducted worldwide, but there might be cultural and contextual differences among foreign and Pakistani academic demands and atmosphere. It might be of clinical and educational importance to study experiences of test anxious students in their contexts to develop effective management techniques.

Research Objectives

- To study the emotions and cognitions of test anxious students.
- To study the experience of test anxious students prior, during, and after the exam.

Research Question

- What are the lived experiences of test anxious undergraduate students in the Pakistani educational cultural context?

Research Methodology

Research Design

The qualitative research approach was used to explore the lived experiences of test anxious students. The qualitative inquiry would allow an in-depth analysis of the phenomenon of test anxiety in the indigenous context.

Participants

The sample of this study was comprised of six students (three boys and three girls) of B.S. (Hons.). Their age range was from 19 to 21 years ($M = 20$, $SD = .82$). They were chosen through the purposive sampling technique from a public University of Lahore. They were selected based on experiencing a high level of test anxiety.

Instrument

A semi-structured interview schedule was developed in advance. The questions were intended to induce responses that could lead to a detailed account of test anxious students' experiences. The participants were initially asked general questions to make them feel comfortable and to ease the communication process. Some of the questions of the interview schedule were as follow:

- When do you experience test anxiety?
- How does test anxiety affect you? (Prompts: before, during, and after exams)
- When you get test anxious what types of worries come to your mind?
- What type of emotional changes do you experience?

Procedure

Informed consent was taken from each participant, and they were provided information about the purpose of the study. They were informed about their right to withdraw from the study at any stage. It was assured to the participants that their information would be kept confidential and provided counseling services if needed. The researcher used the interview schedule as a guide and did not attempt to follow the sequence of the questions. The respondents' interests and concerns were focused and probed about interesting themes that were elicited during the interview. Each participant was interviewed individually and their responses were audio recorded. Later on, all six interviews were transcribed and read thoroughly several times to get familiar with the data. Later, all the emergent themes were compared to examine the connection between them or contradict each other (Smith, 2008). This clustering of themes is then formulated into main themes made up of sub-themes.

Data Analyses

Test anxious undergraduate students' lived experiences were studied in detail by using Interpretative Phenomenological Analysis (IPA). This phenomenological approach aims to have an in-depth exploration of people's experiences and how they are making sense of their personal and social world (Smith, 2008). Emergent themes were extracted from the collected data carefully. Later recurrent emergent themes were examined to see the commonalities and contradictions among all the emergent themes. Possible clusters were generated by emergent themes followed by sub-themes and main themes. To avoid the researcher's bias, the clustering of themes was verified against the original transcripts and ensured that the themes' true meaning remained intact (Smith, 2008).

Results

In this section, emergent themes and interconnections among them are presented. Five main themes with several sub-themes emerged through the analysis of transcribed data. Table 1 summarizes the overall lived experiences of undergraduate test anxious students.

Table 1: Main Themes and Sub-Themes emerged from Interpretative Phenomenological Analysis of Data

Main Themes	Sub-Themes
1. Worry Cognitions	<ul style="list-style-type: none"> i. Performance pressure ii. Negative self-evaluation iii. Fear of failure
2. Emotional Reactions	<ul style="list-style-type: none"> i. Nervousness ii. Feeling of helplessness iii. Frustration iv. Panic
3. Preparation Phase	<ul style="list-style-type: none"> i. The extreme level of anxiety ii. Debilitating anxiety iii. Low metacognition iv. Ineffective study habits v. Problem with encoding and storage
4. Performance Phase	<ul style="list-style-type: none"> i. Unable to focus ii. Retrieval failure iii. Poor test-taking skills iv. Test completion worry
5. Test Reflection Phase	<ul style="list-style-type: none"> i. Reduced anxiety level ii. Task avoidance iii. Regret about poor performance iv. Internalized attributions

Figure 1: Flow Chart showing Possible Interconnections among Emotional Reactions and Worry Cognitions experienced by Test Anxious Students

