IOSR Journal of Research & Method in Education (IOSR-JRME)
e-ISSN: 2320–7388, p- ISSN: 2320-737x Volume 13, Issue 1 Ser. I (Jan. – Feb. 2023), 25-33
www.iosrjournals.org

College Undergraduate Students at Najran University: An Assessment of Their Self-Esteem, Academic Stress, and Academic Performance

Mohammed Jamaan Alzahrani[1], Samah Ramadan Elrefaey[2], Fawzyh J. Alkhadidi[3], Sultan A. Almedhesh[1], Alqahtani Abdulwahab[1]

1. *Department of Pediatrics, College of Medicine, Najran University, Najran, 66241, Kingdom of Saudi Arabia*
2. *Assistant Professor of Psychiatric and Mental Health Nursing, Community and Psychiatric and Mental Health Nursing Department, Najran University, Najran, 66241, Kingdom of Saudi Arabia*
3. *Pediatric Pulmonary Consultant, Alhada Armed Forces Hospital, Taif, Kingdom of Saudi Arabia*

***Correspondence to**: Dr. Mohammed JamaanAlzahrani, M.D.*

Abstract
Purpose:*We aimed to assess the relationship between self-esteem and academic stress with academic performance among undergraduate students.*
Methods*This descriptive, cross-sectional, and correlational study was conducted at Najran University between February 2022 and April 2022. We included a convenience sample of 740 undergraduate students who filled out the electronic sheet for two weeks.*
Results:*We observed a significant relationship between self-esteem and participants' age ($p<0.01$), number of credit hours ($p<0.05$), and Grade Point Average (GPA)($p<0.01$). Also, we observed a significant relationship between academic stress and participants' age ($p<0.01$), educational level ($p<0.01$), number of credit hours ($p<0.05$), and GPA ($p<0.01$). There was a highly significant positive correlation between GPA grade andself-esteem ($r= 0.577$, $p<0.01$) and a negativecorrelation with academic stress ($r= -0.489$, $p<0.01$). Also, there is a significant negative correlation between academic stress and self-esteem ($r= -0.38$, $p<0.05$).*
Conclusion:*Programs to boost students' self-esteem should be implemented at educational institutions. Raising one's own self-esteem benefits in many ways, including improving one's academic performance.*
Keywords: *self-esteem; academic stress; academic performance; undergraduate students*

Date of Submission: 22-12-2022 Date of Acceptance: 03-01-2023

I. Introduction

Students in secondary and higher education settings confront a widerange of persistent pressures connected to academic responsibilities. Academic-related stress might diminish academic success, reduce motivation and raise the chance of school dropout. The longer-term repercussions, which include the diminished probability of sustained employment, cost Governments billions of dollars each year(Pascoe, Hetrick and Parker, 2020).

Adolescent and adult self-esteem has been shown to affect both health and social development.Increases in self-esteem have been linked to a variety of advantageous outcomes, including professional and social success, improved comfort and well-being, favorable peer evaluations, scholastic achievement, and resilient coping skills(Trzesniewski, Donnellan and Robins, 2003; Boden, Fergusson and Horwood, 2008). Depression, drug misuse, antisocial behavior, and suicide are all linked to low self-esteem; children with poor self-esteem have been shown in studies to have worse social functioning (Bos *et al.*, 2006; McClure *et al.*, 2010; Choo *et al.*, 2017; Keane and Loades, 2017).

Self-esteem has been shown to affect academic performance, and academic performance may, in turn, affect self-esteem(Bos *et al.*, 2006). High self-esteem has been identified as an essential predictor of individuals' academic performance (Aryana, 2010). Although high self-esteem led to many beneficial outcomes and advantages, it did not always result in good academic achievement (Baumeister *et al.*, 2003). Adolescents with poor academic performance, on the other hand, did not necessarily have low overall self-esteem (Pullmann and Allik, 2008).

Academic stress is internal torture concerning some anticipated frustration associated with academic failure or incognizance of the possibility of a similar failure. Academic stress is one of the prevailing issues faced by scholars currently, and it could also affect other aspects of scholars' lives if kept unbothered.

Numerous factors contribute to the academic stress endured by undergraduate scholars. One of these factors is self-esteem which is considered to influence explaining why scholars suffer academic stress(Sarma and Bordoloi, 2018; Ooi *et al.*, 2020).

