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Self Esteem, Frustration, Intolerance And Quality Of Sleep Among Undergraduate Students

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ABSTRACT

The primary objective of the present research investigation was to investigate how undergraduate's self-esteem, frustration tolerance, and sleep quality relate to one another. The current study involved 200 participants in total (95 males and 105 women), and data was gathered from many Faisalabad universities. A cross-sectional correlation method of analysis was applied because all of the data for this study was gathered at a single point in time. For the collection of the data, psychological measures were employed: Rosenberg Self-Esteem Scale (RSE) Frustration Intolerance Scale (FIS) Sleep Quality Scale was used. The outcome of the present exploration demonstrated that each of the variables had a significant association with all of the other variables. Moreover, using multiple regression analysis, it was discovered that self-esteem and frustration intolerance were significant predictors of quality of life. In order to improve undergraduates' sleep quality, the study emphasizes the necessity of mental health interventions that address frustration intolerance. For the sake of student's general well-being and academic performance, universities ought to introduce stress management courses, resilience training, and sleep hygiene awareness.

INTRODUCTION

It is generally recognized that one of the most important human needs is self-esteem. People have both good and bad life experiences. The worth one places on oneself is known as self-esteem, an attribute of a person that is molded by events and varies over time. Negative life experiences result in disappointment, loss of faith, and low self-esteem, whereas positive experiences boost self-efficacy (Westfall, 2020). A person may find greater self-esteem to be a very gratifying result (Sheldon et al., 2001). People who are disregarded by society are particularly likely to suffer from low self-esteem. People with high self-esteem have better coping mechanisms and are less impacted by bad things which occur in their lives. High self-esteem might be viewed in this way as a means of decreasing stress (Zeigler-Hill, 2013).

University students' lives are greatly impacted by self-esteem, which is a basic element of mental well-being. It includes a person's personal assessment and view of their own value, worth, and broad perceptions of myself. Self-esteem affects how people view and understand themselves, the abilities they possess, and how they are worthy of respect, tenderness, and achievement (Westfall, 2020).

A connection between happiness and self-esteem. As a result, a certain degree of emotional intelligence, drive, and self-worth are strongly associated with success in both personal and professional life (Lomeli-Parga et al., 2016).

Moreover, the idea that an individual's motivation, attitudes, and behaviors at work are greatly affected by their self-esteem, which is shaped by their experiences in job settings and with organization. Therefore, fostering self-worth and motivation will be crucial for student's success in job settings (Pierce & Gardner, 2004).

One of the most thoroughly investigated ideas in the social sciences, self-esteem has captivated psychologists for more than a century (Bleidorn et al., 2018). Juan Yang, a cognitive scientist, provides a helpful perspective on how our objectives and actions are influenced by our sense of self. It is basic to human nature for people to want to feel better about themselves or to preserve their self-esteem. Self-esteem is a review or internal assessment of our goodness or work and how well we believe we are doing in all aspects of our lives that we rank as important (Yang et al., 2016).

There are two different stages at which self-esteem emerges. Our total assessment of our value across different spheres of our lives is reflected in our global self-esteem. Domain-specific self-esteem, on the other hand, is unique to a certain domain or activity, such as how we

look, performance, or success at work. However, there is a relationship between domain-specific and global self-esteem (Shaukat, et al., 2020; ul Haq & ur Rehman, 2017). Our appraisal of our skills in specific disciplines is influenced by higher levels of general self-esteem (Brown et al., 2001). Low self-esteem is a diagnostic criterion for a number of mental health conditions and is linked to mental health disorders (American Psychiatric Association, 2013). Although there might exist cultural differences, those with higher self-esteem tend to be happier, more content, and experience fewer bad moods (Baumeister et al., 2003).

Physical well-being has been connected to higher self-esteem. However, low self-esteem can result in worse physical health and a slower rate of recuperation from sickness (Stinson et al., 2008). The link may be because people with poor self-esteem are less likely to exercise and have regular checkups, both behaviors that promote health (Shah, et al., 2025; Imran, et al., 2023). Another fundamental human need that may motivate our desire for self-esteem is the need to build adequate connections and fit in with a group in order to enhance our chance of surviving (Workman & Reader, 2015).

Frustration intolerance is the propensity to act immediately or maladaptively in response to discomfort (McKay & Fanning, 2016). They underlined that because they find difficulties intolerable, those with a high tolerance for frustration frequently turn to aggressiveness, procrastination, or avoidance tactics. One of the main characteristics of personality disorders, including anxiety and depression, is frustration intolerance. They maintained that when faced with little setbacks, people with poor frustration tolerance find it difficult to control their emotions, which causes them to avoid situations and become more concerned (Shihata et al., 2017). A transdiagnostic factor effecting a range of mental health disorders is frustration intolerance.

Frustration intolerance is a cognitive distortion in which people feel that they "must" prevent discomfort at all costs (Albert Ellis, 2001). People who exhibit a high level of frustration intolerance, find frustration intolerable and respond with illogical statements like "I cannot tolerate this" or "This is sufficient for me to tolerate." This way of thinking causes emotional turmoil and avoidance tactics, which frequently make those issues they are trying to avoid worse (Albert Ellis, 2001).

There is a positive causal connection between self-esteem and frustration tolerance. Because they may view obstacles as personal failures rather than chances for growth, individuals with low self-esteem frequently struggle to manage dissatisfaction (Baumeister et

al., 2003.

