

Nursing Students' Perception of Distance Education and its Relation with Perceived Academic Stress and Emotional Intelligence during COVID-19

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Abstract

Background: COVID-19 is pandemic disease, so the worldwide governments switched to distance education to limit its spread. The abrupt transition from the classical classroom to the virtual one is upsetting the students and nursing instructors. **Aim:** To assess nursing students' perception of distance education and its relation with perceived academic stress and emotional intelligence during COVID-19. **Design:** Descriptive correlational design was utilized in this research. **Sample:** Simple random sample from all the four years nursing students, the total student's number was (845) students. **Setting:** This research was performed in the Faculty of Nursing at Minia University. **Tools:** Four tools were used in this research involved. Demographic data questionnaire, distance education perception scale, perceived academic stress scale and emotional intelligence scale. **Results:** The research result reveals that mean age of the students was 19.4 ± 2.7 years old, 76.5% of students are females. 52.3% had negative perception and 47.7% of students had positive perception toward distance education. While 57% of students suffer from high academic stress and 66.5% of students showed moderate emotional intelligence. **Conclusion:** more than fifty percent of the students suffer from high academic stress. Also, there was statistically significant relation between student's demographic characteristics and their perception towards distance education, perceived academic stress and emotional intelligence scale **Recommendations:** Introducing novel developments to distance learning methodologies in the learning programs as well as during students training on the utilization of the electronic library to get the best outcomes.

Keywords: Distance Education. Academic Stress, Emotional Intelligence. COVID-19, Nursing Students.

Introduction

The COVID-19 epidemic shook the globe in December 2020. An attempt was made to construct a new organizational structure that had a significant impact on education at all levels. Universal challenging of urgent distance learning software solutions had been provoked by COVID-19. How to keep on learning and teaching while safeguarding the educators, instructors, and students from the epidemic. It was a challenge that schools, institutions, and universities must address (Hodges et al., 2020). Therefore, it would be reasonable to anticipate that these structures would at least partially replace the expensive face-to-face schooling (Moorhouse, 2020).

Since 2004, a proposal for digital transformation had received the minister of higher education's attention that let them allocate their funds regarding initiatives to involve learning online processes to meet the demands of students and as well as to enhance the improvement of higher education quality level (Hashim, et al. 2021). A number of college students in Egypt had maintained the academic studies via a completely online education procedure after the current coronavirus epidemic in half of March (Mai, 2020; Mahmoud, 2020).

Distance education, also described as mobile learning, online learning, distance learning, or e-learning, it is a kind of education in which educators and students are physically alienated during the process of instruction as well as learning in a classroom (Harsasi & Sutawijaya, 2018). Additionally, distant education aims to adapt the typical educational environment to a variety of temporal and spatial contexts (Dhawan, 2020). In the same context, Mahasneh (2021) describe distance education as the delivery of education outside the classroom, to the learner at home or at work, in a variety of formats. This idea holds that there are numerous ways that distant learning could help students reach their educational goals (Octaberlina & Muslimin, 2020).

Similar to other instruction technique distance learning has its benefits as well as disadvantages for instructors and students (Bączek et al., 2020). The earlier evidence showed that there are a number of benefits to online learning, involving easily accessible, increased comfort, flexibility, and relatively cost-effectiveness of the chosen educational method due to the low lodging and travel costs. While there are other benefit issues with distant learning, such as time flexibility, price, digital literacy among students, as well as poor quality of internet connection (Dhawan, 2020).

According to **Casuso-Holgado et al., (2019)** academic stress is the demands placed during learning periods by the numerous educational cycles create a space where there is much tension from preschool years through university life. Also there are a number of psychological stressors that are persistent in this point, with concern about academic achievement, completion of the exam, relationships with classmates or educators, and the style of teaching or particular teachers' workloads stand out. In the same line (**Trevethan, et al., 2021**) noted that this kind of stressor is enclosed in a systemic way as well as the psychological process in which learners are afflicted by a number of symptoms that clearly produce a physical and mental imbalance under the high academic demand's situation.

Health, economy, and education all had been significantly impacted by COVID-19. The perceived stress created in the academic as well as community teaching had been obviously provided the unpredictability which caused by the inhibition of face-to-face classes, concerning about infection, which push to apply the distant learning approach (**Álvarez, 2020**). Additionally, distance learning had created a number of obstacles; including difficulty to integrate especially among the first-year students sometimes had trouble to know their classmates or teachers and restrictions in social experimentation of the university life (**Dussel, et al., 2020**). It is important to include more troubling aspects such as the inability to follow online sessions with the necessary device or due to the limitation of discipline or proficiency to engage in activities for studying online (**Aguilar, 2020**).