Numerous studies have been conducted to probe the relationship between self-esteem and academic achievement internationally. Still,no original study has delved into such an important issue in Saudi Arabia, so the study aims to assess the relationship between self-esteem and academic stress with academic performance among undergraduate students in Najran University.

II. Methods

This descriptive, cross-sectional, and correlational study was conducted at Najran University, which is located on the Eastern outskirts of the city of Najran, Saudi Arabia, between February 2022 and April 2022. Informed consent was obtained from each participant before they began answering any questions, and they were given the option of withdrawing from the study. Official permission was obtained from the nursing college coordinator to collect the data after explaining the aim of the study. All information and data were kept secure and private.

2.1 Sampling

For data collection, we employed a convenience sampling strategy. We included a convenience sample of 740 undergraduate students who filled out the electronic sheet for two weeks.

2.2 Questionnaire development

The researchers developed an Electronic questionnaire after revising the related literature. The final questionnaire included four parts:

2.2.1 First part: Socio-demographic data

It included the participants' socio-demographic characteristics, such as age, sex, residence, marital status, faculty, education level, family income, number of credit hours, current burdens, satisfaction with academic advising, and office hours.

2.2.2 Second Part: Perceptions of Academic Stress (PAS) Scale

An 18-item PAS scale was developed by Bedewy and Gabriel (2015)to assess the perception of college students concerning academic stress and its sources(4). It consists of 18 items (***Appendix S1***). Students were asked to rate their perceptions and experiences about each item in measuring sources of academic stresson a 5-point Likert-type scale (from 1= strongly disagree to 5= strongly agree). Academic stress was considered high with a score of >70%, moderate with a score of 50% to 70%, and low with a score of <50%.

2.2.3 Third Part: Rosenberg Self-Esteem Scale

This scale was developed to assess both positive and negative feelings about the self (5). It consists of 10 items, ***Appendix S2***. All items are answered using a 4-point Likert scale ranging from "strongly agree" to "strongly disagree"; higher scores indicate higher self-esteem. Self-esteem was considered high with a score of >70%, moderatewith a score of 50% to 70%, and low with a score of <50%.

2.2.4 Fourth Part: Grade Point Average (GPA)

Students are given a final grade that may be expressed as a percentage or an alphabetical letter.*An Incomplete Grade*: A temporarily assigned incomplete (IC) grade in the transcript for courses not completed on time by students. *A Continuous Evaluation*: A grade of (IP) is temporarily assigned for every course whose study requires more than one semester to be completed. The semester average is the result of dividing the total points the student acquired by the total number of enrolled units for all courses studied in a semester. The grade is based on a scale of 100. The grades the student acquires in every course are calculated as shown in ***Appendix S3***. Cumulative Grade at Najran University is calculated by dividingthe total points students acquired in all courses they studied since enrollment in the university over the total number of units. The average of all semester totals is added to calculate the cumulative grade for the entirety of the student's academic tenure at the university.

2.3 Questionaires validity and reliability

The questionnaire was given to three nursing specialists who reviewed it for relevance, clarity, comprehensiveness, and application of the questions. According to their assessments, the instrument was valid.Cronbach's Alpha coefficient testing was used to determine reliability.

The Cronbach'salpha values for the PAS Scale and Rosenberg Self-Esteem Scale were 0.871 and 0.850, respectively. The pilot study was carriedout on 75 students (10%) to ascertain the tools' clarity and applicability, and then the necessary changes were undertaken. Those students were included in the study sample if no modification was required.

2.4 Statistical analysis

Data collected from the studied sample was revised, coded, and entered using Personal Computer. Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages for categorical

data,as well asthe mean and standard deviation for continuous data. The Chi-Square statistic was used for testing relationships between categorical variables. Correlation coefficients were used to assess the relationship between variables. The P-value <0.05 indicates significance, while P≥ 0.05 indicates a non-significant difference.

III. Results

III.1 Characteristics of the included population

Seven hundred forty participants were included in this study, with a mean age of 21.57 years (±1.66). Most of the included participants were females (68.9%), lived in urban residences (79.7%), were single (87.9%), and had no health burdens (84.7%). 27.3% and 26.9% of the undergraduate participants were at the second and third levels. Regarding their satisfaction with academic advising, 66.2% were satisfied/somewhat satisfied, while 67.1 were satisfied/somewhat satisfiedwith the office hours. About 42% had a B GPA, and 31.5% had a C, as shown in ***Tables1 and 2***.

