



Academic Stress, Self-Esteem and Non-Suicidal Self-Injury Behaviors among Hostelized Students

Yashra Mansoor¹, Dr. Shugaftha Malik², Muhammad Waqas³

¹MPhil Scholar, Department of Psychology, Riphah International University, Faisalabad Campus,
Email: yashramansoor.185@gmail.com

²Assistant Professor, Department of Psychology, Riphah International University, Faisalabad Campus,
Email: shaguftamalik409@yahoo.com

³PhD Scholar, Department of Psychology, Riphah International University, Faisalabad Campus
Email: waqas00173@gmail.com

ARTICLE INFO

Article History:

Received: January 03, 2025
Revised: February 03, 2025
Accepted: February 05, 2025
Available Online: February 06, 2025

Keywords:

Academic stress, self-esteem, non-suicidal self-injury behaviors, hostelized students

Corresponding Author:

Dr. Shugaftha Malik

Email:

shaguftamalik409@yahoo.com

ABSTRACT

The aim of this research was to explore the association between academic stress, self-esteem, and non-suicidal self-injury (NSSI) behaviors among hostelized students. For this study, a sample of $N=300$ (150 males and 150 females) was chosen using a purposive sampling technique from both public and private hostels in Faisalabad. Prior to responding to three standardized questionnaires, the Academic Stress Scale (ASS), the Rosenberg Self-Esteem Scale (RSE), and the Non-Suicidal Self-Injury Behaviors Scale (INS), the participants filled out demographic form and gave their informed consent. Analysis of the data indicates that NSSI behaviors and academic stress have positive correlation. In contrast, Academic Stress was found to have a negative relationship with Self-Esteem, suggesting that as stress increases, self-esteem tends to decrease. Additionally, the findings revealed that undergraduates report lower self-esteem and engage in NSSI behaviors more frequently than graduate students, highlighting developmental differences in how academic challenges impact mental health. This research emphasizes the need for targeted interventions to reduce academic stress and improve self-esteem among hostelized students to decrease the risk of NSSI.



Introduction

Stress is defined as an uncomfortable mental and physical arousal state that people go through when they believe that their well-being is at danger (Raj & Sabita, 2021). Stress is the body's overall response to demands or distressing environmental situations. It is a process, not just a

stimulus or reaction, by which people recognize and confront environmental risks and problem (Alsulami et al. 2018).

According to Safarzaie et al. (2017) prolonged exposure to these stresses can exacerbate mental health issues by causing emotions of anxiety and sadness. Baste and Gadkari (2014), discovered strong link between high stress levels and poor self-esteem and high levels of depression in a sizable portion of the student body (Imran, Zaidi, & Khanzada, 2023). Among the characteristics include exam pressure, exam length, difficult curriculum, and little exercise. The National Crime Records Bureau reported that one student kills themselves every hour (Saha & Mandal, 2018). Seven elements contribute to academic stress, based on (Lin & Chen, 2009), peers, instructors, outcomes, assessments, group study, time management, and pressures from within (Rehan, et al., 2024). The rise in student suicides in Pakistan indicates that stress-related events are common among students there (Bashir et al. 2019; Shakil, 2019). Pakistani students are under a lot of stress because of the requirements and expectations of the educational system (Khan, Altaf, & Kausar, 2013).

According to MacDonald and Leary (2012), Self-esteem is the subjective assessment of one's own value as a human being. A person's self-worth is not always in line with their perceived value by others or even with their objective abilities and capabilities. Even someone with strong self-esteem might not think they are better than other people (Orth & Robins, 2014). Recent studies have indicated that, in addition to gender and ethnicity, people with specific self-esteem rises are more likely to occur in those with certain personality features (Oad, Zaidi, & Phulpoto, 2023; Wagner et al. 2013).

A weak feeling of self and low self-esteem make people vulnerable to a range of mental health issues and social challenges, such as substance misuse, aggression, despair, anxiety, and unhealthy behaviors including bulimia and bulimia nervosa. It has been shown to affect psychological well-being, fostering a good sense of self-worth ought to be a top focus (Mann et al. 2004). In both adult and teenage students, psychological suffering is directly correlated with high self-esteem (Ahmad, et al., 2016; Bahr et al. 2024). Social interactions and body image are two areas of a person's life that can be impacted by low self-esteem. Both the idealized cultural standards of beauty and one's actual looks can contribute to a negative body image. Dissatisfaction with one's body can worsen psychological suffering and result in low self-esteem and NSSI Behaviors (Kavanagh et al. 2023). Students who experience academic stress, which is frequently brought on by high expectations, tend to have lower self-esteem, especially during crucial developmental phases like puberty and the early years of adulthood (Imran, Zaidi, & Rehan, 2024). According to (Hops et al. 1990), students' self-perceptions often deteriorate as academic expectations increase, resulting in feelings of inadequacy and decreased self-worth. These results imply that students' self-esteem may be gradually undermined by the stress they endure in academic environments, which may also affect their confidence and self-perception. The results of a study by Arslan et al. (2009) that involved Turkish university students are consistent with this one. They discovered that low self-esteem and increased anxiety were closely linked to high academic stress, particularly for students who were under more pressure to perform (Imran, et al., 2023).

The direct, repeated, socially undesirable injury to bodily tissues that is not motivated by suicide is known as non-suicidal self-injury (NSSI) (Nock, 2010). This includes striking against things, which can cause direct damage to the skin or bones, as well as scorching, scraping, or slicing the skin. According to the DSM-5 diagnostic criteria, a conduct needs to be deliberate and

meaningful in order to qualify as NSSI. Since personality disorders were first formally included in the DSM in 1980, NSSI has been listed as a borderline personality disorder's symptom (Phulpoto, Oad, & Imran, 2024; Cooper & Michels, 1988).

Accordingly, the majority of self-poisoning situations are not considered NSSI (Andover et al. 2012), aside from ingesting something that burns oral tissue, like bleach. Socially acceptable actions are likewise excluded from NSSI. This restriction mostly prohibits practices like body piercings and tattoos in mainstream Western societies. We must acknowledge, though, that certain subcultures and civilizations support various forms of body modification (Favazza, 2009). The degree of physical harm is also important. A moderately severe injury is a component of NSSI (Favazza, 2009).

One of the most frequently mentioned risk factors for suicide (including NSSI) is academic stress among teenagers, however researchers have not yet thoroughly examined this risk factor (Ying et al. 2020). A survey of college students shows that those who have poor self-esteem not only reported more NSSI events but also showed more self-inflicted wounds and increased impulses to harm themselves (Nawaz, et al., 2023). This pattern underlines the necessity for intervention programs that concentrate on boosting self-esteem as a preventive approach against self-injury because it implies that poor self-esteem not only predisposes people to NSSI but also makes these behaviors worse (Knipe et al. 2022).

