

## Comparison of psychological distress, Sleep Disturbances, and Mindfulness among Nursing Students' Resilience Traits

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### Abstract

**Background:** Nursing students are more susceptible to perceived adversity and stress than other healthcare majors. Otherwise, in nursing training, students are confronted with real patient/clinic scenarios and numerous innovations, including death and dying, various lifestyles, and infectious diseases, are presented to nursing students during their training. Fostering resilience in students can aid in their academic completion and practice readiness. **Aim:** This study aimed to examine the attributes of resilient university students across mindfulness, psychological distress, and sleep disturbances. **Design:** This study used a cross-sectional descriptive correlational design **Subjects:** involved a convenient sample of 195 nursing students. **Setting:** It was conducted at the faculties of nursing at Cairo University and Fayoum University. **Tools of Data Collection:** Five tools for data collection were used: A demographic data sheet, Resilience Scale, General Health Questionnaire composed of 30 items, Sleep disturbance scale & Freiburg Mindfulness Inventory. **Results:** The study showed that there was a highly significant difference between the mean of total scores of the “Resilience Scale”, “General Health Questionnaire”, and “Sleep Disturbance Scale” results for the study group between Cairo University and Fayoum University nursing students. **Conclusion:** The study concluded that resilience and mindfulness are effective care methods for reducing psychological distress. **Recommendation:** Nursing students require a training program that emphasizes mindfulness and resilience. Therefore, requiring resilience encourages positive reductions in psychological distress among college students. This has significant ramifications for current and upcoming studies on the population of university students' resilience and mental health.

**Keywords:** Nursing students, Resilience, psychological distress, sleep disturbances and mindfulness

### Introduction

Nursing is becoming a more demanding and stressful profession as a result of staff shortages and other nursing-related concerns (Hart et al., 2019). Nursing students at university have higher levels of academic stress than students in other disciplines because they must adapt to a variety of clinical settings for practice and are exposed to a wide range of patient problems, as well as dying and death, during placement. (Reeve et al., 2018; Stephens, 2019).

Nursing students are more likely to experience academic or clinical stress. Academic stress refers to the pressures that come with learning. Academics are the most demanding part of nursing school. Academic stress can be

caused by exam preparation, receiving negative feedback from instructors in a clinical setting, completing theoretical exams or assessments, resenting the way instruction is delivered, being unsure of the curriculum's content, the disconnect between theory and practice, and a lack of instructor guidance (Yasmin, Hussain, Perveen, & Gilani, 2018). All of these variables can worsen stress and psychological disorders including anxiety, worry, and depression. The ability to resist such adversity and emerge stronger as a consequence is known as resilience, a term created in the 1970s. Turner (2019).

Psychological distress has a detrimental effect on students' physical, emotional, and intellectual health, according to research done by Foster, Allen, Oprescu, and Mcallister (2018). Who illustrated the stigma attached to mental

illness, many nursing university students who report having mental health issues choose not to seek treatment (Wyndaden et al. 2019). According to Ali, Majeed, Saba, Bodenaarain, and Bukhari (2020), psychological distress has been linked to several risk factors, such as sleep disturbances brought on by the pressure of a demanding academic schedule and getting high marks, as well as interpersonal and financial issues.

Nursing students must be strong to overcome obstacles and prepare for professional opportunities after graduation. Resilience can have a bigger positive influence, resulting in increased self-esteem, more life happiness, and successful rewinding of negative occurrences. Resilience is also useful in identifying health professionals who survive and flourish in the job. According to research, resilience is an essential characteristic of nursing success (Ruppamercy & Varghese, 2022). Prolonged, persistent stress is associated with reduced well-being and job satisfaction, potentially affecting nursing students' ambitions to work in a clinical setting after graduation (Khamisa, Oldenburg, Peltzer, & Ilic, 2018).

As much as 75% of college students report occasional sleep disturbances and 15% report general poor sleep quality, indicating that recurrent sleep issues pose a significant health risk (Talbot et al).. Insufficient sleep has direct consequences for college students, including increased tension, irritability, depression, confusion, decreased life satisfaction, and poor academic performance. (Okano et al, 2019). When these challenges emerge early in students' lives, they may lead to significant ailments as they age (high blood pressure, diabetes, stroke), resulting in an even greater public health cost. Insomnia hinders physical and mental activity as well as scholastic performance, therefore poor sleep quality may lead to mental health problems, or in reverse.