Table 1. Personal characteristics among the included participants (n=740)

	N	**%**
Age:		
< 20	134	18.1
20 - <22	436	58.9
22 - 25	170	23
Mean ± SD	21.57±1.66	
Gender:		
Male	230	31.1
Female	510	68.9
Residence:		
Rural	150	20.3
Urban	590	79.7
Marital status:		
Single	651	87.9
Married	89	12.1
Family income:		
Not enough	43	5.8
Enough	498	67.3
Enough and more	199	26.9
Do you have any of these burdens?		
Family burdens	34	4.6
Social burdens	41	5.5
Economic burdens	21	2.8
Health burdens	17	2.2
No burdens	627	84.7

Table 2. Academic characteristics among the included participants (n=740)

	N	%
Faculty:		
Scientific college	170	23
Literary college	200	27
College of Nursing	130	17.6
Medical college	240	32.4
Levels:		
Second	202	27.3
Third	199	26.9
Forth	57	7.7
Fifth	77	10.4
Sixth	80	10.8
Seventh	60	8.1
Eighth	65	8.7
Number of credit hours		
Less than 10	240	32.4
10 to 14	393	53.1
over 14	107	14.5
Are you satisfied with the academic advising?		
Yes	210	28.4

Somewhat	280	37.8
No	250	33.8
Are you Satisfied with the office hours?		
Yes	192	25.9
Somewhat	305	41.2
No	243	32.9
GPA Grade Point Average		
A	98	13.2
B	310	41.9
C	233	31.5
D	67	9.1
F	32	4.3

III.2 Undergraduate students' characteristics and their level of self-esteem and academic stress

According to the level of self-esteem, participants were classified into 3 groups (high, moderate, and low). 48.6%, 27.1%, and 24.3%of the studied students had moderate, low, and high self-esteem, respectively. We observed a significant relationship between self-esteem and participants' age ($p<0.01$), number of credit hours ($p<0.05$), and GPA ($p<0.01$),***Table 3.***

Table 3. Relation between undergraduate students' characteristics and their level of self-esteem (n=740)

	High (N=180)		**Moderate (N=360)**		**Low (N=200)**		**X^2**	**P-value**
	N	%	n	%	n	%		
Age:								
< 20.	90	50	40	11.1	4	2	7.884	<0.01**
20 - <22	50	27.8	240	66.7	146	73		
23 – 25	40	22.2	80	22.2	50	25		
Gender:								
Male	65	36.1	85	23.6	80	40	1.2	>0.05
Female	115	63.9	275	76.4	120	60		
Faculty:								
Scientific college	40	22.2	60	16.7	70	35	1.143	>0.05
Literary college	70	38.9	70	19.4	60	30		
college of nursing	40	22.2	40	11.1	50	25		
Healthy college	30	16.7	190	52.8	20	10		
The number of credit hours:								
less than 10	40	22.2	140	38.9	60	30	3.897	<0.05*
10 to 14	120	66.7	163	45.3	110	55		
Over 14	20	11.1	57	15.8	30	15		
GPA:								
A	87	42.8	9	2.5	2	1	12.887	<0.01**
B	60	33.3	210	58.3	40	20		
C	66	36.7	100	27.8	67	33.5		
D	1	0.5	5	1.4	61	30.5		
F	0	0	2	0.6	30	15		

slight significant <0.05 ** high significant <0.01*

Similarly, based on academic stress, participants were classified into 3 groups (high, moderate, and low). 37.8%, 33.1%, and 29.1% had low, moderate, and high academic stress, respectively. We observed a significant relationship between academic stress and participants' age ($p<0.01$), educational level ($p<0.01$), number of credit hours ($p<0.05$), and GPA ($p<0.01$), ***Table 4***.

Table 4. Relation between undergraduate students' characteristics and their level of academic stress (n=740)

	High (N=215)		**Moderate (N=245)**		**Low (N=280)**		**X^2**	**P-value**
	N	%	n	%	N	%		
Age:								
< 20	100	46.5	30	12.2	4	1.4	9.876	**<0.01****
20 - <22	80	37.2	190	77.6	166	59.3		
23 – 25	35	16.3	25	10.2	110	39.3		
Gender:								
Male	70	32.6	75	30.6	85	30.4	1.044	>0.05
Female	145	67.4	170	69.4	195	69.6		
Faculty:								

