

Common Health Related Factors affecting Academic Achievement among Minia University Students

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Abstract

Background: Health is the society's most essential values, and it has been prioritized as one of the sustainable development goals. As a result, health should be protected and improved to the possible greatest extent. Students' academic achievement refers to increasing the students existing state of knowledge and skills, as shown in grade point average, as well as developing personalities and academic advancement from lower to higher levels. **Aim of the Study:** The current study aimed to assess the common health related factors affecting academic achievement among Minia university students. **Design:** A descriptive research design was utilized to fulfill the aim of the study. **Settings:** The study was conducted in Faculty of Nursing, Pharmacy, Education (inside the university campus) and Faculty of Arts (outside the university campus) at Minia University, Egypt. **Sample:** A stratified random sample of 421 students was committed to the study. **Data collection Tools:** five interviewing tools were used as follows: **I;** A structured interviewing questionnaire (socio demographic criteria), **II;** common Health related factors questionnaire. **III;** Grade point average questionnaire. **IV;** study pattern assessment questionnaire. **V;** student related factors questionnaire. **Results:** - The current study revealed that the most common health problems were, 40% of the participant students have anemia, 44.8% have depression 40,9% never done exercise as reported by the participant students, 58.6%, of participant students agreed that lifestyle have effect on academic achievement. **Conclusion:** A significant positive correlation between student factor and academic achievement was found, A significant positive correlation between family environmental factor and academic achievement. **Recommendations:** - Regularly check students who have chronic diseases. Design and implement educative programs about health risks and the preventive methods.

Keywords: Academic achievement, health related factors

Introduction

The university study phase is regarded as exposing students to health-related problems. The students must deal with leaving home, more independence, changes in peer groups, new social circumstances, academic responsibilities, and increased availability to alcohol or drugs. Students are also exposed to smoking since the environment has a negative impact on the physical and mental health (Fashafshah et al., 2021).

Students' academic achievement refers to increasing the students existing state of knowledge and skills, as shown in their GPA (Grade Point Average), as well as developing the personality and academic advancement from lower to higher levels of study. So, achievement is measured using exam, test, and GPA scores. Academic achievement is seen as the highest goal desired by students, instructors, and other education leaders, as evidenced by high levels of success and achievement in academic courses. (Ramli et al., 2021)

To understand the relationship between health and academic achievement, it is worthwhile to understand the concept of health. World Health Organization proposes three dimensions of health, which are mental, physical and social health (see Figure 1). This view of health has been adopted by many professional organizations (Matingwina., 2018).

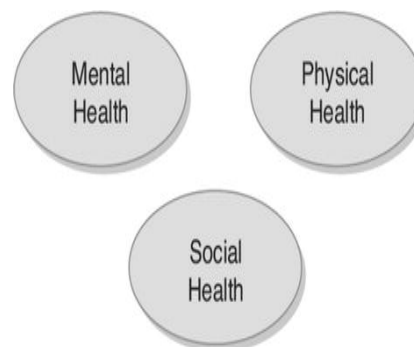


Figure 1. Dimensions of health Adopted from Matingwina (2018). Health, Academic Achievement and School-Based Interventions. London: Intech Open: Health and Academic Achievement, 143.

Healthy lifestyle behaviors are a series of individual decisions in one's life status that influence one's health. Culture, religion, socioeconomic status, beliefs, and the individual's perceptions all have an impact on one's lifestyle. Although these behaviors are created in childhood, and experienced during the academic years (Heidari et al., 2017). Universities are responsible for fostering a supportive environment for health promotion and assisting students with health management. (Bakouei et al., 2019)

Mental health is considered as a vital part of well-being, whereas poor mental health is associated with decreased productivity, a lesser quality of life, and disability. Psychological distress, in the form of depression and anxiety, is associated with serious health conditions. Mental health of the students is considered a global public health issue due to the high prevalence of mental health problems. Students may

be faced with potential stressors such as financial hardship, academic overload, competition against peers, continual pressure to succeed, and worries about the future. These stressors can have major effects on the student academic achievement, ability to progress and decision to stay at the university (Dalky & Gharabeh., 2019)

The community health nurse can increase academic achievement of the students through performing nursing interventions concerning physical, psychosocial, health behaviors, and the environmental domain .Focusing on improving student's quality of life, helping the students acquire life skills, and developing positive health behaviors.so, nurses who take part in every level of health services can play an important and successful role in the assessment and management of health risks of students and in having students adopt healthy life behaviors. Consequently, many nursing practices have a positive impact on attendance rates and overall education. (Spurr & Redl., 2021).

Participation in physical and health education may help at-risk students and other students who have academic difficulties (Clare & Rogo., 2023). Nurses deliver care in a manner that promotes and preserves student autonomy, dignity, and rights, delivering care in an inclusive, collaborative manner to embrace diversity in the university society. Community health nurses promote equitable treatment of all students, regardless of health, race, gender, socio-economic status, culture, age, sexual orientation, The CHN supports and promote each student's unique abilities to achieve the highest quality of life (Savage. 2017)

Significance of the Study

The study of academic achievement of students is helpful for the students as well as the policymakers of colleges. The quality of education can be improved by taking effective measures and necessary action about the factors which are more responsible for the academic achievement of the students (Arora. 2017)

There was a negative significant relationship between depression and academic achievement. Academic performance was affected by anxiety and depression. It may also lower motivation, impair concentration, and cause academic failure (Khesht et al., 2019).