Iqbal et al., (2022) defined Emotional intelligence (EI) as the ability to manage, acknowledge, and communicate one's own feelings and experiences. It is specifically associated with the efficient control of emotional states as well as the linking of emotions into actual knowledge and thinking. Also the EI is made up of a variety of elements, such as social skills, self-control over emotions, and motivation (**Jan & Anwar, 2019**). In this context **Segal et al., (2019)** stated that, EI enabling the development of stronger connection, academic and career success, and the completion of personal and professional objectives. The person may also find it easier to connect with their emotions, carry out their intentions, and decide what is most important to them.

Moreover **Rossetini, et al., (2021)** stated that, EI is a crucial talent for learner to master in both their classroom and job lives. Students are unable to attend offline classes due to the COVID outbreak and are facing with several psychological problems. The same writers also mentioned that students could overcome these issues by using their EI skills. Health care agencies have not yet identified numerous of psychological and

physiological issues; thus the pandemic is not yet done. Health care institutions must therefore boost EI.

According to **Alam et al., (2021)** EI was linked to the adaptation of the current circumstances; as well the adaptation was linked to the general practice. When faced with unclear circumstances, the EI helps people define their expectations and decide how to respond. Students frequently encounter such unexpected circumstances. In order to meet their academic syllabus requirements, students must exhibit good thoughts and emotions including patience, focus, optimism, and prestige. These demanding circumstances increase the psychological pressure and may had an impact on burnout, stress in the classroom, and job performance. However, EI could assist in improving students' work performance while also reducing the impact of burnout and academic stress. By investigate the relation between EI as well as emotional stress, **Stevens et al. (2019)** reported that EI people tend to be happier, more confident, and more gregarious; accordingly, their EI attributes a great effect on students' academic stress.

In a study done by **Son et al. (2020)** they showed that, the trans-formation from traditional modes to distance studying method had noticed to be connected with higher degree of academic stress. Also, in a study done by **Yamini (2020)** who reported that there was a substantial amount of felt academic stress among the 94 Indian college students who were using an online learning technique. In the same context **Abdulghani (2020)** reported that, during COVID-19 pandemic, the academic stress among students became considerably more in numerous nations, including the Kingdom of Saudi Arabia (KSA).

Nursing education was significantly affected by the COVID-19 in a number of ways. A nursing student will learn about patient care through concurrent theoretical and practical practice. Distance learning still supports the theoretical education, but not practical education. As a result of pandemic's spread, an education like nursing, which gives equal weight to theory and practice, would be interrupted. Lockdown, tight COVID hospital standards, and terror prevent nursing students from coordinating theory and practice. In addition, nursing students already experience stress from their lengthy academic programs and exams. Students' stress levels will rise as a result of COVID 19 due to a variety of academic concerns, including exams, missing peers, device as well as internet accessibility, etc. (**Babu, et al., 2021**)

Significance of the study

The universities in Egypt had no prior experience with online learning platforms and were not prepared to use this innovative teaching method (**Amin,**

and Hussien, 2021). Fewer students are familiar with online education. Although the reality that many students were unprepared during this time of transition due to the shutdown of the educational institutions, all educators are being urged to adapt and employ online learning (El-Sayad et al., 2021). During the epidemic, researchers studied nursing education notes that 91% of students aren't ready for distance education as well as they become unsatisfied. In addition it is difficult to provide high fidelity simulation in place of the standard clinical field training for nurses during pandemics. (Langegård et al., 2021; Standerford et al., 2020).

Due to slow internet and expensive of the internet connections, nursing students showed negative perception toward distant learning, especially among low-income countries (Diab & Elgahsh, 2020). A study done in Oman by Malik and Javed, (2021) they clarified that during the pandemic, students' mental health is significantly impacted, as (96.9%) experienced academic stress while 82.5% had moderate level of stress and 14.4% developed high level of stress. Accordingly, understanding the perception of nursing students about distance education and its relation with perceived academic stress as well as EI during COVID-19 is critical for student outcomes about online learning and also to provide recommendations about the growth and enhancement of the educational process's quality.