Scientific college	50	23.3	55	22.4	65	23.2	2.009	>0.05
Literary college	67	31.2	74	30.2	59	21.1		
college of nursing	45	20.9	35	14.3	50	17.8		
Healthy college	53	24.6	81	33.1	106	37.9		
Levels:								
Second	66	30.7	100	40.8	36	12.9	7.005	**<0.01****
Third	94	43.7	68	27.8	37	13.2		
Forth	5	2.3	12	4.9	40	14.3		
Fifth	20	9.3	20	8.2	37	13.2		
Sixth	15	6.9	20	8.2	45	16.1		
Seventh	10	4.6	15	6.1	35	12.5		
Eighth	5	2.3	10	3.6	50	17.8		
The number of credit hours:								
less than 10	25	11.6	33	13.5	182	65	4.333	**<0.05***
10 to 14	100	46.5	200	81.6	93	33.2		
over 14	90	41.9	12	4.9	5	1.8		
GPA:								
A	2	0.9	5	2.1	91	32.5	9.044	**<0.01****
B	80	37.2	120	48.9	110	39.3		
C	83	38.6	100	40.8	50	17.8		
D	23	10.7	15	6.1	29	10.4		
F	27	12.6	5	2.1	0	0		
slight significant <0.05 ** high significant <0.01*								

III.3 Self-esteem and academic stress with academic performance

As shown in ***Table 5***,there is a highly significant positive correlation between GPA grade andself-esteem (r= 0.577, p<0.01) and a negativecorrelation with academic stress (r= -0.489, p<0.01). Also, there is a significant negative correlation between academic stress and self-esteem (r= -0.38, p<0.05).

Table 5. The relationship between self-esteem and academic stress with academic performance among undergraduate students.

		GPA Grade	**Academic stress**	**Self-esteem**
GPA Grade	r.		-0.489	0.577
	p-value		<0.01**	<0.01**
Academic stress	r.	-0.489		-0.38
	p-value	<0.01**		<0.05*
Self-esteem	r.	0.577	-0.38	
	p-value	<0.01**	<0.05*	
slight significant <0.05 ** high significant <0.01**				

IV. Discussion

The present study revealed that 58.9% of the studied studentswere aged between 20 and less than 22 years old, and 68.9% werefemales.87.9% were single; this is expected as most participants were female undergraduate nursingstudents.Thisfinding was agreed with a study conducted by Ahmat et al. (2018), who showed that most of the studentsagedbetween20andlessthan24yearsold (97%),females (83.3%), and single (98.3%) (Ahmat, Muda and Neoh, 2018).

As the same socio-demographic and academic characteristics line, thepresentstudyrevealedthataboutone-thirdof the students werein medicalcollege. 27.3% and 26.9% were at the second and third levels.Moreover, 79.7% of them lived in urban residences. 67.3% and 26.9% of the participants mentioned having "enough" and "enough and more" family income. More than halfofthemhad10to14credithours.Similarly, Kayani et al. (2018) showed that more than two-thirds of participants lived in urban areas and had enough family income(Kayani *et al.*, 2018).Pacheco-Castilloetal.(2021)showed that 89.9% of students were enrolled in 12 or more credithours;25.6% and 26.8% were at the second and third levels(Pacheco-Castillo *et al.*, 2021).

Most of the colleges of Najran University apply academic advising and office hours in their schedule.66.2% were satisfied/somewhat satisfiedwith academic advising, while 67.1 were satisfied/somewhat

satisfiedwith the office hours.

Office hours and academic advising encourage students tostudy, and maybe most participants at the second and third levels need someacademic advice. 41.9% had a GPA grade of B, and 31.5% had a C. Similarly, in Ahmat et al.study, 48.9%of studentshada GPAgradeof B(Ahmat, Muda and Neoh, 2018).Moreover,astudyby Thomas et al. (2022) showed that 38.6% of participants had aGPA of C(Thomas, Joseph and Paul, 2022).

The present study showed 37.8% of the studied students had low academic stress, about one-third had moderate academic stress, and 29.1% had high academic stress. This may be because most second and third-level students did not take training courses, which caused pressure. This is in line with a study done by Thomas et al. (2022), who showed that 37.3% of the studied students had low academic stress, and about 32.3% had moderate academic stress (Thomas, Joseph and Paul, 2022). In contrast, another study showed moststudentshad highacademicstress (Haider, 2017).