Lifestyle-related diseases are increasing worldwide representing 63% of all deaths globally (Baral& Tamrakar., 2020). There is a strong association between students' academic achievement and student health status, according to research studies. Health issues such as vision and oral health, asthma, teen pregnancy problems, malnutrition, obesity, chronic stress, and inattention and hyperactivity disorders have been linked to academic achievement, Aggression and violence, hazardous sexual conduct, bad diet, physical inactivity, and substance use are all connected with low student achievement (Matingwina.,2018)

Aim of the Study

The aim of the current study was to, assess the common health related factors affecting academic achievement among Minia university students.

Research questions: -

1. What are the common healths related factors affecting educational achievement?
2. What is the relation between the health-related factors and educational achievement?

Methodology

A descriptive research design was utilized to fulfill the aim of the present study.

Settings: -

The present study was conducted in four Faculties at Minia University that serve 20 Faculties in addition to Technical Institute of Nursing, using stratified random sample technique the selected faculties were Faculty of Nursing (inside the university campus), Faculty of Pharmacy (inside the university campus), Faculty of Education (inside the university campus) and Faculty of Arts (outside the university campus).

Sample

Stratified random sample of 421 students were selected. Multi stage technique was used as following: - The researcher selected faculties by making 2 lists; first strata are for medical sectors faculties which include, faculty of Nursing, Pharmacy, Medicine, Dentistry, Veterinary medicine, and the technical institute of nursing. The second strata are for non -medical sector which included Faculty of Education, Arts, Tourism and Hotels, Agriculture, Science, Fine Arts, Physical Education, Dar Al Uloom, Law, Al-sun, Computing and Information, Engineering, Specific education, and faculty of education for early child hood (first stage). Using stratified random sample technique, the researcher randomly selected Pharmacy and Nursing faculties to represent medical sector, and by using the same method, the researcher randomly selected Education and Arts faculties to represent non-medical sector (second stage).

Sample size

Sample size was calculated by using Epi info software program version 22 including the following parameters: - students number equal of 4343 of all selected faculties, and expected frequency 55%, acceptable margin of errors equal 5%, confidence level equal 97%, design effect equal 1, so sample size equal 421.Using proportional allocation method to estimate sample size of each faculty as following: -

$$\begin{aligned} \text{Faculty of Nursing} \quad n1 &= \frac{362}{4343 \times 421} = 35 \\ \text{Faculty of Pharmacy} \quad n2 &= \frac{290}{4343 \times 421} = 29 \\ \text{faculty of Education} \quad n3 &= \frac{1341}{4343 \times 421} = 130 \\ \text{faculty of Arts} \quad n4 &= \frac{2350}{4343 \times 421} = 227 \end{aligned}$$

N mean= total students' numbers

N1 mean= faculty sample size

n mean= sample size.

Inclusion criteria:

- Students at fourth academic year.
- Academic achievement at the end of the first and second semester (grade point average).

Tool of data collection: - five interviewing questionnaires as the following: -

I An interviewing questionnaire of sociodemographic criteria: - it was used to assess socio demographic characteristic of the participant students, it was consisted of 5 items including age of students, gender, residence, marital status, family income.

II Common Health related factors questionnaire it was developed by the researcher based on the current related literatures adopted from (Us department of health and huscience2014, Rockville (2013), (Alaraj,2018) (Alos,2015). It was consisted of four domains in the form of yes, no questions.

A-physical domain it was consisted of 8 sub domains as following: -

- **1-Respiratoy problems**, it was consisted of 6 items such as, asthma , bronchitis, and sleep apnea.
- **2-Gastrointestinal tract problems**, it was consisted of 7 items such as, gastritis, peptic ulcer, and hemorrhoids.
- **3- Neurological problems**, it was consisted of 5 items such as Migraine Headache, seizure, and Multiple Sclerosis .
- **4- Blood & Circulatory problems**, it was consisted of 4 items such as, anemia, lymphoma
- **5- Endocrinal problems**, it was consisted of 5 items such as, diabetes mellitus, hyperthyroidism ,and hypothyroidism.
- **6- Musculoskeletal problems**, it was consisted of 6 items such as, gout, osteoarthritis, and scleroderma.
- **7- Eye/Ear/Nose/Throat problems**, it was consisted of 5 items such as, cataracts, sinusitis and otitis media.
- **8-Skin, Nails & Hair problems**, it was consisted of 4 items, such as, Alopecia, acne, and burns.

B-psychological problems assessment domain it was adapted from (Harrer, M.,2019) it was consisted of 7 items, such as anxiety, bulimia nervosa and depression.

C Life style pattern assessment domains it was used to assess healthy and unhealthy life style it was consisted of 3 parts as following: -

1. **General life style assessment**, it was adapted from (Sok. 2020) it included varied responses according to the direction and meaning of each question (number of times, number of days, and number of hours). It was consisted of 2items including, how many times did you eat fast food or snacks every week? how many of days/week? And if the participant students engage in moderate to strenuous exercise (like walk).
2. **Effects of life style habits on students' academic achievement**, it was adopted from (Alaraj & Banoqitah., 2018). It was used 5 Likert scale responses, the answers ranged from strongly disagree, disagree, neutral, agree, strongly agree, was 5,4,3,2,1, it was consisted of 10 items such as lake of sleep, poor diet, and postponing assignments and studying till the last minute.
3. **Unhealthy life style habits assessment questionnaire** it was consisted of the following two sub domains:
 - **Smoking habits** it was adapted from (World Health Organization & the Centres for Disease Control and Prevention 2011) it was consisted of 5 items such as previous trials of cigarette smoking, even one or two puffs? When did you start smoking? and type of smoking. The responses were set according to direction and meaning of each question such as yes or no, mcq.