Aim of the study

The current study aim was to assess nursing students' perception of distance education and its relation with perceived academic stress and emotional intelligence during COVID-19

Research questions

1. What are the students' nursing levels of perception about distance education, perceived academic stress and EI via COVID-19?
2. Is there a relation between nursing students' perception about distance education with academic stress and emotional intelligence?

Subjects and Method

Design:

A descriptive correlational research design was used. This design helps the investigators to collect information as well as to assess the associated factors in the different situations.

Setting:

This research conducting in the "Faculty of Nursing" at Minia University in Minia governorate, Egypt.

El Minia Faculty of Nursing set up in 1996 under the name of the Higher Institute of Nursing and in 2000 change the title to be the Faculty of Nursing. Also the duration of study in this faculty is 4 years; in addition to the final year that the students must spent it in the hospital. The first batch graduated in 2001. At the beginning the faculty accepted girl students only, but started from 2004, it accepted students from both sexes. The faculty consists of two building the old one is three floors, and the new building is five floors with seven departments.

Sample:

A simple random sample method was used to select nursing students from all the four years who agreed to be enrolled in the study during the 2nd semester of the academic year 2020/2021. The total number of these students was (845) students.

The following formula was used to calculate the total number of subjects. This sample size formula was developed by (Taherdoost, 2017)

- $N = P * (1-p) * (Za/d)^2$
- N=population size
- Z=the standard score corresponding to the level of significance at 95 % (standard value of 1.96)
- P=property availability and neutral ratio=0.50.
- d= the error rate is equal to 0.05

The subject number will be as follows.

Academic year	Total number	30% (study number)
First year	846	255
Second year	940	285
Third year	600	180
Fourth year	386	125
Total number	2772	845

Data collecting instruments

Tool (1): Nursing Students demographic data questionnaire.

It was designed by the investigators to collect data such as (age, gender, residence, academic year,

platforms used in online learning and devices used during online classes).

Tool (2): Distance education perception scale (DEPS).

This scale was developed by **Özkaya et al., (2021)**: it composed of 22-item which loaded on four factors as the following:

1. Factor-I "Students perception" comprised of twelve items
2. Factor-II "facility of equipment" composed of five items
3. Factor-III "management of time" composed of two items
4. Factor-IV "Facility and support of the institution" composed of three items.

All items were positively stated. The students' responses utilized a five points Likert scale, from one for "strongly disagree" to five for "strongly agree"). Also the scores ranged from 22 to 110.

Scoring system:

- Score $\leq 60\%$ was classified as negative perception:
- Score $> 60\%$ was classified as positive perception:

Tool (2): The Perceived Academic Stress Scale (PASS):

(PASS) designed by **Bedewy and Gabriel (2015)** to assess how university students perceive academic stress and its causes. With 3 main elements to describe the causes of academic stress between students in the university: first subscale concerning with the academic expectations (4 items), the second subscale concerning with the workload and examinations (8 items), and the third subscale concerning with students' academic self-perceptions (6 items). Likert scale from one to five was using when asking the responders to rate the instrument, where the first respond is strongly disagree and the fifth one represented strongly agree.

Students' responses: one mark for strongly disagree responses while five marks for strongly agree responses for items: (5, 9, 13, 14, & 15).

Students' responses: one for the strongly agree response to five for strongly disagree responses for items: (1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 16, 17&18).

The score for PASS ranged from 18 to 90. High scores represent high level of stress.

- Score $\leq 50\%$ was classified as low stress level.
- Score 51% to 60% was classified as moderate stress level.

- Score $> 60\%$ was classified as high stress level.

Tool (4): Emotional Intelligence Scale:

It was developed by **Goleman (1995)**; this scale was developed to measure EI level. It was composed of fifteen items in which the participant put mark next to each one that he feels applied to him. Also there were six reverse sentences (14, 13, 10, 7, 6, and 2). Moreover the responses were evaluated on 3 categories of scoring system as (1) Not at all, (2) Sometimes and (3) Often. The total score ranges from 15-45. In which high score showed high EI level and low score show low EI level.

The following criteria were used to divide the total scores into three groups:

- From 15-25: Low EI level
- From 26-35: Moderate EI level
- From 36-45: High EI level

Validity

To be able to determine the extent to which the tools evaluate what was intended to be evaluated, coverage of the topic, clarity, length of the words, format, and general presentation, a jury of 5 experts' members in psychiatric and mental health nursing also in community health nursing from Minia University evaluate the tools' content validity. All jury members recommended that the current study tools were valid and relevant to the aim of the study.

