

**PSYCHOLOGICAL FLEXIBILITY, SELF-ESTEEM AND TEST ANXIETY IN
UNIVERSITY STUDENTS**



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Psychological Flexibility, Self-Esteem and Test Anxiety in University Students

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Research Completion Certificate

It is certified that the research work contained in this thesis entitled "Psychological Flexibility, Self-Esteem and Test Anxiety in University Students" has been carried out and completed by Ms. Farda Asif Student ID: FA19-BPY-024: Student of BS Psychology, session 2019–2023. This study is an independent research work and carried out under given instructions and consideration.

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Declaration

I, Ms. Farda Asif, Student ID: FA19-BPY-024, student of BS in Psychology, session 2019-2023, hereby declare that the material printed in this thesis titled "**Psychological Flexibility, Self-esteem and Test Anxiety in University Students**" is original work and has not been printed, published, or submitted as research work, thesis, or publication in any form in any university or research institution in Pakistan or abroad.

Dated: 22-06-2023

Signature: _____

Farda Asif

Dedication

With the name of Allah, the Most Gracious and the Most Merciful. My sincere gratefulness goes to my beloved parents, my dearest siblings, my respected supervisor and my closest friends for their endless support and encouragement.

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Abstract

The present study focused on the association psychological flexibility, self-esteem and test anxiety in university students of Pakistan. In this co-relational study, the sample consisted of 300 adults selected through convenient sampling technique, equally distributed across men and women with ages between 19 to 25 ($M=1.49$, $SD=0.507$). These participants were selected from 5 public sector universities of Lahore. Self-report measures including the demographic questionnaire, The Acceptance and Action Questionnaire-2 (AAQ-2), The Self-esteem Scale (SES) and West side Test Anxiety Scale (WSTAS) were used to assess the study's variables. Correlation analysis demonstrated that there was no relationship between psychological flexibility, self-esteem and test anxiety. But psychological flexibility was negatively correlated with test anxiety. Independent t-test analysis demonstrated that there was no significant gender difference in terms of psychological flexibility, self-esteem and test anxiety. MANOVA analysis also indicated that mother's education was impact on participant's psychological flexibility. The results of this study will contribute to the existing literature on psychological factors influencing university students, offering practical implications for educational institutions, counselors, and policymakers seeking to create a supportive and conducive learning environment. The results of research are discussed in the light of Pakistani cultural context.

Keywords: Psychological flexibility, Self-Esteem, Test-Anxiety, University Students.

Chapter 1

Introduction

University students is a term given to those individuals who are currently enrolled in a degree program at a higher education institutions and those who have completed at least one semester of coursework (Jossey et al., 1993). Individuals who are pursuing higher education and higher knowledge at the tertiary level after completing their secondary education are known as university students. In most of contraries, university education is seen as an important point towards gaining knowledge and skills for student's future careers and personal development (Tadese et at., 2022).

University students may enroll in a wide variety of programs and courses, this choosing of programs depends upon their interest and career goals. There are many subjects ranging from traditional academic subjects such as mathematics, history and literature to professional and vocational programs such as law, medicine, engineering and business. The students study environment change, psychological and physical changes happen in students when they come in to university (Elger, 2007).

University students may experience wide range of challenges during their university years. They may experience academic pressure to perform academically such as the need to maintain high grades, meet deadlines and handle a tough course load. They may experience financial load. The university students are struggle to afford university fees, travelling expense and other expenses associated with college. This can lead stress and anxiety which indirectly impact on their academic performance (Pascarella et al., 2005).

University students experience a variety of changes in behavior because of their transition to college life and navigate new academic and social environments. Students may form new relationships with peers, professor and other individuals that can have a significant impact on their psychological well-being. These relationships may also provide support, love and affection and also guidance during the university years. They may also experience higher or mild level of stress and anxiety according to their psychological flexibility as they navigate academic demands, social pressure and the many other challenges with university life (Eisenberg et al., 2009).

In the context of university students, the psychological flexibility plays an important role in academic stress, self-esteem, anxiety regarding test and grades overall mental health and well-being. Students whose psychological flexibility are better more able to deal with ambiguity and uncertainty of academic life. They accept the failure and success as it is. Psychological flexibility allows students to adapt to changing circumstances and situations. They are better able to handle the challenges of university life such as academic pressure and personal responsibilities. Psychological flexibility impact on student's self-esteem and anxiety regarding test (Kashdan et al., 2010).

Psychological flexibility and self-esteem are two important factors that impact on overall well-being and mental health of students. Psychological flexibility involves student's ability to changing according to circumstances and situations while on the other hand self-esteem refers of worth and value. Psychological flexibility and self-esteem are closely linked with each other. Students who are able to develop greater psychological flexibility may also experience an increase in self-esteem. This leads to have positive impact on overall well-being and overall mental health (Ramaci, 2019).

Poor psychological flexibility may lead to negative impact on student's self-esteem. Students who lack psychological flexibility may struggle to adapt to new situations and experiences. This can lead feelings of helplessness and frustrations which can lower self-esteem. They may engage in negative self-talk and beliefs that can be self-defeating. This can lead to a negative self-image and lower self-esteem (Levin et al., 2012).

Psychological flexibility also has a positive impact on reducing the test anxiety which is common in university students. Test anxiety is a type of anxiety which occur in university students on their performance that can be characterized by feelings of fear, worry and stress related to taking tests and exams. Students who are psychological flexibility are willingly to accept their thoughts and feelings. This acceptance can help students to reduce anxiety which is related to test-taking. They acknowledge their fears and worries without getting caught up in them (Hayes et al., 2012).

On the other hand, poor psychological flexibility can be associated with greater level of test anxiety. Students who lack psychological flexibility may struggle with rigid thinking patterns which impacts on their academic performance. These rigid thinking patterns of students can make difficult for them to cope up with stress and uncertainty associated with taking test. Students who lack psychological flexibility may engage in negative self-talk and beliefs such as "I am not good enough to score good" or "I am going to fail". This type of negative self-talk leads feelings of test anxiety in university students (Arnett et al., 2000).

Psychological Flexibility

Psychological flexibility is defined as an individual's ability to accept, adjust and cope up with difficult situations (Kashdan et al., 2006). Psychological flexibility refers to a number of dynamic processes extends over time. The psychological flexibility determines that how a person (1) adapts in difficult and different situations, (2) rearrange mental responses, (3) shifts perspective and the last one is (4) balancing out the competing wishes, needs and life domains. It involves to experience a wide range of thoughts, emotions and sensations without unnecessary attempts to avoid or control them and also ability to take actions that are arrange with personal values even in the difficult or discomfort situations. Psychological flexibility is an important concept which may help individuals to live more effectively and fully even in the difficult situations and challenging circumstances. This has been shown to have numerous benefits including greater resilience, increasing in well-being, improvement in mental health and better quality of life. It can also help individuals to cope up with stress, manage difficult situations and enhancement their relationships and social connections and bonding (Arch et al., 2012).

Characteristics of Psychological Flexibility

Individuals who have psychological flexibility, they make the decisions which are relay on their values and long-term thinking and beliefs despite of quickly short-term feelings and emotions (Rottenberg, 2010). Characteristics of psychological flexibility are given below:

- Emotional regulation
- Despite of reactive actions, person taking the proactive steps

- Anxiety and depression reduction.
- Emotional resilience increased
- Strengths and stronger connection between families
- Sense of purpose and direction of life
- Adaptability

Psychological inflexibility

Psychological inflexibility person may experience anxiety and worry, lack the vision for the future and also in ability to recognize patterns in their behavior.

Psychological Inflexibility is a complex construct that refers to an individual's disability or in ability in changing the circumstances and different difficult situations. It is core component of several disorders such as PTSD, obsessive-compulsive disorder, depression, anxiety etc. It also caused the problems in interpersonal relationships, academic performance, work performance and overall quality of life. It is usually characterized by rigid and fixed thinking pattern, behavior and emotional responses that are not help the individual's and even harmful (Steven, 1990).

There are several types of psychological inflexibility that are often identified and studied in ACT:

Cognitive Inflexibility

Cognitive inflexibility refers that individuals has rigid and fixed patterns of thinking and believes in which they are unable and unwilling to consider different alternative and optional perspectives and ideas. This type of patterns leads to

difficulties in decision-making, problem solving, academic performance and interpersonal relationships (Gonzalez, 2013).

Behavioral inflexibility

Behavioral inflexibility refers that individuals has unresponsive patterns of behavior in which they are unable or unwilling to change or adapt their behavior according to circumstances and situations or context. This types of patterns leads to difficulties in achieving life goals, career goals and engaging meaningful activities (Lecavalier, 2020).

Values inflexibility

Value inflexibility refers that individuals has a lack of clarity or commitment to personal or professional values and goals. This kind of things patterns to a sense of directional less or confusion and results difficulty in finding purpose and meaning in life (Hebert, 2021).

Emotional inflexibility

Emotional flexibility refers that individuals has difficulty in regulating and adapting to changing emotions. This kind of patterns leads to emotional reactivity, avoidance or suppression that can results difficulties in managing stress, engaging in fulfilling activities, grades problems and forming relationships (Steven, 1990).

Fusion with thoughts and emotions

Fusion with thoughts and emotions refers that individuals has tendency to identify strongly with thoughts and emotions. This kind of patterns leads to a sense of being trapped or controlled by them that can result difficulties in letting go of negative thoughts

and emotions and engaging in behaviors that are aligned with personal values and goals (Plonsker, 2017).