Undergraduate's ability to tolerate frustration is greatly influenced by social support. Peer, family, and mentor support increases a student's likelihood of persevering despite difficulties (Cohen & Wills, 1985). Social support helps children develop resilience and deal with stressors by mitigating the adverse effects of dissatisfaction (Park et al., 2020). Programs at universities that provide encouraging environments can improve student's ability to handle frustration and their overall psychological health. Universities ought to understand how critical frustration tolerance is to students' academic performance and mental well-being. Students can greatly benefit from taking advantage of programs that teach them how to control their frustrations, such as stress management conferences and cognitive-behavioral therapies (Conley et al., 2013).

A student's academic performance and general happiness have a high correlation with the quality of their sleep. Due to erratic sleep habits, late-night study sessions, a great deal of electronic gadgets, and social obligations, university students regularly have sleep difficulties. According to the Azhar, Iqbal and Imran (2025) a number of detrimental effects, including daytime fatigue, decreased ability to think, and damaged mental health, can arise from these disturbances, which can lead to inadequate and poor-quality sleep. People psychological state and ability to operate reflect heavily on their sleep quality, especially undergraduates who frequently encounter specific difficulties in keeping regular sleep schedules. A basic biological function, sleep enables your body and mind to wind down, cure, and replenish. Numerous things that university students frequently deal with can interfere with their sleep schedules. Academic stressors including test preparation, assignment achievement, and deadline pressure can cause irregular sleep patterns and short sleep durations. Additionally, students might have trouble trying to unwind and fall asleep due to enhanced cognitive activation and worry associated with academic achievement. Furthermore, the university setting itself might lead to sleep disruptions and poor sleep quality due to elements like loud dorms, unpredictable timetables, and excessive time spent on screens (Lund et al., 2010).

Researcher revealed that long-term issues with sleep raise stress and anxiety levels and impair academic performance. All of these definitions stress the need of regular, restorative sleep and the relationship connecting sleep quality and general wellbeing. An individual's feelings and functioning during the day should be taken into consideration when evaluating the quality of their sleep, in addition to their sleep habits at night (Khan, Haq, & Naseer, 2022; Shaukat, Rehman, & ul Haq, 2021). This all-encompassing classification of sleep quality is

consistent with current sleep research, which recognises the critical role that sleep plays with regard to general health and wellbeing (Marques et al., 2017).

Medical students sleep patterns influence their academic performance, provide an alternate viewpoint (Medeiros et al., 2001). They found that students who slept irregularly and for short periods of time tended to perform worse academically, underscoring the importance of good sleep for learning and cognitive function. Gaultney (2010) looked into the connection between college student's academic achievement and sleep quality (Sohail-Rehan, & Ul-Haq, 2018; Haq, 2017; ul Haq, 2012). Young people who don't get enough rest frequently get lethargic during the day and have lower cognitive function, which can have an adverse influence on their academic performance.

People with high levels of frustration intolerance frequently experience mental health issues and cognitive rigidity, both of which have a detrimental effect on the quality of their sleep (Harrington, 2019). In turn, emotional problems are made worse by poor sleep, creating a vicious cycle in which sleep disorders, low self-esteem, and trouble managing irritation reinforce themselves (Akram et al., 2020).

RATIONALE OF THE STUDY

Individual's cognitive, emotional, and physical health are all significantly affected by the quality of their sleep, especially college students who frequently face intense social and academic demands. Impaired learning outcomes, emotional instability, and a rise in mental health conditions which includes anxiety and depression have all been related to sleep deprived.

One important psychological concept that affects many facets of an individual's behavior and mental health is self-esteem (Parveen, et al., 2020; ul haq, 2019; Ali & Haq 2017). High self-esteem is associated with higher emotional stability, stress tolerance, and happiness in general, all of which enhance the quality of sleep.

On the other hand, students who have low self-esteem may reflect negatively on themselves and worry excessively, which can cause sleep disorders like insomnia and ineffective sleep. A crucial factor that may affect the quality of sleep is frustration intolerance, which is defined as a person's inability to manage irritation and distress (Khan, Haq, & Naseer, 2022; Shaukat, Rehman, & ul Haq, 2021). Scheduling issues, societal disputes, and educational disappointments are frequent for university students. Individuals who have a high threshold for frustration might find tough to handle these difficulties, which could result in more emotional distress and difficulty falling asleep. This study evaluates whether frustration intolerance

modulates the relationship between sleep quality and self-esteem and how it contributes to sleep issues.

OBJECTIVES OF THE STUDY

1. To explore the association between Self-Esteem, Frustration Intolerance and Quality of Sleep among undergraduate students.
2. To analyze the impact of Self-Esteem and Frustration Intolerance on Quality of sleep among Undergraduate students.

HYPOTHESIS OF THE STUDY

1. There would be a significant relationship between Self-Esteem, Frustration Intolerance and Quality of Sleep among undergraduate students.
2. There would be a significant impact of Self-Esteem and Frustration Intolerance on Quality of sleep among Undergraduate students.