The current study showed that 48.6% of the studied studentshadmoderateself-esteem,27.1%hadlowself-esteem,and24.3%hadhighself-esteem. Thismay be because most students are still in their first years of study, which makes them unable to assessthemselves. Similarly, Nguyenetal.(2019)showed that nearly 20% of the students had low self-esteem (Nguyen *et al.*, 2019). Moreover,Ketata et al. (2021) revealed that 29.5% ofstudents hadlowself-esteem (Ketata *et al.*, 2021). On the contrary, Ahmat et al. (2018) showed that moststudentshadhigh self-esteem (Ahmat, Muda and Neoh, 2018).

The present study revealed a statistically significant relationshipbetweenthe studiedsubjects'levelofacademicstressand participants' age ($p<0.01$), educational level ($p<0.01$), number of credit hours ($p<0.05$), and GPAgrades ($p<0.01$). This is in line with previous studies that showed a statistically significant relationship between the academic stress level of students and GPA grades as well as educationlevel(Haider, 2017; Aihie and Ohanaka, 2019; Pacheco-Castillo *et al.*, 2021). Contrary, Thomas et al. (2022) showed no statistically significant relationship between the academic stress level of students and their GPA grades(Thomas, Joseph and Paul, 2022).

Thecurrentstudyshoweda highly significant positive correlation between GPA grade and self-esteem ($p<0.01$) and a negative correlation with academic stress ($p<0.01$). Also, there is a significant negative correlation between academic stress and self-esteem ($p<0.05$).

Thismaybe because most students showed moderate self-esteem and low academic stress, resulting in good academic performance.Thomas et al. (2022) observed a medium significant positive correlation between academic stress and self-esteem (Thomas, Joseph and Paul, 2022). Also, Pagan(2018)showed a significantpositivecorrelationbetweenacademicstress,self-esteem,andGPAgrade(Pagan, 2018), and Kharsahetal.(2016)revealedthattherewasa significantrelationshipbetween the levels ofself-esteemandacademicperformance (Kharsah, 2016). On the other hand, Keat et al. (2018) showed no significant relationship between GPA grade and academic stress(Keat, Chin and Seong, 2018), andAhmat et al. (2018) showed no significant correlation between self-esteem level and GPA grade (Ahmat, Muda and Neoh, 2018).

Our study showed low academic stress and moderate self-esteem in the studiedstudents. Thisis consistent withthe findings of other studies supported that most of the students had a low level of academic stress(Milton, 2016; Kanade *et al.*, 2021). Moreover, our study showed a B grade point average, with low academic stress and moderate self-esteem among the studied students. Similarly,Keat et al. (2018)observed a good grade point average, low academic stress, and high self-esteem(Keat, Chin and Seong, 2018).Another study showed that students' high self-esteem leads to high grades (Ogot, 2015).Moreover, further studies (Haider, 2017; Pacheco-Castillo *et al.*, 2021) showed that academic stressorsarecorrelatedwith the gradepointaverage.Inaddition,acorrelationbetweenacademic stress and the performance rate was found, especially regarding the difficulty of approvingenrolledcredits.

Moreover, it has been documented thatself-esteem and stress are positively associated with GPA(Kharsah, 2016; Pagan, 2018); the higher performanceself-esteem,thehighertheGPA.At the same time,thedegreeofstresswas related to end-of-semester GPA. GPAs were found to be higher when students have high self-esteem.Bycontrast,Keatetal.(2018) andAhmatetal.(2018) showednosignificantrelationshipbetween academic performance andacademic stress and no significant relationbetweenself-esteemlevel andGPA grade,respectively(Ahmat, Muda and Neoh, 2018; Keat, Chin and Seong, 2018).

In conclusion, by cultivating a conducive environment for learning, students can have higher self-esteem and experience less academic stress. This, in turn, will give them the confidence to accomplish all of their assignments effectively. Programs to boost students' self-esteem should be implemented at educational institutions. Raising one's own self-esteem benefits one in many ways, including improving one's academic performance.

Acknowledgment:
None to declare

Conflict of interest:
None to declare

Funding:
None to declare
Data availability:
Data are available upon reasonable request by contacting the corresponding author.