Reliability

Tool's reliability was performed through utilizing Cronbach alpha test; it was 0.97 for the Distance Education Perception Scale. 0.93 For the Perceived Academic Stress Scale and 0.89 for EI scale.

Ethical Consideration

The following ethical considerations were respected from the beginning of data collection:

An official letter was taken from the Research Ethics Committee of Minia University "Faculty of Nursing".

An official agreement to perform the current research was taken from the Dean of the faculty of nursing.

The students' informed consent was obtained after being informed about the nature and aim of the study.

Participation in the study was elective and the participants do not get any incurred penalty for refusal to participate.

The researchers ensured the confidentiality of the data collected and also it will be saved during and post conducting of the study.

The research process was conducted with regard for the participant's privacy, dignity and according to the study aim.

Pilot study

Approximately 85 students (10% of the sample size) were used in a pilot study to evaluate the tools' objectivity, applicability, and clarity also to estimate the time needed to fill in the study tools. The sample chosen for the pilot study was integrated into the main study sample as there were no modifications added to the study tools.

Field work

- In order to become familiar with the research problem and choose the precise methods to measure the study variables, a survey to the relevant related literature covering many parts of the subject was conducted using contemporary available books and journals.
- The Dean of the Nursing Faculty at Minia University approved the study to be carried out.
- The objective of the research was explained to the students. An oral and written consent were obtained for sharing in the research. Each student who accepted to participate was assured of their voluntary engagement and anonymity by the investigators.
- The data collection process extended for about three months throughout the time from March to the end of May 2021. This was conducted through interviewing the participants using a structured questionnaire conducted after or before the theoretical lectures in classroom.
- The students were questioned in groups and given the study questionnaires as a part of safety procedures. The students documented their answers to the questions on the questionnaires, which took about 30 to 40 minutes to be completed. The researchers remain with the students at this period to address any unclear questions.

Statistical analysis

Descriptive statistics, such as frequency distribution, percentages, averages, and standard deviations as a measure of dispersion, were used to summarize, tabulate, and present the data. Since it comprises the significance test described in traditional statistical texts, a statistical program for the social sciences (SPSS), version (26) was used for the statistical analysis of the data. The F-test or (ANOVA) was used for a number of groups, and the numerical data were presented as mean and SD. The interrelationships between the quantitative variables were evaluated using Pearson correlation analysis. A 0.05 p value was used to define statistical significance.

Results

Table (1) showed that 51.2 % of students their age less than 20 years old, with mean age 19.4 ± 2.7 years, 76.5% of the students are females while 23.5% of them are males. Regarding their residence, 82.7% of students are come from rural areas, whereas urban areas account for 17.3%. Regarding academic year 33.7% of participants are in the second year but 14.7 % of the students were from the fourth year.

Figure (1) illustrated that 63.9% of students use the zoom platform in online learning, 14.7% use goggle meet and 21.4% use WhatsApp application.

Figure (2) showed that 29.5% of students use their tablet, 28.2 use laptop and 16.8% of students use their mobile.

Figure (3) clarified that 47.7% of the students had positive perception while 52.3% had negative perception.

Figure (4): indicated that 57% of students had high academic stress level, while 30.7% of them had moderate academic stress level and 12.3% of them had low stress level.

Figure (5): showed that 66.5% of students had moderate emotional intelligence level, 26.5% of them had high emotional intelligence level and only 7.0% of students had low emotional intelligence level.

Table (2) analyzed that there is statistically significant relation between students' demographic characteristics and distance education perception, perceived, academic stress, and emotional intelligence level. Also, no statistically significant relation existed between previous experience of attending e-learning training, platforms used in online learning and distance education perception, perceived academic stress, and emotional intelligence level.

Table (3) illustrated that strong statistically significant negative correlation existed between distance education perception level and perceived academic stress level with p value = 001**, also there is strong negative statistically significant correlation between perceived academic stress level and emotional intelligence level with p-value= 002**, as well as a statistically significant positive correlation existed between distance education perception level and emotional intelligence level with p- value= 0.05.