LITERATURE REVIEW

The extensive variety of research on undergraduate's self-esteem, frustration tolerance, and sleep quality illustrates the growing interest in figuring out which factors affect their wellbeing. Sleep quality, frustration intolerance, and self-esteem are interrelated psychological concepts that have considerable effects on undergraduate students' wellbeing (Azhar & Imran, 2024). A person's overall feeling of self-worth, or self-esteem, is essential for regulating their feelings as well as handling stress (Rosenberg, 1965). Research shows that people with high self-esteem are more likely to be psychologically resilient, which contributes towards improved sleep quality (Park et al., 2019). On the other hand, people who have poor self-esteem are more likely to encounter worry and rumination, which can cause problems sleeping (Jiang et al., 2021).

An inability to adapt to discomfort or setbacks is known as frustration intolerance, and it frequently leads to increased psychological suffering (Harrington, 2006). According to research, frustration intolerance is associated with higher levels of stress and anxiety, which have a detrimental impact on the quality of sleep (Mahmoud et al., 2020). Sleep issues may worsen when undergraduates who are under academic stress adopt unhealthy strategies for coping like excessive utilization of screens or inconsistent sleep habits (Beattie et al., 2015).

Student's social self-esteem and sense of being accepted within the university community can be impacted by social interactions, including making friends, negotiating romantic relationships, and engaging in extracurricular activities. For college students, having a high sense of self-worth are linked to several advantages. It acts as a buffer against depression,

anxiety, and psychological suffering. Pupils who have a higher sense of self-worth are more likely to feel good, use healthier coping mechanisms, and be more resilient when faced with challenges. Furthermore, heightened motivation, successful academics, and general psychological well-being are all associated with high self-esteem. It makes it possible for the students to have a good view of themselves, which promotes self-esteem and trust in oneself in their skills (Lund et al., 2010).

Across cultures, research repeatedly demonstrates that men report higher levels of self-esteem than women in their early adult years (Kling et al., 1999). Sociocultural expectations, body image complications, and degrees of confidence in other areas of life are frequently blamed for this discrepancy (Gentile et al., 2009). Compared to their male counterparts, women may experience poorer self-esteem during their college years due to more self-criticism and a lack of confidence in their academic and personal skills (Bleidorn et al., 2016). The growing social pressure on women to be physically attractive, which has a big impact on their self-esteem, is one explanation for this variation (Bucchianeri et al., 2013).

Men, on the other hand, typically base their sense of self-worth on accomplishments, independence, and perceived ability all of which hold steady over time (Orth & Robins, 2014). This suggests that although self-esteem fluctuates for both sexes, women's self-esteem is more susceptible to social beauty standards and outside validation. Gender differences in academic self-esteem also exist; research indicates that, despite earning marks that are on par with or better than those of men, female students frequently undervalue their skills and performance (Furnham et al., 2002).

Women are frequently pushed to be nurturing, accommodating, and modest, which results in self-doubt and decreased confidence, males are encouraged to be forceful, independent, and risk-taking by traditional gender roles, which boosts their self-esteem (Josephs et al., 1992). These socialization patterns persist into university, where women may be reluctant to give up or take chances given that they fear being judged or failing, whereas males may be more likely to do so (Kling et al., 1999). There is a considerable genetic component to self-esteem; estimates of heritability range from 30% to 50% (Neiss et al., 2006). Personality qualities with strong genetic origins, like extraversion, emotional stability, and neuroticism, play a major role in mediating the genetic influences on self-esteem (Kandler et al., 2015). Low self-esteem may be more common among those with a familial tendency for high neuroticism and emotional instability, whereas resilience and positive affect, which are controlled by genetics, tend to

preserve higher self-esteem in the face of environmental stressors (Kendler et al., 2017). These results demonstrate that the inherent psychological characteristics that affect an undergraduate student's self-perception also play a role in shaping their sense of self, in addition to external factors like academic achievement and social validation (Jaleel, Rabbani, & Sarmad, 2025; Jaleel & Sarmad, 2024).

Sleep quality is significantly influenced by psychological variables including self-esteem and frustration intolerance (Baglioni et al., 2016). People who have poor self-esteem frequently suffer from negative self-evaluations and ongoing concerns, which can lead to cognitive hyper-arousal before bed, which delays the onset of sleep or lowers the quality of sleep. Likewise, increased emotional reaction and stress brought on by high frustration intolerance further interfere with sleep by impeding relaxed (Carleton et al., 2012). Therefore, psychological anguish that prevents one from getting a good night's sleep is caused because of poor self-esteem and high frustration intolerance. Rumination and negative patterns of thought are closely associated with low self-esteem and increase the time needed to fall down (Johnson et al., 2017).

Daily stressors are more likely to cause self-criticism and continuous negative thought patterns in people with low self-esteem, which makes it challenging for them to mentally detach before bed (Sadeh et al., 2014). Frustration intolerance exacerbates this pattern because people who are unable to handle discomfort often exaggerate minor irritations, which increases emotional distress and causes sleep delays (Harrington, 2005). Longer sleep latency and worse sleep efficiency are thus the outcomes of the combination of poor self-esteem and high frustration intolerance (Naseer, et al., 2024; Shah et al., 2023; Aurangzeb, & Haq, 2012). One of the main factors connecting sleep problems to frustration intolerance and low self-esteem is the incapacity of effectively controlling emotions (Neff & Vonk, 2009). People with low self-esteem are more emotionally sensitive to stress and are more likely to wake up in the middle of the night from worry or bad experiences (Harvey et al., 2011). However, adolescents who are intolerant of frustration tend to react more strongly to mild stresses, like elevated cortisol levels and heart rates, which interfere with their ability to sleep (Morin et al., 2011). The total quality of sleep is lowered by this emotional hyper-arousal, triggering shallow sleep and frequent awakenings.