References

[1]. Pascoe MC, Hetrick SE, Parker AG. The impact of stress on students in secondary school and higher education. Int J Adolesc Youth. 2020;25(1):104-112. doi:10.1080/02673843.2019.1596823
[2]. Trzesniewski KH, Donnellan MB, Robins RW. Stability of Self-Esteem Across the Life Span. J Pers Soc Psychol. 2003;84(1):205-220. doi:10.1037/0022-3514.84.1.205
[3]. Boden JM, Fergusson DM, Horwood LJ. Does adolescent self-esteem predict later life outcomes? A test of the causal role of self-esteem. Dev Psychopathol. 2008;20(1):319-339. doi:10.1017/S0954579408000151
[4]. Choo CC, Harris KM, Chew PKH, Ho RC. What predicts medical lethality of suicide attempts in Asian youths? Asian J Psychiatr. 2017;29:136-141. doi:10.1016/j.ajp.2017.05.008
[5]. McClure AC, Tanski SE, Kingsbury J, Gerrard M, Sargent JD. Characteristics associated with low self-esteem among uS adolescents. AcadPediatr. 2010;10(4):238-244.e2. doi:10.1016/j.acap.2010.03.007
[6]. Bos AER, Muris P, Mulkens S, Schaalma HP. Changing self-esteem in children and adolescents: a roadmap for future interventions. Neth J Psychol. 2006;62(1):26-33. doi:10.1007/bf03061048
[7]. Keane L, Loades M. Review: Low self-esteem and internalizing disorders in young people – a systematic review. Child AdolescMent Health. 2017;22(1):4-15. doi:10.1111/camh.12204
[8]. Aryana M. Relationship between self-esteem and academic achievement amongst pre-university students. J Appl Sci. 2010;10(20):2474-2477. doi:10.3923/jas.2010.2474.2477
[9]. Baumeister RF, Campbell JD, Krueger JI, Vohs KD. Does High Self-Esteem Cause Better Performance, Interpersonal Success, Happiness, or Healthier Lifestyles? Psychol Sci Public Interes. 2003;4(1):1-44. doi:10.1111/1529-1006.01431
[10]. Pullmann H, Allik J. Relations of academic and general self-esteem to school achievement. Pers Individ Dif. 2008;45(6):559-564. doi:10.1016/j.paid.2008.06.017
[11]. Ooi C, Chung Y, Ping DC, Zahari S, Ravindran S, Kannathasan K. The Association Between Self-esteem and Academic Stress Among Undergraduate Medical Students. Int J Biomed Clin Sci. 2020;5(2):64-74. http://www.aiscience.org/journal/ijbcshttp://creativecommons.org/licenses/by/4.0/
[12]. Sarma H, Bordoloi B. A Co Relational Study on Academic Stress and Self-Esteem of students from Higher Secondary Schools of Guwahati city. Indian J PsychiatrNurs. 2018;15(2):4. doi:10.4103/2231-1505.262449
[13]. Ahmat SN, Muda MR, Neoh CF. Self-esteem level and its relationship to academic performance among undergraduate pharmacy students in a Malaysian public university. Indian J Pharm Educ Res. 2018;52(2):197-201. doi:10.5530/ijper.52.2.21
[14]. Kayani S, Kiyani T, Wang J, Sánchez MLZ, Kayani S, Qurban H. Physical activity and academic performance: The mediating effect of self-esteem and depression. Sustain. 2018;10(10). doi:10.3390/su10103633
[15]. Pacheco-Castillo J, Casuso-Holgado MJ, Labajos-Manzanares MT, Moreno-Morales N. Academic Stress among Nursing Students in a Private University at Puerto Rico, and Its Association with Their Academic Performance. Open J Nurs. 2021;11(09):742-756. doi:10.4236/ojn.2021.119063
[16]. Thomas T, Joseph G, Paul S. A Study to Assess the Correlation between Academic Test Anxiety and Self-Esteem among Undergraduate Students. J Heal Allied Sci NU. 2022;12(04):417-422. doi:10.1055/s-0042-1742464
[17]. Haider SI. Effect of Stress on Academic Performance of Undergraduate Medical Students. J Community Med Health Educ. 2017;07(06). doi:10.4172/2161-0711.1000566
[18]. Nguyen DT, Wright EP, Dedding C, Pham TT, Bunders J. Low self-esteem and its association with anxiety, depression, and suicidal ideation in vietnamese secondary school students: A cross-sectional study. Front Psychiatry. 2019;10(SEP):698. doi:10.3389/fpsyt.2019.00698
[19]. Ketata N, Ben Ayed H, Baklouti M, et al. Self-esteem and university students: Findings from a multi-center study. Eur J Public Health. 2021;31(Supplement_3). doi:10.1093/eurpub/ckab165.593
[20]. Aihie ON, Ohanaka BI. Perceived Academic Stress among Undergraduate Students in a Nigerian University. J Educ Soc Res. 2019;9(2):56-66. doi:10.2478/jesr-2019-0013
[21]. Pagan AJ. The Influence of Self-Esteem and Stress on Academic Performance in College Students. eCommons. 2018;180:1-14. https://ecommons.udayton.edu/uhp_theses://ecommons.udayton.edu/uhp_theses/180
[22]. Kharsah WS. The Correlation between Levels of Self-Esteem, University Commitment and Academic Performance among Undergraduate Students. Natl Conf Postgrad Res. Published online 2016:201.
[23]. Keat KLW, Chin WS, Seong LC. Undergraduates' Academic Performance, Self-Esteem and Perceived Social Support as Determinants of Perceived Stress. Int J Hum Resour Stud. 2018;8(4):95. doi:10.5296/ijhrs.v8i4.13668
[24]. Kanade AB, Sarwan S, Said P, Kadam S, Dhakne G, Gore P. A Study to Assess the Academic Stress and Coping Strategies used among the undergraduate nursing students from selected colleges of Pune City. Asian J Nurs Educ Res. 2021;11(2):183-188. doi:10.5958/2349-2996.2021.00045.8
[25]. Milton C. A Study to Assess English Language Related Academic Stress among Students Who Have Moved To English Medium from Vernacular Medium. Lang India. 2016;16(5):8-17. www.languageinindia.com
[26]. Ogot AW. Relationship Between Self Esteem and Academic Performance of Students in Selected High Schools in Njoro District, Nakuru County, Kenya. Int J Sci Res. 2015;6(3):2319-7064. doi:10.21275/ART20171752