Table (1): Frequency and percentage distribution of studied students in relation to their demographic characteristics (N=845)

Items	No.	%
Age		
Less than 20	433	51.2
From 20 and more	412	48.8
Mean ± SD	19.4±2.7	
Gender		
Male	198	23.5
Female	647	76.5
Residence		
Urban	147	17.3
Rural	698	82.7
Academic year		
First year	255	30.2
Second year	285	33.7
Third year	180	21.4
Fourth year	125	14.7

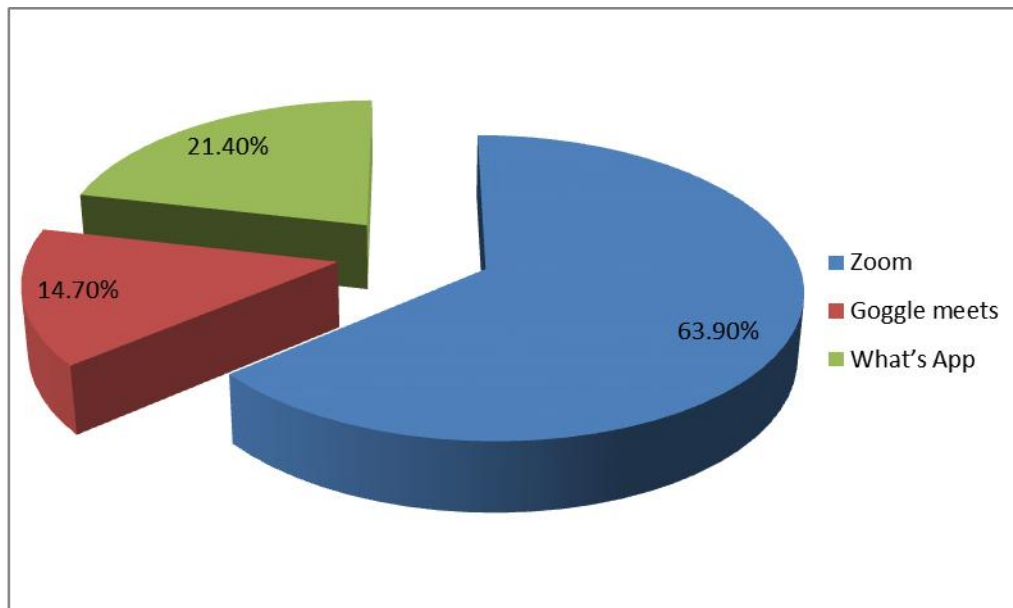


Figure (1): Distribution of the studied participants according to their online learning platforms (N= 845)

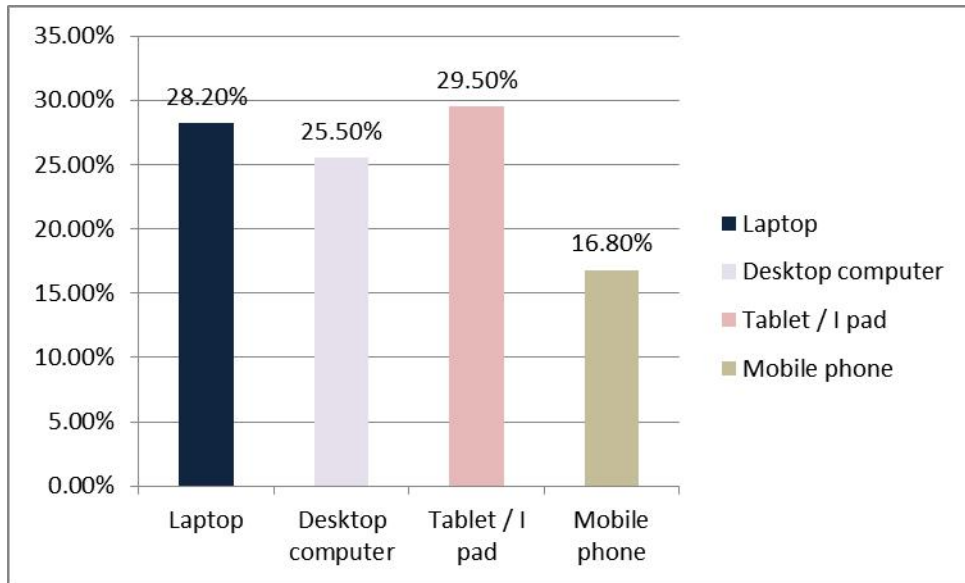


Figure (2): Distribution of studied students in relation to their devices used during online classes. (N= 845)