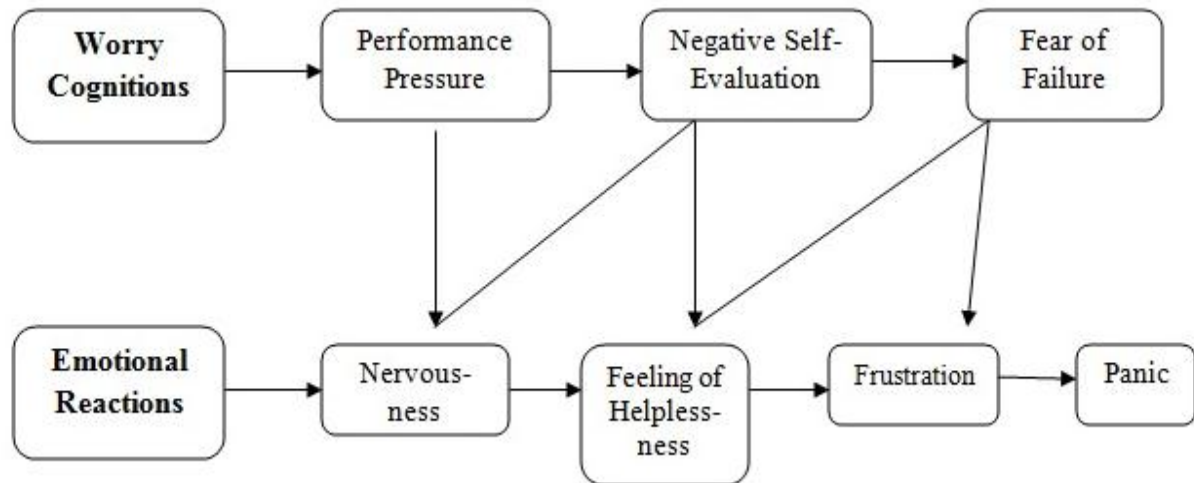
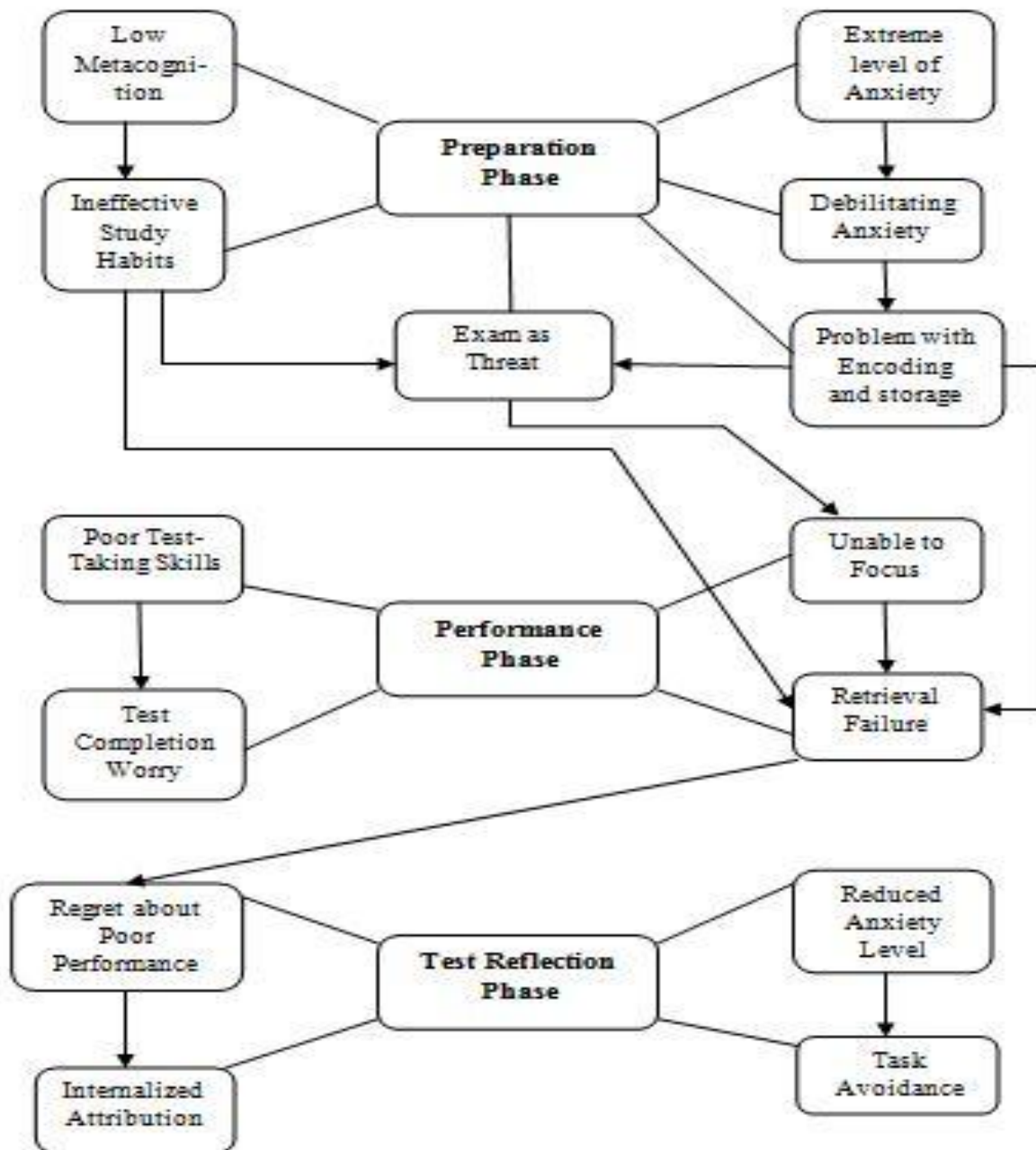