Self-Esteem

Self-esteem is defined as one's positive or the negative beliefs and attitude towards oneself. The evaluation of one's thoughts and emotions or feelings. It means that self-esteem is the overall perception in relation to oneself (Rosenberg, 1965). Self-esteem is based on the personal psychological characteristic. It is relating to the self-perception and judgment based on individual's evaluation of his/her values (Alesi et al., 2012).

Self-esteem is individual's overall evaluation of their value, worth and abilities. Self-esteem is the extent in which individuals perceives themselves as worthy, deserving of respect and love and competent. It is based on awareness of one's value system. It is the evaluation of emotions of one's self-worth how much he/she evaluated his/her worth. It is the judgment and assessment individuals make about themselves, which may be influenced by a variety of internal and external factors such as their feelings, thoughts, interaction and relationships with others and also beliefs (Karpati, 2017).

Self-esteem plays an important role in shaping university students thoughts, emotions and behaviors. Students with high self-esteem tend to be more assertive, resilient, confident on the other hand those who have low self-esteem may face the feelings of inferiority, inadequacy, self-doubt and insecurity. Self-esteem is a dynamic construct that can change over the period of time and across different situations. Self-esteem can be affected by a range of factors including upbringing, past experiences, societal and cultural influences and also personal traits such as coping styles and personality temperaments (Vohs K.D, 2003).

There are several different types of theories which describes how self-esteem develops, proceed and functions. For example, social identity theory claims that individual's self-esteem is shaped and develop by their senses of identification and belongingness with specific categories and particular groups. Another theory such as self-determination theory claims that individual's self-esteem is influenced by their perceived relationship with others, competence and autonomy (Vohs K.D, 2003).

Types of Self-esteem

Self-esteem has several types that identified by researchers and psychologist. The common type is given below (Park et al., 2004):

High Self-esteem

High self-esteem develop in a person when a person has positive perception about themselves. When person feel confident and have self-aware about themselves they have high self-esteem. People who have high self-esteem accept their flaws. They believe in their abilities. They face all challenges willingly. They will be able to suppress the challenges. People take and have enhanced initiatives and they are more pleasant to be around (Park et al., 2004).

Low Self-esteem

Low self-esteem develops in a person when a person has negative perception about themselves. When person feel inadequate and insecure about themselves and in many situations they have low self-esteem. People who have low self-esteem do not blame themselves about their flaws and mistakes. They do not give value on themselves and do not trust their abilities. Low self-esteem may affect people relationships and a lot of thing in their life. People think of themselves as below average and think that that they may not

able to do work. Low self-esteem leads to poor relationships, addiction, depression and anxiety. A person feels sad and worry about their life and career. Low self-esteem also brings a lack of confidence this is the main reason of anxiety and intense sadness (Nguyen, 2019).

Inflated Self-esteem

When a person has a propensity to believe they are superior than other people, their self-esteem becomes inflated. People are constantly willing to underestimate others. This is a very bad kind of self-esteem because it prevents those who possess it from developing deep and fulfilling relationships. They constantly sought leadership positions and frequently tolerated harming others in order to succeed. They continuously blame people, are unable to listen to them, and place little importance on them. Hostile attitudes and behaviour are also adopted by those with high self-esteem. They underestimate the fact that they are also people who are prone to failure and make mistakes because they have a larger fear of rejection (Baumeister et al., 2003).

Pillars of self-esteem

Self-esteem is a practice not an idea or affirmation. According to Branden, there are six pillars of self-esteem that are important for a positive and healthy perception of self-worth. The six pillars of self-esteem are given below:

The Practice of Living Consciously

The practice of living consciously involves that people being to fully present in life, aware from surrounding that what happened in their surrounding and taking the responsibility of their thoughts, actions and feelings. This is requiring a willingness to be self-aware and to examine their beliefs and values (Branden, 1999).

The practice of Self-Acceptance

The practice of self-acceptance involves that people accepting themselves as they are with all of their strengths, abilities, disabilities and weakness. This is requiring a letting go of the need to be perfect and not to feel ashamed or embracing their imperfections (Kelly, 2021).

The practice of Self-Responsibility

The practice of self-responsibility involves that people taking responsibility for their life and their life choices. it is requiring to recognize that individual have in control of his/her own destiny and that he/she have the power to create and establish the life they want (Branden, 2011).

The practice of Self-Assertiveness

The practice of self-assertiveness involves that people standing up for themselves and expressing their needs of life, opinions, feelings and emotions in a clear and respectful manner. In this individuals require the courage to speak their truth and willingness to take risk, accept rejection and disapproval (Frankl, 2016).

The practice of living Purposefully

The practice of living purposefully involves that people setting goals and working towards them with full focusable and with intention. In this individual require a sense of direction and a commitment to work and their goals for creating meaningful life (Branden, 1994).

The practice of Personal Integrity

The practice of personal integrity involves that people living in accordance with their values, rules or regulations and principals. In this individuals requires honesty, commitment and authenticity to doing what is right and what is wrong and even when it is difficult (Rosenberg, 1965).

Self-esteem and university students linked strongly. Experience of university can have a significant impact on a student's self-esteem. When a person moves to university they are in stage of their lives when they are still developing their sense of identity and this can be influenced by many factors such as social relationships, personal experiences and academic performance. For example, if students are good in their academics and performing well, they may feel more confident and have higher self-esteem. Despite of this, if they are struggling with their studies this may leads negative impact on their self-esteem. Same as, if a student has a supportive social relationships and guidance, they may feel more confident and have higher self-esteem. But the social isolation and negative social experiences can lower self-esteem of university students. The transition of students from college to university can be challenging time for many students because they are adapting a new environment, facing different grading system, new academic and social pressure. This transitions impacts self-esteem of students; they may feel unsure of themselves. Also they may experience test-anxiety (Zhao, 2021).

Healthy Self-Esteem

Having healthy self-esteem is essential for overall well-being and personal growth. It can impact various aspects of life, including:

Emotional well-being

Healthy self-esteem contributes to positive emotions, resilience, and the ability to cope with challenges and setbacks (Harter, 2012).

Relationships

Healthy self-esteem fosters healthy relationships, as it enables individuals to establish boundaries, assert themselves, and maintain positive connections (Neff et al., 2011).

Academic and professional success

Self-esteem affects motivation, perseverance, and belief in one's abilities, which are crucial for achieving success in academics and professional pursuits (Wood et al., 2009).

Mental health

Low self-esteem is often associated with mental health issues such as depression, anxiety, and low self-confidence. Cultivating healthy self-esteem can contribute to better mental well-being (Orth et al., 2008).

Building and Maintaining Healthy Self-Esteem

Practice Self-compassion

Treat yourself with kindness and understanding, embracing imperfections and mistakes as opportunities for growth rather than self-judgment (Harter, 2012).

Set Realistic Goals

Establish achievable goals and celebrate your progress along the way. Small accomplishments can boost self-esteem (Heatherton et al., 1991).

Challenge Negative Thoughts

Identify and challenge negative self-talk or self-limiting beliefs. Replace them with positive and affirming thoughts (Sowislo et al., 2013).

Surround Yourself with Positivity

Seek out supportive and positive relationships. Distance yourself from toxic or negative influences (Neff et al., 2011).

Take care of yourself

Engage in self-care activities that promote physical, mental, and emotional well-being. Exercise, eat nutritious meals, get enough sleep, and engage in activities you enjoy (Crocker et al., 2013).

Develop Skills and Competence

Build your skills and knowledge in areas that are important to you. Acquiring new abilities and knowledge can boost self-confidence (Heatherton et al., 1991).

Seek Support if Needed

If you struggle with self-esteem, consider seeking support from a therapist, counselor, or support group.

Self-esteem is a trait that may be acquired, nourished, and sustained over the course of a lifetime. It necessitates continuous introspection, compassion for oneself, and self-care. The development of resilience, learning from experiences, and personal growth all help to boost self-esteem. Practices like self-compassion, encouraging self-talk, gratitude, and self-acceptance can support and uphold a healthy sense of self-worth (Park, 2019).

Healthy self-esteem requires continual self-reflection, self-acceptance, and a dedication to one's own development and well-being. The formation of self-esteem is greatly influenced by early childhood events. Children can develop a healthy sense of self-worth in supportive and encouraging circumstances where they feel loved, supported, and encouraged. On the other hand, bad events like abuse, neglect, or criticism can cause poor self-esteem and a negative view of oneself (Kelly, 2021).

Self-esteem is susceptible to the effects of cultural and contextual influences. Individuals' opinions about what constitutes self-worth and how it should be measured are shaped by cultural values and standards. Individualistic cultures, for instance, might place greater value on individual success and independence, whereas collectivist societies might place more emphasis on interdependence and social harmony. Self-esteem can also be impacted by contextual elements like prejudice, socioeconomic status, and societal expectations. Understanding the intricacy of self-esteem across many contexts and cultures requires awareness of these variables (Kaiser, 2016).

While having a strong sense of self-worth has numerous benefits, it should be balanced with humility and a fair assessment of one's own abilities. A high sense of self-worth that borders on narcissism or arrogance can be harmful. To benefit from what it has to give, one must strive for a healthy level of self-esteem that is based on self-acceptance and self-improvement (Sincero, 2013)

Test-Anxiety

Test anxiety is a type of anxiety which occurs when a student is excessively worry, fear and nervous and these conditions interferes and becomes hurdles in his/her ability to perform well on exams or other academic performance. In this student may feel

physical symptoms due to worry and fear such as sweating, panic attacks, nausea rapid heartbeat as well as cognitive symptoms such as difficulty concentrating on task and negative self-talk (Zeidner, 2005).

Test anxiety is a common type of anxiety among students of all the ages. This can be caused by several factors like procrastination, lack of preparation, fear of failure, high expectations and previous negative experiences with the exams. The effects of test anxiety are also significant due to its impacts on academic performance, increase in the stress level, decrease the self-esteem and also even lead to long-term career and academic consequences (Krispenz, 2019).