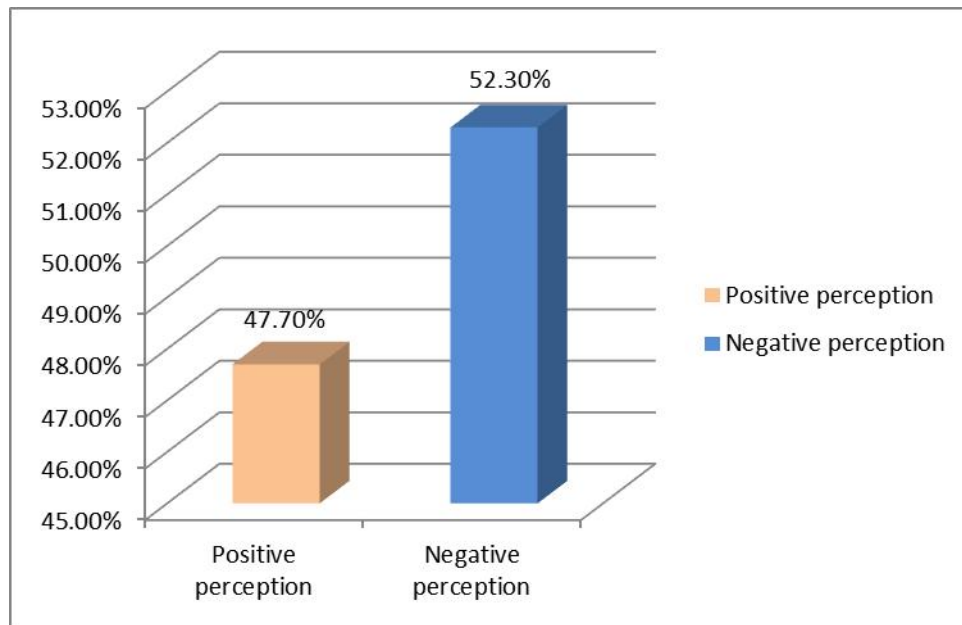


Figure (3): Distribution of participant students according to their total scores of distance education perception scale (N= 845)

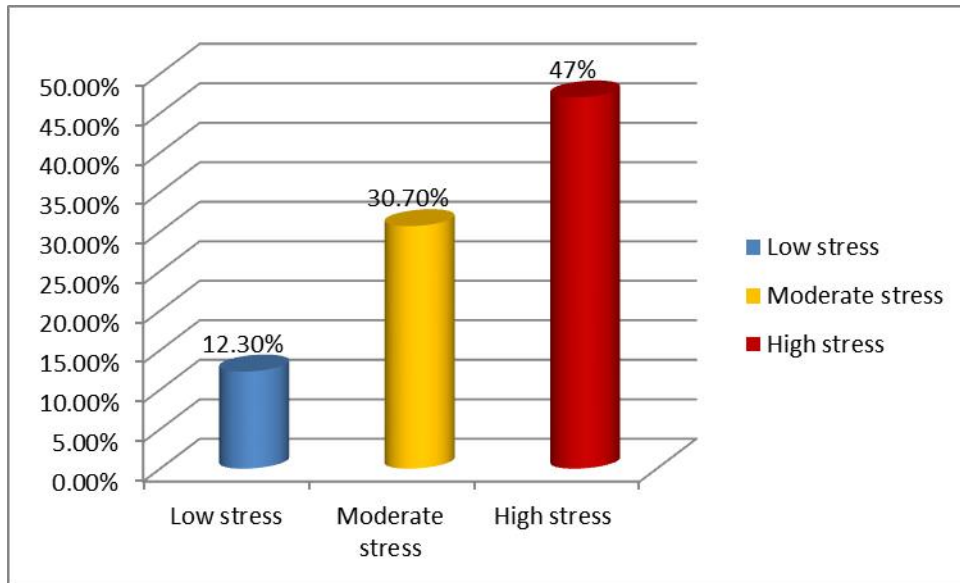


Figure (4): levels of reported academic stress level among the study participants (N=845).