Figure 2: Flow Chart showing a Possible Pathway of Test Anxiety across the Preparation Phase, Performance Phase, and Test Reflection Phase experienced by Test Anxious Students



Discussion

This study aimed to attain an in-depth understanding and rich knowledge of experiences of undergraduate test anxious students. The qualitative analysis of data revealed themes related to testing anxious students' cognitive, emotional, and behavioral challenges. The main themes that emerged from the data are discussed below:

Worry Cognitions

All participants reported that they experience worry cognitions during testing situations. These cognitions indicated the worry component of test anxiety which involves the cognitive reactions associated with test anxiety. The cognitive component of test anxiety is the most dominant aspect of test anxiety and has detrimental effects on test preparation and performance (Cassady & Johnson, 2002). The worry cognitions frequently experienced by the participants were performance pressure, negative self-evaluation, and fear of failure.

Performance pressure is defined as any factor or combination of factors that increase the importance of one's performance on a specific task (Baumeister, 1984). High test anxious students are

seemed to be over-concerned to perform better and get good grades. One of the participants shared that he has a lot of pressure from his father to perform well on the exam. Whenever he gets poor grades, he faces his father's rage and humiliation by comparing him with his high achiever siblings and cousins. Performance pressure seemed to be external (that may come from one's parents, teachers, etc.) and internal (that is, the personal desire to protect one's self-worth and sense of competency by performing well on exams).

Negative self-evaluation was the second sub-theme. Participants reported negatively evaluating themselves. One of the participants stated his self-negative thoughts as:

"I am consistently getting poor grades in my exams. I think I will be never able to perform well and get better grades ever. Maybe I am not that skilled".

Comparison with other students also makes one anxious and leads to evaluating oneself critically. A participant shared extreme anxiety and started feeling inferior whenever he perceives that everyone else is prepared for the upcoming test, whereas, he has not started his preparation yet. The analysis indicated that students may also tend to generalize their previous poor performance and expect poor performance in the future. Their negative self-evaluation may cause low self-esteem and a poor sense of competency.

Fear of failure is the anticipation of negative consequences. All the participants reported having fear related to negative consequences of exams i.e. poor grades or failure. It has been suggested that excessive concern about the exam results makes students anxious and consequently their test performance would be affected (Zeidner, 1998).

Emotional Reactions

Emotional reactions are an important facet of test anxiety. It indicates the affective component of test anxiety which involves the manifestation of physiological reactions to testing situations (Zeidner, 1998). The analysis of the current study revealed that all the participants exhibited emotional reactions related to test anxiety.

Nervousness is defined as a condition of nervous tension and an emotional state in which one feels apprehensive and restless (Spencer, 2014). One of the possible reasons for being nervous and agitated about exams could be the pressure of performing well on the exam. For instance, a participant reported that his parents' expectations from him and the thought of not meeting their expectations by attaining good grades made him agitated and restless while preparing for the exam.

The second sub-theme was *Feelings of Helplessness*. It has been proposed that test anxious students feel helpless and believe that they have no control over testing situations (Schunk, 1991). Feelings of helplessness experienced by test anxious students are possibly associated with their perceived sense of incompetency (Zeidner, 1988). For instance, a participant of the current study reported that his previous poor grades made him infer that he is not that competent to get better grades in exams. He started believing that he has no control over his grades and he will get poor grades no matter how hard he makes efforts.