A strong predictor of insomnia is perceived stress, which is influenced by high levels of frustration intolerance (Carleton et al., 2012). Frustrated people often overstate stresses and

perceive them as strong, which results in persistent stress reactions that disrupt sleep (Espie, 2002). In a similar vein, low self-esteem increases stress by decreasing resilience, which renders people more susceptible to sleep disruptions in the face of disaster (Shihata et al., 2017). This implies that low self-esteem and frustration intolerance work together to intensify stress perception and raise the risk of persistent sleeplessness. Low self-esteem and frustration intolerance have a detrimental impact on sleep efficiency, which is defined as the ratio of time spent dozing off to time spent in bed (Sirois, 2014).

This suggests that although these psychological characteristics cause poor sleep for both sexes, the ways in which sleep disruptions express themselves may vary depending on coping strategies and stress-processing preferences. Self-esteem, frustration intolerance, and sleep quality have a complicated and multidimensional relationship. High frustration intolerance makes sleep problems worse by making people more reactive to stress, but low self-esteem causes sleep problems though insecure thoughts and emotional suffering (Carleton et al., 2012). These elements work together to cause persistent sleep issues such as sleeplessness, disrupted sleep, and daytime feeling tired (Morin et al., 2011).

RESEARCH METHODOLOGY

RESEARCH METHOD

RESEARCH DESIGN

Since all of the data for this study originated at a single location in time, a cross-sectional correlation study approach was used.

PARTICIPANTS

The convenient sampling method was used to select the participants for this investigation. Two hundred undergraduate students were chosen from several Faisalabad establishments. The people competing are between the ages of 18 and 25.

SAMPLE SIZE

G*Power, a method of statistics for figuring out the necessary sample size, was used to determine the sample size. Two hundred undergraduates in all selected from several Faisalabad universities. A power analysis was carried out using an expected medium effect size ($f2 = 0.15$), a power level of 0.80, and a threshold of significance of 0.05 for this investigation of self-esteem, frustration intolerance, and sleep quality.

SAMPLING TECHNIQUE

The sample technique employed in the present research was convenient sampling. The non-

probability sampling technique is called convenient sampling.

INCLUSION/EXCLUSION CRITERIA

INCLUSION CRITERIA

1. Must be enrolled in an undergraduate program at a Faisalabad university at the moment. International students were not included in the current study; it only examined students in Pakistan.
2. Participants are required to be between the ages of 18 and 25.
3. In order to take part in the study, informed consent must be given.
4. Should not be affected from a sleep disorder that has been detected clinically diagnosed, such as sleep apnea or insomnia.
5. Must adhere to a consistent academic schedule free from significant disruptions, such as semester breaks or medical leaves.

EXCLUSION CRITERIA

1. Participants who were younger than 18 or older than 25 were not permitted to take part in the study.
2. People who have been clinically diagnosed with sleep problems such narcolepsy, sleep apnea, or insomnia.
3. To avoid any detrimental effects arising from any possible abnormalities, participants with physical or psychological challenges were excluded from the study.
4. People who use medicinal products that have a substantial effect on their sleep patterns.
5. Students on medical leave, gap years, or semester breaks.

ETHICAL CONSIDERATION

Before the study started, all required safety measures had been taken in compliance with the American Psychological Association's (APA, 2017) Ethical Principles of Psychologists and Code of Conduct and the Higher Education Commission's (HEC) ethical guidelines. The Board of Study (BOS) and the Board of Advanced Study and Research (BASR) authorized the study following the Psychology Faculty's Research Board gave its approval. The study complied with ethical guidelines to protect participants' rights, dignity, and security. The researcher made certain that subjects weren't exposed to any physical or psychological damage and that human rights were honored (APA, 2017). The study also conformed with HEC's research ethics rules, specifically those pertaining to confidentiality, voluntary involvement, and informed consent.

Participants received an in-depth breakdown of the study's goals, methods, and privacy regulations. Prior to data collection, informed consent was acquired, assuring that participants were fully aware of the intent of the study and the confidentiality protocols (HEC, 2021; APA, 2017).

MEASURES

DEMOGRAPHIC FORM

Gender, age, birth order, number of siblings, number of family members, educational level (semester, subject), marital status (married or single), socioeconomic status (lower, middle, upper), residential area (rural, urban), and family structure (nuclear or joint) were among the demographic data analyzed using this approach. All of these variables were included in the appendix.

ROSENBERG SELF-ESTEEM SCALE (RSE)

A popular self-report tool for evaluating global self-esteem, or a person's overall sense of self-worth and self-acceptance, is the Rosenberg Self-Esteem Scale (RSE), which was created by Morris Rosenberg in 1965. more powerful scores indicate stronger self-esteem. The scale has ten items and is assessed on a 4-point Likert scale (1 being strongly disagree, 2 disagree, 3 agree, and 4 strongly agree). Some research propose a two-factor structure: (1) Positive Self-Esteem (items 1, 2, 4, 6, 7) and (2) Negative Self-Esteem (items 3, 5, 8, 9, 10). Stronger scores indicate stronger self-esteem; the total score goes from 0 to 30. With a Cronbach's alpha between 0.77 and 0.88, which demonstrates outstanding internal consistency, and a test-retest reliability around 0.85 and 0.88, which implies stability over time, the RSE has high reliability. Strong validity is also demonstrated by the scale's positive correlation with psychological well-being measures (such as happiness and life satisfaction) and negative correlation with anxiety and depression, which promotes its convergent validity (Rosenberg, 1965).