In addition to being linked to reduced psychological discomfort and enhanced psychological well-being, mindfulness is a potent predictor of resilience and serves as a buffer against the stress of academics. In 2018 Lueke and Gibson. The application of mindfulness-based stress reduction (MBSR) has

been shown to reduce psychological discomfort and increase the resilience of nurses and midwives. Martin & Tan (2018).

### Significance of the Study

Previous research has shown that resilience improves learning experience, academic success, completion of coursework, and, in the long term, professional practice (Reeve et al., 2018). Studies have also looked into how resilience influences undergraduate academic achievement in a variety of areas. Resilience is a major predictor of academic achievement among hospitality and tourism students (Kwek, Bui, Rynne, & So, 2019). The level of resilience among nursing students varies among nations. Nursing university students in Nigeria exhibited a medium degree of resilience. (Aloba, Olabisi & Aloba, 2016), However, their colleagues in Australia and Spain have shown remarkable resilience.

Resilient nursing students had better mental health and less academic fatigue (Rios, 2016). There is growing interest in exploring why some nursing college students do well and others do not, even though they all face the same problems and obstacles during their studies. Resilient nurses, on the other hand, typically seek out positive aspects of difficult situations to help them deal with their distress and use the lessons learned from the setbacks to help them deal with similar situations down the road. (Tugade & Fredrickson, 2019).

Preliminary studies have suggested a link between lower levels of psychological distress and mindfulness and resilience. Resilience is strengthened when you practice mindfulness. Nevertheless, Thompson, Arnkoff, and Glass (2019) note that no study has examined the presence of mindfulness in resilient university nursing students. The current study examined mindfulness, psychological distress, and sleep disturbances in nursing students with high and low resilience to expand the body of knowledge in the area of positive education that promotes both academic skills and personal well-being (Seligman, Ernst, Gillham, Reivich, and Linkins, 2019).

Despite the health advantages of resilience, researches on resilience's relationship to nursing students' well-being is still lacking. As far as we know, no research has been done on resilience and well-being among college nursing students at Cairo University or Fayoum University. On the other hand, compared to other nations like Australia and Singapore, nursing education in Egypt is more demanding in terms of the number of clinical hours needed (WHO, 2016). For local community health professionals and nursing students, the clinical setting environment is especially demanding, with a disproportionate nurse-to-patient ratio of 1:10 or 12 during the day and 1:16 up to 20 at night (Topp et al. 2015). Health workers would rather repress and suppress their negative emotions when working in such demanding environments (Watson, Deary, and Thompson, 2018).

### **Aim of the study**

This study aimed to examine the attributes of resilient university students across mindfulness, psychological distress, and sleep disturbances.

### **Research hypothesis:**

H1. The correlation between resilience, psychological distress, and sleep disturbances is expected to be significantly negative, while the correlation between resilience, psychological distress, and mindfulness is expected to be significantly positive.

H2. Nursing students who exhibit high levels of resilience are anticipated to experience lower levels of psychological distress and sleep disturbances, along with higher levels of mindfulness, in comparison to students with low levels of resilience.

### **Research Design**

A cross-sectional descriptive correlational design.

A cross-sectional study is a type of research design in which you collect data from many different individuals at a single point in time. In cross-sectional research, you observe variables without influencing them.

Researchers in economics, psychology, medicine, epidemiology, and the other social sciences all make use of cross-sectional studies in their work. For example, epidemiologists who are interested in the current prevalence of a disease in a certain subset of the population might use a cross-sectional design to gather and analyze the relevant data. (Lauren Thomas. 2023)

### **Sample**

A convenient sample of (195) nursing students was selected according sample size equation to be calculated using a G-power version 3.1.1 for power analysis. A Power of .95 ( $\beta = 1-.95 = .05$ ) at alpha .05 (one-sided) will be used as significance level, and effect size= (.03) will be selected with the following criteria:

1. Both genders.
2. Aged between 17 - 30 years old.
3. All academic levels for the nursing bachelor's degree.
4. Data collection will take place over one university semester.

### **Setting**

The study was carried out at the nursing faculties of Cairo University and Fayoum University.

The Faculty of Nursing at Cairo University is The faculty offers a four-year bachelor's degree in general nursing sciences that includes theoretical coursework and clinical/practical hospital training. To graduate after completing four academic years of study, an internship year was added starting in the academic year 1971. Before graduating, students must also pass this internship year. The faculty has just recently, in 2001, begun to admit students of both genders. There are nine academic departments in the faculty. Approximately 1567 students of all genders were enrolled in 2018—the year the current survey was conducted. The Faculty is fortunate to have a five-story structure of its own on the El Manial University Hospital medical campus at El Kasr El Einy, Cairo.