- **Technology misuse habit**, it was adapted from (Peter. 2015) it consisted of 5 Items such as, having a social media group for some of courses. Unlimited access to Facebook through phone has affecting on academic achievement negatively, and social media is encouraged by professors as part of class assignments. Responses were set according to direction and meaning of each question such as yes or no, and mcq.

D- Family and environmental related factors affecting student achievement domains (Mushtaq, 2019) Using **5 Likert scale** response (never, rarely, sometimes, often, always) it was consisted of 6 items such as if the students motivated by parents to improve their studies? if the student easily distract by friends? and if the family experience financial problem.

Scoring system for the common health related factors questionnaire

Physical and psychological domain consisted of 49 questions, and each item was taken one score (1) for yes, and zero score (0) for no response.). For the Effects of life style habits, the questionnaire included (10) questions. Scoring was calculated by summation of related questions and calculating mean and SD, calculating the class interval by dividing the range of each score by 3, classification in to poor, fair and good according to the calculated class interval, the scores ranged from (5) to (44). The students consider have poor score (5-18,) fair (19-32), and good (33-44). Unhealthy habits assessment the questionnaire consisted of 10 questions with scores poor, fair, and good. >4 consider poor, >9 consider fair, and good if<14 score. Family environmental factors scoring ranges (5-44), poor score (5-20) consider. fair 19-3233-44) consider good score.

Reliability of the common health related factors questionnaire

The reliability testing about physical and psychological questionnaire was 0.79. The reliability testing about life style pattern assessment questionnaire was 0.78. The reliability testing about - family environmental related factors was 0.79. Indicating good reliability

IIIgrade point average assessment questionnaire it was developed by the researcher after extensive revision of review, it was adapted from (Alos,2015). s, it was consisted of questions about students' grade at first and second semester.

Scoring system

Grade point average scale consisted of 5 grades, failed>60% pass 60 to 65%, good 65 to75%, very good 75to 85% and excellent ≥85%

Reliability The reliability testing about grade point average assessment - was 0.80, indicating good reliability.

IV-students related factors questionnaire, it was obtained from (Mushtaq, 2019) using **5 Likert scale** response (never, rarely, sometimes, often, always) it was consisted of 4 items such as, paying attention to instructor, if student fix his /her task on a regular basis? And felt sleepy in class.

Scoring system students related factors domains, using 5 Likert scale response (never, rarely, sometimes, often, was always A Likert scale used in a scoring system to evaluate the answers of the questionnaire. Students related factors scored from (3 to 20), 3-8 poor, 9-14 consider fair and consider good if scored (15-20).

Reliability The reliability testing about students related factors questionnaire was 0,81.

V: studding pattern assessment questionnaire it was adapted from (Alos, 2015). It was consisted of 7 items using Likert scale with responses (never, rarely, sometimes, often, always) such as, time of study, feeling of study, feeling regarding studding and health problems.

Scoring system

Study pattern questionnaire contains questions based on 5-point Likert scale where 5 means always, 4 means often, 3 means sometimes, 2 means rarely and 1 means never. Study pattern score ranged 6-26). poor score if 6-12, fair score 9-14 and considered good if score 20-26.

Reliability

The reliability testing about studding pattern scale was 0.79, indicating good reliability.

Validity:

The content validity of the tools were submitting to a panel of 5 Community Health Nursing. Modifications of the tools were done according to the panel judgment on clarity of the sentences, appropriateness of contents, sequence of items

Data collection procedure

Methods:

1-Implementation strategy:

A- Preparation for the study:

After reviewing of past and current local and international related literature the researcher started the field work.

B-Pilot study:

A pilot study was conducted before starting the actual data collection process to ascertain the clarity, applicability, relevance of the questions and comprehensiveness of the questionnaire. It was also done to estimate the time needed to complete the questionnaire. The pilot study was conducted on (10%) 42 student and then they were excluded from the total sample. Based on the results of the pilot study, the necessary corrections and modifications were carried out. It also revealed that the questionnaire took 10 to 20 minutes to be filled out, and had no replication questions.

C-Data collection procedure:

- The researcher prepared the tool of the study; The researcher was conducting a meeting to introduce herself and explained the aim and the nature of the study and how to fulfil it by the participant students.
- The researcher presented an overview and clarification of the tool question after getting the students consent to participate in the current study.
- Data was collected at the beginning of first term till the time of exam in the time of final duty, two day per week, 1 day for faculty of Education and faculty of Arts, and 1 day for faculty of Nursing, and faculty of Pharmacy, at official faculties time.
- For the questionnaire to be completed, the researcher stayed with the students until the questionnaires were finished, in order to maintain the objectivity of the responses and to ensure that all questions were answered. data collection started from early September 2019 until June 2020. The faculties administration approval was obtained to take a copy of the results of the participating students after officially announcing it for scientific research.

Administrative design (Human rights protection):

1-Administrative approval: -

Before starting the actual data collection, four formal letters were issued from the Faculty of Nursing. An official approval was obtained from the dean of the faculty of Nursing at Minia University and permission was requested from each dean of the selected faculties to carry out the study. Meeting with student's affairs employees was performed to explain the objective and aims of the study to gain their cooperation and allow the meeting with each participant students.

