Effect of Ego Resilience, and Academic Stress on Mental Health Among Nursing Students

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Received: 04 September 2024, **Accepted:** 04 October 2024, **Published:** 16 October 2024

Abstract

Background: Nursing students are the future professional nurses. They face unique pressures and stressors during their academic journey that can significantly impact their mental health and overall wellbeing. **Aim of the study:** Investigate the effect of ego resilience and academic stress on mental health among nursing students. Subjects and Methods: Research design: Cross-sectional descriptive research. Setting: The study was conducted at Technical Institute of Nursing at Zagazig University, Sharkia governorate, Egypt, which was randomly selected by using A stratified random Sample. **Subjects:** Sample A stratified random Sample was used. The study subjects were 300 nursing students. Tools of data collection: Four tools will be used. Tool I: Youth profile questionnaire. Tool II: Ego resilience scale (ER89). Tool III: Academic Stress Scale. Tool IV: Mental Health scale (MCH-SF). Results: shows that, 58.0% of the studied nursing students had moderate level of ego resilience. While, 56.7% of them had high level of academic stress, 15.0% of them had poor level of mental health status. **Conclusion:** There was a strong statistically significant positive ego resilience and mental health status. Conversely, academic stress was a highly statistically significant negative effect on mental health status. **Recommendations:** Nursing educators should be aware of the importance of developing and enhancing the students' level of ego resilience to produce graduate professional nurses who are not only academically and clinically competent, but also who are able to adapt to workplace adversities.

Keywords: *Ego Resilience, Academic Stress, Mental Health, Nursing Students*

Introduction

The process of education is a very stressful experience and nursing students encounter a great deal of academic, personal, and social stress during their academic activities **(Aldana et al.,2020).** The university stage involves challenges, goals, and responsibilities that must be overcome and achieved over the years; all of this involves submitting to stress. Stress has become part of student's academic life due to the various internal and external expectations put on their shoulders **(Mohammed et al.,2024).** However, despite the significance of education, problems that are being faced by students within themselves still exist and some significant obstacles in the current education sector in particular **(Abd El-Salam, Metwally and Abdeen ,2022).**

Nursing students face challenges from different ways. In one way, there is the academic life which requires making independent decisions about their lives and studies, adjusting to the academic demands of an ill-structured learning environment, and interacting with a diverse range of new people. Other way, many students must, often for the first time, leave their homes and distance themselves from their support networks. These challenges can affect the mental health and well-being of them and increasing the probabilities of experiencing common psychological problems **(Hernández-Torrano *et al.*,2020)**. Therefore, paying attention to the mental health of nursing students become a worldwide concern and proactive coping skills are being claimed for their future professional lives **(Sonmez *et al*., 2023).**

Academic stress is defined as the emotional, physical, and psychological pressure that students endure as a result of academic demands and responsibilities. Heavy course loads, exams, assignments, time management, student contests, instructor competency, and a lack of resources all contribute to student stress **(Nadya et al, 2023).** Academic stress encompasses the strain experienced by individuals in educational pursuits, stemming from tasks like exams, assignments, and performance expectations. It impacts mental health, cognitive functioning, and overall well-being, exacerbated by reasons like competition, workload, and fear of failure. Effective coping mechanisms and support systems are essential to mitigate adverse effects **(Elham, 2023).**

Additionally, Academic stress arises when academic related demands exceed those available resources to an individual to which he/she adapts, and this stress must not be overlooked as it negatively affects the general adjustment of the students **(Ribeiro et al., 2020).** On the other hand, it should be noted that the dilemmas of academic life are increased due to the demands to fulfill a certain academic program associated with a certain curriculum and, on top of that, the goal of obtaining high grades is also paramount for students. All this generates stress in their academic life mainly because of a deficient or null perception of mechanisms to manage time during university life **(Akter and Barua, 2025).**

Ego resilience works as a stress resistance mechanism. It reinforces the individual's ability to recover from negative emotional experiences and flexibly adjusts to stressful events which is essential to individual’s well-being and life satisfaction. Having high level of ego resilience and successfully dealing with perceived stress are very important to heighten life satisfaction for every individual and more especially for nursing students as they are encountered with lot of stressors during their clinical experience **Badura-Brzoza et al., (2025**).

Additionally, ego resilience has been found to correlate with positive emotions such as optimism, self-efficacy, strong social relationships, and positive self-esteem. These

factors may account for its ability to rebound from negative experiences in difficult situations (referred to as bounce-back) and maintain normal activities and a general openness to new experiences. It is particularly useful in maintaining consistent engagement in ProHealth practices despite life challenges and temporary loss of motivation. This consistency is crucial for maximizing the positive impact of health behaviors on overall well-being **(Pyszkowska., 2020).**

Significance of the Study:

Nursing education is acknowledged as a challenging yet inherently stressful field of study. In particular, the clinical requirements of courses that are vital for the acquisition and growth of fundamental nursing competencies, academic activities including examinations, clinical report, research projects, and poor interpersonal relationships with nursing faculty members induce stress in student nurses **(Labrague et al., 2018).** In Egypt, the prevalence of academic stress among nursing students is 48.2 % **(Sagrado et al., 2020).** Chronic exposure to stress is attributing to some adverse consequences for the overall health and quality of life of student nurses **(O'Connor et al., 2021).** In the same vein, the mental health of nursing students is important, as it helps them to feel good, function well, and to provide quality care with consistency. Strengthening different positive coping skills are therefore vital for nursing students to effectively deal with various stressors and maintain their mental health.

Aim of the study:

to investigate the effect of ego resilience and academic stress on mental health among nursing students.

Research questions:

- Identify the levels of ego resilience among nursing students
- What is the level of academic stress among nursing students?
- What are the states of mental health among nursing students?
- What is the effect of ego resilience and academic Stress on mental health among nursing students?

Subjects and methods:

Research design:

A cross-sectional descriptive research design was utilized.

Study setting:

The study was carried out at Technical Institute of Nursing at Zagazig University which was selected using a stratified random Sample.

Study subjects:

A stratified random Sample composed of 300 nursing students selected from the above-mentioned setting based on the following inclusion criteria;

- Both genders aged 18 to 20 years old.
- Willing to participate in study.
- Free from physical disabilities and medical or psychiatric comorbidity medical problems

Tool for data collection:

Tool I: Youth profile questionnaire.

A structured questionnaire was developed by the researcher to register all related demographic and characteristic data of the participants. It included i.e., age, gender, interests, hobbies, family information and number of friends while adopting the part of socioeconomic level was measured using **El-Gilany, et al., (2012).**

Scoring system:

To determine the socio-economic class of the nursing students, the total score of the scale was ranged from (0-54), Cut off point 50%. a score less than 50% was considered as a low socio-economic class, from 50-75 was considered as a middle class, and a score of 75% or more was considered as a high social class.

Tool II: Ego resilience scale (ER89).

It was developed by **Block and Kremen (1996)** to measure the extent to which individuals show flexibility in response to changing environmental demands. It consists of 14 items which are rated based on how the subject has felt over the past month.