FRUSTRATION INTOLERANCE SCALE (FIS-28)

Neil Harrington invented the annoyance Intolerance Scale (FIS-28) in 2005 as a self-report tool to gauge a person's capacity to tolerate dissatisfaction and distress in the face of difficulties. Higher scores indicate greater frustration intolerance. The scale has 28 items and is assessed on a 5-point Likert scale (1 being absent, 2 being mild, 3 being moderate, 4 being strong, and 5 being very severe). Discomfort Intolerance (items 1, 5, 9, 13, 17, 21, 25), Entitlement (items 2, 6, 10, 14, 18, 22, 26), Emotional Intolerance (items 3, 7, 11, 15, 19, 23, 27), and Achievement Frustration (items 4, 8, 12, 16, 20, 24, 28) are the four main elements that are measured by the

FIS-28.

Higher scores represent more frustration intolerance; the overall score goes from 28 to 140. With a test-retest reliability of 0.80 or above, suggesting stability over time, and a Cronbach's alpha ranging from 0.85 to 0.91, indicating good internal consistency, the FIS-28 has proven to be exceptionally accurate. Convergent validity is confirmed by the significant correlations it has with measures of stress, anxiety, depression, and coping difficulties (Harrington, 2005).

SLEEP QUALITY SCALE (SQS)

Yi et al. (2006) created the Sleep Quality Scale (SQS), a 28-item self-report tool intended to evaluate sleep quality in-depth. In 2006, the Sleep Quality Scale was created in South Korea. There are 28 items on the sleep quality scale. Higher scores signify more severe sleep issues. Each item is scored on a 4-point Likert scale, with 0 representing few, 1 sometimes, 2 frequently, and 3 almost at all times. In general, the 28-item scale assesses people's sleep quality in six areas: daytime dysfunction (items 10, 11, 14, 15, 17, 19, 21, 22, 23, 24, 26, and 28), restoration after sleep (items 8, 16, 18, & 27), difficulty falling asleep (items 1, 4, 6, & 7), difficulty getting up (items 12 & 25), satisfaction with sleep (items 2, 13, & 20), and difficulty maintaining sleep (items 3 & 5). Higher scores signify more severe sleep issues. The total score can vary from 0 to 84. With a Cronbach's alpha coefficient of 0.92 and a correlation coefficient of 0.81 for test-retest reliability over a two-week period, SQS has shown high internal consistency. Significant disparities between insomniacs and normal participants Sleep Quality. Scale results ($t = -13.8$, $P = 0.000$) propose construct validity (Yi et al., 2006).

RESEARCH SETTING

Every public and private educational institution in the Faisalabad area was initially examined in order to collect data for the current study. After that, a table was made that ranked universities according to priority.

RESEARCH SITE

The current poll was conducted by university students who resided in the Faisalabad area. The majority of the data utilized in the study came from various universities. To collect information for this study, the researcher traveled to every university.

RESEARCH PROCEDURE

The Board of Advanced Study and Research (BASR) gave the researcher permission to start the work after the Board of Study (BOS) gave its consent for the topic. They received signed informed consent after receiving further instruction on the goals of the study.

Participants got guarantees that their privacy would be protected and were made aware of their rights to leave the study at any anytime. Following a brief explanation of the study's objectives, the participants provided written consent. Any data gaps were quickly filled in with a quick discussion. Furthermore, the study was executed with strict adherence to ethical guidelines, guaranteeing that the rights and welfare of the participants were given the highest priority.

STATISTICAL ANALYSIS

Following the interpretation of the measurement results, the data was examined using the Statistical Package for Social Sciences (SPSS v-26). Every single sample was subjected to both descriptive and inferential statistics. The data distribution was summarized using descriptive statistics such as mean, standard deviation, skewness, and kurtosis. Regression analysis, one-way ANOVA, Pearson correlation, and independent sample t-tests were among the different inferential statistical methods used to test the research hypotheses. While regression analysis was used to ascertain the predictive influence of independent variables on the dependent variable, Pearson correlation analysis was used to investigate associations between variables. Cronbach's Alpha was also calculated to evaluate the measuring scales' dependability.

RESULTS

TABLE 1: ***DEMOGRAPHIC DATA OF THE PARTICIPANTS (N=200)***

Characteristics	Categories	N	%
Gender			
	Male	95	47.5
	Female	105	52.5
Age			
	18-19	35.5	35.5
	20-21	39.5	75.0
22	22-23	14.5	89.5
	24-25	10.5	100.0
Subject			
	Medical Science	20.0	20.0
	Social Science	24.0	44.0
	Computer Science	17.0	61.0
		39.0	100.0

	Engineering/Math/ Business		
Semester			
	First year degree	53.0	53.0
	Middle year degree	34.0	87.5
	Last year degree	12.5	100.0
Socioeconomic Status			
	Lower	4.5	4.5
	Middle	86.5	91.0
	Upper	9.0	100.0
Marital Status			
	Married	6.5	6.5
	Unmarried	93.5	100.0
Number of Siblings			
	No Sibling	7.0	7.0
	1 Sibling	5.5	12.5
	2 Siblings	17.0	29.5
	3 or more Siblings	70.5	100.0
Birth order			
	First	7.0	7.0
	Middle	5.5	12.5
	Last	17.0	29.5
	Only child	70.5	100.0
Family Structure			
	Joint	33.0	33.0
	Nuclear	67.0	100.0
Residential area/Locality			
	Rural	79.5	79.5
	Urban	20.5	100.0

The demographic data of the 200 study participants are shown in Table 1.