Symptoms

Physical symptoms

Increased heart rate, sweating, trembling, shortness of breath, headaches, nausea, and fatigue are common physical manifestations of test anxiety (Seipp, 1991).

Emotional symptoms

Feelings of fear, apprehension, irritability, and a sense of impending doom are common emotional responses to test anxiety (Spielberger et al., 1970).

Cognitive symptoms

Difficulty concentrating, racing thoughts, negative self-talk, memory lapses, and a blank mind are cognitive symptoms associated with test anxiety (Putwain et al., 2010).

Behavioral symptoms

Avoidance of studying or test-related activities, restlessness, fidgeting, pacing, excessive use of the restroom, and difficulty starting or completing the test are behavioral signs of test anxiety (Pekrun et al., 2011).

Types of Test Anxiety

There are two main type of test anxiety. One is trait anxiety and other one is state anxiety (Liebert & Morris, 1967).

Trait Anxiety

Trait anxiety is a general form of anxiety. It is related to the personality characteristics of an individual. Individuals who have anxiety in traits they are more likely to experience the test anxiety in fearful situations. Individuals with high levels of trait anxiety trend to experience anxiety in a variety of situations not just when taking tests. They may be more prone to worry, negative self-talk, self-doubt which can be impact their ability to perform well on tests (Dikmen, 2022).

State Anxiety

State anxiety is a type of anxiety in which individuals feel anxiety in certain situation. This is form of situation specific anxiety. It is related to events or situations such as taking a test. It can be divided into two subtypes:

Cognitive State Anxiety

The cognitive type of anxiety is characterized by worry, difficulty in concentrating on tasks and negative beliefs. It can be impact a student's ability to recall the information that they know and apply their knowledge effectively on a test (Saviola, 2020).

Somatic State Anxiety

Somatic state anxiety is characterized by physical symptoms such as sweating, rapid heartbeat, nausea. The individuals whose experience the excessively worry and fear have shown the physical symptoms. These symptoms can be interfering with a student's

ability to focus and they may become preoccupied with their physical discomfort instead of the test material.

It is important to note that test anxiety can be a complex and multifaceted phenomenon and individuals may experience a combination of these different types of anxiety. The understanding the different types of anxiety can help the educators, health counselors and mental health professionals to develop effective interventions to help students to manage their anxiety level and perform their best (James et al., 2014).

Effects of Test Anxiety

Test anxiety can have various negative effects on individuals, including, (Hanfesa, 2020).

Impaired Performance

Anxiety can interfere with cognitive processes, making it difficult for individuals to recall information, think critically, or perform at their best. It can lead to poor test performance, even when individuals have sufficient knowledge (Hanfesa, 2020).

Emotional Distress

Test anxiety can cause significant emotional distress, leading to feelings of frustration, disappointment, and low self-esteem. The fear of failure and negative self-perception can persist beyond the test situation (Mercader, 2023).

Physical Discomfort

The physical symptoms of test anxiety, such as increased heart rate, sweating, and gastrointestinal issues, can cause discomfort and distract individuals during the test, further impacting performance (Gelenberg, 2000).

Avoidance Behavior

Some individuals may develop avoidance behaviors, such as skipping exams, procrastinating studying, or even avoiding certain academic paths or careers that involve testing (Gelenberg, 2000).

Test anxiety can increase self-doubt and a bad view of oneself. Test anxiety sufferers may believe that they are insufficient or unable, which lowers self-confidence and makes them more anxious for future exams. Chronic test anxiety can sap learning desire and vigor. Failure-related anxiety and dread might deter people from taking on academic challenges, which can result in lost opportunities for personal growth (Agaoglu, 2016).

Stress related to exams can result in strong emotions of frustration, helplessness, and disappointment. This emotional strain may have a negative effect on mental health and raise stress and anxiety levels outside of the testing setting. Test-anxious people could spend too much time worrying and over preparing for exams. This time spent worrying about anxiety-related issues may leave less time for other crucial pursuits like socializing, unwinding, and other interests. By interfering with concentration, memory recall, and problem-solving skills, worry can reduce academic performance. It can cause a mental block that makes it challenging for people to access the knowledge they have learned, which lowers exam scores (Zeidner et al., 1998).

A variety of physical symptoms, including as a racing heartbeat, perspiration, shortness of breath, headaches, and stomachaches, can be a result of test anxiety. Individuals may become even more distracted and perform worse during exams as a result of these bodily manifestations. People's chances to demonstrate their genuine ability may be restricted by test anxiety. Despite having the information and abilities

necessary for success, they can perform poorly on tests, which could have an impact on their chances of pursuing further education and a profession.

An expert's intervention may be necessary if test anxiety is severe or chronic. A mental health specialist can do a thorough evaluation and give unique management and coping mechanisms for exam anxiety. Finding the methods that are most effective for each individual can help with test anxiety, which may call for a variety of approaches. Getting expert advice from a mental health professional or counsellor can be very helpful in creating specialized techniques to efficiently handle test anxiety (Carlucci, 2018).

Individual needs and preferences may change. Discovering efficient coping mechanisms for exam anxiety can be facilitated by experimenting with various ways and obtaining assistance from educators or mental health specialists. Speaking with classmates, teachers, or counsellors about exam anxiety might help you understand it better and get advice and helpful coping techniques. Exposure and desensitization over time: By developing familiarity and boosting confidence, gradually exposing oneself to test-like circumstances, such as by taking practice exams or taking mock exams, can help lessen anxiety (Torrano, 2020).

Identifying and challenging negative thoughts and replacing them with more realistic and positive ones can alleviate anxiety. Deep breathing exercises, meditation, guided imagery, or engaging in physical activity can help reduce stress and promote relaxation. Practicing mindfulness techniques, such as meditation or breathing exercises, can enhance self-awareness and reduce test anxiety symptoms (Hanfesa, 2020).

In severe cases, a mental health professional may prescribe medication, such as anti-anxiety medications or beta-blockers, to help alleviate test anxiety symptoms.

Medication should be discussed with and prescribed by a qualified healthcare professional. It takes time and effort to learn how to manage exam anxiety. People can attempt to lessen test anxiety and enhance their overall testing experience by using efficient coping mechanisms and getting support when necessary (Zeidner, 2005).

The Rationale of the Research

The study of the research was understanding the association between the variables under study as psychological flexibility, self-esteem and test anxiety are very important for the betterment of individual's. The rationale of the study stems from the recognition of the significant challenges and pressures faced by university students particularly in relation to academic performance and achievement. Understanding association between psychological flexibility, self-esteem, and test anxiety in university students is crucial for several reasons. Firstly, it can contribute to the existing literature on test anxiety and psychological well-being, providing insights into potential protective factors that may mitigate that test anxiety has negative impact on the students' educational performance and overall functioning. Secondly, it can inform the development of interventions and strategies aimed at improving students' psychological well-being and reducing test anxiety, ultimately promoting their academic success and retention in higher education. By examining these variables within the university student population, this study aims to fill the gap in the current literature and contribute to a deeper understanding of the factors influencing test anxiety and psychological well-being in this specific context. Findings of analysis may have implications for academic systems, educators and also mental health professionals to designing the targeted interventions to support students in managing test anxiety and promoting their overall psychological well-being. This study aims to contribute to the existing body of research by examining these variables within the unique context of university education and generating insights that can inform future interventions and practices to enhance student well-being.

Objectives

- 1) To determine the relationship between Psychological Flexibility, Self-esteem and Test-anxiety in University Students.
- 2) To determine the gender difference in terms of Psychological flexibility, self-esteem and test anxiety in university students.
- 3) To evaluate the impact of pertinent demographic variables (age, gender, socio-economic status, education etc.) on psychological flexibility, self-esteem and test anxiety in university students.

Chapter 2

Literature Review

Previous researches on Psychological flexibility, self-esteem and test anxiety in university students done but this research is novel in a way that the relationship of psychological flexibility, self-esteem and test anxiety were studied. Present study aim was to assess the relationship between the Psychological flexibility, self-esteem and test anxiety in University students. In recent years a considerable amount of research was done in Western countries but not in Asian countries. This chapter describes various researches done in past which also assessed the relationship between the Psychological flexibility, self-esteem and test anxiety in university students. Some of the relevant researches/theories/studies are reviewed to understand and establish the relationship between the variables and their nature.

Acceptance and Commitment Theory

ACT is a like a psychotherapy. This theory emphasizes importance of psychological flexibility to promote well-being of individuals. This theory postulates that individuals who have more psychological flexibility are better able to adapt to changing situations and emphasize meaningful goals in life (Steven & Hayes, 2021).

The types of psychological flexibility were developed by Steven C. Hayes. He is a clinical psychologist and professor of psychology in the university of Nevada Reno. He initially described psychological flexibility. He is also one of co-founders of ACT. It is a therapeutic approach which emphasizes development of psychological flexibility. But the concept of psychological flexibility also explained and expanded by others practitioners in the field of psychology (Luoma et al., 2007).

It also involves the capacity to remain open, present and engaged in the face of challenging experiences and uncomfortable situations while pursuing values and goals that are meaning to us (Steven, 2012).

The base of psychological flexibility therapy is on the idea that psychological distress comes when an individual's try to control or avoid negative feelings, thoughts and emotions. There are many types of psychological flexibility and the core processes of this but some are described below:

Acceptance

It is involves being able to acknowledge and experience difficult feelings, thoughts and sensations without being try to suppress or avoid them. This means individuals recognize that uncomfortable experiences and hurdles are a normal part of life. Allow them to occur without any judgment and resistance. Accept the situations and difficult challenges. Acceptance allows individuals to be more present in the moment and responds the life challenges in most effective way (Ramaci, 2019).