The Faculty of Nursing at Fayoum University was established in the Fayoum Governorate based on Presidential Decree No. (317) of 2009, with studies commencing in the academic year 2009/2010. The first graduating class was in the academic year 2013/2014, consisting of six departments: the Department of Medical and Surgical Nursing, the Department of Pediatric Nursing, the Department of Maternal and Neonatal Health Nursing, the Department of Psychiatric and Mental Health Nursing, the Department of Community Health Nursing, and the Department of Nursing Administration. The Faculty of Nursing at Fayoum University aims to be a leading educational institution in the field of nursing education, conducting scientific research, serving the community, and developing the environment, in light of quality standards for similar educational institutions, so that the college's performance stands out at all local, regional, and global levels.

### Data Collection Tools

Three tools for data collection were used in this study: -

A. Demographic data sheet will be developed by the researchers to record age, gender, academic level, specialty, and University.

B. Resilience Scale (RS): The original version of this standard tool, which was published online and developed by Wagnild and Young (1993). It had 25 items that measured five resilience foundations: equanimity, perseverance, meaning, and existential aloneness. The tool was intended to measure an individual's capacity for coping with adversity. The scale uses a 7-point Likert system to score each item, where higher scores reflect higher levels of resilience. An exploratory factor analysis was conducted to assess the construct validity of this instrument. The tool demonstrates reliability with a score of 0.84. Translation and back-translation procedures for the measurement were conducted by a team of three multilingual specialists, consisting of two psychiatric nursing professors and an expert in Arabic language.

C. The General Health Questionnaire30 (GHQ) Arabic version. A screening tool to

determine the biological, psychological, and social burdens of adults in primary care was developed in England in 1960 by David Goldberg and Paul Williams. The GHQ manual states that it is suitable for use with adolescents and adults. The Arabic version was developed and standardized by El-Islam (1986) and consists of 30 items measuring the general characteristics of mental health in normal people. The total score on the scale is between (0 and 30).

Goldberg suggests that participants with total scores of 23 or below should be classified as non-psychiatric, while participants with scores > 24 may be classified as psychiatric, but this score is not an absolute cut-off

The reliability of this tool was done to assess the internal consistency of the alpha obtained was 0.92 which has been considered to be acceptable.

D. Sleep disturbance scale: Kazem (2014) established this standard tool to evaluate measurements for recognizing and reporting various sleep disturbances. The tool is designed to measure difficulty in identifying and describing sleep disturbance as measured on 3 points Likert scale. The tool consists of 27 items and is rated as follows; (0 = strongly disagree; 2 = always). A total score of the scale ranges between (0 to 54) with higher scores indicating greater impairment/challenges. Accepted internal consistency and test-retest reliability was valued ( $\alpha = .82$ ) as well as adequate levels of convergent and concurrent validity.

E. Freiburg Mindfulness Inventory (FMI): is a 14-item instrument designed by Buchheld, Grossman, & Walach, (2006) published online for measuring mindfulness with higher scores indicating higher levels of mindfulness. The Arabic version is developed and standardized by Hallit (2022). This tool is rated on four rating scale; (4) Almost always, (3) Fairly often, (2) Occasionally, and (1) Rarely., with total scores ranging from 14 to 56. This tool's reliability is obtained at 0.91 compared to the acceptable range (0.7) which is highly acceptable. Construct validity of this tool was assessed through an exploratory factor analysis as well as adequate levels of convergent and concurrent validity.

### **Ethical consideration**

The research ethics committee at Cairo University's Faculty of Nursing officially approved the study after evaluating its feasibility and the research instruments. The study's purpose, nature, guarantees of confidentiality and anonymity, and the voluntary, risk-free, and revocable nature of participation will all be thoroughly explained to nursing students before obtaining their written informed consent.