Frustration is the third sub-theme. Frustration is an emotional response that arises when a person cannot fulfill his desire (Dollard et al., 1967). It was revealed that test anxious students experience feelings of frustration throughout the testing cycle. One of the participants reported that she often gets frustrated during the preparation phase when she cannot prepare well for the upcoming exam. Frustration-aggression theory also suggested that people could not do something they want; it makes them frustrated and angered (Berkowitz, 1989).

The fourth sub-theme of emotional reactions was *panic*. Panic is a sudden sensation of fear which is accompanied by physiological reactions. It showed the extreme level of anxiety and overwhelming fear experienced by students. Hembree (1988) suggested that negative cognition of highly test anxious students may lead to physiological reactions and tend to exhibit symptoms of panic. All the participants reported that while going to the examination hall or getting the question paper they feel extremely anxious and most of the time their heartbeat increases.

Preparation Phase

The main theme of the preparation phase pointed out the challenges and demands faced by test anxious students during the preparation of exams. The first sub-theme was an *extreme level of anxiety*. All the participants reported that they experienced extreme test anxiety levels when preparing for the upcoming exam. As a participant stated:

"My anxiety is at peak when I am preparing, I mean before appearing in an exam. I am afraid of exam and its outcomes".

Ping, Subramaniam, and Krishnaswamy (2008) also suggested that students experience heightened test anxiety levels before evaluative situations mainly because of their negative anticipation about the exam. The second sub-theme under the umbrella of the preparation phase was *debilitating anxiety*. It was defined as the negative facet of test anxiety that hinders test performance (Alpert & Haber, 1960). The experience accounts of all the participants indicated that their anxiety unfavorably influenced their test preparation and averted them to study and prepare for the exam efficiently during the preparation phase. A participant shared that his anxiety reduces his ability to learn and focus during the preparation phase.

Low metacognition was the third sub-theme of the preparation phase. Metacognition was defined as students' awareness regarding their cognitive abilities and processes and how they use and regulate these processes to learn (Ormrod, 2004). Students with good metacognition are actively involved in their study processes. (Crede & Kuncel, 2008). It was indicated that test anxious students lack good metacognitive skills. It seemed from participants' account that they might be unable to judge their cognitive abilities and uses study methods that are not effective for them, as one of them stated:

"I do plan to study but always end up with a large amount of unprepared syllabus before exams. I never able to cover my study material within the decided time limit".

Ineffective study habits were the fourth sub-theme that was emerged through analysis. All the students reported employing ineffective study habits for their preparation for exams. The analysis of our study revealed that students do not study regularly. They delay their preparation until exams. Participants' accounts also revealed that they do not make study plans and have poor time management skills. One of the potential reasons for their ineffective study habits is their low metacognitive skills. They seemed unable to regulate and utilize their cognitive abilities effectively.

The fifth sub-theme was the *problem with encoding and storage*. Our study's analysis revealed that test anxious students often fail to encode and store study material properly. Cassady and Johnson (2002) suggested that irrelevant thoughts interfere with the encoding and storage of information during exams preparation. A participant stated:

"During exams, sometimes I even have time, but still I am so anxious that it seems so difficult for me to learn properly. Sometimes it happens that when I try to recall the learned material, I realize that it is nowhere in my mind".

The analysis of the study also revealed that test anxious students perceive *exams as a threat*. It was inferred through data analysis that students perceive the exam as a threatening situation, potentially because of their unpreparedness for the upcoming exam as one participant shared that her poor preparation made her afraid of appearing in the exam. Zeidner (1998) also proposed that situational variables like the subject matter of the test, poor study skills, and poor preparation could lead to perceiving the test as threatening.

Performance Phase

The fourth major theme that was emerged through analysis was the performance phase. The sub-themes under the umbrella of the performance phase indicated the problems faced by test anxious students while attempting the test. *Unable to focus* was the first sub-theme. The analysis of the current study indicated that test anxious students encounter attention deficits during the testing situation. A high level of test anxiety could divert students' focus from task demands and lead to task-irrelevant thoughts in demanding situations. Students with low test anxiety levels tend to maintain their focus and generate favorable thoughts for completing the task (Sarason, 1984).

The second sub-theme of the performance phase was *retrieval failure*. It showed students' inability to retrieve the learned information during the performance phase. All the participants reported that at some point, they face failure to recall previously learned material during the performance phase. One of the possible reasons for their retrieval failure could be the lack of focus due to their worry cognitions about the exam. Zeidner (1998) assumed that task-irrelevant thoughts distract them from task demand and interfere with the recall of information during the evaluative situation.