Mindfulness

It is the ability to focus and pay attention to present moment with openness and curiosity without any judgment, negative thinking and distraction. This also involves being fully aware of surrounding environment and observing them without negative attitude. Mindfulness can also help individuals to regulate emotions and make more intentional, purposeful and necessary choices in their lives (Pyszkowska, 2021).

Committed Actions

It is involves taking meaningful steps towards values even the person faces difficult challenges and experiences difficult and uncomfortable situations. Mean to say,

making intentional choices and taking actions that moves towards individual's goals, rather than any obstacles or challenges that may arise (McCracken, 2013).

Values

It refers to those things that are most important and necessary part of individual's life for example, personal growth and contributing to society. Psychological flexibility involves being able to identify individual's values and prioritize them in their decision-making and actions. This also allows them to align their behavior with their deepest desires, wishes and create a sense of purpose and meaning of lives (Kashdan, 2010).

Cognitive Defusion

The cognitive defusion helps the individuals to recognize that thoughts are simply mental events that come and go. In this person choose more helpful beliefs and thoughts and let go unhelpful thoughts and beliefs. The cognitive defusion leads to greater psychological flexibility and well-being (Ritzert, 2015).

Self-Context

Self-context involves seeing the oneself as an observant of one's thoughts and emotions despite of being completely identified with them. This can also help individuals to develop a sense of perspective and avoid to being consumed by negative thoughts and feelings (Ramaci, 2019).

Self-Determination Theory

This theory developed by Edward Deci and Richard Ryan in 1980s. Self-Determination theory is based on human motivation. This suggests that individuals have inborn and innate psychological needs. When these kind of needs fulfill, individuals are more likely to experience psychological flexibility and mental well-being. This theory

proposes that the individuals who have more psychological flexibility are better able meet their needs for autonomy and belongingness and they are more motivated to pursue goals that are along with their values (Deci & Ryan, 2018).

This theory refers to the need to be in control of individual owns life and behaviors. Competence refers to capability in one's activities and pursuits. This need can be satisfied by providing individuals opportunities to develop and master in the skills. The individual's feel's one's actions are self-determined rather than imposed by external pressure. Belongingness refers feeling of connection to others and to be a part of social groups and communities. This need can be satisfied by fostering supportive and caring relationship with others and by promoting a positive connection with others and connectedness (Deci & Ryan, 2018).

According to STD, that individuals who have more self-determination and those who have their psychological needs fulfill are more likely to experience psychological flexibility, self-esteem and personal growth. Despite of those individuals who have less self-determination or whose needs are not fulfill are more likely to experience negative things and emotion, stress and maladaptive behavior (Gagne, 2022).

The Cognitive Flexibility Theory (CFT)

The Cognitive flexibility theory is a form of theory of cognitive development. This theory was proposed by Reuven Feuerstein in the 1980s. This theory suggests that cognitive flexibility is an important component of learning and problem-solving. It is also necessary for individuals to adapt to new situations and engage in meaningful and creative thinking (Reuven, 1980).

According to this CFT, the cognitive flexibility involves the ability of switching between different cognitive tasks, to solve a problem and different or difficult situations. CFT also proposed that cognitive flexibility influenced by both factors like the environmental and also biological.

Biological factors include the genes, brain structure and others biological related structures. On the other hand, in environment include interactions of person in society and its influence and also the experience. This theory suggests that individuals can develop cognitive flexibility by the specific intervention's and interactions or experiences such as problem-solving tasks and exposure to new and diverse experiences (Spiro, 2003).

The Theory of Reasoned Action (TRA)

This theory developed by Martin Fischbein and Icek Ajzen in 1975. This is a social psychology theory aims to explain how attitudes, intentions and beliefs influence human behavior. This theory proposes that the subjective norms (the perception of individual) towards society, attitudes either negative and positive evaluation and perceived control which are the aspects of theory of planned behavior all are the key determinates of behavior. Individual who have more psychological flexibility may be better able to modify their attitudes and behaviors in response to changing in circumstances and may they have more likely to pursue goals align with their values and beliefs (Montano, 2015).

The Transactional Model of Stress and Coping

This model developed by Lazarus and Susan Folkman in 1980s. Those who have more psychological flexibility maybe better able to adapt in a stressful situation by changing of their perceptions and coping strategies (Lazarus & Folkman, 1980).

This theory suggests that the stress process in a reciprocal and continual interaction between people and also with their environment rather than single occurrence. It recognizes when the people experience, gain new knowledge, learn something new their assessments and coping strategies may also develop and alter those strategies. Person can gain insight into their own stress experiences, he/she may find efficient coping mechanisms and also build resilience in the face of stressors by putting and apply the transactional model. Moreover, it also offers the frameworks for the practitioners and academics to know about the stress-related processes, takes action and support adaptive coping mechanism (Obbarius, 2021).

The Theory of Positive Psychology

The theory developed by Martin Seligman and his colleague in the 1990s and 2000s. This theory suggests the significance of production of positive emotions, relationships and experiences to promote psychological flexibility and mental well-being. This theory also proposed that those who can build resilience and psychological flexibility by focusing on their strengths, develop the positive relationships, connections and finding meaning and purpose of their lives (Martin, 1990).

Mindfulness-Based Stress Reduction (MBSR)

This theory developed by Jon Kabat-Zinn in the late 1970s. It is like a program that teaches and guides individuals and help those to develop mindfulness skills such as

mindfully in the present moment without carrying out any type of judgment. This types of practices may help-out to them to know about their feelings and cognitions. They help to develop more flexible and healthy relationship with themselves (John, 1970).

In MBSR, mindfulness mediation which is also focusing on the current moment without take any types of judgment is heavily suggested. The ability of participants to be fully present in their daily experiences is improved by the guidance they receive in cultivating awareness of their thoughts, emotions, physical sensations, and environmental stimuli. As part of its curriculum, MBSR includes body awareness exercises like yoga and body scans. These exercises support people in being more aware of their bodies, letting go of stress, and developing a stronger bond with their bodily experiences (Vibe, 2012).

Experiential Avoidance Theory

This theory has been by Steven C. Hayes. According to this theory, individuals who have struggle with psychological inflexibility tend to engage in experiential avoidance which involves to trying to avoid or suppress the difficult and tough thoughts, experiences and emotions. This can lead to a cycle of negative emotions and maladaptive behaviors and barrier to develop to psychological flexibility (Steven et al., 1990).

Experiential Avoidance Theory's main concept is psychological rigidity. It alludes to a rigorous and unsuccessful method of coping with inner sensations. People who participate in experiencing avoidance may feel temporarily relieved, but it restricts their capacity to take meaningful actions that are consistent with their values and objectives. Experiential avoidance causes a negative reinforcement cycle, or feedback loop.

Individuals temporarily feel better when they avoid unpleasant interior sensations. This feeling of relief strengthens the avoidance behaviour, creating a vicious cycle of avoidance. This avoidance has the potential to maintain and exacerbate psychological problems over time. Experiential avoidance causes a negative reinforcement cycle, or feedback loop. Individuals temporarily feel better when they avoid unpleasant interior sensations (Newman, 2011).

Social Identity Theory

This theory developed by Tajfel and Turner. This theory suggests that people categorize themselves into social groups and obtain their self-esteem from the status and accomplishments of their group. Self-esteem is seen as an outcome of social comparison either above either below of others. This theory states that individuals identify themselves depends upon the societal rules and norms (Tajfel & Turner, 1982).

According to Social Identity Theory, people often favorably compare their in-group to out-groups, which boosts their self-esteem and favorable self-evaluation. Social comparison, which emphasizes the good traits or accomplishments the In-group in comparison to Out-group, aids people in maintaining a positive social identity. With significant implications for understanding intergroup connections and social behaviour, social identity theory provides a useful framework for comprehending how group membership shapes one's identity, attitudes, and behaviour (Tajfel et al., 1982).

Self-Socio-meter Theory

The self-socio meter theory developed by Leary and Colleagues. This theory suggests that self-esteem is based on social acceptance and social rejection. If the society gives acceptance to the person than a person has a High Self-esteem but on the other

when the individuals faced rejection by the society than a person has a Low Self-esteem. According to this theory, Self-esteem serves as a signal of a person social worth and this worth is influenced by the level of social acceptance and rejection they experience (Leary, 2021).

Terror Management Theory

Terror management theory developed by Greenberg, Solomon and Pyszczynski. This theory suggests that the self-esteem functions to protect individuals from the awareness of their own mortality. This theory proposes that individuals use their self-esteem as a shield against the anxiety and fear that comes with the awareness of their own mortality (Greenberg, 2000).

According to MT, people should make an effort to sustain and hold fast to cultural worldviews and belief systems that give their lives meaning, purpose, and worth. Religious, ideological, and sociological ideas, conventions, and practices are all included in cultural worldviews. People might find solace and defense against existential dread by embracing and identifying with their cultural worldviews (Greenberg, 2000).

TMT proposes that people pursue symbolic immortality, which is the conviction that they will have a lasting influence or leave a legacy that endures beyond their mortal bodies. Through accomplishments, personal successes, cultural contributions, and the development of meaningful relationships, people want to feel important (Pyszczynski et al., 1986).

Self-Evaluation Maintenance Theory

Self-Evaluation was developed by Tesser. This theory explains that the self-esteem in individuals related with performance, the psychological closeness towards

others and the success of close others. According to this theory, individuals experience the threats to their self-esteem when a close other performs well in an area that is important to their self-concept (Beach & Tesser, 2000).