•Ethical considerations: -

The verbal agreement for participation of the subjects was taken after the aims of the study were explained, Anonymity and Confidentiality applied as the following: a reference number on the sheet was used to allow the researcher to track the study documentation during data analysis, and students had the right to agree or refuse to participate in the study without any rationale and at any time.

2-Data management and statistical analysis:

The data coded, entry and analysis were done using SPSS statistical software package version 13. Data were presented using descriptive statistics in the form of frequencies and percentages. For qualitative data, comparison between two or more than two groups Chi-square test (X²) was used. To predict the presence or absence of an outcome based on a set of predictor variables, logistic regression was done. Logistic regression coefficients (B) are used to estimate Odds ratios (EXP (B)) for each of the independent variables. Significance was adopted at p-value < 0.05 for interpretation of results of tests of significance

Results

Table (1) Distribution of the Sociodemographic characteristics among participant students at selected faculties 2021 (N=421)

	Variable	Education 132(100%)		Arts 225(100%)		Pharmacy 29(100%)		Nursing 35(100%)		χ ²	P-Value
		No	(%)	No	(%)	No	(%)	No	(%)		
Gender	Males	63	47.7%	92	40.9%	13	44.8%	19	54.3%	3.1	0.38
	Females	69	52.3%	133	59.1%	16	55.2%	16	45.7%		
Residence	Urban	70	53%	104	46.2%	21	72.4%	16	45.7%	7.85	0.04*
	Rural	62	47%	121	53.8%	8	27.6%	19	54.3%		
Income	Sufficient	71	53.79%	127	56.4%	25	86.2%	18	51.4%	15.54	0.02*
	Insufficient	61	46.21%	98	43.6%	4	13.8%	17	48.6%		
Marital status	Single	128	96.97%	208	92.4%	28	96.6%	31	88.6%	7.16	0.31
	Married	4	3.03%	17	7.6%	1	3.4%	4	11.4%		
Age	Means±SD	22.38±0.61		22.5±0.66		22.9±1.45		22.43±0.61		F=4.16	0.06

Table 1 shows that there is no significant difference regarding gender and marital status between selected faculties. About 86% of students in pharmacy have sufficient income vs. 53.79 %, 56.4%, and 51.4% in faculties of education, arts and nursing respectively, the difference is statistically significant. Regarding residence more than half of students in faculty of arts and nursing are of rural residence while most of those in faculty of education and pharmacy are of urban origin P=0.04. There is no statistically significant difference regarding age between different faculties

Table (2) Distribution of Gastro Intestinal Tracts problems among participant students at selected faculties 2021(N=421)

	Variable	Education 132(100%)		Arts 225(100%)		Pharmacy 29(100%)		Nursing 35(100%)		χ ²	P-Value
		No	(%)	No	(%)	No	(%)	No	(%)		
Gastritis	Yes	27	20.5	44	19.6	3	10.3	6	17.1	1.72	0.63
	No	105	79.5	181	80.4	26	89.7	29	82.9		
Chron's disease	Yes	1	0.8	4	1.8	0	0	0	0	1.65	0.65
	No	131	99.2	221	98.2	29	100	35	100		
Peptic ulcer	Yes	12	9.1	19	8.4	1	3.4	1	2.9	2.38	0.50
	No	120	90.9	206	91.6	28	96.6	34	97.1		
Hemorrhoids	Yes	8	6.1	11	4.9	2	6.9	0	0	2.39	0.50
	No	124	93.9	214	95.1	27	93.1	35	100		
Pancreatitis	Yes	0	0	2	0.9	0	0	1	2.9	3.53	0.32
	No	132	100	223	99.1	29	100	34	97.1		
Gall bladder disease	Yes	0	0	0	0	0	0	1	2.9	11.06	0.01*
	No	132	100	225	100	29	100	34	97.1		
Ulcerative colitis	Yes	4	3	11	4.9	0	0	0	0	3.63	0.31
	No	128	97	214	95.1%	29	100	35	100		

Table 2 shows that 20.5% of the students of education faculty have gastritis, 9.1% of them have peptic ulcer and 6.1% of the students have hemorrhoids. Regarding faculty of arts 19.6%, 8.4% and 4.9% of the students have gastritis, peptic ulcer, ulcerative colitis and hemorrhoids respectively. Among students of pharmacy faculty 10.3% have gastritis, and 6.9% of them have hemorrhoids. Regarding faculty of nursing 17.1% have gastritis, 2.9% have peptic ulcer, pancreatitis, and gall bladder disease. Only one student in faculty of nursing had gall bladder disease

Table (3) Distribution of blood and circulation problems among participant students at selected faculties 2021(N=421)

	Variable	Education 132(100%)		Arts 225(100%)		Pharmacy 29(100%)		Nursing 35(100%)		χ ²	P-Value
		No	(%)	No	(%)	No	(%)	No	(%)		
Anemia	Yes	44	33.3	61	27.1	8	27.6	14	40	3.32	0.34
	No	88	66.7	164	72.9	21	72.4	21	60		
Hemophilia	Yes	2	1.5	0	0	1	3.4	0	0	6.14	0.11
	No	130	98.5	225	100	28	96.6	35	100		
Leukemia	Yes	0	0	0	0	0	0	0	0	-	-
	No	132	100	225	100	29	100	35	100		
Lymphoma	Yes	0	0	0	0	0	0	0	0	-	-
	No	132	100	225	100	29	100	35	100		