Scoring system

The response of nursing student to the scale was on a four-point Likert scale ranging from 1 (=does not apply at all) to 4 (=applies very strongly). The scale scores were calculated by summing the separate reactions to create the composite score for each scale. The total score of the scale was ranged from (14-56), Cut off point 50%. The ego resilience was considered to be high if the percent is 75% or more, moderate if from 50-75% and low if less than 50%**.**

Tool III: Academic Stress Scale:

The Academic stress scale questionnaire was originally developed and standardized by Kim (1970) while adopted from **Phillips et al, (2020)** to measure the level of stress associated with academic studying. The original scale consists of 40 items, which were reduced to 25 parts, based on the 3-panel experts' opinion, by omitting similar and inappropriate items for the subjects.

Scoring system:

The response of nursing students to the scale was on a five-point Likert scale. The total score of the scale was ranged from (25-125) which considered the summation of nursing students" responses on the scale, Cut off point 50%. The academic stress was considered to be high if the percent is 75% or more, moderate if from 50-75% and low if less than 50%.

Tool IV: Mental Health scale (MCH-SF):

It was developed by **Keyes (2013)** to measure psychological and social, emotional well-being. It consists of 14 items that represent various aspects of well-being. It rated on 6 points scale, which describe the frequency of experiencing various well-being symptoms during the past month.

Scoring system:

The response of nursing students to the scale was on six-point Likert scale, ranging from 1 (*never)* to 6 (*every day)*. The total score of the scale was ranged from (14-84) which considered the summation of nursing students" responses on the scale, Cut off point 50%. The mental health state was considered to be high if the percent is 75% or more, moderate if from 50-75% and low if less than 50%.

Content validity and reliability:

The tools were revised by three- panels of experts through the distribution of the five tools with a covering letter and explanation sheet that explained the purpose of the study. three-panels of experts included: two assistant professors from the department of psychiatric and mental health nursing; and one assistant professor of community health nursing at Zagazig University. They revised the tools for clarity, relevance, applicability, comprehensiveness, and understanding. Their recommendations were taken into consideration.

The reliability of tools was tested by measuring their internal consistency. It demonstrated a good level of reliability with Cronbach's Alpha as preventive measures was 0.855 for Cognitive emotional regulation strategies and Mental Health Questionnaire was 0.889. Excellent level of Academic stress was 0.918.

Field work:

Once permission was granted to proceed with the study, the researcher introduced herself to students and also the purpose of study was explained, voluntary participation and confidentiality were ensured. Researcher met with students at Technical Institute of Nursing who fulfilled the inclusion criteria. The researcher started the interview with the students individually using the data collection tools. The questionnaire was read and explained. Instructions were given to students to fill questionnaire. The researcher clarified any question to students if needed. The filled forms were revised to check their completeness to avoid any missing data.

From the pilot study results, it was found that the average time to fill in all tools 30-45 minutes. Data was collected two days per week (Monday and Wednesday). The questionnaire sheet was distributed during break time and between lectures in class rooms or at the end of the day.

Pilot study:

To ensure the clarity and comprehensiveness of the tool, a pilot study was conducted on a sample of 28 nursing students from first and second university grades at Technical Institute of Nursing completed by students, approximately 10% of the calculated total sample size; they were included in the total number of subjects.

Administration and ethical consideration:

First, the study proposal was accepted by the Zagazig University Faculty of Nursing's Post Graduate Committee and Research Ethics Committee (REC) with the code of M.DZU.NUR/218/10/6/2024. Before starting any step in the study, an official letter containing the aim of the study was issued to faculty of nursing Zagazig University to the director of technical institute of nursing at Zagazig University. Following full explanation of the study's aim, each participant provided their informed consent to participate. Participants were given the right to refuse participation and were informed that they could withdraw at any time while filling out the questionnaire and they were assured that the information would be used confidentially for the research purpose only.

Statistical analysis:

The statistical analysis of data was done by using the computer software of Microsoft Excel Program and Statistical Package for Social Science (SPSS) version 25. Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative

data. Qualitative variables were compared using chi square test, P-value to test association between two variables. Correlation coefficient test (r) was used to test the correlation between studied variables. Linear regression model was used to analysis of the effect of cognitive emotional regulation strategies and academic stress on mental health. Reliability of the study tools was done using Cronbach's Alpha. Statistical Significance was considered at P-value < 0.05 Significant (S)

Results:

Table (**1**) reveals that 49.0% of the studied nursing students were at the age of 18 years old with mean 18.59±0.63. Also, 73.7% of them were females, 66.6% of them were residing in rural areas and 87.7% of them were single. Moreover, 15.7% of them were working with 42.6% of them were working as employers. Regarding parents' education, 52.3% of their fathers and 55.0% of their mothers had secondary education (diploma). As for father/mother occupation, 89.7% of their fathers were working, 49.8% of them were employer. Likewise, 21.7% of their mothers were working, 90.8% of them were employer

Table (2) demonstrates that 56.0% of the studied nursing students were at first year. Considering the physical activity, 25.3% of the studied nursing students were practicing sports with 67.1% of them were practicing football. In addition, 33.7% of the studied nursing students had a talent, 56.4% of them preferred reading. Regarding friends and living conditions, 39.0% of them had four or more close friends and 89.7% of them were living with both parents.

Figure 1 shows that (59.3%) of studied nursing students were in the middle class. meanwhile, only 4.7% had a low socio-economic level.

Table (3) and Figure (2) reveals that, 58.0% of the studied nursing students had moderate level of ego resilience with the mean score of (36.7±6.62) and 56.7% of the studied nursing students had high level of academic stress with the mean score of (81.39±19.36). While,15.0% of them had poor level of mental health status with the mean score of (47.48±13.68).

Table (4a) displays that, there were highly statistically significant relation between student' ego resilience and their demographic characteristic were with working status, father educational level, mother educational, socio-economic level at (P= 0.000) and mother job at (P= 0.008). It is noticed that students having moderate ego resilience level were those no working, fathers had secondary education, mother had basic education, mothers house wife and with middle socioeconomic level.

table (4b) Reveals that, there were highly statistically significant relation between students' total ego resilience and their youth characteristics were with academic year at (P=0.001), practice sports, have a talent, number of close friends and living condition at (P=0.000). It noticed that nursing students having moderate ego resilience level those with second academic year, no practice any sports, haven't a talent, having one close friend and living with both parents.

Table (5a) presents that, there were highly statistically significant relation between nursing students' total academic stress level and their demographic characteristic as age, working status, father educational level, mother educational level and socio-economic level at (P= 0.000) and residence at (P= 0.007). It is noticed that nursing students' having high academic stress level were 19 years old, lived at rural areas, worker, fathers' illiterate, mothers just read and write and with low socioeconomic level.

Table (5b) demonstrates that, there were highly statistically significant relation between nursing students' total academic stress of the studied nursing students and their youth

characteristics were with academic year, practice sports, have a talent, number of close friends and living condition at (P= 0.000). It is evident that nursing students having high academic stress level were those in second year, no practice any sports, haven't a talent, had one close friend and living with one parent

Table (6a) reveals that, there were highly statistically significant relation between nursing student' total mental health and their demographic characteristic were with working status, father educational level, mother educational level and socio-economic level at (P= 0.000). Also, there was only statistically significant relation with their mother job at (P= 0.021). It is evident that nursing students' having poor mental health were worker, father illiterate, mother just read and write, mothers' house wife and with very low socioeconomic level.