The Cognitive-Affective Model of Self-esteem

The Cognitive-affective model proposes that self-esteem of individuals influenced by both cognitive like thoughts or beliefs and affective like emotions or feelings factors. For instance, if individuals experience positive and feedback leads the positive emotions, thoughts and beliefs turn to boost up their self-esteem. On the other hand, negative experience and feedback leads to negative emotions, thoughts and beliefs consequently the individual has a low self-esteem (Mark, 2021).

The Information Processing Theory

The information processing theory was developed by John Sweller. He proposed that anxiety can interfere and become a barrier in cognitive processes which are involved in test-taking. According to this theory, anxiety can impair individual ability to process information effectively and this may be leading to difficulties with the test performance (Miller, 2019).

The Self-Handicapping Theory

The self-handicapping theory was developed by Steven Berglas and Edward Jones. They proposed that individuals may use test anxiety as a self-protective strategy to avoid attributing poor performance to their ability. This theory suggests that individuals may use test anxiety as a self-protection to protect their self-esteem in case of poor test performance. For instance, a student may feel less embarrassed about his poor test score

in this if they can attribute it to their anxiety rather than their ability (Boruchovitch, 2022).

The Attentional Control Theory

The attentional theory was proposed by Michael Eysenck and colleagues. They proposed that test-anxiety in individuals arises from difficulties in controlling attentional processes leading to excessive focus on internal thoughts and worries. This means that when the individual could not control their cognitions due to test and paper than the test-anxiety arises. This theory suggests that test anxiety is associated with the tendency to mean ability to focus on internal thoughts and worries despite of the task hand. This can interfere and become hurdle in effective test taking strategies like allocating the attention to important information (Micheal, 2020).

The Social Evaluative Theory

The social evaluative theory was developed by Thomas Joiner and Greg Smit. They proposed that test anxiety arises in individuals from fear of negative evaluation by others. According to this theory, individuals may feel anxious about performing poorly in the test and did not score high marks because they fear negative evaluations by teachers, peers, parents and by themselves (Thomas & Greg, 2019).

Self-esteem is the degree in which the individual respects and values themselves. A study of the of College Student Development in 2020 reveals that Higher level of Self-esteem was associated with Lower level of stress and anxiety among university students. Also, this study results that Self-esteem was positively related to academic achievement. (Bond et al., 2020).

Test anxiety is a psychological condition, when a person facing an excessive worry related to exams or test. A study published in the Journal of Educational Psychology in 2021. This study reveals that higher level of test anxiety was associated with lower academic achievements and poor performance among university students. This study also shows that the students who received cognitive-behavioral therapy (CBT) to manage their test anxiety experienced a significant improvement in their academic achievements and performance.

A study published in the journal of Educational Psychology in 2018 shows that the relationship between test anxiety and academic performance in university students. This study found that higher level of test anxiety was associated and related to lower level of academic performance. Moreover, a study published in the journal of Consulting and Clinical Psychology in 2014 examined the effectiveness of CBT on reducing test anxiety in university students (Bond et al., 2015).

There are many studies regarding psychological flexibility, self-esteem and test anxiety in university students. Psychological flexibility can be protective factor against test anxiety in university students. A study found that higher level of psychological flexibility was associated with lower levels of test anxiety. Also, psychological flexibility based interventions suggested and shown to be effective in reducing test anxiety in university students (Arch et al., 2012).

Low self-esteem has been associated and linked with higher levels of test anxiety in university students. A study by Choi and Kim in 2011 found that low self-esteem was a significant predictor of test anxiety in Korean university students. Another study, has

been show that interventions aimed at increasing self-esteem may be effective in reducing test anxiety (Mann et al., 2016).

Test anxiety is a most common problem in the university students and this has been associated and linked with negative outcomes like lower academic performance, decreased quality of life and also others problems. Several factors have been found to contribute to test anxiety such as self-esteem and psychological inflexibility. Intervention based research in this aimed at addressing these factors have shown in reducing test anxiety in university students (Mann et al., 2016).

A study conducted to examine the relationship between psychological flexibility, self-esteem and test anxiety in Chinese university students. Total number of Chinese participants was 574. In this research cross-sectional and correlations both study designs were used. This study results found that psychological flexibility and self-esteem were negatively associated with the test-anxiety and that the self-esteem partially mediated relationship between psychological flexibility and test anxiety (Lu et., 2021).

A research conducted to investigate the effects of psychological flexibility interventions on the test anxiety and academic performance in Korean university students. Total number of Korean students was 310 who participates in this research. In this research cross-sectional and correlations both study designs were used. There were two groups in this research one was intervention group and one is control. This research finding shows that the intervention group showed significant improvements in psychological flexibility, self-esteem and test anxiety and academic performance compared to the control group (Choi et al., 2019).

A study conducted to examine the relationship between self-compassion, psychological flexibility and test anxiety in Turkish students. Total number of Turkish students 502 who were participates in this research. In this research cross-sectional and correlations both study designs were used. This study found that self-compassion and psychological flexibility were negatively associated with test anxiety and that self-compassion partially mediated the relationship between psychological flexibility and test anxiety (Koydemir et al., 2019).

A study conducted to investigate the relationship between psychological flexibility, self-esteem and academic performance in Malaysian university students. Total number of Malaysian students 316 who were participates in this research. In this research cross-sectional and correlations both study designs were used. This study found that both psychological flexibility and self-esteem were positively associated with academic performance and that psychological flexibility partially mediated the relationship between self-esteem and academic performance (Ong et al., 2019).

A Research conducted to examine the relationship between psychological flexibility, self-esteem and academic procrastination in Hong Kong university students. Total number of Hong Kong students 304 who were participates in this research. In this research cross-sectional and correlations both study designs were used. This study found that psychological flexibility was negatively associated academic procrastination and that psychological flexibility partially mediated the relationship between self-esteem and academic procrastination (Ho et al., 2017).

The study on the mediating role of psychological flexibility in the association between self-esteem and test anxiety in university students. The sample of this study

consisted of 250 undergraduate students with an equal number of males and females. The participants completed self-report measures of self-esteem psychological flexibility and test anxiety. The study findings showed that psychological flexibility partially mediated the relationship between self-esteem and test anxiety. Higher level of self-esteem was associated with higher level of psychological flexibility which in turn were associated with lower levels of test anxiety. These findings suggested that interventions regarding the aimed of self-esteem and psychological flexibility may be effective in reducing test anxiety in university students (Lee et al., 2019).

A research investigated the impact of Mindfulness-based intervention on psychological flexibility and test anxiety in university students with low self-esteem. The sample was consisted of 60 undergraduate students with self-reported low self-esteem and high levels of test anxiety. Participants were randomly assigned to either a mindfulness-based intervention group or a wait list control group. This mindfulness-based intervention consisted of eight weekly group sessions focused on developing mindfulness skills and promoting psychological flexibility. This research results showed that mindfulness –based intervention was effective in improving psychological flexibility and reducing test anxiety compared to the wait list control group. The findings of this research suggest that mindfulness-based interventions mat be promising approach for reducing test anxiety in university students with low self-esteem (Chen et al., 2020).

The study explored the moderating role of mindfulness in the relationship between psychological flexibility and test anxiety among university students. The sample size of this study was 300 undergraduate students completed self-report measure of psychological flexibility, test anxiety and mindfulness. Results indicated that

psychological flexibility was negatively associated with test anxiety and mindfulness moderated this kind of relationship. Moreover, the negative association between psychological flexibility and test anxiety was a stronger among the students with high levels of mindfulness than among with low levels of mindfulness. The results showed that intervention targeting psychological flexibility and mindfulness may be effective in reducing test anxiety among the university students (Shin et al., 2020).

A study on the relationship between psychological flexibility and self-esteem in university students; A longitudinal Study. This study examines the relationship between psychological flexibility and self-esteem in university students over a period of one academic year. A total numbers of participants were 200 undergraduate students and also completed measures of psychological flexibility and self-esteem at the beginning and end of the academic year. This studies results showed that psychological flexibility was positively associated with self-esteem at the both time. Moreover, changes in psychological flexibility over the academic year were positively associated with the changes in self-esteem (Lee et al., 2018).

The study investigated the relationship among psychological flexibility, self-esteem and academic performance in university students. The sample consisted of 150 undergraduate students completed the self-report measures of psychological flexibility, self-esteem and grade point average (GPA). This study results showed that psychological flexibility was positively associated with self-esteem and GPA. Also, self-esteem partially mediated the relationship between the psychological flexibility and GPA. The findings of this study suggest that psychological flexibility and self-esteem are important factors in predicting academic performance in university students (Kim et al., 2019).

Operational definitions of variable

Psychological Flexibility

Psychological Flexibility is operationally defined as the capacity to respond to internal experiences while pursuing meaningful actions with the personal values.

Accepting and being fully present with thoughts and emotions while committed action rather than discomfort (Steven, 1990).

Self-Esteem

Self-Esteem is operationally defined as person's overall evaluation and subjective feelings of a worth or value. Individuals beliefs about their own competence. It is the combination of self-perception, self-acceptance and self-respect which influence thoughts emotions and behaviors (Rosenberg, 1965).

Test Anxiety

Test Anxiety is operationally defined as psychological state with the feelings of nervousness or distress experienced before, after and during an examination or any type of assessment. It is a physiological response such as increased heart rate, sweating and cognitive symptoms such as negative thoughts (Charles, 1970).