Appendix 1. The final version of the Perceptions of Academic Stress (PAS) scale[1]

Please rate your perception about the following statements in contributing to academic stresses
1= Strongly disagree to 5= Strongly agree

- Am confident that I will be a successful student
- Am confident that I will be a successful in my future career
- I can make academic decisions easily

- The time allocated to classes and academic work is enough
- I have enough time to relax after work

Please rate your perception about the following statements contributing to Academic Stresses
1= Strongly agree to 5= Strongly disagree

- My teachers are critical of my academic performance
- I fear failing courses this year
- I think that my worry about examinations is weakness of character
- Teachers have unrealistic expectations of me
- The size of the curriculum (workload) is excessive
- I believe that the amount of work assignment is too much
- Am unable to catch up if getting behind the work
- The unrealistic expectations of my parents stresses me out
- Competition with my peers for grades is quite intense
- The examination questions are usually difficult
- Examination time is short to complete the answers
- Examination times are very stressful to me out
- Even if I pass my exams, am worried about getting a job

Reference

1. Bedewy D, Gabriel A. Examining perceptions of academic stress and its sources among university students: The Perception of Academic Stress Scale. Heal Psychol Open 2015;2(2):205510291559671.

Appendix 2. Rosenberg Self-Esteem Scale (Jordan, 2018; Rosenberg, 2015)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you **strongly agree**, tick in that column. If you **agree** with the statement, tick in the agree column. If you **disagree**, tick disagree. If you **strongly disagree**, tick strongly disagree.

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

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self-esteem.

Reference:

[1]. Jordan, C.H., 2018. Rosenberg Self-esteem Scale, in: Encyclopedia of Personality and Individual Differences. https://doi.org/10.1007/978-3-319-28099-8_1155-1
[2]. Rosenberg, M., 2015. Society and the adolescent self-image, Society and the Adolescent Self-Image. https://doi.org/10.2307/2575639

Appendix S3. Grade Point Average (GPA)

Percentage	Evaluation	Letter	Grade Point Average out of 5
95 - 100	Excellent Plus	A+	5
90 to less than 95	Excellent	A	4.75
85 to less than 90	Very Good Plus	B+	4.5
80 to less than 85	Very Good	B	4
75 to less than 80	Good Plus	C+	3.5
70 to less than 75	Good	C	3
65 to less than 70	Pass Plus	D+	2.5
60 to less than 65	Pass	D	2
Less than 60	Fail	F	1

Mohammed Jamaan Alzahrani, et. al. "College Undergraduate Students at Najran University: An Assessment of Their Self-Esteem, Academic Stress, and Academic Performance." *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 13(01), (2023): pp. 25-33.