Table (6b) confirms that, there were highly statistically significant relation between nursing student' total mental health and their youth characteristics were with practice sports, have a talent, number of close friends and living condition at (P=0.000). Additionally, there was only statistically significant relation between student' total mental health and academic year(P=0.001). It is noticed that nursing students having average level of mental health status were in second year, no practice any sports, haven't a talent, having one close friend and living with both parents

Table (7) reveals that, there were highly statistically significant positive correlation between total ego resilience and mental health (r= 0.849). Moreover, there were highly statistically significant negative correlation between their score of total academic stress and ego resilience (r= -0.824) and mental health (r= -0.935).

Table (8) Demonstrates that nursing students' ego resilience was a strong statistically significant positive effect on mental health status.

Table (9) Demonstrates that nursing students' academic stress was a highly statistically significant negative effect on mental health status.

Discussion:

Mental health of students is an issue of concern worldwide. At the tertiary level, students face several stresses, including academic stress for example, frequent changes in curriculum and examination systems. Nursing students face unique pressures and stressors during their academic journey that can significantly impact their mental health and overall wellbeing. The demanding nature of nursing education, which combines rigorous academic requirements with intensive clinical training, creates a particularly challenging environment for student. Understanding and addressing mental health challenges in nursing education is crucial for Supporting student success and mental wellbeing **(Akter and Barua, 2025).**

Ego resilience plays a crucial role in shaping students' mental health outcomes and their ability to cope with academic challenges. As a dynamic psychological construct, ego resilience represents an individual's capacity to adapt to stressful situations, maintain emotional equilibrium, and bounce back from adversity **(Dębska-Janus et al.,2024)**.

Regarding demographic data, of the studied nursing students, the results of the current study clarified that the age of these students ranged between 18 and 20 years, and about half of them aged 18 years, and for about three-quarter of nursing student were female, majority of them were single, had no working, and more than half of parents had secondary education. As for their work characteristics majority of parents were employee. Added to that, more than two-third of students were from rural areas. The results detected that nearly two-third of these students had a moderate level of socio-economic status**.**

Regarding youth characteristic, of the studied nursing students, the results of the current study clarified that more than half of students were at first year, majority had not

practiced any sports, more than two- third had no talent. Besides, majority of these students were living with both parents, nearly two- fifth of them had four or more close friend.

1) Ego resilience

a) Regarding level of ego resilience

The current study found that more than half of the studied nursing students had moderate level of ego resilience. this might be due to engaging in the field of nursing involves confronting formidable challenges. However, resilience is a crucial attribute for nursing students to successfully navigate these challenges, fostering both personal and professional development. Students navigate rigorous coursework, clinical rotations, which can overwhelm them and they learn to adapt and bounce back from setbacks **(Aryuwat and Holmgren, 2024).**

These results were in consistence with the study performed in Oman by **Al Omari et al, (2023)**, which clarified that nearly half of student had moderate level of resilience. Conversely, **Forycka, et al., (2022**) in United States mentioned that nearly three-fourth of the study population presented lower levels of resilience indicating a decreased ability to adapt to challenging circumstances. Also, **Elzohary *et al.*, (2017)** in Damanhour, Egypt, who showed that slightly more than half of the students had high level of ego resilient trait.

b) Ego resilience and sociodemographic data of studied nursing students.

The results of current study showed that there was a highly statistically significant relationship between total ego resilience of the studied nursing students and their demographic characteristic as socio-economic level. This might be due to that economic stability contributes to the development and maintenance of ego resilience. Students from more privileged economic backgrounds demonstrated higher levels of psychological adaptability, flexibility, reduced financial stress. Also, allow greater access to resources, enhanced support systems and opportunities for personal development **(Garriott, 2020).**

In addition, Socio-economic status (SES) refers to the social and economic position of individuals or families within a society, encompassing various dimensions such as income, parental education level, occupation, and access to resources and opportunities. Students from higher SES backgrounds often have access to a wider range of resources, such as educational role models, cultural experiences, and social ties. These things can help students build skills, attitudes, and behaviors that are valued in the education system and develop coping mechanism **(Islam and Ali, (2024).** Further, more educated parents might better understand academic challenges and provide appropriate support. Research suggests that higher-educated parents often engage in more cognitively stimulating activities. This early cognitive stimulation may establish neurological foundations for later resilience **(Sengonul, 2022).**

In the same line a study performed in Beni-Suef, Egypt by **Abd El-halem et al., (2022),** which Showed that a significant positive correlation was found between economic status and ego resilience scores. Students from higher economic backgrounds demonstrated greater emotional flexibility and stress adaptation. Also, Study performed in China by **Yang and Zhang., (2022)** which showed that Socio-economic status (SES) was positively related to students' resiliency.

Furthermore, **Hamadeh Kerbage et al., (2021)** in Australia revealed that inadequate income is associated with low resilience in nursing students. As well, **Grande et al, (2021)** in Saudi Arabia showed that a high-grade point average has also been associated with higher resilience among nursing students.

C) Ego resilience and youth characteristics of **studied nursing students.**

The current study results showed that there was a highly statistically significant relationship between students' total ego resilience and their youth characteristics as academic year. This result may also be explained by the fact that student with higher grade would be able to overcome different type of challenges and stressor by using healthy adaptive strategies which eventually enhance their resilience level. There are the studies done in Egypt, Spain and Turkey by **(Elzohary et al., 2017; Fernández-Martínez et al., 2021 and Yıldırım et al., 2021),** which showed that there were statistically significant relationship between students' total ego resilience and year of study. In contrast, **Grande et al. (2021)** in Saudi Arabi, who argued that year of study were not associated with resilience in nursing students.

The current study results showed that there was a highly statistically significant relations between students' total ego resilience, practicing sports, and having a talent. It noticed that nursing students having moderate ego resilience level didn't practice any sports and not talented. This might be due to the effect of academic/social activities on students' achievement, attainment and success. Also, these findings may be related to the value and importance of physical activities as viable means of reducing and expressing stress among students. physical activities can improve the general health, these could include: enhancing mood, decreasing symptoms of stress, anger, depression, relieving anxiety, and reducing cognitive decline **(Zarazaga-Peláez *et al*, 2024).**

Furthermore, academic/ social activities could help students to form and extend their social network with others colleagues, as well as the success and competition that may play a significant role in building up positive self-esteem, and promote their self-confidence. and the insertion of sufficient physical activities in daily routine can contribute to enhance resilience and promote positive mental health by providing a strong support system. Regular physical activity not only strengthens physical health but also fosters social relationships, enhancing cognitive abilities such as concentration and decision-making **(Matilda, Wulandari and Darmanto, 2025).**

In the same line **Elzohary *et al*, (2017)** who showed that students who participated sports and talented had an increased level of ego resilience by about one and half times more and those who didn't participate in academic/social activities were vulnerable to have a higher level of perceived stress by about one and half times more.