Research Questions

Following are the research question of study:

1. What is the relationship between Psychological Flexibility, Self-Esteem and Test Anxiety?

Hypotheses

- 1) There will be significant association between Psychological Flexibility, Self-Esteem and Test Anxiety in University students.
- 2) There will be significant gender difference in terms of Psychological Flexibility, Self-Esteem and Test-Anxiety in university students.
- 3) There will be impact of pertinent demographic variables (age, gender, socio-economic status, education etc.) on the variables under study (Psychological Flexibility, Self Esteem and Test Anxiety).

Chapter 3**Method****Sample**

The sample of the Research consisted of 300 young adults (150 men and 150 women) ranging in age between 19 to 25 years. The sample was collected from the COMSATS University of Lahore, Pakistan. Convenient sampling method used to collect the samples.

Research Design

Correlational Research Design

Inclusion Criteria

Only those participants will be participating in the study who are the students from first to eight semesters, enrolled in morning program and enrolled in regular program

Exclusion Criteria

Those participants will be excluded from the study who will have any diagnosed mental disorder, belonging to broken families and hostilities students

Measures

1. Informed Consent Form
2. Demographic Performa
3. Acceptance & Action Questionnaire (AAQ-2)
4. Rosenberg Self-Esteem Scale
5. West Side Test Anxiety Scale

Informed Consent

In informed consent form, the purpose of study will be explained to the participant and they will be asked for their voluntary participation. Moreover, their written agreement for their participation will also be included in this form.

Demographic Information Form

Demographic information form will include all the basic information of the participant like name (optional), age, gender, qualification, years of experience, marital status, family system, socioeconomic status, birth order and presence of any physical illness.

Rosenberg Self-esteem (Rosenberg, 1965)

Self-Esteem scale is all over world used self-report scale. This version of this Scale used is English. This scale is free to use. This scale consists of 10 items. This scale measure both negative and positive emotions about the self. This scale developed by Rosenberg in 1965. This scale is uni-dimensional. Scale consisted of 4-point Likert scale which is ranging from strongly agree to strongly disagree. For example, item number 1 “On the whole, I am satisfied with myself”. Higher score of the total items indicated the higher self-esteem. This self-esteem scale has good predictive validity. Also this scale has good internal consistency and test-retest reliability. Cronbach coefficient has been shown to be high ($M=0.81$) which supports reliability in scale. Hence, this scale is very valid and reliable.

West Side Test Anxiety Scale (Driscoll, 2007)

WSTAS is a self-report measure of anxiety impairment and cognition which can alter the performance. The version of this Scale used is English. This scale is free to use.

It is a brief 10 item scale designed to identify student anxiety impairments. This scale was developed by (Driscoll, 2007). This is a 5-point Likert scale ranging from extremely or always true to not at all or never true. For example, “The closer I am to a major exam, the harder it is for me to concentrate on the material”. Higher the score means higher the test anxiety. Cronbach’s alpha and construct reliability were 0.856 and 0.878 respectively. This indicates the good reliability of the west side test anxiety scale. Therefore, this scale is valid and reliable.

Acceptance and Action Questionnaire (Hayes et al., 2004)

The Acceptance and Action Questionnaire (AAQ-2), is a second version of original AAQ. The version of this Scale used is English. This scale is free to use. It is a unidimensional scale. It is most widely 7 items scale which used to measure psychological flexibility. This is a 7 point Likert scale ranging from never true to always true. For example, the item number 1 is “I am afraid of my feelings”. This scale was developed by (Hayes, Luoma, Bond, Masuda and Lillis, 2004). AAQ-2 has good internal consistency ($\alpha=0.88$) and good test retest reliability over 3 and 12 months at 0.81 and 0.79 respectively.

Procedure

First of all, the approval was taken from authority of the institute in order to conduct the research 300 participants whose ages lied between the ranges of 19-25 years were selected through convenient sampling from 5 Public Sector Universities of Lahore Pakistan. Participants will be given an informed consent from which included the name and nature of the research, a brief description of the research and the rights of participation. After informed consent form, the participants signed the consent form.

Than a demographic sheet given to the participants which consisted of all the demographic information which was necessary for research like age, gender etc. After this, three questionnaire given to the participants in which each measuring a specific variable. The first scale consisted of 10 items known as Rosenberg self-esteem scale. It is used for assessing self-esteem. The second scale consisted of 10 items known as west test anxiety scale. It is used to assess the anxiety impairments and cognition which can alter the performance. The third and final scale consisted of 7 items known as AAQ-2. It is used to assess the psychological flexibility. The rights of the participants were told to them even during the time when they were filling up the questionnaires. All the ethical rules followed during filling the questionnaire by students. They were also briefed regarding the research if they had any query.

Ethical considerations

All the ethical considerations were followed while conducting the current research. An informed consent form will be to the participants in which there was brief description of the research and the rights which the participants had for example the participants has right to withdraw from the research at any time. Verbal instructions were given to the participants also when needed and all the queries that the participants had were timely addressed. Clear cut told to the participants that the information taken from them would only be used for research purposes. Their confidentiality will be assured by all means. They were also briefed regarding the research if they had any query. Before research risk and benefit were kept. The psychological and the physical threats to the safety of the participants were also timely addressed. The scales included were using after ensuring permission was granted by authors.

Statistical Analysis

For the current study, the data was exposed to both descriptive and inferential statistical analyses. Descriptive statistics were used to compute various measures such as the mean (M), standard deviation (SD), frequencies (f), percentage (%), and alpha coefficients. Meanwhile, inferential statistics were estimated using Pearson Correlational Analysis, and MANOVA which was conducted on SPSS version

Chapter 4**Result**

This section of the thesis highlights the results of main study. In the main study, three scales were used. *The Acceptance and Action Questionnaire 2* which was used to measure psychological flexibility, second one was *Self-esteem Scale* to measure self-esteem and the last one was *West Side Test Anxiety Scale* which was used to measure test anxiety.

This section is divided into five sections describe demographics characteristics of the participants, determining the relationship between Psychological Flexibility, Self-esteem and Test anxiety, testing the hypothesis of main study and lastly relationship of key variables.

Section 1: Sample Description

Section 2: Descriptive of Scales

Section 3: Psychometric properties and reliability coefficient.

Section 4: Correlational between variables.

Section 5: Mean, Standard Deviation, t and p values of men and women.

Section: MANOVA

Section 1

This section consists of frequency distribution of the demographics characteristics of the participants.

Table 1

Frequencies, Percentages, Means and Standard Deviation of Demographics (N=300).

<i>Variables</i>	<i>M</i>	<i>SD</i>	<i>f</i>	<i>%</i>
Age	20.85	1.63		
Birth Order	2.04	.82		
First Child			82	27.3
Middle Child			137	45.7
Youngest Child			69	23.0
Only Child			12	4.0
Number of Siblings	3.74	1.65		
Gender	1.49	.50		
Men			153	51.0
Women			147	49.0
Mother's Education	2.56	.75		
Un-educated			15	5.0
Matriculation			135	45.0

Graduation			116	38.7
Post-graduation			34	11.3
Father's	3.22	.82		
Education				
Un-educated			10	3.3
Matriculation			47	15.7
Graduation			110	36.7
Post-graduation			133	44.3
Mother's	1.17	.37		
Occupation				
House-wife			249	83.0
Working			51	17.0
women				
Father's	2.81	.76		
Occupation				
Government Job			8	2.7
Private Job			98	32.7
Business			138	46.0
Labor			56	18.7
Family System	1.67	.47		
Nuclear			98	32.7

Joint			202	67.3
Semester	4.41	2.47		
Family Income	2.38	.69		
Less than 50K			37	12.3
50K-100K			112	37.3
150K and above			151	50.3

As indicated in the table above, there are 153 men and 147 women participates. Table have also indicated that the most of the participants are middle child in their birth order. Most number of participant's mother's with matriculation, graduation and post-graduation as compared to un-educated. However, majority category of participant's father education has post-graduation. Most of the participants live in joint family system. Likely major category of participant's mother's occupation are housewives while the most of participant's fathers are doing business. The family income of most participants are above 150K.

Section 2

This section contains Description of Scales.

Table 2

Frequencies, Percentages, Means and Standard Deviation of the Scales.

<i>Scales</i>	<i>M</i>	<i>SD</i>	<i>f</i>	<i>%</i>
AAQ-2	26.51	9.07	300	100
SES	24.16	2.59	300	100
WSTAS	2.94	.746	300	100

Note. AAQ-2= Acceptance and Action Questionnaire-2, SES= Self-Esteem Scale, WSTAS= West side Test Anxiety Scale.

This table showed the number of participants in the study. All three scales have sample size 300. The percentage of sample size represents the entire population. All sample size of 300 is considered to be 100% of the population.

Section 3

Psychometric properties and reliability coefficient.

Table 3

Psychometric Properties of the Scales (N=300).

<i>Scales</i>	<i>No. of Items</i>	<i>A</i>
AAQ2	7	.79
SES	10	.70
WSTAS	10	.78

Note. AAQ-2= Acceptance and Action Questionnaire-2, SES= Self-Esteem Scale, WSTAS= West side Test Anxiety Scale.

This table has showed the values of Psychological flexibility, self-esteem and test anxiety Scales. The given value showed that the scales are highly reliable and significant.

Section 4

This section comprises inter-correlation among different variables of the study.

Table 4

Inter-Correlational of the Study Variables (N=300).

<i>Variables</i>	<i>AAQ-2</i>	<i>SES</i>	<i>WSTAS</i>
AAQ-2	–	.147*	-.305**
SES		–	.080
WSTAS			–

Note. AAQ-2= Acceptance and Action Questionnaire-2, SES= Self-Esteem Scale, WSTAS= West side Test Anxiety Scale.

Note. *= $p < .01$, **= $p < .05$.