Objectives of Study

1. To investigate the relationship between Academic Stress, Self-Esteem and Non-Suicidal Self-Injury Behaviors among Hostelized Students.
2. To examine whether academic stress serves as a significant predictor of Self-Esteem and Non-Suicidal Self-Injury (NSSI) behaviors among hostelized students.
3. To explore the differences in Academic Stress, Self-Esteem, and Non-Suicidal Self-Injury Behaviors between Undergraduate and Graduate Hostelized Students.

Research Hypotheses

1. There would be a significant relationship between Academic Stress, Self-Esteem and Non-Suicidal Self-Injury Behaviors among Hostelized Students.
2. Academic stress would be significant predictor of Self-Esteem and Non-Suicidal Self-Injury Behaviors among Hostelized Students.
3. There would be significant differences in Academic Stress, Self-Esteem, and Non-Suicidal Self-Injury Behaviors between Undergraduate and Graduate Students among Hostelized Students.

Rationale of Study

Higher education institutions' academic environments are frequently marked by demanding requirements that might cause high levels of stress. This stress may be made worse for students who live in dorms by things like social isolation, a lack of support networks, and the difficulties of adjusting to a shared living situation. Developing successful mental health interventions requires being aware of the connection among academic stress, self-esteem, and non-suicidal self-injury (NSSI) (Ahmad, et al., 2024). According to studies, students living in dorms encounter certain stresses, such as lack of family support and competition, which might exacerbate their academic stress (Baker & Siryk, 1989). Social connections and academic

achievement are strongly correlated with self-esteem. A common coping strategy for emotional distress is NSSI. According to research, NSSI is more common among people who have lower self-esteem (Whitlock et al. 2011). NSSI, self-esteem, and academic stress are closely related; research indicates that greater academic pressure might result in a rise in NSSI behaviors as a maladaptive coping mechanism (Muehlenkamp et al. 2015).

Literature Review

One of the main issues that students living in hostels deal with is academic stress. This type of stress is brought on by the demands of education and the high standards set by society, parents, and teachers. Such stressors frequently result in emotions of tension, worry, and inadequacy, which have a negative effect on students' academic performance as well as their physical and mental health (Resheetha, 2023; Silva, 2024). Additional pressures for hostelized students include adjusting to a new setting, living apart from family support, and taking care of their time and finances on their own. Students with poorer grades reported higher levels of academic stress, which further deteriorated their academic performance and mental health (Ribeiro et al. 2018; Imran, Zaidi, & Rehan, 2024).

According to a study by Bayram and Bilgel (2008), the prevalence of stress, anxiety, and depression in Turkey were 27%, 47.1%, and 27.1%, respectively. According to (Syed et al. 2018), 48.0% of Pakistani undergraduate students reported feeling depressed, 68.54% reported feeling anxious, and 53.2% reported feeling stressed. Young people are increasingly experiencing stress-related events such drug addiction, suicide, school dropout, and other mental health issues (Syed et al. 2018). According to (Lee & Larson, 2000), stress is brought on by the interaction of stressful situations, student tests, and the responses of those students to those tests. These days, it is considered a "career stopper" and a concerning reality (Kadapatti & Vijayalaxmi, 2012). Academic stress is a type of stress that is connected to a student's academic life, according to Gómez (2019),

Self-esteem is an individual's subjective assessment of their own value as a person (MacDonald & Leary, 2012). Importantly, one's self-esteem is not always correlated with their perceived value by others or even with their objective abilities and capabilities (Alsaker & Kroger, 2020). Unlike the intense self-regard and self-aggrandizement that define narcissistic people, self-esteem consists of sentiments of self-acceptance and self-respect (Ackerman et al. 2011). According to the study, depression in adolescence and early adulthood was predicted by low self-esteem (Imran & Akhtar, 2023). An investigation into the difference between self-esteem and self-concept was conducted by (Marsh et al. 2017). They underlined how crucial it is to avoid the belief that two items are the same just because they have the same name or sound (Khosro, et al., 2024).

A person's self-esteem can be impacted by a number of things. Due to anxiety and emotions of social comparison, social media use among youth has been associated with negative effects on self-worth (Mayukh & Manaf, 2022). According to García et al. (2007), authoritative parenting, which is defined by warmth, support, and unambiguous expectations, can also have a big impact on teen's sense of self-worth (Ismat, et al., 2016). There is also evidence linking bad body image to lower self-esteem particularly in women, and exposure to media representations of slender standards may be a contributing factor (Abbas et al. 2024).

Individuals who have experienced stress may employ NSSI as an unhealthy coping mechanism. His study's findings imply that stress and NSSI activity are related, with those who participate in NSSI showing higher stress levels than non-participants (Baetens et al. 2014). Non-suicidal self-

injury (NSSI), is the deliberate destruction of one's body surface without the goal of suicide (Nock & Favazza, 2009), is an unclear practice that presents major health hazards on university campuses across the globe. Swannell et al. (2014) found that whereas 3% to 7% of college students report 12-month NSSI, 15% to 20% report lifetime NSSI. However, 66% of youth with the illness reported having scholastic difficulties as a result of NSSI, according to some research (Zetterqvist et al. 2013). Mars et al. (2014) revealed that NSSI adolescents perform similarly or even better academically. Academic interference is unlikely to be directly induced by NSSI. Rather, a variety of indirect causes may be responsible for academic tampering by college students (Nawaz, et al., 2024). According to Baetens et al. (2010) NSSI may be construed as an indication of (internalizing) distress. Second, people who are on the verge of early adulthood usually move away from home, make new friends (Taliaferro & Muehlenkamp 2015), and manage the rigors of school during the sometimes difficult change from high school to college (Nawaz, et al., 2016; Dyson & Renk, 2006).

According to earlier study, young people who injure themselves are more prone to experience stress, which could negatively impact college students' academic performance (Kiekens et al. 2015). Third, even though self-harmers are frequently characterized as perfectionists, research indicates that they exhibit high levels of maladaptive perfectionism (Baetens et al. 2015; Hoff & Muehlenkamp, 2009). NSSI is linked to a later risk of suicide acts even if it refers to behaviors that do not involve suicidal intent (Hamza et al. 2012). For instance, one study found that having NSSI within the previous 12 months raised the risk of attempting suicide by 5.7 times (Tang et al. 2011). Furthermore, research has shown that some people use NSSI to lessen negative emotions, such low self-esteem, and that it can be used at difficult times in a person's life (Klonsky & Muehlenkamp, 2007). One definition of self-esteem is a broad, overall assessment of oneself, such as, Am I a valuable or decent person? (Leary, 2000). Additionally, a sense of embarrassment (Schoenleber et al. 2014), punishment of oneself (Glassman et al. 2007), and disappointment with oneself (Stroehmer et al. 2015) are cited as causes of NSSI. Negative emotions toward the Self may have an impact on starting and continuing NSSI (Muehlenkamp et al. 2013). People who have poor self-esteem may also feel more comfortable participating in NSSI due to their insufficient confidence in oneself (Nawaz, et al., 2024; Kittila, 2012). Additionally, NSSI may be used by people to lessen the harmful effects of low self-esteem (Mohammad, et al., 2024; Chapman et al. 2006).