The current study results revealed that, there were highly statistically significant relation between students' total ego resilience, living condition and number of close friends of students. The reason for this results that young adults typically develop ego resilience partly through facing and overcoming challenges independently. Living with parents might be provide a safety net that reduces exposure to certain stressors, potentially affecting the development of resilience mechanisms. Also, the nature of the parent-child relationship greatly influences how living together affects ego resilience. Supportive relationships that foster autonomy might enhance resilience; while controlling or infantilizing relationships might hinder it **in** Ukrainia **(Ulianova *et al*.,2025).** Similarly, **Al Omari et al, (2023)** in Oman, who showed a significant mean difference in their levels of resilience between students who live alone and those who live with their friends

2) Academic stress

a) **Regarding total Academic stress**

The results of the current study revealed that more than half of student had high level of academic stress. This might due to heavy course load, students must manage multiple complex medical courses simultaneously, continuous assessments, rigorous testing and

evaluation methods. Also, clinical practice demands and long hours in hospital settings while maintaining academic studies need to apply theoretical knowledge in real patient care situations, responsibility for patient safety and wellbeing during training and Fear of making mistakes in clinical settings. Moreover, Pressure to maintain high GPA for future opportunities.

The findings of this study were consistent with a previous study performed by **Ali and El-Sherbini, (2018)** which revealed that more than three-quarters of the students had high academic stress which is mainly related to patients' care, assignments and work load. Conversely, study performed by **Mohamed et al, (2024); Kapali, Neupane and Panta, (2019)** which revealed that more than half of nurses' students had moderate levels of stress.

b) Academic stress and sociodemographic data of studied nursing students.

The result of the current study presented that there was highly statistically significant relation between nursing students' total academic stress level and their socio-economic level. It is noticed that nursing students' having high academic stress level were worker, fathers' illiterate, mothers just read and write and with low socioeconomic level. This might due to Students from lower socioeconomic backgrounds often face financial pressures that can increase stress. They may need to work while studying, creating time management difficulties. (**Deng et al., 2022).**

Many studies indicated that the socioeconomic status of parents significantly contributed to learners' outcomes in the educational institution **(Qasem, 2018; Fekadu et al., 2019; Maghra et al., 2019).** Since low socioeconomic status families group tend not to have economic resources or do not have time to give their children, they needed academic support. **(Asiegbu, 2018).**

In the same line with study performed in in Philippines by **Licayan et al, (2021**) which revealed that students with low monthly family income, inadequate learning resources are critical factors that will trigger academic stress. Also, **Ali and El-Sherbini, (2018)** who showed that those students lived in rural areas, both fathers' and mothers' educational level had a significant impact on the students' academic stress and there was a significant relation was detected between academic stress and students' social status.

Concerning the student' place of residence, the findings, of the current study showed that academic stress was more prevalent in those students from rural than urban. this finding might be attributed to the setting of data collection in Zagazig University at EL-Sharkia governorate which is characterized by its agriculture nature and most of its cities are rural areas. Also, this might be due to the great efforts exerted by the students in reaching the faculty every day and the daily struggle in transportation, being on time, as well as increased financial cost.

In the same line study performed by **Ali and El-Sherbini, (2018**), which assessed academic stress level and identify its contributing factors which revealed that students lived in rural areas, study years shows higher level of stress than students from urban.

c) Academic stress and youth characteristic of studied nursing students.

The result of the current study demonstrates that, there were highly statistically significant relation between nursing students' total academic stress of the studied nursing students and their age and academic year as 2nd year had more stress, and being at age of nineteen had high stress. This might be due to academic expectations generally increase with both age and academic year. Older students may have developed more coping mechanisms but also face increasing academic demands. Advanced coursework

typically becomes more complex and demanding. Also, External pressures (college applications, career planning) intensify in later academic years **(Islam and Rabbi, 2024).**

These findings align with study carried out in Pakistan by **Bibi et al., (2024),** who explore the correlation of academic stress with age and academic year among nursing students and revealed that there were a significant association between academic year, age and academic stress. Also**,** study carried out in Italy and Pakistan by **Salvarani et al., (2020); Khan et al., (2024)** which revealed that academic year is a factor that affects academic stress. In contrast, the study by **Shehadeh et al., (2020)** in Jordan indicated that demographic characteristics like age and academic year were not significant.

The result of the current study demonstrated that, there were highly statistically significant relation between nursing students' total academic stress of the studied nursing students and practicing sports, having a talent. It is evident that nursing students having high academic stress level weren't practice any sports and haven't a talent. This might due to Physical activity is a well-documented as stress reliever, provide structured breaks from academic work, improve mood and mental health. Also, hobbies offer a sense of mastery and enjoyment outside of academic performance and without these outlets, students may ruminate more on academic concerns **(Liu, Shi and Gao, 2024).**

In the same line study performed in Saudi Arabia by **Mohamed et al, (2024)** This study found that engagement in sports was linked to moderate stress levels, suggesting that physical activity can serve as a buffer against stress. This aligns with the findings of **David et al. (2017)** in USA**,** who also identified a protective role of physical activity in stress management. This highlights the need for students' involvement and encouraging extracurricular activities as part of stress management strategies

3)Mental health

a) Regarding level of Mental health

The findings of the present study were that**,** more than half of students have a moderate level of mental health status. This might be due to academic stress and limited time for relaxation and hobbies, as well as irregular sleep patterns, poor eating habits, reduced physical activity time due to busy schedules affect mental health of students. Furthermore, competition for grade and ranking, family pressure, expectation and lack of parent's recognition about signs of stress. In addition, limited mental health education, stigma around seeking help and lack of awareness about available resource **(Vaidya, 2025).**

This study result was congruent with **Solhi et al. (2024**) in Iran, who revealed that approximately half of the participants had moderate mental health. This study result was in agreement with the study of **Córdova Olivera et al., (2023)** in Bolivia**,** which examined the correlation of academic stress on mental health in university students and revealed that nearly half of students had a moderate level of Mental Health. Also, in Negeri **Hasanah et al., (2022),** who found that the average mental health of the students was in the moderate category.

Conversely, a study conducted in China by **Hu et al., (2023),** which assessed Mental health among university students found that nearly three-fourth of student had poor mental health and it was significantly associated with gender, residential locations and parents' education.

b) Mental health and socio-demographic data of studied nursing student.

The current study findings revealed that**,** there was highly statistically significant relation between total mental health of the studied nursing students and their socio-economic level. It is evident that nursing students' having poor mental health were worker and with very low socioeconomic level. This might be due to family income is a significant socio-

economic factor influencing nursing students' mental health. Financial pressures related to tuition and living expenses may exacerbate stress, particularly among students from lower-income families. Moreover, students with only one employed parent may encounter increased financial strain, potentially leading to higher levels of mental distress. Furthermore, parental unemployment or job instability can create a stressful home environment, exacerbating mental health issues among nursing students (**Ibrahim et al., 2024).**

In the same line, **Naik Jinu K, (2023)** in India reported that there was as significant relation between family income and their access to mental health resources. Additionally, this finding also comes in line with study performed by **Dougall et al., (2023)** which suggested that Lower SES students versus higher SES were associated with poorer mental health and wellbeing.

c) Mental health and youth characteristics of studied nursing student

The current study findings revealed that there was highly statistically significant relation between nursing student' total mental health and their youth characteristics as practicing sports, having talent. It is noticed that nursing students having average level of mental health status weren't practice any sports and haven't a talent. This might be due to Exercise and physical activity can lead to biological and biochemical changes and improve mental health. Individuals use different coping methods to deal with stressful situations, the effectiveness and inefficiency of these coping methods play a major role in the physical, psychological and social wellbeing of individuals. In this regard, one of the strategies repeatedly recommended by researchers to maintain and promote mental health is regular exercise at normal level **(Mahindru, Patil and Agrawal, 2023)**

In the same line study performed in Ukraine by **Popovych et al., (2022**) which revealed that regular training and competitions of student during the academic year, contribute to statistically significant changes in mental health parameters. Also, **Firouzeh, Kamarzarin and Irani, (2018)** in Iran, who examine the relationship between mental health and sports participation in students and revealed that there was a significant relationship between mental health and sports participation motivation in students.