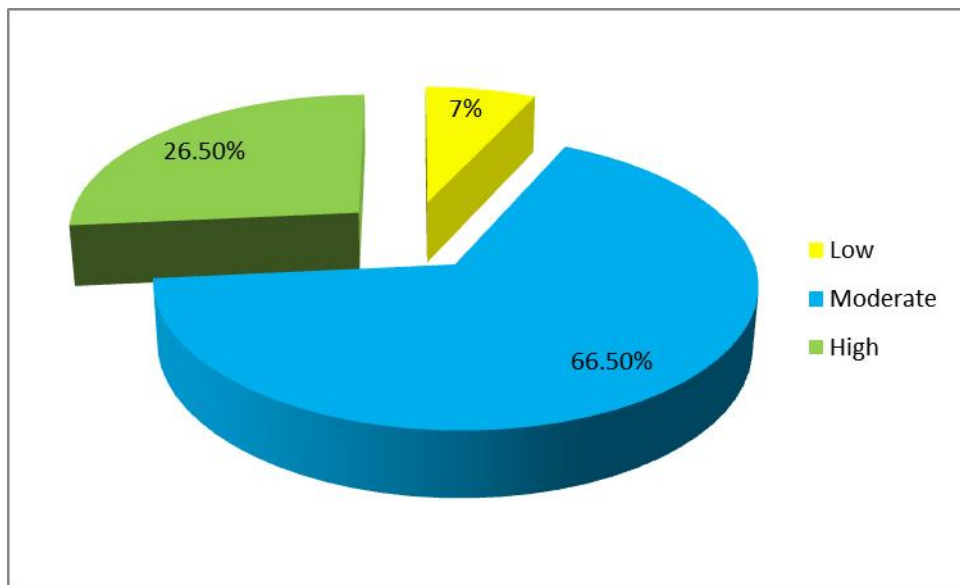


Figure (5): Distribution of students according to their total scores of emotional intelligence level (N=845)

Table (2): Relation between demographic characteristics, Distance Education Perception level, PASS, and EI level among participants Students (N= 845)

Variables	Distance Education Perception Scale		Perceived Academic Stress Scale		Emotional Intelligence Scale	
	r	P	R	P	r	P
Age	-0.112	0.05*	0.130	0.02*	-0.165	0.005**
Gender	0.525	0.001**	0.130	0.02*	0.341	0.001**
Residence	-0.123	0.03*	-0.525	0.001**	-0.175	0.003**
Academic year	0.126	0.001**	0.130	0.02*	0.525	0.001**
Platforms used in online learning	-0.015	0.8	-0.022	0.7	-0.002	0.9
Devices used during the online classes	0.132	0.01*	0.882	0.02*	0.927	0.005**

NS= not significant * p = ≤.05 (statistical significance) ** p = ≤.01 (high statistical significance).

Table (3) Correlation between, Distance Education Perception level, PASS, and EI level among participant Students (N= 845)

Emotional Intelligence Scale	Perceived Academic Stress Scale	Distance Education Perception Scale	Variables
.137* .05	.123-** .001	1 -	Distance Education Perception Scale -r. value -P. value
.236-** .002	1 -	.123-** .001	Perceived Academic Stress Scale -r. value -P. value
1 -	.236-** .002	.137* .05	Emotional Intelligence Scale -r. value -P. value

NS= not significant * p = ≤.05 (statistical significance) ** p = ≤.01 (high statistical significance).

Discussion:

The global pandemic COVID-19 was declared in March 2020 that had an impact on all spheres of life, including education (WHO, 2020). Like other countries around the world, most of the educational fields in Egypt quickly shift to online learning through the pandemic it was considered an urgent obstacle to be faced by the faculties of nursing education in Egypt for the 1st time (Shehata et al. 2020). Students all around the world endure stress due to a variety of academic and non-academic causes, including environmental, sociocultural, and psychological issues. To investigate the consequences of the COVID-19 crisis on the high educational organization, this study was performed to evaluate the nursing students' perceptions of distance education and its connection with perceived academic stress and EI throughout COVID-19.

Concerning the demographic characteristics of the students shared in this study, the actual results clarified that the average mean age of the studied sample was 19.4 yrs. old. This result was somewhat agreed with the finding of a study done by Yusoff et al. (2021) who documented that the mean age of the sample studied was about 21 years old. As regards to gender, the current study cleared that above three quarters of the participant were females. From the investigators point of view this finding could be related to the fact that previously in Egypt, the nursing profession field was only for females and still they represent the highest percent of nursing students throughout all the educational levels of nursing profession. This result is concordant with the literatures which note that about two thirds of the participants in the sample were females (Sami, 2022). This result was agreed with the finding of a study done by (Iyigun, et al., 2022) who found that the highest percent (75.0%) of the students were females.