Methodology

Research Design

The correlational research design was used in this study.

Sampling Technique

Data for this study was gathered using the purposeful sampling technique.

Population of the study

The population in this study included both males and female hostelized students enrolled in BS (Hons.) and MS/MPhil programs from various private and government hostels in Faisalabad.

Sample of the study

The sample size consists of 300 students (N=300) between the ages of 18 and 35 who are

enrolled in various government and private hostels in Faisalabad.

Inclusion and Exclusion Criteria

Inclusion Criteria

- The study comprised both male and female participants.
- Participants in the study ranged in age from 18 to 35.
- The study only included students who were hostelized.
- The study's sample consisted of students enrolled in BS and MS/MPhil programs.
- Only mentally healthy pupils are included in the study.
- The study included students from both urban and rural settings.

Exclusion Criteria

- This study did not include college or school students.
- The study did not include students above the age of 35 and under the age of 18.
- The research did not include transgender people.
- The study did not include participants with mental or physical disability.
- Students who were addicted to any form of substance were also excluded in order to avoid any possible negative impacts of drug addiction on the study's findings.

Instruments

According to the theoretical basis, the self-reporting measures utilized in this study best implemented the study variables. These instruments had no issues with cross-sectional validation. To achieve the study's goals, the following scales were employed:

- Demographic Information Sheet
- Academic Stress Scale (ASS)
- Rosenberg Self-Esteem Scale (RSE)
- Non-Suicidal Self-Injury Behaviors Scale (INS)

Demographic Information Sheet

A demographic sheet is a document that includes demographic information like name, age, gender, family system, residence, marital status, class, current semester, discipline/program, university status, grades/GPA in last semester, CGPA, how long living in the hostel, and hours of study per day.

Academic stress Scale (ASS)

Kim (1970) created the Academic Stress Scale (ASS) questionnaire, which is still in use by a number of studies. There are forty items on this Academic Stress Scale (ASS). Just put a quote mark inside the provided bracket for each phrase to indicate how stressed you are about it. To show that there is no stress, place a "symbol" within the first bracket (NS). The terms "slight stress" (SS), "moderate stress," "high stress," and "extreme stress" (ES) are denoted by the second, third, fourth, and fifth brackets, respectively. From 'No Stress' to 'Extreme Stress,' each problem elicited five different responses. The numerical score for each response ranges from '0' to '4'. The items are divided into five different groups, eight things are included in each group, for

a total of 99 pieces. A sample of 50 students over a 25-day period had a test-retest correlation coefficient of 0.82.

Rosenberg Self-Esteem Scale (RSE)

The RSE, or Rosenberg Self-Esteem Scale, was created by Morris Rosenberg in 1965. This assessment of self-esteem will be conducted using the Rosenberg Self-Esteem Scale. The 10-item scale measures both positive and negative assessments of a person in order to determine their overall sense of self-worth. It is thought that there is only one dimension to the scale. The Likert technique is used to score respondents' agreement or disagreement with each question on a scale from strongly agree to strongly disagree. Low self-esteem is indicated by an RSE score of less than 15, whereas a score between 15 and 25 is considered normal. RSE values range from 0 to 30.

Non-Suicidal Self-Injury Scale (INS)

Assessing the social, behavioral, and emotional impacts of non-suicidal self-injury (NSSI) is the goal of the Non-Suicidal Self-Injury Scale (INS). According to Keuthen et al. (2001), Based on the original 10-item Skin Picking Impact Scale (SPIS), this scale was created. A Likert scale with six points is used to rate the ten items, with 0 representing "Never" and 5 representing "Severe." By summing up the components, a composite score ranging from 0 to 5 is determined; higher scores signify a greater psychological impact of NSSI. Based on reliability evaluations, the INS has excellent dependability ($\alpha = .90$). (Burke et al. 2017).

Procedure

Initially, the psychology department sent the letter to validate the department's institutional affiliation with the researcher and to confirm that the research is being done in order to partially meet the requirements for the M.Phil. in clinical psychology certification. After the department head's letter of authorization was received, data gathering got underway. Different hostels were visited according to the selected demography. A contract with the relevant authorities was signed in order to obtain written consent to collect data from the targeted hostels. The targeted sample provided the information (Prakasha, et al., 2024). The participants were briefed on the purpose, objectives, and nature of the study in order to build rapport. Those who met the inclusion criteria were invited to continue after being questioned about them. The explanation was provided to the willing volunteers, and it was made abundantly evident that the information gathered would be kept confidential and used exclusively for study. An informed consent form was given to the participants to fill out. The researcher answered the participants' questions both before and after they finished the scale. Participants took 25 to 30 minutes to complete the scale, despite the study having no time limit. The researcher expressed gratitude to the volunteers for giving their time and participating in the study without anticipating any financial compensation.

Statistical Analysis

A Microsoft Excel sheet containing the data was used for tabulation and further analysis. The Statistical Package for Social Sciences (SPSS, version 23) was used to analyze the data. Descriptive statistics such as the frequency, percentage, mean, and standard deviation of demographic parameters are calculated for the full sample. Inferential statistics were also calculated for the full sample. The study hypothesis was evaluated using regression analysis, Pearson correlation, and the independent sample t-test.

Ethical Consideration

As recommended by the US Psychological Association, the quantitative study was carried out in compliance with the relevant ethics (prior authorization, informed consent, confidentiality, and anonymity). Maintaining participant confidentiality throughout the following procedure was the investigator's duty.

Results

The current study set out to examine the relationship between academic stress, self-esteem, and non-suicidal self-injury (NSSI) behaviors among students living in hostels.