Table 3: - show that blood and circulation problems are 33.3%, 27.1 %,27.6 % and 40 % of faculties of education, arts, pharmacy and nursing faculties respectively are anemic. No one student of the mentioned faculties report Leukemia and Lymphoma

Table (4) Distribution of Psychological problems among students in selected faculties 2021(N=421)

	Variable	Education 132 (100%)		Arts 225 (100%)		Pharmacy 29(100%)		Nursing 35(100%)		χ ²	P-Value
		N	%	N	%	N	%	N	%		
Anxiety	Yes	58	43.9	66	29.3	14	48.3	10	28.6	10.67	0.01*
	No	74	56.1	159	70.7	15	51.7	25	71.4		
Bulimia Nervosa	Yes	3	2.3	11	4.9	0	0	1	2.9	2.91	0.41
	No	129	97.7	214	95.1	29	100	34	97.1		
Depression	Yes	55	41.7	50	22.2	13	44.8	7	20	19.84	0.001*
	No	77	58.3	175	77.8	16	55.2	28	80		
Post-traumatic stress	Yes	34	25.8	29	12.9	0	0	5	14.3	16.44	0.001*
	No	98	74.2	196	87.1	29	100	30	85.7		
Stress	Yes	50	37.9	51	22.7	16	55.2	16	45.7	21.40	0.001*
	No	82	62.1	174	77.3	13	44.8	19	54.3		

	Variable	Education 132 (100%)		Arts 225 (100%)		Pharmacy 29(100%)		Nursing 35(100%)		χ ²	P-Value
		N	%	N	%	N	%	N	%		
Alcoholism	Yes	4	3	1	0.4	0	0	0	0	5.65	0.13
	No	128	97	224	99.6	29	100	35	100		
Anorexia Nervosa	Yes	12	9.1	30	13.3	1	3.4	1	2.9	5.93	0.12
	No	120	90.9	195	86.7	28	96.6	34	97.1		

Table 4: - shows psychological problems as reported by them. Anxiety, depression Post traumatic stress and Stress are the major reported problems. Regarding anxiety, it is reported among 43.9%, 29.3%, 48.3%, and 28.6% of students in faculties of education, arts, pharmacy and nursing respectively. 41.7%, 22.2%, 44.8% and 20% in same faculties report have depression. Stress is reported among 37.9%, 22.7%, 55.2%, 54.3% of the four selected faculties respectively. There is statistically significant difference regarding anxiety, depression, stress and posttraumatic stress disorder.

On the other hand, alcoholism, anorexia nervosa and bulimia nervosa are the least reported ones. there is no statistically significant difference

Table (5) awareness about factors that affect academic achievement 2021(n = 421)

Faculty	N	Mean	±Std. Deviation	Significance
Education	132	29.9621	5.74311	P=0.001* F=6.33
Arts	225	28.5022	5.32021	
Pharmacy	29	30.9310	5.95178	
Nursing	35	26.0571	6.01441	

One-way ANOVA test was used to compare means

Table (5) shows that awareness score about factors affecting academic achievement is (29.96 ±5.74) in education faculty, (28.50±5.32) in faculty of arts, (30.93±5.95) in faculty of pharmacy, and (26.06±6.01) in faculty of nursing. Difference is statistically significant (P=0001)

Table (6) Eating and exercise habits among students in selected faculties 2021(N=421)

		Faculties				χ ²	P-value
		education	Arts	Pharmacy	Nursing		
Times of eating fast food	never eat fast food	6	48	1	10	37.66	0.001*
		4.5%	21.3%	3.4%	28.6%		
	2to3time	60	83	21	16		
		45.5%	36.9%	72.4%	45.7%		
	3to5time	36	58	3	5		
27.3%		25.8%	10.3%	14.3%			
5ormore	30	36	4	4			
	22.7%	16.0%	13.8%	11.4%			
days engaged in moderate to strenuous exercise	never done exercise	18	92	7	6	83.62	0.001*
		13.6%	40.9%	24.1%	17.1%		
	1to2days	45	72	8	21		
		34.1%	32.0%	27.6%	60.0%		
	3to4days	40	36	5	2		
		30.3%	16.0%	17.2%	5.7%		
	4to5days	16	13	2	2		
		12.1%	5.8%	6.9%	5.7%		
	5to6days	7	5	7	0		
5.3%		2.2%	24.1%	0.0%			
7days	6	7	0	4			
	4.5%	3.1%	0.0%	11.4%			
Total		132	225	29	35	421	
		100.0%	100.0%	100.0%	100.0%		

Table 6 illustrates Eating and exercise habits ,45.5 %,36.9 %,72.4 % and 45.7% of the participant students eat fast food 2:3 times per day, among faculties of education, art, pharmacy and nursing respectively. Also,13.6%, 40.9%, 24.1% and 17.1% of students in above mentioned faculties have never done exercise. There is statistically significant difference (P=0.00)

Table (7) distribution of students using social media in selected faculties 2021(n=421)