### **Fieldwork of the study**

Before initiating the study, the Vice Dean for Academic Affairs at both Cairo and Fayoum Universities' Faculty of Nursing and the Research Ethics Committee granted official approval for the research to be conducted. Undergraduate nursing students at various academic levels from Cairo University and Fayoum University were recruited for the study. Admission to nursing programs is direct from secondary school, and students complete a five-year, full-time program to earn their first degree. Typically, 17-year-olds who want to study nursing enroll in university. The curriculum includes theoretical inputs along with clinical practice integration. A clinical internship is a 12- to 14-week program that nursing students start in their second year of study. Data was gathered between October and December of 2023, for about three months. Data were collected from nursing students at all academic levels at Cairo University and Fayoum University. The researchers approached the nursing curriculum at different academic levels at the end of their lectures. Nursing students were provided with informational sheets that detailed the study's objective, and upon signing the consent forms, they gave their informed consent. Participants had the option to voluntarily participate or decline at any time if they had any objections. The questionnaires were requested to be filled out, which took approximately 20 to 30 minutes after written consent was obtained.

### **Statistical design**

Statistical analysis was performed utilizing the Statistical Package for Social Sciences (SPSS), version 29, in a manner that adhered to the highest standards of formal

language. The study's variables were assessed for similarities and discrepancies through the use of parametric inferential statistics, including regression analysis, t-test (ANOVA), and descriptive statistics (mean and standard deviation). Analysis of variance was also employed to evaluate any discovered associations. A probability (p-value) was deemed noteworthy if it was less than 0.05, and highly significant if it was below 0.001.

### **Results**

Table (1), illustrated the studied nursing students were in the average age 21 years old constituted the highest percentage among Cairo University and Fayoum University nursing students were (33% & 41.1%) respectively, The least percentage were (10% & 6.3%) respectively in the age 19 years old. The mean age of the Cairo University nursing students was 21.4 years old with  $SD \pm 1.9$  while and Fayoum university nursing students was 20.9 years old with  $SD \pm 1.1$ . Over two thirds of Cairo University and Fayoum university nursing students (63.3% & 60%) respectively were female. As regards to the academic level of study sample, 74% of Cairo University nursing students were enrolled fourth level While 42.1% Fayoum University nursing students were enrolled third level.

Table (2), indicated that there was a highly significant difference between the mean of total scores of the "Resilience Scale", "General Health Questionnaire", "Sleep disturbance scale" results for the study group between Cairo University and Fayoum university nursing students at (p-value = 0.01 & 0.0001) respectively.

Table (3), showed that 67% of Cairo University nursing students had moderate level of resilience compared to 26.3% of Fayoum University nursing students. Otherwise 30% of Cairo University nursing students had high level of resilience compared to 62.1% of Fayoum University nursing students. While 3% of Cairo University nursing students had low level of resilience compared to 11.6% of Fayoum University nursing students.

Table (4), showed a positive highly significant relationship between the total score of “Resilience Scale” and total score of “General Health Questionnaire” of the study groups with ( $r = 0.25$ ,  $p$ -value = 0.0001).while a highly significant relationship between the total score of “General Health Questionnaire” and the total scores of “Sleep disturbance scale” and total scores of “Mindfulness Inventory “of the study

groups with ( $p$ -value = 0.001& 0.0001) respectively.

Table (5), illustrated a significant relationship between the total score of Freiburg Mindfulness Inventory and gender among Fayoum university nursing students at ( $p$ -value = 0.03).

**Table (1): Frequency Distribution of the studied sample according to demographic characteristics (n=195)**

| Items                          | Cairo university<br>N=100      |      | Fayoum university<br>N=95      |      | Chi-square | p-value |
|--------------------------------|--------------------------------|------|--------------------------------|------|------------|---------|
|                                | No.                            | %    | No.                            | %    |            |         |
| <b>Gender</b>                  |                                |      |                                |      |            |         |
| Male                           | 37                             | 37.0 | 38                             | 40.0 | 0.18       | 0.66    |
| Female                         | 63                             | 63.0 | 57                             | 60.0 |            |         |
| <b>Age</b>                     |                                |      |                                |      |            |         |
| 19                             | 10                             | 10.0 | 6                              | 6.3  | 12.8       | 0.11    |
| 20                             | 13                             | 13.0 | 24                             | 25.3 |            |         |
| 21                             | 33                             | 33.0 | 39                             | 41.1 |            |         |
| 22                             | 33                             | 33.0 | 19                             | 20.0 |            |         |
| >22                            | 11                             | 11.0 | 7                              | 7.4  |            |         |
| <b>Mean <math>\pm</math>SD</b> | <b>21.4<math>\pm</math>1.9</b> |      | <b>20.9<math>\pm</math>1.1</b> |      |            |         |
| <b>Level</b>                   |                                |      |                                |      |            |         |
| First                          | 0                              | 0.0  | 20                             | 21.1 | 87.9       | 0.0001* |
| Second                         | 25                             | 25.0 | 11                             | 11.6 |            |         |
| Third                          | 1                              | 1.0  | 40                             | 42.1 |            |         |
| Forth                          | 74                             | 74.0 | 24                             | 25.3 |            |         |