Table 1: The Percentages and Frequencies of Demographic Variables (N=300)

Variables	<i>N</i>	<i>%</i>	<i>M (SD)</i>
Age			22.3 (3.11)
Gender			
Male	150	50.0%	
Female	150	50.0%	
Family System			
Nuclear	186	62.0%	
Joint	114	38.0%	
Residence			
Rural	133	44.3%	
Urban	167	55.7%	
Marital Status			
Single	282	94.0%	
Married	18	6.0%	
Class			
Undergraduates	209	69.7%	
Graduates	91	30.3%	
Current Semester			
1	11	3.7%	
2	25	8.3%	
3	126	42.0%	
4	17	5.7%	
5	76	25.3%	
6	2	.7%	
7	39	13.0%	
8	4	1.3%	
University Status			
Public	185	61.7%	
Private	115	38.3%	
GPA in last semester			
Less than 2.5	5	1.7%	
2.5-3.0	36	12.0%	
3.1-3.5	146	48.7%	
3.6-4.0	113	37.7%	
CGPA			

Less than 2.5	5	1.7%
2.5-3.0	37	12.3%
3.1-3.5	158	52.7%
3.6-4.0	100	33.3%
How long living in the Hostel		
Less than 6 months	11	3.7%
6 months-1 year	90	30.0%
2 years- 3 years	168	56.0%
4 years- 5 years	25	8.3%
More than 5 years	6	2.0%
Hours of study per day		
Less than 1 Hour	11	3.7%
1 hour- 2 hours	100	33.3%
3 hours- 5 hours	137	45.7%
6 hours- 8 hours	51	17.0%
More than 8 hours	1	.3%

Note. CGPA “Cumulative grade point average”, GPA “Grade point average”

For a sample of 300 individuals, the frequency and percentage distribution of demographic data are shown in Table 1.

Table 2: The Reliability Analysis of Study Variables (N=300)

Variables	Cronbach’s Alpha (α)	Items
ASS	.89	40
RSE	.75	10
INS	.89	10

Note. ASS= Academic Stress Scale, RSE= Rosenberg Self-Esteem Scale, INS= Non-Suicidal Self-Injury Behaviors Scale.

The Cronbach's alpha values in Table 2 show a high level of significance. For the Academic Stress Scale (ASS), Rosenberg Self-Esteem Scale (RSE), and Non-Suicidal Self-Injury Behaviors Scale (INS), the corresponding Cronbach's alpha values are 0.89, 0.75, and 0.89. Cronbach's alpha values demonstrate the excellent reliability of the data when examined the individual values of each variable.

Table 3: The Correlation between Academic Stress, Self-Esteem and Non-Suicidal Self-Injury (NSSI) Behaviors N= (300)

	ASS	ASSf1	ASSf2	ASSf3	ASSf4	ASSf5	RSE	INS
ASS	---	.718**	.814**	.865**	.852**	.812**	-.245**	.401**
ASSf1		---	.475**	.502**	.512**	.467**	-.203**	.344**
ASSf2			---	.666**	.627**	.551**	-.207**	.274**
ASSf3				---	.690**	.640**	-.179**	.285**
ASSf4					---	.621**	-.195**	.363**

ASSf5	---	-.215**	.365**
RSE		---	-.232**
INS			---

Note. **p< .01

Academic stress had a strong negative correlation with self-esteem ($r=-.245$, $p < 0.01$) and a positive correlation with non-suicidal self-injury behaviors ($r=.401$, $p < 0.01$) in the sample of 300 individuals, according to table 3. This implies that self-esteem declines and non-suicidal self-harm practices rise in response to increased academic stress. The theory is further supported by the considerable negative correlations that each of the academic stress sub-factors (ASSf1 to ASSf5) shows with self-esteem and the positive correlations that they show with non-suicidal self-injury behaviors. Furthermore, there is a negative correlation between Self-Esteem (RSE) and Non-Suicidal Self-Injury Behaviors (INS) ($r = -.232$, $p < .01$), which is also significant. The hypothesis that academic stress, self-esteem, and non-suicidal self-harm are significantly correlated is supported by the correlation analysis.

Table 4: The Model Summary of Linear Regression Analysis for Academic Stress as Predictor of Self-Esteem (N=300)

Predictor	R	R ²	ΔR ²	F	Sig.
Academic Stress	-.245 ^a	.060	.057	19.060	.000 ^b

Note. ***p< .001, Dependent variable= Self-Esteem

Table 5: Coefficients of Linear Regression Analysis for Academic Stress and Self-Esteem (N=300)

Model	B	SE B	β	T	Sig.
Constant	19.812	.757		26.164	.000
Academic Stress	-.54	.12	-.245	-4.366	.000

Academic stress and self-esteem are negatively correlated, as indicated by the model summary's R value of -0.245 in Table 4. According to the R² value of 0.060, academic stress accounts for around 6% of the variation in self-esteem. Having the p-value below .001 and a F=19.060, the model is statistically significant, and the corrected R² (ΔR²) is 0.057. Academic stress has a regression coefficient (B) of -0.54 and a standard error (SE B) of 0.12, according to the coefficients in Table 5. According to the standardized beta (β) of -0.245, self-esteem tends to decline as academic stress rises. The t-value of -4.366 indicates that this link is statistically significant ($p < .001$). Consequently, increased self-esteem is associated with less academic stress, supporting the hypothesis that academic stress negatively impacts self-esteem.

Table 6: The Model Summary of Linear Regression Analysis for Academic Stress as a Predictor of Non-Suicidal Self-Injury (NSSI) Behaviors (N= 300)

Predictor	R	R ²	ΔR ²	F	Sig.
Academic Stress	.401 ^a	.161	0.158	57.072	.000 ^b

Note. ***p< .001, Dependent variable= Non-Suicidal Self-Injury (NSSI) Behaviors

Table 7: Coefficients of Linear Regression Analysis for Academic Stress and Non-Suicidal Self-Injury (NSSI) Behaviors (N= 300)

Model	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>Sig.</i>
Constant	3.765	1.563		2.408	.017
Academic Stress	.193	.026	.401	7.555	.000

The two variables have a moderate relationship, as indicated by the R value of 0.401, shows that academic stress has a moderately positive correlation with NSSI behaviors (Table 6). Academic stress explains roughly 16.1% of the variance in NSSI behaviors, according to the $R^2 = 0.161$. The model's F value of 57.072 and p-value of less than .001 indicate that it is statistically significant. ΔR^2 value of 0.158 further supports the model's explanatory ability. Academic stress has a regression coefficient ($B = 0.193$) and a standard error ($SE B = 0.026$), according to the coefficients. According to the standardized beta coefficient ($\beta = 0.401$), Academic stress and an increase in NSSI behaviors are somewhat positively correlated. The statistical significance of this link is further supported by the t-value of 7.555 ($p < .001$). Thus, our analysis indicates that among the 300 participants in the sample, greater levels of academic stress are strongly correlated with higher levels of NSSI behaviors.