The result showed the inter-correlational of the scales. There are no sub-scales of any of these scales. The correlation between self-esteem (SES) and the test anxiety (WSTAS) is not statistically significant which suggests that there may not be a significant association between these two variables in university students. Hypothesis receives partial support based on provided correlation coefficients. There is evidence of a significant association between psychological flexibility and both self-esteem and test anxiety in university students. There is a significant negative association between psychological flexibility and test anxiety. Students who have more psychological flexibility, also have more self-esteem. Also, the students who have psychological inflexibility, have more test- anxiety.

Section 5

This section consists of t and p value of men and women.

Table 5

t and p value of men (N=150) and women (N=150).

<i>Variables</i>	<i>Gender</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
AAQ-2	Male	27.15	8.63	1.25	.21
	Female	25.84	9.48	1.25	.21
SES	Male	24.13	2.85	.20	.84
	Female	24.19	2.29	.20	.84
WSTAS	Male	3.05	.66	2.67	.00
	Female	2.80	.80	2.66	.00

Independent sample t test is performed to determine the gender difference between men and women. In this test gender including men and women are compared and their mean and standard deviation is also calculated. This above table indicates that there is no statistically significant gender difference in terms of psychological flexibility, self-esteem and test anxiety in university students.

Section 6

This section consists of MANOVA analysis values.

Table 6

Demographic impacts on study variables (N=300).

<i>Total AQQ-2</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Birth Order	17.38	37	.47	.47	.91
Gender	13.25	37	.35	1.19	.46
Education of Mother	23.62	37	.63	6.38	.02
Education of Father	28.78	37	.77	.77	.70
Family System	9.70	37	.26	2.62	.14
Income of Family	22.34	37	.60	1.20	.46

The pertinent demographic variables like gender age, father and mother occupation's, birth order etc., will have an impact on study variables in university students. The results of MANOVA indicated that there is only one demographic variable impact on study variables which is mother's education. Mother's education impact on university student's psychological flexibility.

Summary of Results

The findings of research revealed that psychological flexibility is negatively correlated with test anxiety. But there is no relationship between psychological flexibility, self-esteem and test anxiety. There was no gender difference in terms of psychological flexibility, self-esteem and test anxiety. Results also showed that in pertinent demographics mothers education impacts on participant's psychological flexibility which is very strong finding.

Chapter 5

Discussion

The present study aimed to investigating the association between psychological flexibility, self-esteem and test anxiety in university students of undergraduate programs and also evaluate the gender differences. Moreover, study wants to evaluate the impact of pertinent demographics variables like gender, parent's education, birth order and occupation of parent's, also age of participants. Many studies have been conducted on psychological flexibility, also on psychological inflexibility, benefits of high psychological flexibility, self-esteem and test anxiety. Psychological flexibility is a key to develop a high self-esteem as it allows a person to live in mindfully, flexible in worst and difficult situations. It enables the person to compete with different challenges effectively. This leads to increased productivity, better decision making and also to solve the problems effectively decrease the test-anxiety (Steven, 2011).

The hypotheses of current study stated that there will be significant association between psychological flexibility, self-esteem and test-anxiety in university students. Secondly, there will be a significant gender difference in terms of psychological flexibility, self-esteem and test anxiety in university students. Lastly, there will be a significant impact of pertinent demographic variables (like age, gender, parent's occupation, birth order and other etc.) on the variables of the study.

Three scales namely The Acceptance and Action Questionnaire-2, Hayes et al., 2004), Self-esteem Scale (Rosenberg, 1965), West Side Test Anxiety Scale (Driscoll, 2007) were used to test the hypotheses. The Acceptance and Action Questionnaire-2 has (.791) alpha reliability, Self-esteem scale has (.70) alpha reliability and West side test

anxiety scales has (.780) alpha reliability. There are no sub-scales of any of them. These given values showed that the scales have sound alpha value that means scales are highly reliable to use for evaluation of hypotheses.

Additionally, the descriptive analysis was carried out to see the trends in demographic of the sample studies in the research. It was seen that there are 147 women and 153 men participants. Analysis also indicated that the most of the participants are middle child in their birth order. And majority number of participants live in joint family. Most number of participant's mother's with matriculation, graduation and post-graduation as compared to un-educated. However, majority category of participant's father education has post-graduation. Likely major category of participant's mother's occupation are housewives while the most of participant's fathers are doing business. The family income of most participants are above 150K.

Firstly, to test the first hypothesis that there will significant association between psychological flexibility, self-esteem and test anxiety in university students. Psychological flexibility has showed the negative relationship with test-anxiety. Findings showed that psychological flexibility has a significant negative relationship with test anxiety. And those who have psychological flexibility also have a high or moderate self-esteem. the correlation between self-esteem (SES) and the test anxiety (WSTAS) is not statistically significant which suggests that there may not be a significant association between these two variables in university students. The analysis findings revealed that there is a significant negative association between psychological flexibility and test anxiety. Results indicated that those students who have more psychological flexibility,

also have more self-esteem. Also, those students who have psychological inflexibility, have more test- anxiety.

The results of the current research are in the line with previous researchers. A research conducted to examine a role of psychological flexibility in test anxiety among university students. This research involved a sample of 250 undergraduate students and utilized a self-report measure to assess psychological flexibility and test anxiety levels. The findings of this study indicated a significant negative association between test anxiety and psychological flexibility among university students. Higher levels of psychological flexibility associated with lower levels of test anxiety (Johnson et al., 2020).

Secondly, it was hypothesized that there will be a significant gender difference in terms of psychological flexibility, self-esteem and test anxiety in university students. Independent t sample test was applied to see the gender difference. The results of the analysis did not support the hypothesis of significant gender difference in these variables. These suggests that both men and women students possess similar levels of adaptability and ability to cope up with psychological distress in university context. This findings challenges previous research that has suggested that potential gender disparities in psychological flexibility. Self-esteem is a multifaceted construct influenced by various factors. Being a university student, there is equality between men and women. Therefore, in this level both have equally opportunities, study at same environment so there is no gender difference. in terms of self-esteem. Also there is no significant gender difference in terms of test anxiety both men and women students experience similar levels of test

anxiety. The pressure and stress associated with academic evaluations may affect university students equally, irrespective of their gender.

The results of the current research are in the line with previous researchers. The research included 500 participants, equal number of men and women students of various academic discipline. This research utilized established self-report measure to assess psychological flexibility, self-esteem and test anxiety levels in participants. The findings revealed that there is no significant gender difference in university students (Smith et al., 2019).

Thirdly, it was hypothesized that the pertinent demographic variables like gender, age, father and mother occupation's, birth order etc., will have an impact on study variables in university students. To analyze the hypotheses MANOVA was applied. The results of MANOVA indicated that there is only one demographic variable impact on study variables which is mother's occupation. Mother's education impact on university student's psychological flexibility.

A study conducted to explore how demographics including the age, gender and mother's education impacts on children's academic performance over the time. A sample was consisted of 1000 participants ranging in age between 5-12 years was randomly selected from colleges within particular district. This study explores the influence of demographics on children's academic performance. After the analysis, in which MANOVA was applied, findings revealed that age, gender and education of mother's can impact on participant's educational outcomes (Jennifer et al., 2022).

Another research conducted on pertinent demographics, that aims to explore the relationship between education level of mothers and psychological flexibility in

adolescents. A sample was consisted of 500 adolescents ranging in age between 13 to 18 years was recruited from the schools across different socio-economic backgrounds.

Participants completed self-report questionnaires which is measuring the psychological flexibility and demographic information which is specially include the education level of mother's. Statistical analysis run such as correlational and regression. The findings of the analysis suggest that educational level of mother has a significant impact on the psychological flexibility of adolescents (Thompson et al.,2022)

Conclusion

From the findings of current study, it can be concluded that psychological flexibility has negative association with test anxiety. But there is no association is find out in self-esteem and test anxiety. Students who have more psychological flexibility, have high self-esteem but those who have low psychological flexibility have more test anxiety. Also, findings revealed that there is no significant gender difference in study variables in university students which means both men and women have equal psychological flexibility, self-esteem and test anxiety. In university student's psychological flexibility play an important role to achieve their goal, and face the academic stress and challenges. Others, in the pertinent demographic variables only the mother's education impact on student's psychological flexibility. This study has emphasis on the importance of variables under study as these variables contribute in the student's academic success and achievements in life, deals with the life and academic challenges effectively without taking any kind of stress.

Implications of the Study

The idea that there is relationship between psychological flexibility, self-esteem and test anxiety in university students is very well demonstrated in this research work. Considering, examining these factors appears to have numerous practical implications for counselors, teacher/instructors, educationist and for overall public. This research provides foundation for evidence based decision making, policy formulation and also will help the researchers in their research relevant to topic. Also how these factors identify with one another and impact student's general social, emotional and psychological development which should be considered by the researcher showing great implication of current study. To check this, the study focused on substantial discipline which combines psychology with literature with the help of university students. Furthermore, this research helps to elevate the awareness regarding the association between psychological flexibility, self-esteem and test anxiety of Pakistani youth. In addition, the current study creates recognition about the beneficiary outcomes and the degree to which it is reducing in the youth thereby emphasizing on the need for awareness of importance of psychological flexibility, self-esteem and test anxiety in youth. Moreover, the current study provides the basic understanding about the gender difference in terms of self-esteem. This study would be help to eliminating bias that exist in people's mind regarding self-esteem of women and men. The research in this area can contribute to a better understanding of the psychological well-being and mental health of university students.