		Education		Arts		Pharmacy		Nursing		Total		χ ²	P-VALUE
		NO	%	NO	%	NO	%	NO	%	NO	%		
Use social media for making new friends and socializing more than academic	No	27	20.5	52	23.1	13	44.8	11	31.4	103	24.5	9.64	0.14
	Yes	105	79.5	173	76.9	16	55.2	24	68.6	318	75.5		
We have asocial media group for some of my courses	No	37	28.0	43	19.1	6	20.7	7	20.0	93	22.1	5.69	0.46
	Yes	95	72.0	182	80.9	23	79.3	28	80.0	328	77.9		
Social media is encouraged by professors as a part of class assignments	No	31	23.5	57	25.3	5	17.2	16	45.7	109	25.9	17.99	0.12
	Yes	101	76.5	168	74.7	24	82.8	19	54.3	312	74.1		
My unlimited access to Facebook through my	No	46	34.8	62	27.6	7	24.1	15	42.9	130	30.9	5.11	0.16
	Yes	86	65.2	163	72.4	22	75.9	20	57.1	291	69.1		

phone has affected my academic achievement negatively.	Education		Arts		Pharmacy		Nursing		Total		χ ²	P-VALUE
	NO	%	NO	%	NO	%	NO	%	NO	%		
Total	132	100.0	225	100.0	29	100.0	35	100.0	421	100.0		
Number of hours spent on social media daily	Mean±SD	8.15 ± 3.38	8.27± 4.14	6.83± 4.1	6.91± 3.4	8.02± 3.9					P=0.08 F=2.24	

Table 7 shows that: 79.5%, 76.9%, 55.2%, 68.6% of the participant students at education, art, pharmacy and nursing faculties use the social media for making new friends more than academic. Most of them reported that they have social media groups for some courses: 72 %, 80.9%, 79.3%, 80% respectively. More than half of students in four faculties :65.2%,72.4% ,75.9%, 57.1% reported that unlimited access to Facebook has affected academic achievement negatively. The difference wasn't statistically significant. Regarding the number of hours spent on social media daily, it is found that mean hours are 8.15 ± 3.38, 8.27± 4.14, 6.83±4.1, 6.91±3.4 among students of (education, art, pharmacy, nursing) respectively.

Table (8) Relation between total awareness score and academic achievement among participant students at selected faculties 2021 (n= 421)

Faculty		Student achievement					χ ²	P-VALUE	
		Fail	Pass	Good	Very good	Excellent			
Education	Awareness score	Poor		2 (11.8%)	2 (3.3%)	3 (6.8%)	0 (0%)	11.65	0.07
		Fair		4 (23.5%)	40 (65.6%)	28 (63.6%)	6 (60%)		
		Good		11 (64.7%)	19 (31.1%)	13 (29.5%)	4 (40%)		
		Total		17 (100%)	61 (100%)	44 (100%)	10 (100%)		
Arts	Awareness score	Poor	0 (0%)	9 (12.5%)	10 (10.8%)	2 (4.3%)	1 (7.7%)	8.40	0.40
		Fair	1 (100%)	50 (69.4%)	59 (63.4%)	39 (84.8%)	10 (76.9%)		
		Good	0 (0%)	13 (18.1%)	24 (25.8%)	5 (10.9%)	2 (15.4%)		
		Total	1 (100%)	72 (100%)	93 (100%)	46 (100%)	13 (100%)		
Pharmacy	Awareness score	Poor		0 (0%)	1 (9.1%)	0 (0%)	0 (0%)	13.88	0.03
		Fair		4 (100%)	6 (54.5%)	3 (75%)	1 (10%)		
		Good		0 (0%)	4 (36.4%)	1 (25%)	9 (90%)		
		Total		4 (100%)	11 (100%)	4 (100%)	10 (100%)		
Nursing	Awareness score	Poor		0 (0%)	3 (20%)	1 (7.1%)	0 (0%)	5.13	0.53
		Fair		1 (100%)	12 (80%)	11 (78.6%)	5 (100%)		
		Good		0 (0%)	0 (0%)	2 (14.3%)	0 (0%)		
		Total		1 (100%)	15 (100%)	14 (100%)	5 (100%)		

Table 8 revealed that there is significant relation between awareness score and academic achievement among students of faculty of pharmacy (P=0.03). as 90% of students of pharmacy, who got excellent score had good awareness score

Table (9) percent distribution of Grade point average at among participant students at selected faculties 2021 (n= 421)

		Faculties								χ ²	P-VALUE
		Faculty									
		Education		Arts		Pharmacy		Nursing			
		NO	%	NO	%	NO	%	NO	%		
Grade point average assessment	Fail	0	0.0	1	0.4	0	0.0	0	0.0	57.74	0.001
	Pass	17	12.9	72	32.0	4	13.8	1	2.9		
	Good	61	46.2	93	41.3	11	37.9	15	42.9		
	Very good	44	33.3	46	20.4	4	13.8	14	40.0		
	Excellent	10	7.6	13	5.8	10	34.5	5	14.3		
Total		132	100.0	225	100.0	29	100.0	35	100.0		

Table 9 shows grade point average among the participant students as 64.2%, 41.3%, 37.9%, 42.9% the participant students in faculties of education, arts, pharmacy and nursing got "good" in average grade point assessment. Difference is statistically significant: P=0.001

Table (10) Correlation between factors and academic achievement 2021 (n= 421)

Correlating items	R	P value
Student factor & academic achievement	0.19	0.001*
Home factor & academic achievement	0.16	0.001*
Awareness score & academic achievement	0.06	0.25
Bad lifestyle habits & academic achievement	0.126-	0.01*
Study habit score & academic achievement	0.09	0.06

Table 10, show that there is significant positive correlation between student factor and academic achievement, and between environmental factor and academic achievement. There is significant negative correlation between bad lifestyle habits and academic achievement.