Table 8: Comparison between Males and Females Individuals on Study Variables (N= 300)

Variable	Undergraduates (n=209)		Graduates (n=91)		<i>t</i>	<i>P</i>	95%CI		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
Academic Stress	57.91	22.20	55.34	22.22	.922	.357	-2.91	8.06	0.11
Self-Esteem	23.29	4.95	21.96	4.61	-2.18	.030	-1.29	-2.52	0.27
NSSI	16.15	10.70	11.60	9.95	3.458	.001	1.96	7.14	0.44

Note. * $p < .05$, ** $p < .01$, AS = Academic Stress, SE = Self-Esteem, NSI = Non-Suicidal Self-Injury, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

Undergraduates reported much lower self-esteem ($M = 21.00$, $SD = 4.95$) than graduates ($M = 22.96$, $SD = 4.61$), indicating a significant difference (Table 8). With a t-value of -2.18, a p-value of 0.030, and a 95% confidence range for the mean difference between -2.52 and -0.13, this difference is statistically significant. In contrast, the t-value of 0.922 and the p-value of 0.357, with a confidence range spanning from -2.91 to 8.06, show that there is no discernible distinction in academic stress between the two groups. Furthermore, with a t-value of 3.458, 95% confidence range and a p-value 0.001 spanning from 1.96 to 7.14, NSSI behaviors are considerably greater among students ($M = 16.15$, $SD = 10.70$) than graduates ($M = 11.60$, $SD = 9.95$). While both groups report comparable levels of academic stress, these data imply that undergraduates have lower self-esteem and participate in more NSSI activities than graduates.

Discussion

To determine the connection between academic stress, self-esteem, and non-suicidal self-harm behaviors among students living in hostels, the current study was carried out.

Study hypothesis was tested using inferential statistics and the correlation, t-test, and linear regression analysis. "There would be a significant relationship between Academic Stress, Self-

Esteem, and Non-Suicidal Self-Injury Behaviors among Hostelized Students," was the study's first hypothesis. In the sample of 300 people, academic stress was positively connected with non-suicidal self-injury behaviors ($r=.401$, $p<0.01$) and strongly negatively correlated with self-esteem ($r=-.245$, $p<0.01$). This implies that self-esteem declines and non-suicidal self-harm practices rise response to increased academic stress. The hypothesis that academic stress, self-esteem, and non-suicidal self-harm are significantly correlated is supported by the correlation analysis. Numerous studies conducted in Western nations have discovered a high relationship between academic stress, self-esteem, and suicidal ideation among teenagers. These studies have been conducted in Turkey (Ergene, 2011), the UK (Putwain, 2007), and the USA (Bjorkman, 2007). It may also be easier for those who lack self-esteem to engage in NSSI because of their low self-esteem (Kittila, 2012). The Second Hypothesis for this investigation was "Academic stress would be an important indicator of Self-Esteem and Non-Suicidal Self-Injury Behaviors among Hostelized Students." the model summary shows an R value of -0.245 , indicating a negative association between academic stress and self-esteem. Thus, Lower levels of self-esteem are linked to higher academic stress levels, supporting the hypothesis that academic stress negatively impacts self-esteem. Results shows that academic stress has a moderate positive correlation with NSSI behaviors, as indicated by the R value of 0.401 , which suggests a moderate connection between the two variables.

(Byrne, 1984) concluded that varying degrees of self-esteem specialization must be differentiated from other components that affect self-esteem, especially those related to academics. According to a survey, 62% of student's experience severe stress, 13.5% experience mild stress, and 80.20 percent experience moderate stress. Six percent of the subjects had low self-esteem, while 82.30% had normal self-esteem (Nikitha et al. 2014). The idea that academic stress predicts non-suicidal self-harm behaviors is supported by earlier studies. The results of the study show that a correlation exist between stress and NSSI behavior, with those who participate in NSSI exhibiting lower levels of stress than those who do not (Baetens et al. 2014). According to Swannell et al. (2014), between 15% to 20% of college students experience lifetime NSSI, compared to 3% to 7% who report 12-month NSSI. While some studies suggested that NSSI adolescents perform similarly or even better academically (Baetens et al. 2012; Mars et al. 2014).

Zetterqvist et al. (2013) showed 66% of teenagers with the illness said NSSI produced their academic problems. It is doubtful that academic interference is directly induced by NSSI. Instead, a number of indirect elements could account for college students' academic meddling. NSSI may have a negative effect on academic performance through specific distress-related symptoms, such as insomnia (Chandavarkar et al. 2007; Deroma et al. 2009; Hershner & Chervin, 2014). This is because NSSI can be interpreted as a sign of (internalizing) distress (Baetens et al. 2010; Taliaferro & Muehlenkamp, 2015). Second, persons on the cusp of early adulthood usually relocate away from home, meet new people, and cope with academic demands during the potentially stressful transition from high school to college (Dyson & Renk, 2006). Previous studies have demonstrated that young people who self-harm are more likely to experience stress, which may have a detrimental effect on college students' academic performance (Kiekens et al. 2015).

The study's third Hypothesis was "There would be significant differences in Academic Stress, Self-Esteem, and Non-Suicidal Self-Injury Behaviors between Undergraduate and Graduate Students among Hostelized Students." Results shows a significant difference, with undergraduates reporting significantly lower self-esteem ($M = 21.00$, $SD = 4.95$) than graduates ($M = 22.96$, $SD = 4.61$). In contrast, there is no significant difference in academic stress between the two groups. Furthermore, NSSI behaviors are significantly higher among undergraduates (M

= 16.15, SD = 10.70) compared to graduates (M = 11.60, SD = 9.95), with a t-value of 3.458 and a p-value of 0.001, and the 95% confidence interval ranging from 1.96 to 7.14. These findings suggest that compared to graduates, undergraduates exhibit more NSSI behaviors and have worse self-esteem. These results are supported by earlier research reported that University students, especially undergraduates, report higher levels of stress and are more susceptible to psychological problems including low self-esteem and NSSI behaviors. This shows that academic stress has a substantial impact on mental health. Compared to their graduate counterparts, undergraduate students frequently face greater pressure as a result of entering higher school, which can worsen feelings of inadequacy and result in poorer self-esteem. Graduate students may have better coping strategies and psychological resilience because of their age and past experiences, which can lessen the effects of academic stress, even though they are not immune to it (Kiekens et al. 2019).

Self-esteem differences across the groups may be influenced by these differences in stress levels and coping mechanisms. Additionally, there is ample evidence linking poor self-esteem to NSSI, with studies demonstrating that self-harm is more likely to be used as a maladaptive coping mechanism by people who have low self-esteem. Among students with low self-esteem, the psychological distress brought on by academic pressure can cause or exacerbate these behaviors; this relationship is particularly strong for undergraduates who might not have fully developed adaptive coping mechanisms (Barlow et al. 2018). Therefore, the literature makes it abundantly evident that undergraduate and graduate students have quite different levels of academic stress, low self-esteem, and NSSI behavior, with undergraduates typically reporting higher levels of stress, lower self-esteem, and more frequent NSSI acts.

Conclusion

The study's conclusions show a strong correlation between hostelized students' self-esteem, academic stress, and non-suicidal self-injury behaviors (NSSI). Self-esteem has been found to be adversely affected by academic stress, with higher levels of stress being associated with lower levels of self-esteem. Furthermore, academic stress and NSSI activities were shown to be strongly correlated, suggesting that high levels of stress are a major factor in the escalation of self-harming behaviors. Despite identical levels of academic stress, undergraduates in particular showed considerably lower self-esteem and more NSSI behaviors than graduates. The study also revealed that self-esteem plays a mediating role, whereby academic stress indirectly increases NSSI behaviors by decreasing self-esteem.