**Table (2): The Difference between the mean of total scores of the “Resilience Scale”, “General Health Questionnaire”, “Sleep disturbance scale” and “Freiburg Mindfulness Inventory” of the study group (n = 195)**

| Study Variables                | Cairo university |       | Fayoum university |       | T   | p-value |
|--------------------------------|------------------|-------|-------------------|-------|-----|---------|
|                                | Mean             | SD    | Mean              | SD    |     |         |
| Resilience Scale               | 94.61            | 14.52 | 101.27            | 21.80 | 2.5 | 0.01*   |
| General Health Questionnaire   | 79.85            | 9.86  | 83.99             | 13.49 | 2.4 | 0.01*   |
| Sleep disturbance scale        | 43.69            | 7.17  | 49.00             | 9.78  | 4.3 | 0.0001* |
| Freiburg Mindfulness Inventory | 40.26            | 6.73  | 38.57             | 6.43  | 1.7 | 0.07    |

\*significant at p-value<0.05

**Table (3): Comparison between the total result of the “resilience levels” Cairo University and Fayoum University nursing students of the studied groups (n = 195)**

| Levels of resilience | Cairo university |      | Fayoum university |      | Chi-square | P       |
|----------------------|------------------|------|-------------------|------|------------|---------|
|                      | No.              | %    | No.               | %    |            |         |
| Low                  | 3                | 3.0  | 11                | 11.6 | 33.0       | 0.0001* |
| Moderate             | 67               | 67.0 | 25                | 26.3 |            |         |
| High                 | 30               | 30.0 | 59                | 62.1 |            |         |

\*significant at p-value<0.05

**Table (4): Correlation matrix among total scores of study variables the Resilience Scale”, “General Health Questionnaire”, “Sleep disturbance scale” and “Freiburg Mindfulness Inventory “of the study groups (n = 195)**

| Variables                      | Resilience Scale |         | General Health Questionnaire |         | Sleep disturbance scale |         | Mindfulness Inventory |   |
|--------------------------------|------------------|---------|------------------------------|---------|-------------------------|---------|-----------------------|---|
|                                | R                | P       | R                            | P       | R                       | P       | R                     | p |
| Resilience Scale               | 1                |         |                              |         |                         |         |                       |   |
| General Health Questionnaire   | 0.25             | 0.0001* | 1                            |         |                         |         |                       |   |
| Sleep disturbance scale        | -0.07            | 0.31    | -0.22                        | 0.001*  | 1                       |         |                       |   |
| Freiburg Mindfulness Inventory | 0.04             | 0.55    | 0.33                         | 0.0001* | -0.36                   | 0.0001* | 1                     |   |

\*significant at p-value<0.05

**Table (5): Correlation between total scores of study variables of Resilience Scale”, “General Health Questionnaire”, “Sleep disturbance scale” and “Freiburg Mindfulness Inventory and socio-demographic characteristics among study groups (n = 195)**

| Variables                      | Cairo university |      |       |      |                |      | Fayoum university |       |        |      |                |      |
|--------------------------------|------------------|------|-------|------|----------------|------|-------------------|-------|--------|------|----------------|------|
|                                | Gender           |      | Age   |      | Academic Level |      | Gender            |       | Age    |      | Academic Level |      |
|                                | T                | P    | R     | P    | R              | P    | T                 | P     | R      | P    | r              | p    |
| Resilience Scale               | 0.3              | 0.7  | 0.03  | 0.71 | -0.04          | 0.65 | 0.7               | 0.46  | -0.009 | 0.93 | -0.18          | 0.07 |
| General Health Questionnaire   | 1.1              | 0.26 | -0.11 | 0.27 | -0.04          | 0.63 | 0.2               | 0.83  | 0.02   | 0.81 | -0.03          | 0.72 |
| Sleep disturbance scale        | 1.4              | 0.13 | -0.11 | 0.26 | -0.17          | 0.08 | 0.3               | 0.7   | 0.08   | 0.41 | 0.12           | 0.22 |
| Freiburg Mindfulness Inventory | 0.9              | 0.36 | -0.03 | 0.75 | 0.08           | 0.38 | 2.1               | 0.03* | 0.03   | 0.73 | 0.15           | 0.12 |