TABLE 2: ***RELIABILITY COEFFICIENT FOR THE RESEARCH MEASURES (N=200)***

Research Measure	No. of Items	Cronbach's Alpha Coefficient
Self-esteem Scale	10	0.76
Frustration intolerance Scale	28	0.87
Quality of Sleep Scale	28	0.79

Note: No. of items=Total number of items

The reliability coefficients (Cronbach's alpha) for the research measures employed in the study are displayed in Table 2. With a Cronbach's alpha of 0.76, the 10-item Self-Esteem Scale showed a satisfactory level of internal consistency, indicating that it is a valid measure of self-esteem. With a high reliability value of 0.87, the 28-item Frustration Intolerance Scale demonstrated great internal consistency in evaluating frustration intolerance. Similarly, the 28-item Quality of Sleep Scale achieved a Cronbach's alpha of 0.79, indicating strong reliability in assessing the quality of sleep. These results show that every investigation measure employed in the study exhibits acceptable to high reliability, maintaining scale consistency.

TABLE 3: ***DESCRIPTIVE STATISTICS OF THE STUDY VARIABLES (N=200)***

Variables	Mean	S. D	Skewness	Kurtosis
Self Esteem	24.70	2.87	-1.067	2.34
Frustration Intolerance	84.35	15.21	-.239	.109
Quality of Sleep	42.87	9.95	.304	.173

Note: M=Mean and SD=Standard Deviation

The study variables descriptive statistics, such as mean, standard deviation, skewness, and kurtosis, are provided in Table 3. With a kurtosis of 2.34 and a negative skewness of -1.067, the self-esteem mean score was 24.70 (SD = 2.87), revealing a left-skewed distribution with a minor tendency toward peakedness. With a skewness of -0.239 and a kurtosis of 0.109, the mean score for frustration intolerance was 84.35 (SD = 15.21), indicating a rather normal distribution. With a kurtosis of 0.173 and a modest positive skewness of 0.304, the mean score for sleep quality was 42.87 (SD = 9.95), demonstrating a distribution that was close to normal with not much deviation from it.

TABLE 4: ***PEARSON CORRELATION AMONG SELF-ESTEEM, FRUSTRATION TOLERANCE AND QUALITY OF SLEEP IN SPORT PARTICIPANTS (N=200)***

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SE	1														
PSE	.763**	1													
NSE	.479**	-.202**	1												
FIS	.073	.064	.024	1											
DI	.012	.020	-.009	.853**	1										
E	.083	.070	.031	.881**	.670**	1									
EI	.050	.015	.056	.859**	.670**	.658**	1								
AF	.103	.112	.004	.862**	.624**	.701**	.648**	1							
SQS	.044	.057	-.010	.274**	.222**	.222**	.260**	.243**	1						
DTD	-.012	-.013	.000	.293**	.242**	.297**	.215**	.255**	.754**	1					
RAS	.116	.168*	-.052	-.036	-.037	-.098	.058	-.045	.175*	-.296**	1				
DIFS	.053	.030	.039	.246**	.205**	.245**	.180*	.216**	.612**	.360**	-.076	1			
DIGU	-.060	-.015	-.070	.168*	.166*	.126	.177*	.116	.552**	.433**	-.153*	.256**	1		
SWS	-.003	.067	-.095	-.195**	-.174*	-.246**	-.098	-.151*	.257**	-.227**	.454**	.020	.039	1	
DIMS	.052	.005	.071	.172*	.139*	.100	.170*	.186**	.427**	.214**	.002	.327**	.162*	.003	1

**Correlation is significant at the 0.01 level (2-tailed).

*.Correlation is significant at the 0.05 level (2-tailed).

Note: RSE=Rosenberg Self Esteem, PSE=Positive Self Esteem, NSE=Negative Self-Esteem, FIS=Frustration intolerance scale, DI=Discomfort intolerance, E=Entitlement, EI=Emotional intolerance, AF=Achievement Frustration, SQS=Sleep quality scale, DTD=Daytime

Dysfunction, RAS=Restoration after sleep, DIFS=Difficulty in falling sleep, DIGU=Difficulty in getting up, SWS=Satisfaction with sleep, DIMS=Difficulty in maintaining sleep

The Pearson correlation coefficients between sport participants' self-esteem, frustration intolerance, and sleep quality (N = 200) are shown in Table 4. The findings represent that people with higher self-esteem also report stronger positive self-perceptions, as there is a strong positive connection between SE and PSE (r =.763, p <.01). On the other hand, negative self-esteem (NSE) had a moderately high association with SE (r =.479, p <.01) and a negative correlation with PSE (r = -.202, p <.01). These results indicate that self-esteem includes a combination of positive and negative factors that influence one's total self-evaluation. The subcomponents of frustration intolerance (FIS), such as entitlement (E; r =.881, p <.01), emotional intolerance (EI; r =.859, p <.01), discomfort intolerance (DI; r =.853, p <.01), and accomplishment frustration (AF; r =.862, p <.01), showed high associations with FIS. These results imply that people with frustration intolerance frequently struggle in a variety of areas, including managing expectations of success, regulating their emotions, and coping with discomfort. The internal reliability of the frustration intolerance notion is maintained by the constancy of these connections.