The current study findings revealed that there was highly statistically significant relation between student' total mental health and academic year. It is noticed that nursing students having average level of mental health status were in second year. In the same line **Ngasa et al., (2017)** in Cameroon**,** who found that academic year are associated with mental health of college students. In contrast, study performed by **Lei, Liu and Jiang, (2021)** in China, which determined the mental health status and its associated factors among college students and revealed that no differences in level of mental health score across groups of participants with different academic year.

Additionally, building a strong social network such as making more close friends and participating in community activities can help college students to manage study and life challenges and difficulties. Family support remains to be essential **(McLean, Gaul and Penco, 2023).** Also, Higher levels of perceived social support through both parents and close friend generate more positive emotional experiences, maintaining stable emotional and psychological states, and boosting confidence to face various challenges, reducing anxiety and depression, and enhancing psychological resilience and adversity resistance **(Deng et al., 2025).**

Correlation between ego resilience, academic stress and mental health among nursing students

firstly, there was a statistically significant positive correlation between total ego resilience and mental health this might be due to that Ego resilience plays a significant role in the mental health of students, particularly in enhancing their well-being and coping mechanisms during stressful situations. Students with ego resilience have better capabilities to handle academic and personal challenges, increasing flexibility and reducing psychological stress. Also, they tend to adopt positive problem-solving approaches like seeking help and reframing situations and avoid negative mechanisms. Ego resilience enables better emotional control, managing anxiety and stress during exams and deadlines and reinforces feelings of satisfaction and mental well-being **(Luo et al., 2025).**

In support of these findings, the present study articulated in a multiple linear regression model that nursing students' ego resilience was a strong statistically significant positive effect on mental health status. This result was in harmony with the study of **Dębska-Janus et al., (2024**), which revealed that there was a statistically significant positive correlation between Ego resiliency and mental health of students. Incongruent with the previous result **Główczyński et al., (2023)** in Poland found that there were significant negative correlations in the scope of the results obtained in Ego resiliency and mental health of students.

secondly, there was highly statistically significant negative correlation between total academic stress and ego resilience, this might be due to as academic stress increases, it can overwhelm a student's coping mechanisms and temporarily reduce their ability to adapt flexibly to challenges and constant pressure can deplete psychological resources that normally help maintain resilience. Also, high academic stress may lead to rigid thinking patterns rather than the flexible responses characteristic of ego resilience. Accordingly, enhancing ego resilience can lead to improved coping strategies **(Ornelas et al., 2025).**

The current study results were in harmony with a study conducted in China by **Byun and Kim, (2020**), which revealed that there was negative correlation between academic stress and ego-resilience. In contrast, a study conducted by **Mahendru, (2024)** in India which, showed that there was a positive relationship between academic stress and resilience. This indicates that as academic stress levels increased, levels of resilience also tended to increased.

Finally, there was highly statistically significant negative correlation between academic stress and mental health this might due to academic stress acts as a significant psychological stressor that can Increase anxiety and depressive symptoms, disrupt sleep patterns essential for mental wellbeing and led to burnout and emotional exhaustion. Also, Chronic stress activates the body's fight-or-flight response, which, when prolonged, can result in fatigue, emotional exhaustion, and diminished cognitive function. This can impair a student's ability to concentrate, retain information, and perform well academically **(Kaufeldt, 2021**).

The current study results conformed to the result of a study conducted in China by **Byun and Yang (2020),** which revealed mental health was negatively correlated with academic stress. Also, **Chen, (2024)** who revealed that there were a negative association between academic stress and mental health. A study Performed in Sri Lanka by **Fazly, and Kulaweera, (2023),** which revealed that academic stress negatively impacts students' mental health.

In contrast, study performed by **Koppenborg et al., (2024)** which assessed an academic stress, mindfulness-related skills and mental health and showed that Perceived academic stress was positively related to anxiety and depression. Also, study conducted in United States by **Barbayannis et al., (2022)** who assessed an academic stress and mental well-being in college students' which, revealed that there was a positive correlation between perceived academic stress and mental well-being.

Conclusion:

In light of the study's findings and answer of research question, it was concluded that more than half of studied nursing students had moderate levels of ego resilience. While, more than half of them had high level of academic stress and more than one-tenth of them had poor level of mental health. Additionally, ego resilience was a strong statistically significant positive effect on mental health status. Conversely, academic stress was a highly statistically significant negative effect on mental health status

Recommendations:

Based on findings, the study recommended:

- Training and education programs must be a continuous process for refreshing and increasing nursing student's knowledge and skills about concept of ego resilience
- Nursing educators should be aware of the importance of developing and enhancing the students' level of ego resilience to produce graduate professional nurses who are not only academically and clinically competent, but also who are able to adapt to workplace adversities
- It is important for curriculum designers to think about optimizing their materials to provide students with a less stressful learning environment

ACKNOWLEDGMENT

The authors wish to acknowledge their gratitude to the directors of Technical Institute of Nursing for giving permission for data collection and to Students who participated in the study voluntarily and shared their valuable views.

AUTHOUR'S CONTRIBUTIONS

All authors, participated, revised and approved the final manuscript and gives the publisher the permission to publish the work.

DECLARATION OF CONFLICTING INTERESTS

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FUNDING

The author received no financial support for the research, authorship, and/or publication of this article.

Table (1): Demographic characteristics of nursing students in the study sample (n=300).

Demographic data	No.	%
Age		
18 years	**147**	**49.0**
19 years	128	42.7
20 years	25	8.3
Mean ± SD	**18.59±0.63**	
Gender		
Male	79	26.3
Female	**221**	**73.7**
Residence		
Rural	**198**	**66.0**
Urban	102	34.0
Marital status		
Single	**263**	**87.7**
In a relationship	27	9.0
Married	10	3.3
Working		
Yes	**47**	**15.7**
No	253	84.3
If working, what is the job? (n=47)		
Worker	**20**	**42.6**
Nursing training	14	29.8
Free business	13	27.6
Father educational level		
Illiterate	13	4.3
Reads or write	26	8.7
Basic education (primary, preparatory)	27	9.0
Secondary education (diploma)	**157**	**52.3**
High education	77	25.7
Mother educational level		
Illiterate	21	7.0
Reads or write	24	8.0
Basic education (primary, preparatory)	26	8.7
Secondary education (diploma)	**165**	**55.0**
High education	64	21.3
Father job		
Work	**269**	**89.7**
Not Work	31	10.3
If working, what is the job? (n=269)		
Worker	93	34.6
Employee	**134**	**49.8**
Free business	42	15.6
Mother job		
Housewife	**65**	**21.7**
Work	235	78.3
If working, what is the job? (n=65)		
Employee	**59**	**90.8**
Free business	6	9.2