Limitations & Recommendations

The study identified numerous limitations, such as the fact that it only includes students who reside in dorms and does not represent other students who commute or live at home. Additionally, the study employs a one-time survey methodology, which makes it challenging to see how self-harming behaviors, academic stress, and self-esteem evolve or influence one another over time. Another drawback of using self-report surveys is that students might not always feel comfortable disclosing private information, such as self-harm, which could result in underreporting.

Future research is advised to include students from various living arrangements, include those who reside at home. A long-term study could also demonstrate how self-esteem and academic stress evolve over time. Incorporating interviews within the study may provide more intimate understandings of the experiences of the students. Lastly, colleges might provide counseling and

support services to assist students develop their sense of self and better handle the demands of their studies.

References

1. Abbas, S., Batool, G. A., & Shahzadi, I. (2024). Body image and mental health problems among university students. *Annals of Human and Social Sciences*, 5(1), 217-229.
2. Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the narcissistic personality inventory really measure? *Assessment*, 18(1), 67-87
3. Alsaker, F. D., & Kroger, J. (2020). Self-concept, self-esteem, and identity. In *Handbook of adolescent development* (pp. 90-117): Psychology Press.
4. Alsulami, S., Al Omar, Z., Binnwejim, M. S., Alhamdan, F., Aldrees, A., Al-Bawardi, A. Alhabeeb, M. (2018). Perception of academic stress among health science preparatory program students in two saudi universities. *Advances in medical education and practice*, 11(14), 159-164.
5. Andover, M. S., Morris, B. W., Wren, A., & Bruzzese, M. E. (2012). The co-occurrence of non-suicidal self-injury and attempted suicide among adolescents: distinguishing risk factors and psychosocial correlates. *Child and adolescent psychiatry and mental health*, 6(2), 1-7
6. Arslan, G., Ayranci, U., Unsal, A., & Arslantas, D. (2009). Prevalence of depression, its correlates among students, and its effect on health-related quality of life in a turkish university. *Upsala journal of medical sciences*, 114(3), 170-177.
7. Baetens, I., Claes, L., Grietens, H., Onghena, P., & Muehlenkamp, J. (2010). *Differences in psychological symptoms and protective factors in Flemish adolescents with and without non-suicidal self-injury*. Paper presented at the International Society for the Study of Self-injury (ISSS).
8. Baetens, I., Claes, L., Grietens, H., Onghena, P., & Muehlenkamp, J. (2012). Differences in psychological symptoms and protective factors in Flemish adolescents with and without non-suicidal self-injury. *Journal of Adolescence*, 52(35), 753-759.
9. Baetens, I., Claes, L., Hasking, P., Smits, D., Grietens, H., Onghena, P., & Martin, G. (2015). The relationship between parental expressed emotions and non-suicidal self-injury: The mediating roles of self-criticism and depression. *Journal of child and family studies*, 24(8), 491-498.
10. Baetens, I., Claes, L., Martin, G., Onghena, P., Grietens, H., Van Leeuwen, K., Griffith, J. W. (2014). Is nonsuicidal self-injury associated with parenting and family factors? *The Journal of Early Adolescence*, 34(3), 387-405.
11. Baetens, I., Greene, D., Van Hove, L., Van Leeuwen, K., Wiersema, J., Desoete, A., & Roelants, M. (2021). Predictors and consequences of non-suicidal self-injury in relation to life, peer, and school factors. *Journal of Adolescence*, 90(13), 100-108.
12. Bahr, T. (2024, December). Integrating Making and Computational Thinking in Early Childhood Education: Preliminary Outcomes from a Teacher Trainer Workshop on Designing an Intervention. In *Proceedings of the 2024 on ACM Virtual Global Computing Education Conference V. 2* (pp. 297-298).
13. Baker, R. W., & Siryk, B. (1989). *Student adaptation to college questionnaire*. Paper presented at the Program of the Seventy-Fourth Annual Meeting.
14. Barlow, D. H., Durand, V. M., & Hofmann, S. G. (2018). Abnormal psychology: An integrative approach: *Cengage learning*, 11(26), 107-120.

15. Bashir, A., Amir, A., & Bajwa, K. M. (2019). An investigation of stressors among university students: A qualitative approach. *UCP Management Review (UCPMR)*, 3(1), 5-24.
16. Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social psychiatry and psychiatric epidemiology*, 43(5), 667-672.
17. Bjorkman, S. M. (2007). Relationships among academic stress, social support, and internalizing and externalizing behavior in adolescence. *Adolescence*, 31(124), 913-925.
18. Byrne, B. M. (1984). The general/academic self-concept nomological network: A review of construct validation research. *Review of educational research*, 54(3), 427-456.
19. Chandavarkar, U., Azzam, A., & Mathews, C. A. (2007). Anxiety symptoms and perceived performance in medical students. *Depression and anxiety*, 24(2), 103-111.
20. Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour research and therapy*, 44(3), 371-394.
21. Cooper, A. M., & Michels, R. (1988). Diagnostic and statistical manual of mental disorders, revised (DSM-III-R). *American journal of Psychiatry*, 145(10), 1300-1301.
22. Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological bulletin*, 130(3), 392-399.
23. Deroma, V. M., Leach, J. B., & Leverett, J. P. (2009). The relationship between depression and college academic performance. *College Student Journal*, 43(2), 325-335.
24. Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of clinical psychology*, 62(10), 1231-1244.
25. Emil, S. (2003). Self-esteem and stressful life events of university students. *Ankara: Middle East Turkey University*, 42(107), 88-97.
26. Ergene, T. (2011). The relationships among test anxiety study habits achievement motivation and academic performance among Turkish secondary school students. *EgitimveBilim*, 36(160), 320-333.
27. Favazza, A. R. (2009). A cultural understanding of nonsuicidal self-injury. *Social Work in Mental Health*, 22(1), 122-148.
28. García-Nieto, R., Carballo, J. J., Díaz de Neira Hernando, M., de León-Martinez, V., & Baca-García, E. (2015). Clinical correlates of non-suicidal self-injury (NSSI) in an outpatient sample of adolescents. *Archives of suicide research*, 19(2), 218-230.
29. Glassman, L. H., Weierich, M. R., Hooley, J. M., Deliberto, T. L., & Nock, M. K. (2007). Child maltreatment, non-suicidal self-injury, and the mediating role of self-criticism. *Behaviour research and therapy*, 45(10), 2483-2490.
30. Hamza, C. A., Stewart, S. L., & Willoughby, T. (2012). Examining the link between nonsuicidal self-injury and suicidal behavior: A review of the literature and an integrated model. *Clinical Psychology Review*, 32(6), 482-495.
31. Hershner, S. D., & Chervin, R. D. (2014). Causes and consequences of sleepiness among college students. *Nature and science of sleep*, 18(6), 73-84.
32. Hops, H., Lewisohn, P. M., & Roberts, R. E. (1990). Psychological correlates of depressive symptomology among high school students. *Journal of Clinical Child Psychology*, 19(3), 211-220.
33. Kadapatti, M. G., & Vijayalaxmi, A. (2012). Stressors of academic stress-a study on pre-university students. *Indian Journal of Scientific Research*, 3(1), 171-175.
34. Kavanagh, M., Brett, C., & Brignell, C. (2023). What is the reported relationship between self-esteem and gaming disorder? A systematic review and meta-analysis. *Computers in Human Behavior*, 145(56), 107-776.