Daytime dysfunction (DTD; r =.754, p <.01), difficulty falling asleep (DIFS; r =.612, p <.01), and difficulty getting up (DIGU; r =.552, p <.01) were all positively connected with the Sleep Quality Scale (SQS). Based to these results, having trouble falling asleep and staying asleep, as well as feeling exhausted and dysfunctional during the day, are all linked to poorer sleep quality. DTD also showed a strong correlation with DIFS (r =.360, p <.01) and DIGU (r =.433, p <.01), highlighting the detrimental impact of sleep deprivation on day-to-day functioning. Remarkably, there was a negative correlation between restoration after sleep (RAS) and daytime dysfunction (r = -.296, p <.01), indicating that people who exhibited greater restoration after sleep have less trouble staying aware throughout the day. Additionally, frustration intolerance (r = -.195, p <.01) and its subcomponents, notably entitlement (r = -.246, p <.01) and discomfort intolerance (r = -.174, p <.05), were adversely connected with satisfaction with sleep (SWS). These results suggest that poorer sleep satisfaction is linked to higher frustration intolerance, which may be driven by an inability to handle relatively small sleep disruptions.

TABLE 5: ***SELF ESTEEM AND FRUSTRATION INTOLERANCE AS PREDICTOR OF SLEEP QUALITY (N=200)***

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	95%CI
	B	Std. Error	Beta			
Constant	25.80	6.78		3.802	.000	(12.41, 39.18)
SE	.083	.238	.024	.351	.726	(-.385, .552)
FI	.178	.045	.272	3.962	.000	(.089, 0.267)
R2 0.076						
F 8.056						

Dependent Variable: SQS

Note: Unstandardized coefficient=B, Standardized Coefficient= Beta, Level of significant=p, Confidence Interval=Cl, Self esteem=SE, Frustration intolerance=FI, Sleep quality scale=SQ

A multiple regression study that looked at self-esteem and frustration intolerance as determinants of sleep quality (N = 200) is shown in Table 5. About 7.6% of the variation in sleep quality was explained by the entire model, which was statistically significant (F = 8.056, p <.01) (R2 = 0.076). Self-esteem did not substantially predict sleep quality, according to the unstandardized coefficient for self-esteem (SE), which was B = 0.083 (p =.726). Additionally, the 95% CI (-0.385, 0.552) indicates that the actual impact of self-esteem on sleep quality would likely be insignificant. FI, on the other hand, was a significant predictor of sleep quality (B = 0.178, p <.001), and the standardized coefficient (β = 0.272) indicated a somewhat positive connection. This effect is statistically powerful, as seen by the confidence interval (0.089, 0.267). These results imply that people with higher levels of frustration intolerance have worse sleep, maybe as a result of having trouble controlling their emotional discomfort and anxiety.

DISCUSSION

The current study aims to figure out the relationship between sleep quality, frustration intolerance, and self-esteem. The corresponding investigation's main objective was to look into the study's objectives and hypotheses.

HYPOTHESIS 1

The first hypothesis proposed in this study suggested undergraduate's self-esteem, frustration tolerance, and sleep quality are significantly correlated. Higher self-esteem was associated with

better sleep quality, while higher frustration intolerance was associated with worse sleep patterns, according to the results, which showed a substantial connection between both variables. These findings are in line with earlier studies that demonstrate psychological variables hold significance for the health of sleep (Hagger et al., 2021).

It has been discovered that self-esteem, as a concept of psychology, affects many facets of wellbeing, including the quality of sleep. Higher self-esteem has been connected with shorter sleep latency, fewer sleep disruptions, and greater overall sleep pleasure, according to the study. This is consistent with research by Sowislo and Orth (2013), who highlighted how self-esteem protects against stress and anxiety, two conditions that are known to interfere with sleep. Individuals who have a good perceptions of themselves are less prone to dwell on unpleasant ideas right before bed, which promotes better sleep continuity. However, there was a negative correlation between frustration intolerance and the quality of sleep. Higher frustration intolerance among undergraduate students was associated with trouble falling asleep, frequent overnight awakenings, and basic sleep dissatisfaction. This result is consistent with earlier research demonstrating emotional dysregulation is associated with frustration intolerance and can lead to sleep difficulties (Hagger et al., 2021).

High levels of frustration intolerance frequently result in elevated stress reactions, which raise physiological arousal and disrupt the onset and maintenance of sleep.

Furthermore, a more complex view of sleep quality is offered by the interaction between frustration intolerance and self-esteem. According to the study, children who had high levels of frustration intolerance and low self-esteem had the worst sleep effects. The cognitive-behavioral approach, which contends that people with low frustration tolerance and a poor perception of themselves are more likely to experience anxiety and rumination, which have a substantial negative impact on sleep quality, is confirmed by this finding (Roberts & Duong, 2014).