Table (2): Youth characteristics of the studied nursing students in the study sample**(n=300)**

Youth characteristics	No.	%
Academic year		
First	**168**	**56.0**
Second	132	44.0
Practice any sports		
Yes	**76**	**25.3**
No	224	74.7
If yes, what is the sports? (n=76)		
Football	**51**	**67.1**
GYM	25	32.9
Have a talent		
Yes	**101**	**33.7**
No	199	66.3
If yes, what is a talent? (n=101)		
Reading	**57**	**56.4**
Cooking	4	4.0
Singing	20	19.8
Drawing	20	19.8
Number of close friends		
None	33	11.0
One	45	15.0
2-3	105	35.0
≥4	**117**	**39.0**
Living condition		
Both parents	**269**	**89.7**
One parent	31	10.3
A relative	0	0.0
If the answer is one of the parents, why is that? (n=31)		
Travel	2	6.4
Separation	7	22.6
Death	22	71.0

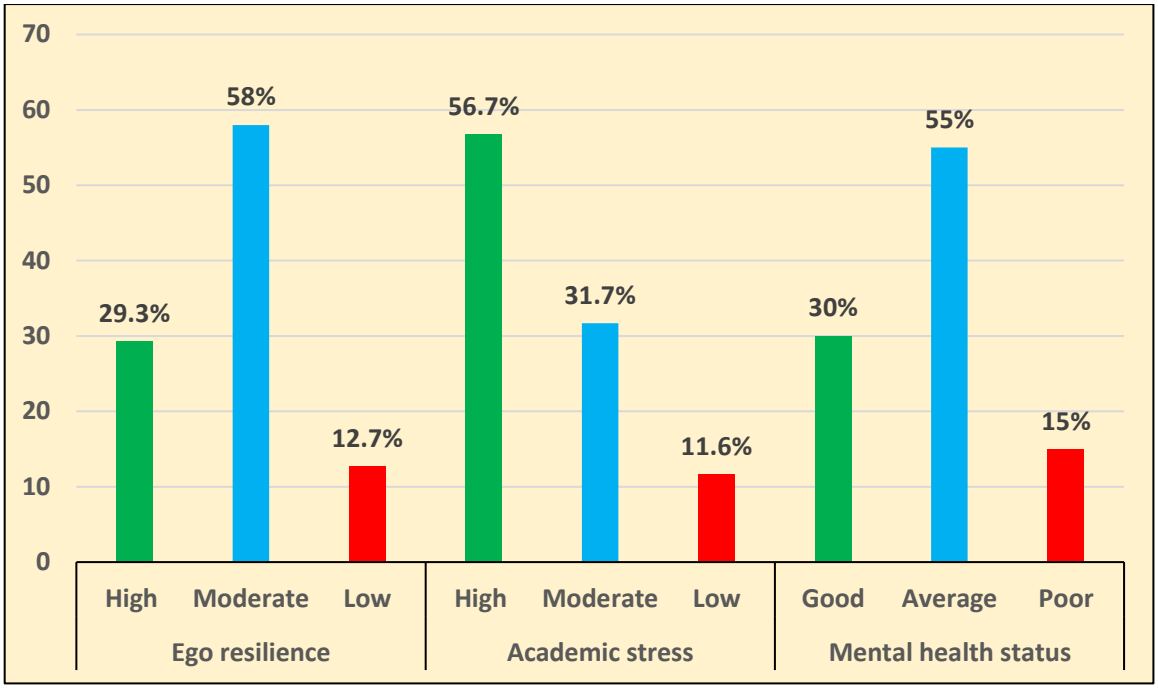

Figure (4): percent of ego resilience, academic stress and mental health status level among the studied nursing students (n=300).

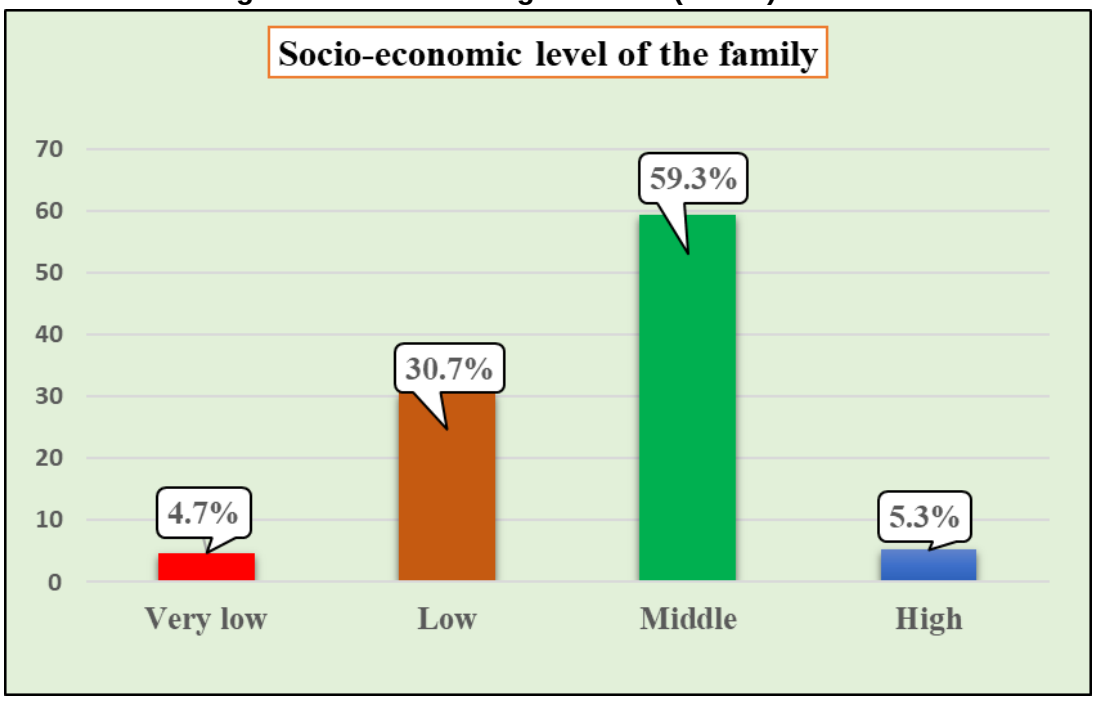

Figure (2): Socio-economic level of the studied nursing students in the study (n=300).

Table (3): Percent of ego resilience, academic stress and mental health status level among the studied nursing students (n=300).

Variables		No.	%
Ego resilience	High	88	29.3
	Moderate	174	58.0
	Low	38	12.7
	Mean ± SD	36.7±6.62	
Academic stress	High	170	56.7
	Moderate	95	31.7
	Low	35	11.6
	Mean ± SD	81.39±19.36	
Mental health status	Good	90	30.0
	Average	165	55.0
	Poor	45	15.0
	Mean ± SD	47.48±13.68	

SD= Standard deviation.

Table (4a): Relation between ego resilience level of the studied nursing students and their demographic (n=300).