\*significant at p-value<0.05

## Discussion

Research indicates that resilience plays a significant part in reducing psychological distress. Crucially, no study has looked at how university students with high resilience levels differ in how resilience functions. Furthermore, the relationship between mindfulness and resilience has received less research attention than that of college students who are less resilient to sleep disturbances. Resilience and psychological distress, resilience and sleep issues, and resilience and mindfulness all have strong negative correlations, as would be expected. Nursing college students who report high levels of resilience are expected to have significantly lower levels of psychological distress and sleep disturbances, as well as higher levels of mindfulness, than those who report low levels of resilience. This study found that nursing students from Cairo University had a mean age of 21.4 years, while nursing students from Fayoum University had a mean age of 20.9 years (SD ± 1.9). Females made up more than two-thirds of the nursing students at the universities in Cairo and Fayoum; **Taha et al. (2020)** found that less than two-thirds (61.1%) of nurses surveyed were under 30 years old. This conclusion, confirmed by **Kaur (2019)**, who has studied the topic, may also explain why the majority of participants were females. According to the current study's findings, 74% of Cairo University nursing students are enrolled in the

fourth level, whereas 42.1% of Fayoum University nursing students are enrolled in the third level. **Coşkun et al. (2014)** agreed with this finding. The current study found a significantly significant difference between the mean total scores of the "Resilience Scale," "psychological distress," and "sleep disturbance scale" outcomes for the study group of Cairo University and Fayoum University nursing students. In keeping with this, a research (**McGillivray et al., 2015**) discovered that those with high levels of resilience had considerably lower levels of psychological distress, mindfulness, and disturbed sleep. **In line with** the current study findings, 67% of Cairo University nursing students exhibited moderate resilience, compared to 26.3% of Fayoum University nursing students. Otherwise, 30% of Cairo University nursing students had strong levels of resilience, compared to 62.1% of Fayoum University nursing students. 3% of Cairo University nursing students had poor levels of resilience, compared to 11.6% of Fayoum University nursing students. Furthermore, **Coşkun et al. (2014)** found that pupils have a high degree of resilience (X = 190 067) and average problem-solving skills (X = 92.82). University students must overcome several difficult obstacles before they may graduate. **Moreover**, there was a highly significant relationship between the total score of the "Resilience Scale" and the total score of "psychological distress" of the study groups (r =



0.25,  $p$ -value = 0.0001). while there was a highly significant relationship between the total score of “psychological distress” and the total scores of “sleep disturbance scale” and “mindfulness inventory” of the study groups ( $p$ -value = 0.001 and 0.0001), respectively. **Rudwan and Alhashimia** corroborated this information in 2018 and the findings of (**Talbot et al,2020**) support the notion that resilience and mental health are positively correlated. , who discovered that sleep deprivation over time raises the risk of mental health issues like anxiety and depression. A noteworthy predictor is mindfulness. The results of this study found that mindfulness was related to psychological distress; higher levels of mindfulness were associated with lower levels of psychological distress, supporting previous research. These results can shed light on the significant correlation ( $p$ -value = 0.03) between gender and the total score of the Freiburg Mindfulness Inventory among nursing students at Fayoum University. **Chopel et al (2017)** concluded that the subjects' disposition to mindfulness is higher in women than in men. High levels of resilience in psychology students are reported to be a strong predictor of improved psychological well-being.

### Conclusion

The present study's findings concluded as follows: Fayoum University conducted an investigation comparing nursing at Cairo University with 195 college students from the same faculties. A resilience measure was used to examine students' resilience and its impact on psychological discomfort, sleep issues, and mindfulness. The research groups' general resilience scale and general health questionnaire findings revealed a highly significant positive connection ( $r = 0.25$ ,  $p$ -value = 0.0001). The combined results of the research groups' general health questionnaire, sleep disruption scale, and mindfulness inventory revealed a very significant link ( $p$ -value = 0.001 and 0.0001, respectively).

### Recommendations

The following recommendations could be made in light of the study's findings: Utilize a larger sample size when conducting the inquiry. The use of convenience sampling in academic settings limits the results' applicability to

colleges worldwide. The study's final finding that resilience positively reduces psychological distress in college students has significant ramifications for both ongoing and upcoming studies on university students. Awareness is the first step toward resilience.

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