The results further emphasize how important stress management is for treating sleep-related problems. Using cognitive-behavioral strategies to increase frustration tolerance may result in better sleep quality because frustration intolerance is linked to greater stress levels. Prior studies indicate that stress-reduction tactics, mindfulness, and relaxation techniques can effectively reduce frustration intolerance while boosting sleep quality (Ong et al., 2012).

Self-esteem, frustration intolerance, and sleep quality among undergraduates have a strong association, according to several research. A study by Hagger et al. (2021) looked at the

relationship between psychological resilience and self-control and sleep quality, emphasizing that people whose have higher self-esteem have less sleep disturbances because they are better able to handle stress. Similarly, low self-esteem has been linked to increased anxiety and sadness, both of which are linked to sleep issues, according to research by Sowislo and Orth (2013). The study concluded that among undergraduate students, self-esteem, frustration intolerance, and sleep quality were significantly correlated. The research results imply that improving sleep health may be facilitated by elevating self-esteem and decreasing frustration intolerance.

HYPOTHESIS 2

According to the study's second hypothesis, undergraduate's sleep quality is impacted by their sense of self-esteem and frustration intolerance. The results of this study demonstrated that undergraduate student's sleep quality is greatly impacted by their sense of self-esteem and their level of frustration tolerance. Better sleep patterns, such as fewer sleep disruptions, lower sleep latency, and higher sleep pleasure, were linked to higher self-esteem. According to previous investigations by Sowislo and Orth (2013), self-esteem acts as a protecting psychological component that reduces stress and anxiety, two major factors that cause sleep disturbances.

However, it turned out that frustration intolerance negatively affected the quality of sleep. Individuals with high frustration intolerance reported having trouble falling asleep, waking up a lot, and not feeling fulfilled with their sleep in overall. These results correlate with study by Roberts and Duong (2014), which showed that those who have a low threshold for annoyance are more likely to experience emotional dysregulation, which can result in higher stress levels and disturbed sleep.

Students with poor self-esteem and high frustration intolerance had the lowest sleep effects, according to the interaction between these two variables. Based to the cognitive-behavioral model put forth by Hagger et al. (2021), people who have a poor opinion of themselves and an inadequate threshold for frustration find it difficult to control their stress levels, which makes them more susceptible to issues attached to sleep.

The relationship between self-esteem, frustration intolerance, and sleep quality has been the subject of numerous studies, which have demonstrated the role that these psychological variables play in sleep disruptions. According to research by Ong et al. (2012), those who have poor self-esteem are more likely to engage in cognitive rumination and have elevated stress reactions, both of which might interfere with sleep patterns. In a similar vein, Baglioni et al.

(2011) showed that a negative self-concept is associated with elevated arousal and constant monitoring at bedtime, which results in trouble initiating and maintaining sleep. These results are consistent with the cognitive-behavioral approach put forth by Hagger et al. (2021), which underlines how frustration intolerance worsens sleep problems by compromising the capacity of the mind to handle stress.

Additionally, Arbinaga et al. (2019) investigated the connection between university students' emotional control and sleep quality. They discovered that poor sleep quality was connected with greater trait anger levels and emotional regulation issues, which have been linked to low self-esteem and high degrees of frustration intolerance. This means that treatments meant to strengthen emotional control may also improve the quality of sleep. Hassan et al.'s study from 2023 looked at the relationships between university students' psychological distress, emotional intelligence, and sleep quality. The results demonstrated which poorer sleep quality was linked to both lower emotional intelligence and increased psychological suffering. The relationship between self-esteem and sleep quality is further supported by this study, since self-esteem is an important aspect of emotional intelligence. This idea is supported by research by Howell et al. (2010), which indicates that structured procedures that emphasize stress management and self-esteem greatly enhance undergraduate populations' sleep quality.

CONCLUSION

Undergraduates sleep quality is significantly influenced by their sense of self-esteem and frustration intolerance. Among undergraduates, self-esteem, frustration intolerance, and sleep quality are all interrelated. While self-esteem was not shown up as a strong direct predictor, the results of this study highlight the significant function that frustration intolerance plays in predicting college students sleep quality. Sleep disruptions, including trouble falling asleep, frequent awakenings, and dysfunction throughout the day, are more common among students who suffer with frustration intolerance, especially when it comes to handling discomfort and emotional distress. This implies that emotional control, which in turn influences sleep patterns, is harmed by frustration intolerance.

RECOMMENDATIONS

1- enhance the findings' generalizability, future research should employ a broader and more variety sample.
2- To evaluate the long-term impacts of frustration intolerance and self-esteem on sleep

quality, a longitudinal research design is advised.

3- Future research should take into account other contextual factors that may affect self-esteem, frustration intolerance, and sleep quality.

4- To gain additional insight into students' experiences with self-esteem, frustration intolerance, and sleep quality, subsequent investigations should combine quantitative analysis with qualitative techniques include focus groups or interviews.

LIMITATIONS

1- investigate causal relationships and changes over time, a longitudinal study would be recommended.

2- The results' generalizability to broad populations may be limited by the experiences and views of students from various cultural or geographic circumstances on self-esteem, frustration intolerance, and sleep quality.

3- Including objective measures of sleep, such as sleep diaries, would provide more accurate and reliable data on students sleep patterns.

4- To better understand the factors impacting undergraduates' sleep quality, future investigations should take a greater number of psychological factors into account.

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