Demographic data		No.	Levels of ego resilience						X^2	P-Value
			High (n=88)		Moderate (n=174)		Low (n=38)			
			No.	%	No.	%	No.	%		
Age	18 years	**147**	52	35.4	76	51.7	19	12.9	7.265	0.123
	19 years	**128**	30	23.5	84	65.6	14	10.9		
	20 years	**25**	6	24.0	14	56.0	5	20.0		
Gender	Male	**79**	26	32.9	39	49.4	14	17.7	4.009	0.135
	Female	**221**	62	28.1	135	61.1	24	10.8		
Residence	Rural	**198**	52	26.3	120	60.6	26	13.1	2.653	0.265
	Urban	**102**	36	35.3	54	52.9	12	11.8		
Marital status	Single	**263**	78	29.7	148	56.3	37	14.0	5.014	0.286
	In a relationship	**27**	8	29.6	18	66.7	1	3.7		
	Married	**10**	2	20.0	8	80.0	0	0.0		
Ranking among their siblings	Single	**23**	6	26.1	17	73.9	0	0.0	8.857	0.182
	First	**122**	44	36.1	63	51.6	15	12.3		
	Middle	**97**	24	24.7	58	59.8	15	15.5		
	Last	**58**	14	24.1	36	62.1	8	13.8		
Working	Yes	**47**	8	17.0	11	23.4	28	59.6	111.19	0.000**
	No	**253**	80	31.6	163	64.4	10	4.0		
Father educational level	Illiterate	**13**	0	0.0	4	30.8	9	69.2	191.69	0.000**
	Reads or write	**26**	5	19.2	7	26.9	14	53.9		
	Basic education	**27**	5	18.5	16	59.3	6	22.2		
	Secondary education	**157**	22	14.0	130	82.8	5	3.2		
	High education	**77**	56	72.7	17	22.1	4	5.2		
Mother educational level	Illiterate	**21**	4	19.1	10	47.6	7	33.3	115.30	0.000**
	Reads or write	**24**	4	16.7	2	8.3	18	75.0		
	Basic education	**26**	3	11.5	21	80.8	2	7.7		

	Secondary education	**165**	51	30.9	103	62.4	11	6.7		
	High education	**64**	26	40.6	38	59.4	0	0.0		
Father job	Work	**269**	76	28.3	161	59.8	32	11.9	3.795	0.150
	Not Work	**31**	12	38.7	13	41.9	6	19.4		
Mother job	Housewife	**65**	10	15.4	42	64.6	13	20.0	9.653	0.008**
	Work	**235**	78	33.2	132	56.2	25	10.6		
Socio-economic level	Very low	**14**	4	28.6	4	28.6	6	42.9	64.69	0.000**
	Low	**92**	12	13.0	55	59.8	25	27.2		
	Middle	**178**	60	33.7	111	62.4	7	3.9		
	High	**16**	12	75.0	4	25.0	0	0.0		

Chi-square test. No statistically significant at p > 0.05. ** Highly statistically significant at p ‹ 0.01.

Table (4b): Relation between total ego resilience and youth characteristics of the studied nursing students and (n=300).

Youth characteristics		No.	Levels of ego resilience						X^2	P-Value
			High (n=88)		Moderate (n=174)		Low (n=38)			
			No.	%	No.	%	No.	%		
Academic year	First	168	64	38.1	85	50.6	19	11.3	14.15	0.001**
	Second	132	24	18.2	89	67.4	19	14.4		
Practice any sports	Yes	76	44	57.9	29	38.2	3	3.9	41.32	0.000**
	No	224	44	19.6	145	64.8	35	15.6		
Have a talent	Yes	101	69	68.3	29	28.7	3	3.0	112.70	0.000**
	No	199	19	9.5	145	72.9	35	17.6		
Number of close friends	None	33	0	0.0	10	30.3	23	69.7	161.69	0.000**
	One	45	0	0.0	40	88.9	5	11.1		
	2-3	105	26	24.8	69	65.7	10	9.5		
	≥4	117	62	53.0	55	47.0	0	0.0		
Living condition	Both parents	269	88	32.7	162	60.2	19	7.1	76.89	0.000**
	One parent	31	0	0.0	12	38.7	19	61.3		

X^2= Chi-square test. * Statistically significant at p ‹ 0.05. ** Highly statistically significant at p ‹ 0.01.

Table (6a): Relation between socio-demographic data of the studied nursing students and total academic stress (n=300).

Demographic data		No.	Levels of academic stress						X^2	P-Value
			High (n=170)		Moderate (n=95)		Low (n=35)			
			No.	%	No.	%	No.	%		
Age	18 years	**147**	68	46.3	53	36.1	26	17.7	20.16	0.000**
	19 years	**128**	89	69.5	34	26.6	5	3.9		
	20 years	**25**	13	52.0	8	32.0	4	16.0		
Gender	Male	**79**	43	54.4	21	26.6	15	19.0	5.896	0.052
	Female	**221**	127	57.5	74	33.5	20	9.0		
Residence	Rural	**198**	124	62.6	57	28.8	17	8.6	9.912	0.007**
	Urban	**102**	46	45.1	38	37.3	18	17.6		
Marital status	Single	**263**	149	56.7	83	31.6	31	11.8	1.721	0.787
	In a relationship	**27**	15	55.6	10	37.0	2	7.4		
	Married	**10**	6	60.0	2	20.0	2	20.0		
Ranking among their siblings	Single	**23**	11	47.8	10	43.5	2	8.7	11.78	0.067
	First	**122**	59	48.4	43	35.2	20	16.4		
	Middle	**97**	60	61.9	30	30.9	7	7.2		
	Last	**58**	40	69.0	12	20.7	6	10.3		
Working	Yes	**47**	39	83.0	6	12.8	2	4.3	15.72	0.000**
	No	**253**	131	51.8	89	35.2	33	13.0		
Father educational level	Illiterate	**13**	13	100.0	0	0.0	0	0.0	103.51	0.000**
	Reads or write	**26**	22	84.6	4	15.4	0	0.0		
	Basic education	**27**	20	74.1	5	18.5	2	7.4		
	Secondary education	**157**	101	64.4	52	33.1	4	2.5		
	High education	**77**	14	18.2	34	44.2	29	37.6		
Mother educational level	Illiterate	**21**	15	71.4	6	28.6	0	0.0	31.56	0.000**
	Reads or write	**24**	20	83.3	4	16.7	0	0.0		
	Basic education	**26**	12	46.2	14	53.8	0	0.0		
	Secondary education	**165**	97	58.8	49	29.7	19	11.5		
	High education	**64**	26	40.6	22	34.4	16	25.0		
Father job	Work	**269**	151	56.1	89	33.1	29	10.8	3.537	0.171
	Not Work	**31**	19	61.2	6	19.4	6	19.4		
Mother job	Housewife	**65**	39	60.0	20	30.8	6	9.2	0.606	0.739
	Work	**235**	131	55.8	75	31.9	29	12.3		
Socio-economic level	Very low	**14**	10	71.4	4	28.6	0	0.0	66.46	0.000**
	Low	**92**	75	81.5	15	16.3	2	2.2		
	Middle	**178**	81	45.5	73	41.0	24	13.5		
	High	**16**	4	25.0	3	18.8	9	56.3		

X^2= Chi-square test**.** No statistically significant at p > 0.05**.** ****** Highly statistically significant at p ‹ 0.01**.**

Table (6b): Relation between total academic stress and their youth characteristics of the studied nursing students and (n=300).