Poor test-taking skills were the third sub-theme. It was indicated that test anxious students lack the skills to attempt the test effectively. Performing well on the exam does depend not only on

the ability to retrieve all the learned information but also to utilize the given time so that a student has ample time for each part of the test. One of the participants reported that sometimes it is difficult to manage three hours of exams properly. Usually, she wastes most of her time on solving the first question and is left with about half of the time for the rest of the test, making her more anxious. Zeidner (1998) proposed that students with low test anxiety tend to better understand the situation and perform accordingly compared to highly test anxious students.

The fourth sub-theme of the performance phase was *tested completion worry*. It was suggested that test anxious students become worried about completing their test during the performance phase. A participant shared that lengthy tests make her anxious. She gets worried when there is more to write within a limited time duration. Trifoni and Shahini (2011) also mentioned that limited time for completing tests makes students anxious.

Test Reflection Phase

The fifth main theme of our study i.e. test reflection phase discussed the experiences and challenges encountered by test anxious students after the completion of the performance phase. The first sub-theme of the test reflection phase was *reduced anxiety level*. Our analysis revealed that there would be a considerable decline in the anxiety level of students after attempting their tests. All the participants of our study reported that test completion reduces their anxiety level. As one of them shared that he feels free from tension and anxiety when he comes out of the examination hall. *Task Avoidance* was the second sub-theme of the test reflection phase. The analysis proposed that test anxious students avoid preparing for the next exam after completing the first one. It seemed difficult for them to transit from the reflection phase to the preparation phase. For instance, our participant stated:

"The thought of preparing for the next exam is distressing itself so I usually delay my preparation just to avoid the experience of anxiety again".

We can infer through analysis of our study that after completion of the performance phase the anxiety level of test anxious students would be reduced and they are more likely to avoid going back to the preparation phase again. *Regret about poor performance*, the third sub-theme of the test reflection phase, indicated the regretful feelings of test anxious students about their poor performance. One of the participants reported that he becomes anxious after taking the test if he answered any question wrong or could not complete his test. Trifoni and Shahini (2011) reported that poor test performance is one of the most anxiety-provoking situations for test anxious students.

Internalized Attributions were the fourth sub-theme of the test reflection phase. Internalized test anxious students' attributions represented their tendency to attribute their poor test performance to their incompetency (Bandalos et al., 1995). The current study analysis revealed that test anxious students tend to ascribe their mistakes to their lack of effort or inabilities. One of the participants shared that she blamed herself for the mistakes she made in her exam.

It was inferred through the analysis of test anxious students' experience accounts that the transition from test reflection phase to preparation phase for the next exam depends on their pessimistic beliefs. The longer the preoccupation with pessimistic attributions, the more they would take time to prepare for the upcoming exam. A participant stated that it gets more difficult for her to start preparing for the next test if she is anxious about her poor performance on the previous one.

Conclusions

The study concludes that test anxiety is a multifaceted phenomenon that involves diverse manifestations depending upon the evaluative context. It transits and manifests differently across three phases of test anxiety i.e. test preparation, test performance, and test reflection phases. Emerged themes have indicated that inadequate learning attitudes during the preparation phase may increase the chances of incompetence in dealing with the demands of the performance phase. The findings have also concluded that test anxious students experience both facets of test anxiety i.e. emotional reactions and worry cognitions. These two facets are interrelated and interdependent on one another. It is indicated that both types of manifestation of test anxiety have detrimental effects on students' test preparation and performance.

The study has strongly recommended that both affective and cognitive characteristics of test anxiety should be focused on the management of test anxiety. The study has also recommended that all three test anxiety phases should be considered as essential aspects of therapeutic interventions. Management plans should address effective dealing with the demands and challenges of test preparation, test-taking, and reappraisal phases. Highly test anxious students should be assisted by

teachers and educational psychologists to manage their test anxiety. Conducting workshops, lectures and providing counseling sessions by counselors could be helpful for test anxious students.

Limitations and Suggestions

The present research explored the phenomenon of test anxiety qualitatively while for generalization of results quantitative research on a large sample must be carried out in the future. For the present research data was only taken from undergraduate test anxious students. For future research to get a wider picture data must be taken from students from other classes and also from psychologists and counselors who are dealing with test anxious students. Further studies should also be conducted to develop effective management plans at an indigenous level.

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