Discussion

Maintaining and enhancing academic achievement of university students is critical for both the students and the university. Furthermore, a student's health may have an impact on academic achievement **Kaya& Erdem., (2021)**. Acute and chronic illnesses have both direct educational impacts and indirect social and psychological impacts on education. Success at university for the chronically ill student requires coordinated efforts of educators, parents, students, and medical professionals. **Thongseiratch & Chandeying, (2020)**.

Anxiety and depression have an effect on student academic progress. It lowered academic performance. It may also lower motivation, impair attention and concentration, and result in academic failure. **Khesht et al., (2019)** Poor academic achievement has been linked with particular lifestyle behaviors, such as unhealthy diet, short sleep duration, high screen time, and low physical activity **Dumuid et al., (2017)**. Too little sleep, too little physical activity, and too much sedentary time have been associated with poor physical and mental health outcomes. These outcomes have included increased risk of obesity, impaired glucose metabolism, cardiovascular disease, depression and anxiety **Howie et al., (2020)**

The current study showed that there was no significant difference regarding gender and marital status between selected faculties' majority of the participant students and more than half have sufficient income. Regarding residence more than half of the students in faculty of Arts and Nursing are of rural residence while majority of those in faculty of Education and Pharmacy are of urban origin. The present study results are supported by **Gazibara et al., (2018)** who studied "Chronic diseases among university participant the participant students: - prevalence, patterns and impact on health-related quality of life" found that 83.8% of the participant students ' lives in urban. In the line with **Ahmed. (2020)** who revealed that around two third of the participant students have sufficient income. On the other hand, the present study findings are contradictory with **Gazibara et al., (2018)** who studied "Chronic diseases among university students: prevalence, patterns and impact on health-related quality of life" reported that 42.50 % of the samples have sufficient income and 22.40 in sufficient income. In researcher opinion, the participant students with sufficient socio-economic status often have more successes in access to more of resources to promote and support them in education and health.

Regarding GIT problems, fifth of the participant students had gastritis; minority of them had peptic ulcer and hemorrhoids. The present study finding are in similar to **Niranjan et al., (2016)** who studied "Prevalence and Determinants of Gastro-Intestinal Disorder among Hostel Resident of a Medical College of Central India" found that 31% studied samples had gastritis. On the other hand, the current study results are contradictory with **Gazibara et al., (2018)** who mentioned that gastritis prevalence was 9% among the Belgrade University participant students. From point of view of the researcher, gastritis might be because of the students '

poor eating habit, their frequent consumption of fast food, and academic stress

Regarding to Blood and circulation health problems, the current study findings are indicated that the highest prevalence one is anemia two fifth reported by participant students, followed by one third and finally more than quarter. The current study findings are matched with **Jawed & Kamal (2017)** who found that 33.4% of participant students of age 18-25 years have frequency of nutritional anemia among female medical participant the participant students of Faisalabad. The current study results are in the same line with **Subramaniyan et al., (2016)** who mentioned that among the study subjects (n=237), 43% had anemia. The current study findings are contradictory with **Alzaheb & Al-Amer., (2017)** who studied "The Prevalence of Iron Deficiency Anemia and its Associated Risk Factors Among a Sample of Female University students in Tabuk, Saudi Arabia" reported that 12.5% of the participant students have anemia. Researcher allocated the previous results may be to unhealthy eating practices among the participant students as breakfast skipping, and fast-food consumption.

Regarding to psychological problems the current study findings indicated that more than two fifths and slightly less than half of the participant students have anxiety, more than two fifth of them had depression and more than half of them have stress. The current study findings are supported by **Melaku & Work., (2021)** who studied "Stress, anxiety, and depression among medical undergraduate students and their coping strategies", found that level of depression, anxiety, and stress were 43%, 63%, and 41%, respectively. Also, **Sherif et al., (2021)** who studied "Prevalence of depression among Libyan medical students", found that 45% of the total participant students suffering from depression and about 40% and 50% of the participant had mild and moderate stress respectively.

On the other hand, the current study findings are contradictory with **Fawzy& Hamed., (2017)** who studied " Prevalence of psychological stress, depression and anxiety among medical participant the participant students in Egypt " reported that frequencies of depression representing 65%, anxiety equal 73% and stress representing 59.9%. Also, **Wahed & Hassan., (2017)** who studied "Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students" found that the prevalence of stress, anxiety and depression with various degrees was 62.4%, 64.3%, and 60.8% among studied sample respectively. The present study results are similar to **Sadiq et al., (2019)** who revealed that depression, anxiety, and stress were 11.5%, 11%, and 10.5% among medical participant students in Bangladesh. From the researcher point of view this may be due to academic over load responsibility, pressure from curricular and extra-curricular activities and participant the participant students fear from exams.

Regarding to life style effect on academic life, in general life style habits eating and exercise habits slightly less than three quarter and less than half of the participant students eats fast food 2-3 times per week, and less than two third of them do exercises 1-

2 day per week, and two fifth of them never done exercise. The current study findings are supported by **Banik et al., (2020)** who reported that 64% of the participants consumed fast foods frequently (i.e., > 3 days/week) followed by about 36% were infrequent consumers (1–3 day) likewise, **Nāsui et al., (2021)** who performed a cross-sectional study online among Romanian University students, evidenced that 34.3% of males choose fast food meals in a higher frequency (1–3 times per week).