Youth characteristics		No.	Levels of academic stress						X^2	P-Value
			High (n=170)		Moderate (n=95)		Low (n=35)			
			No.	%	No.	%	No.	%		
Academic year	First	**168**	76	45.2	64	38.1	28	16.7	21.96	0.000**
	Second	**132**	94	71.2	31	23.5	7	5.3		
Practice any sports	Yes	**76**	16	21.1	34	44.7	26	34.2	72.61	0.000**
	No	**224**	154	68.8	61	27.2	9	4.0		
Have a talent	Yes	**101**	24	23.8	46	45.5	31	30.7	85.59	0.000**
	No	**199**	146	73.4	49	24.6	4	2.0		
Number of close friends	None	**33**	31	93.9	2	6.1	0	0.0	112.31	0.000**
	One	**45**	43	95.6	2	4.4	0	0.0		
	2-3	**105**	68	64.8	34	32.4	3	2.9		
	≥4	**117**	28	23.9	57	48.7	32	27.4		
Living condition	Both parents	**269**	140	52.0	94	34.9	35	13.0	22.67	0.000**
	One parent	**31**	30	96.8	1	3.2	0	0.0		

X^2= Chi-square test**.** ****** Highly statistically significant at p ‹ 0.01**.**

Table (7a): Relation between total mental health and demographic data of the studied nursing students and (n=300).

Demographic data		No.	Levels of mental health						X^2	P-Value
			Good (n=90)		Average (n=165)		Poor (n=45)			
			No.	%	No.	%	No.	%		
Age	18 years	**147**	54	36.7	73	49.7	20	13.6	6.588	0.159
	19 years	**128**	30	23.4	78	60.9	20	15.6		
	20 years	**25**	6	24.0	14	56.0	5	20.0		
Gender	Male	**79**	27	34.2	37	46.8	15	19.0	3.060	0.217
	Female	**221**	63	28.5	128	57.9	30	13.6		
Residence	Rural	**198**	52	26.3	116	58.6	30	15.2	4.082	0.130
	Urban	**102**	38	37.3	49	48.0	15	14.7		
Marital status	Single	**263**	80	30.4	142	54.0	41	15.6	2.020	0.732
	In a relationship	**27**	8	29.6	17	63.0	2	7.4		
	Married	**10**	2	20.0	6	60.0	2	20.0		
Ranking among their siblings	Single	**23**	6	26.1	17	73.9	0	0.0	11.29	0.080
	First	**122**	45	36.9	62	50.8	15	12.3		
	Middle	**97**	25	25.8	54	55.7	18	18.6		
	Last	**58**	14	24.1	32	55.2	12	20.7		
Working	Yes	**47**	8	17.0	10	21.3	29	61.7	95.69	0.000**
	No	**253**	82	32.4	155	61.3	16	6.3		
Father educational level	Illiterate	**13**	0	0.0	2	15.4	11	84.6	195.45	0.000**
	Reads or write	**26**	4	15.4	8	30.8	14	53.8		
	Basic education	**27**	5	18.5	14	51.9	8	29.6		

	Secondary education	**157**	24	15.3	125	79.6	8	5.1		
	High education	**77**	57	74.0	16	20.8	4	5.2		
Mother educational level	Illiterate	**21**	4	19.0	8	38.1	9	42.9	102.65	0.000**
	Reads or write	**24**	4	16.7	2	8.3	18	75.0		
	Basic education	**26**	4	15.4	18	69.2	4	15.4		
	Secondary education	**165**	51	30.9	100	60.6	14	8.5		
	High education	**64**	27	42.2	37	57.8	0	0.0		
Father job	Work	**269**	78	29.0	152	56.5	39	14.5	2.384	0.304
	Not Work	**31**	12	38.7	13	41.9	6	19.4		
Mother job	Housewife	**65**	11	16.9	40	61.5	14	21.5	7.740	0.021*
	Work	**235**	79	33.6	125	53.2	31	13.2		
Socio-economic level	Very low	**14**	4	28.6	2	14.3	8	57.1	70.68	0.000**
	Low	**92**	12	13.0	53	57.6	27	29.3		
	Middle	**178**	62	34.8	106	59.6	10	5.6		
	High	**16**	12	75.0	4	25.0	0	0.0		

X^2= Chi-square test**.** No statistically significant at p > 0.05**. *** Statistically significant at p ‹ 0.05**. **** Highly statistically significant at p ‹ 0.01**.**

Table (7b): Relation between total mental health and youth characteristics of the studied nursing students and (n=300).

Youth characteristics		No.	Levels of mental health						X^2	P-Value
			Good (n=90)		Average (n=165)		Poor (n=45)			
			No.	%	No.	%	No.	%		
Academic year	First	**168**	65	38.7	83	49.4	20	11.9	14.22	0.001*
	Second	**132**	25	18.9	82	62.1	25	18.9		
Practice any sports	Yes	**76**	45	59.2	27	35.5	4	5.3	42.40	0.000**
	No	**224**	45	20.1	138	61.6	41	18.3		
Have a talent	Yes	**101**	70	69.3	25	24.8	6	5.9	112.07	0.000**
	No	**199**	20	10.1	140	70.4	39	19.6		
Number of close friends	None	**33**	0	0.0	10	30.3	23	69.7	144.58	0.000**
	One	**45**	0	0.0	37	82.2	8	17.8		
	2-3	**105**	26	24.8	65	61.9	14	13.3		
	≥4	**117**	64	54.7	53	45.3	0	0.0		
Living condition	Both parents	**269**	90	33.5	153	56.9	26	9.7	61.42	0.000**
	One parent	**31**	0	0.0	12	38.7	19	61.3		

X^2= Chi-square test**.** No statistically significant at p > 0.05**. *** Statistically significant at p ‹ 0.05**. **** Highly statistically significant at p ‹ 0.01**.**

Table (8): Correlation matrix between ego resilience and academic stress and mental health among nursing students (n=300).

Variables		Ego resilience	Academic stress
Academic stress	**r** **P**	-0.824- 0.000**	
Mental health	**r** **P**	0.849 0.000**	-0.935- 0.000**

r= Pearson correlation coefficient test**.** **(-) =** Negative correlation**.** ******Highly statistically significant at p ‹ 0.01**.**

Table (9a): Multiple linear regression analysis of the effect of ego resilience on mental health among the studied nursing students (n=300).

Variable	Unstandardized Coefficients		Standardized Coefficients	T	P. value	95% Confidence interval	
	B	Std. Error	βeta			Lower	Upper
Constant	-17.082-	2.364		-7.225-	0.000**	-21.735-	-12.429-
Total ego resilience	1.755	0.063	0.849	27.744	0.000**	1.630	1.879

Model Summary				
Model	**R**	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**
1	0.849	0.721	0.720	7.24443

ANOVA			
Model	**Df.**	**F**	**P. value**
Regression	1	769.73	0.000**

Dependent Variable: Total mental health score**.**
B=Unstandardized Coefficients. **Beta**=Standardized Coefficients. **t:** Independent t-test. **R^2** = Coefficient of multiple.
**Highly significant at p ‹ 0.01.

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