Limitations and Suggestions

1. The sample of present study was primarily collected from 5 Public Sector universities. A diverse sample of participants from private universities can be helpful to make results more generalizable because their mode of education is different.
2. Study rely on self-report measures to assess the variables which can be subjective and prone to response biases. The use of additional objective measures or mixed-method approaches should be used which can help mitigate this limitation.
3. Conduct Longitudinal studies to examine the development and change in variables throughout a student's university experience.

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<https://doi.org/10.1353/csd.2021.0037>

APPENDICIS

***APPENDIX A:
PERMISSION LETTER***



**COMSATS University, Islamabad,
Lahore Campus**
Defence Road, Off Raiwind Road, Lahore.
Ph: 042-111-001-007 Ext. 872

Department of Humanities

Dated: 13- 04-2023

To Whom It May Concern

Subject: Permission for Data Collection

Dear Sir/Madam,

I, Dr. Shazia Gulzar (Assistant Professor, Faculty of Psychology), Department of Humanities, COMSATS University Islamabad, Lahore Campus, assert that the student below is conducting research under my supervision (as part of her BS thesis project). The Study is Entitled “Psychological Flexibility, Self-Esteem and Test Anxiety in University students. All the acquired information will be kept confidential, and collected raw data will be used for research purposes only. Following are the details of researcher:

- Farda Asif (FA19-BPY-024)

Kindly permit her to collect data. I will be very grateful to you.

Regards,

Dr. Shazia Gulzar
Department of Humanities
CUI, Lahore

Appendix B: Consent Form

Consent Form

Dear Participant, I am final semester BS Psychology Student of COMSATS University Islamabad, Lahore Campus. This research is being conducted for my final year thesis research. The purpose of this research is to investigate relationship between Psychological Flexibility, Self Esteem and Test Anxiety in University Students in Pakistan. This Protocol consists of three sections. It will take your 10-15 minutes to fill this form. All given information will be kept confidential and will only be used for research purposes.

Thank You for your Cooperation!

Signature of Participant: _____

Appendix C:

Demographic Characteristics

Demographics

Date: _____

Age: _____

Birth Order: (1) First Child (2) Middle Child (3) Youngest Child (4) Only Child

No. of Sibling's: _____

Gender: (1) Male (2) Female

Semester: _____

Mother's Education: _____

Father's Education: _____

Mother's Occupation: _____

Father's Occupation: _____

Family System: (1) Joint (2) Nuclear

Family Income: _____

Appendix D:

Acceptance and Action Questionnaire-2

The Acceptance and Action Questionnaire-2

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1 = Never true

2 = Very seldom true

3 = Seldom true

4 = Sometimes true

5 = Frequently true

6 = Almost always true

7 = Always true

1. My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
2. I'm afraid of my feelings.	1	2	3	4	5	6	7
3. I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
5. Emotions cause problems in my life.	1	2	3	4	5	6	7
6. It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success.	1	2	3	4	5	6	7

Appendix E:
Self-Esteem Scale

Self Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1= Strongly Agree

2= Agree

3= Disagree

4= Strongly Disagree

1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times I think I am no good at all.	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I certainly feel useless at times.	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4
10. I take a positive attitude toward myself	1	2	3	4

Appendix F:

West Side Test Anxiety Scale

West Side Test Anxiety Scale

Rate how true each of following is of you, from extremely or always true to not at all or never true. Use the following 5-point scale. Circle your answer.

5 = extremely always true

4 = highly usually true

3 = moderately sometimes true

2 = slightly seldom true

1 = not at all true

1) The closer I am to a major exam, the harder it is for me to concentrate on the material.	1	2	3	4	5
2) When I study, I worry that I will not remember the material on the exam.	1	2	3	4	5
3) During important exams, I think that I am doing awful or that I may fail.	1	2	3	4	5
4) I lose focus on important exams, and I cannot remember material that I knew before the exam.	1	2	3	4	5
5) I finally remember the answer to exam questions after the exam is already over.	1	2	3	4	5
6) I worry so much before a major exam that I am too worn out to do my best on the exam.	1	2	3	4	5
7) I feel out of sorts or not really myself when I take important exams.	1	2	3	4	5
8) I find that my mind sometimes wanders when I am taking important exams.	1	2	3	4	5
9) After an exam, I worry about whether I did well enough.	1	2	3	4	5
10) I struggle with writing assignments, or avoid them as long as I can. I feel that whatever I do will not be good enough.	1	2	3	4	5

Appendix E:
Plagiarism Report



COMSATS University Islamabad
Lahore Campus
Library Information Services

TURNITIN Originality Report

Title	Psychological Flexibility, Selfesteem and Test anxiety in University Students
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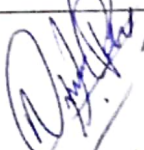
Author	Farda Asif. ID. FA19-BPY-024
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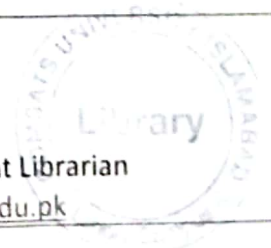
Submission Date	21-Jun-2023 09:55AM (UTC+0500)
Submitted Class	BS. Students
Submission ID	2120133503
Word Count	15129
Character Count	90236

Similarity Index 18% (Detailed report send to quarter concerned via email)

Remarks	Report seems OK
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Note: Bibliography and quoted materials are excluded as per HEC rules

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Dated on	June 21, 2023





COMSATS University Islamabad
Lahore Campus
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TURNITIN Originality Report

Title	Gender Difference in Foreign Language Learning Enjoyment Among Private And Government Schools
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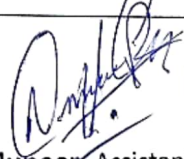
Author	Noor Fatima. ID. FA19-BPY-011
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Submission Date	19-Jun-2023 11:50AM (UTC+0500)
Submitted Class	BS. Students.
Submission ID	2118867361
Word Count	8725
Character Count	50940

Similarity Index	11% (Detailed report send to quarter concerned via email)
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Remarks	Report seems OK
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THESIS SUBMISSION GUIDELINES

Student's Name: Noor Fatima

Thesis Guidelines for BS Psychology

ID: FA19-BPY-011

Criteria	Evaluation Criteria (Mark 10)	
	>19%	<= 19%
1- Plagiarism	0	5 ✓
2- APA Formatting	Poor	Satisfactory
3- Thesis Structure		Excellent

No.	Contents	11- APA Formatting (Grammar Check)		
		Partially	Yes	No
1.	Title page			
2.	Font Size		✓	
3.	Page size		✓	
4.	Font Style		✓	
5.	Page No		✓	
6.	Alignments		✓	
7.	Page Spacing		✓	
8.	Spacing between paragraphs		✓	
9.	Paragraphs tabbing		✓	
10.	Heading		✓	
11.	Sub headings		✓	
12.	Use of bullets		✓	
13.	References citation		✓	
14.	In text and in list references		✓	
15.	Reference list		✓	
16.	Table structure		✓	
17.	Grammar Check		✓	

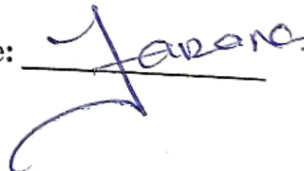
No.	Contents	Yes	No
1.	Title Page	✓	
	• Topic	✓	
	• Logo	✓	
	• Student name	✓	
	• Student ID	✓	
	• Supervisor Name	✓	
	• Program	✓	
	• Department name & University Name	✓	
2.	Title Page- 2 (Applicable for complete submission of a thesis)	✓	
	• Topic	✓	

• Logo	✓	
• Student name	✓	
• Student ID	✓	
• Supervisor Name	✓	
• Program	✓	
• Statement: A thesis submitted in partial fulfillment of the requirement for the degree of _____ (program name)	✓	
• Name of department and institute	✓	
• Declaration (By the supervisor)	✓	
• Research Completion Certificate	✓	
• Dedication	✓	
• Acknowledgement	✓	
3. List of Contents (APA style)	✓	
• List of contents	✓	
• List of tables	✓	
• List of figures	✓	
• List of tables	✓	
4. Abstract (for complete submission of thesis)	NA	
5. Introduction	✓	
• Coherent introduction of topic (7 to 15 pages including followings)	✓	
• Local and international perspectives	✓	
• Theoretical orientations	✓	
6. Literature Review	✓	
• International Context (6 to 10 studies)	✓	
• Local Context (5 to 10 studies)	✓	
• Likely benefits and justifications	✓	
• Objectives	✓	
• Hypotheses	✓	
7. Method	✓	
• Research Design (Justification)	✓	
• Participants	✓	
• Sampling Strategy (Justification)	✓	
• Inclusion exclusion Criteria	✓	
• Instruments (Justification)	✓	
○ Authors Name & Year	✓	
○ Version (English or Urdu)	✓	
○ Authors' permission	✓	

○ Adapted	✓	
○ Number of items	✓	
○ Sample items	✓	
○ Scoring (range and minimum/ maximum scores)	✓	
○ Psychometric properties (validity, reliability, past & present)	✓	
• Procedure	✓	
• Ethical Considerations	✓	
• Statistical Analysis	✓	
9. Results	✓	
10. Discussion	✓	
• Discussing results with references to previous literature and theoretical guidelines	✓	
• Implications	✓	
• Limitations and Recommendations	✓	
• Conclusion	✓	
11. References	✓	
• APA Format	✓	
• Hanging style	✓	
• Arranged Alphabetically	✓	
• Match with in-text citations	✓	
• At least 10% of references are from the last 2 years	✓	
• At least 50% of references are from the last 5 years	✓	

Note: (i) thesis will not be considered submitted if this checklist is not signed by relevant supervisor

Supervisor's Name: Dr Farzana

Supervisor's Signature: 

Date: July 12, 2023

Dr. Farzana Ashraf
Theses Coordinator
Spring-2023