35. Knipe, D., Padmanathan, P., Newton-Howes, G., Chan, L. F., & Kapur, N. (2022). Suicide and self-harm. *The Lancet*, 399(10338), 1903-1916.
36. Khan, M. J., Altaf, S., & Kausar, H. (2013). Effect of perceived academic stress on students' performance. *FWU Journal of Social Sciences*, 7(2), 81-92.
37. Kiekens, G., Bruffaerts, R., Nock, M. K., Van de Ven, M., Witteman, C., Mortier, P., Claes, L. (2015). Non-suicidal self-injury among dutch and belgian adolescents: personality, stress
38. Kittila, A. (2012). Emotion and nonsuicidal self-injury (Doctoral Dissertation, Griffith University). *South East Queensland, Australia*, 55(7), 67-74.
39. Klonsky, E. D., & Muehlenkamp, J. J. (2007). Self-injury: A research review for the practitioner. *Journal of clinical psychology*, 63(11), 1045-1056.
40. ture and function of self-esteem: Sociometer theory. *Advances in experimental social psychology*. 130(3), 435-465.
41. Lee, H.-S., Park, K. J., Kwon, Y., Shon, S.-H., Youngstrom, E. A., & Kim, H.-W. (2021). Clinical characteristics associated with suicidal attempt and non-suicidal self-injury in korean adolescents. *Psychiatry investigation*, 18(6), 561-587.
42. Lee, M., & Larson, R. (2000). The korean 'examination hell': Long hours of studying, distress, and depression. *Journal of youth and adolescence*, 29(2), 249-271.
43. Lin, & Chen, (2009). Academic stress inventory of students at universities and colleges of technology. *World Transactions on Engineering and Technology Education*, 7(2), 157-162.
44. MacDonald, G., & Leary, M. R. (2012). Individual differences in self-esteem. *Handbook of self and identity*, 2 (1), 354-377.
45. Mann, M., Hosman, C. M., Schaalma, H. P., & De Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health education research*, 19(4), 357-372.
46. Mars, B., Heron, J., Crane, C., Hawton, K., Lewis, G., Macleod, J., Gunnell, D. (2014). Clinical and social outcomes of adolescent self harm: population based birth cohort study. *Bmj*, 13(7), 349-362.
47. Mayukh, N., & Manaf, A. M. A. (2022). Relationship between Instagram usage, social comparison, and self-esteem among young adults during the Covid-19 pandemic. *Jurnal Pengajian Media Malaysia*, 24(1), 93-108.
48. Muehlenkamp, J. J., Bagge, C. L., Tull, M. T., & Gratz, K. L. (2013). Body regard as a moderator of the relation between emotion dysregulation and nonsuicidal self-injury. *Suicide and Life-Threatening Behavior*, 43(5), 479-493.
49. Muehlenkamp, J. J., Hilt, L. M., Ehlinger, P. P., & McMillan, T. (2015). Nonsuicidal self-injury in sexual minority college students: A test of theoretical integration. *Child and adolescent psychiatry and mental health*, 9(2), 1-8.
50. Nikitha, S., Jose, T. T., & Valsaraj, B. P. (2014). A correlational study on academic stress and self-esteem among higher secondary students in selected schools of udupi district. *Journal of Health and Allied Sciences NU*, 4(1), 106-108.
51. Nock, M. K. (2010). Self-injury. *Annual review of clinical psychology*, 6(1), 339-363.
52. Nock, M. K., & Favazza, A. R. (2009). Nonsuicidal self-injury: Definition and classification. *Understanding nonsuicidal self-injury: Origins, assessment, and treatment*, 12(5), 9-18.
53. Orth, U., & Robins, R. W. (2014). The development of self-esteem. *Current directions in psychological science*, 23(5), 381-387.
54. Putwain, D. (2007). Researching academic stress and anxiety in students: some methodological considerations. *British educational research journal*, 33(2), 207-219.
55. Resheetha Jeslin, A. (2023). A correlational study to assess the relationship between