On the other hand, the current study findings in disagreement with **Banik et al., (2020)** who reported about 36% were fast food consumers 1–3 days/week. Also **Shaban & Alkazemi., (2019)** reported that fast food consuming was 27.6% = 2–4 times per week. The current study findings are contradictory with **Alghamdi. (2021)** who studied “Knowledge, attitude, and practices regarding dietary habits among medical and non-medical university students” mentioned that 12.5 % never done exercise. The researcher illustrated the current study findings may be due to long time spent in college, sedentary life and lack of participant the participant students ' knowledge about the importance of healthy food and exercise.

As regard to technology misuse majority of the participant students respond by yes on use social media for making new friends and socializing more than academic, majority of the participant students reported that they encouraged by professors as a part of class assignments and uses social media for some courses. Three quarters of the participant students agreed that unlimited access to Facebook affected their academic achievement negatively. In the current study the numbers of hours spent on social media was $M=8.27\pm 4.69$ significantly higher among non-medical colleges than medical colleges ($P=0.01^*$). The current study findings are in similar to **Mowafy., (2018)** who studied “Social media effects on the academic performance of Nile University students” illustrated that 74.1% of the students have a social media group for some courses, hours spent on social media per day were $M=6.711$, $SD=5.154$.” On the other hand, the current study findings are contradictory with **AlFaris et al., (2018)** who studied “The pattern of social media use and its association with academic performance among medical students” mentioned that only 40% of the samples were using social media for academic studies. Also, **Mowafy, G., (2018)** who studied “Social media effects on the academic performance of Nile University students” mentioned that only about 30% of the students agreed that social media is encouraged by professors as part of class assignments, and some participant the participant students mentioned that the hours they spent on social media affects their academic achievement negatively. The present study findings are contradictory with **Talaue (2018)**, who studied “The impact of social media on academic performance of selected college students”, reported that 38.3% of the samples strongly agreed that social media has negative effect on their academic performance. The researcher attributed the current results may be due to absence of clinical activities that consume more times from medical students. The excessive using of social media can lead personal problems, loneliness depression, sleep problems all of these can affect indirectly on the students ' academic achievement.

Regarding to awareness total score about factors affecting academic achievement the present study findings showed that 29.96 ± 5.74 in Education faculty, 28.50 ± 5.32 in faculty of Arts, 30.93 ± 5.95 in faculty of Pharmacy, and 26.06 ± 6.01 in faculty of Nursing. Difference was statistically significant ($P=0001$). The current study findings are in the line with **Kanwal. (2020)** who study “Impact of Academic Achievement Orientation in the Context of Private and Public Sector ‘University students’”, mentioned that the students had a

higher score on achievement orientations scores $M=35.5$, $M=24.65$ respectively.

Regarding to grade point average the current study demonstrated that more than two thirds of the participant students, followed by two fifths and more than one third got "good" in average grade point assessment in faculties of Education, Arts, Pharmacy and Nursing respectively. The difference was statistically significant $P=0.001$. The present study findings are matching with **Ayoub & Abd El-Aziz (2018)** who studied “effect of study skills educational training program among freshman nursing students” found that 47.5% of the participant students had good grade, followed by 37.5 % of them passed .The current study results are contradictory with **Magulod (2019)** who studied “Learning styles, study habits and academic performance of Filipino University students in applied science courses” mentioned that 25 % of the participant students have good academic achievement .

The current study findings revealed that, there was significant positive correlation between student factor and academic achievement, between environmental factor and academic achievement. There was significant negative correlation between bad lifestyle habits and academic achievement. The current study findings are in the line with **Ugalde. (2019)** who studied “factors affecting academic performance of the software engineering students” showed that environmental factors were associated with academic performance, the association is positively. Also, **Quansah, (2017)** mentioned that a high positive correlation [$r = 0.86$, $n=377$, $p < 0.05$] between environmental - related factors and the students' academic achievement.

In the other hand the present study results are contradicted with in **Quansah, (2017)** in his study which indicated that there was a moderate, negative correlation between student-related factors and the participant students' academic achievement [$r = -0.45$, $n=377$, $p < 0.005$].

Conclusion

According to the results of this study, more than one third of the participant students were overweight and minority of them was obese. The most common health problems' 40% of the participant students have anemia, 44.8% have depression 40,9% never done exercise as reported by the participant students, 58.6%, of participant students strongly agreed that lifestyle have effect on academic achievement. More than two thirds of the participant students, got "good" in average grade point assessment the difference was statistically significant $P=0.001^*$. Numbers of hours spent on social media was significantly higher among non-medical colleges than medical colleges ($P=0.01^*$) there is significant relation between awareness scores and academic achievement among the participant students, 90% of the participant students who got excellent score had good awareness score There is significant positive correlation between student factor and academic achievement, between environmental factor and academic achievement

Recommendations

In light of the results of the present study, the following recommendations were suggested:

- Integrate physical education into the university curriculum.
- Regularly perform periodic routine checkup for student who have chronic diseases and facilitate treatment procedure through health insurance.

- Implementing Educative programs for enhancing awareness of students about health risks and disease prevention.
- Provide Posters and booklets providing for students about prevention and dealing with psychological problems.
- Encourage researches about continuous studies of the factors can affect on students' educational achievement.

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