- academic stress and level of self-esteem among adolescents in selected settings. *Journal of Pharmaceutical Negative Results*, 14(02), 1979-1987.
56. Ribeiro, Í. J., Pereira, R., Freire, I. V., de Oliveira, B. G., Casotti, C. A., & Boery, E. N. (2018). Stress and quality of life among university students: A systematic literature review. *Health Professions Education*, 4(2), 70-77.
57. Safarzaie, H., Nastiezaie, N., & Jenaabadi, H. (2017). The relationship of academic burnout and academic stress with academic self-efficacy among graduate students. *The New Educational Review*, 49(2), 65-76.
58. Saha, S. N., & Mandal, S. K. D. (2018). Phonetic realization of English lexical stress by native (L1) Bengali speakers compared to native (L1) English speakers. *Computer Speech & Language*, 47(6), 1-15.
59. Schoenleber, M., Berenbaum, H., & Motl, R. (2014). Shame-related functions of and motivations for self-injurious behavior. *Personality Disorders: Theory, Research, and Treatment*, 5(2), 204-230.
60. Stroehmer, R., Edel, M. A., Pott, S., Juckel, G., & Haussleiter, I. S. (2015). Digital comparison of healthy young adults and borderline patients engaged in non-suicidal self-injury. *Annals of general psychiatry*, 14(3), 1-9.
61. Swannell, S. V., Martin, G. E., Page, A., Hasking, P., & St John, N. J. (2014). Prevalence of nonsuicidal self-injury in nonclinical samples: Systematic review, meta-analysis and meta-regression. *Suicide and Life-Threatening Behavior*, 44(3), 273-303.
62. Syed, A., Ali, S. S., & Khan, M. (2018). Frequency of depression, anxiety and stress among the undergraduate physiotherapy students. *Pakistan journal of medical sciences*, 34(2), 468-479.
63. Taliaferro, L. A., & Muehlenkamp, J. J. (2015). Risk factors associated with self-injurious behavior among a national sample of undergraduate college students. *Journal of American College Health*, 63(1), 40-48.
64. Tang, J., Yu, Y., Wu, Y., Du, Y., Ma, Y., Zhu, H., Liu, Z. (2011). Association between non-suicidal self-injuries and suicide attempts in Chinese adolescents and college students: a cross-section study. *PloS one*, 6(4), 17-77.
65. Wagner, J., Lüdtke, O., Jonkmann, K., & Trautwein, U. (2013). Cherish yourself: longitudinal patterns and conditions of self-esteem change in the transition to young adulthood. *Journal of personality and social psychology*, 104(1), 148-152.
66. Whitlock, J., Muehlenkamp, J., Purington, A., Eckenrode, J., Barreira, P., Baral Abrams, G., Chin, C. (2011). Nonsuicidal self-injury in a college population: General trends and sex differences. *Journal of American College Health*, 59(8), 691-698.
67. Ying, J., You, J., & Guo, J. (2020). The protective effects of youth assets on the associations among academic stress, regulatory emotional self-efficacy, and suicidal risk: A moderated mediation model. *Children and Youth Services Review*, 119(8), 105-660.
68. Zetterqvist, M., Lundh, L.-G., Dahlström, Ö., & Svedin, C. G. (2013). Prevalence and function of non-suicidal self-injury (NSSI) in a community sample of adolescents, using suggested DSM-5 criteria for a potential NSSI disorder. *Journal of abnormal child psychology*, 41(5), 759-773.
69. Imran, M., Zaidi, S.S., & Khanzada, R. A., (2023). A Comparative Analysis of South Asian Countries and East Asian Countries on Moral Education. *Spry Journal of Humanities and Social Sciences (SJHSS)*, 1(2), 120-134. <https://doi.org/10.62681/sprypublishers.sjhss/1/2/5>
70. Oad, L., Zaidi, S.S., & Phulpoto, S. A. J., (2023). Helicopter Parenting and its Influence on the Children of Pakistan: Thematic Analysis. *Spry Journal of Humanities and Social Sciences (SJHSS)*, 1(2), 72-87. <https://doi.org/10.62681/sprypublishers.sjhss/1/2/1>
71. Phulpoto, S. A. J., Oad, L., & Imran, M. (2024). Enhancing Teacher Performance in E-

- Learning: Addressing Barriers and Promoting Sustainable Education in Public Universities of Pakistan. *Pakistan Languages and Humanities Review*, 8(1), 418–429. [https://doi.org/10.47205/plhr.2024\(8-1\)38](https://doi.org/10.47205/plhr.2024(8-1)38)
72. Imran, M., & Akhtar, N. (2023). Impact of Ethical Leadership Practices on Teachers' Psychological Safety and Performance: A Case of Primary School Heads in Karachi-Pakistan. *Academy of Education and Social Sciences Review*, 3(2), 172-181. <https://doi.org/10.48112/aessr.v3i2.505>
73. Imran, M., Ahmad, N., Al-Harthy, A. A. Q., & Jat, Z. G. (2023). Early Identification and Intervention: Amplifying the Voice of Slow Learners. *AITU Scientific Research Journal*, Volume. 1, Issue. 4,
74. Rehan, F., Zaidi, S. S., Imran, M., Akhtar, S., Shah, A., & Hameed, S. (2024). Exploring the Efficacy of Music-Based Pedagogies in Developing Communication Skills: Perspectives of Early Childhood Educators. *Al-Qanṭara*, 10(2), 79-98.
75. Ahmad, N., Iqbal, S., Ali, Z., Jabeen, R., & Imran, M., (2024). Bridging the Gap: Secondary School Teachers' Perspectives on Behavioral Barriers to Academic Success. *Al-Qanṭara* 10(2) ,144-162.
76. Mohammad, N., Aslam, M., Anjum, T., Haider, S., Hashim, M., & Imran, M. (2024). Phenomenological Inquiry into Postgraduate Students' Perceptions of Academic Supervision and Feedback Experiences. *Al-Qanṭara*, 10(2), 126-144.
77. Imran, M., Zaidi, S.S., & Rehan, F., (2024). The Impact of Excessive Internet Usage on the Emotional Maturity of Adolescents: A Case Study in Pakistan. *Spry Journal of Humanities and Social Sciences (SJHSS)*, 2(1), 1-20. <https://doi.org/10.62681/sprypublishers.sjhss/2/1/1>
78. Khoso, F., J., Shaikh, N., Dahri, K., H., & Imran, M. (2024). Educational Nurturing in Underdeveloped Contexts Unraveling the Dynamics of Student Teachers' Holistic Development. *Spry Contemporary Educational Practices (SCEP)*, 3(1), 49-67. <https://doi.org/10.62681/sprypublishers.scep/3/1/3>
79. Nawaz, H., Juve, G., Da Silva, R. F., & Deelman, E. (2016, May). Performance analysis of an I/O-intensive workflow executing on google cloud and amazon web services. In *2016 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)* (pp. 535-544). IEEE.
80. Azeema, N., Nawaz, H., Gill, M. A., Khan, M. A., Miraj, J., & Lodhi, K. (2023). Impact of Artificial Intelligence on Financial Markets: Possibilities & Challenges. *Journal of Computing & Biomedical Informatics*, 6(01), 287-299.
81. Nawaz, H., Maqsood, M., Ghafoor, A. H., Ali, S., Maqsood, A., & Maqsood, A. (2024). Huawei Pakistan Providing Cloud Solutions for Banking Industry: A Data Driven Study. *The Asian Bulletin of Big Data Management*, 4(1), 89-107.
82. Nawaz, H., Sethi, M. S., Nazir, S. S., & Jamil, U. (2024). Enhancing national cybersecurity and operational efficiency through legacy IT modernization and cloud migration: A US perspective. *Journal of Computing & Biomedical Informatics*, 7(02).
83. Prakasha, G. S., Lapina, M., Balakrishnan, D., & Sajid, M. (Eds.). (2024). *Digital Technologies in Modeling and Management: Insights in Education and Industry: Insights in Education and Industry*. IGI Global.
84. Ahmad, M., Ali, A., Nawaz, H., Arslan, M., & Kumar, N. (2024). Optimizing Integrated Spatial Data Management Through Fog Computing: A Comprehensive Overview. *Digital Technologies in Modeling and Management: Insights in Education and Industry*, 263-283.
85. ISMAT, S., ULLAH, A., WAQAR, M., QURESHI, M., NAWAZ, H., & LODHI, K. (2023). EFFECTS OF E-BANKING ON CONSUMER SATISFACTION AND ITS POTENTIAL CHALLENGES: A CASE OF PRIVATE BANKS IN PUNJAB. *Bulletin of*

- Business and Economics (BBE)*, 12(2), 381-388.
86. Silva, L. C. S. (Ed.). (2024). *Perspectives on Innovation and Technology Transfer in Managing Public Organizations*. IGI Global.