As regards to students' residence, the present study proved that most of the students were from rural areas. The current study finding was in line with an Egyptian study conducted by Ali et al., (2022) who reported that 75.5 % of study sample reside in rural area. The actual findings added that slightly more than thirty-three percent of the studied students were in the second academic year while the lowest percent of the sample were in the fourth year. This finding disagreed with the finding of a study done by Sheroun, et al., (2020) who stated that the highest numbers of students were in their end year of study (31.9%) and about one quarter of them were in the second year of education.

The current study showed that most of the participants used Zoom platform during online classes followed by WhatsApp groups. This finding could be read as meaning that the main benefit of using Zoom meetings is the ability to record and store video discussions. Additionally, video platforms make it possible for instructors and students to connect for real-time debates and information sharing.

This result was consistent with the finding of a study done by Pramana, et al. (2022) who stated that the dominant type of platforms that were often utilized by students in learning online was Zooming (61.6%) and another group of students used WhatsApp groups as a second platform. Similarly, in a report of a study done by Mola (2020) who claimed that Zoom meeting platform was widely utilized in the process of online education in Italy, USA, Japan, as well as China. These findings weren't related to the finding of a study done by Mohammed et al., (2021) who observed that the highest percent of student nurses used Google meets and then WhatsApp group in online learning.

In relation to devices used during online classes, this study highlighted that around one third of students used their tablet. In contrast, the finding of a study done by Abbasi, et al., (2020) who found that slightly over three quarters of the students utilize phone for their e-learning. While the finding of a study done by Armstrong-Mensah, et al., (2020) who reported that (47.3%) of students used their smart phone device for online classwork. This disagreement in the earlier study with the current one might be due to the various of participants and location.

According to the total score of distance education perception among the student nurses, it was observed that higher than fifty percent of them had a negative perception of distance education. This finding might be attributed to the lack of readiness of nursing students to shift suddenly from offline to learning online through COVID-19 pandemic; also, the absence of proper training for the students about online learning which led them to perceive distance education negatively. In addition, lack of motivation during the pandemic, inability to preserve self-discipline as well as low socioeconomic state which considered as a major barrier to distance education perception. Moreover, students' attitudes about distance learning become more unfavorable throughout the epidemic which in turn affects their perception. Another explanation was mentioned in the finding of a study done by Lovrić et al., (2020) who reported that student nurses had a clear awareness about the benefits of clinical practice in actual face-to-face circumstance. Also, the finding of a study done by Olum et al., (2020) who added that online teaching is not an impacted educational strategy for nursing education.

The current result was in accordance with a Pakistani study which conducted at a very early period of the pandemic by Abbasi et al., (2020) who pointed out that more than three-fourth students had negative perception. In the same context, the finding of a study done by Pramana et al. (2022) who noted that a negative perception of distance learning was held by the majority of respondents. As more than fifty percent (61.6%) of students in nursing education, according to a different survey done with a total of 627 nursing students in Egypt across various academic years, expressed unfavorable opinions regarding online instruction. While

the finding of a study done by (Diab & Elgahsh, 2020). Conversely, the current study's findings are inconsistent with the finding of a study done by Oladele et al. (2022) who documented a positive disposition of student nurses regarding to online learning in South-West, "Nigeria" and proved that overall perception of students to online learning ranked among fair to a high level of perception.

Concerning the perceived academic stress levels among the studied sample, the present research results clarified that more than fifty percent of participants had high stress, level followed by slightly over third of them had moderate stress level and the remaining percentage included students who suffered of low stress. These outcomes reflected the impact of COVID 19 on raising nursing students' stress levels because of multiple academic factors including academic expectations, college studies, transitional examinations, study workload, assignments, and practical work and students' self-perception. On the other hand, students' stress level arises from multiple nonacademic aspects including socio-cultural, environmental, and psychological factors. Another indicator was noted that academic strain was frequently the biggest burden in the lives of nursing students and most of them perceived stress related to their inability to accomplish better in test and not capable of living up to parents as well as teachers' expectations.

This finding is partially supported the finding of a study done by Babu, et al., (2021) to evaluate how COVID 19 affects academic stress among student nurses at Institute of Nursing Sciences as well as Research. The authors stated that greater than fifty of student nurses (57.7%) become moderately stressed; near the third of them get severe stress level and lowest percent developed low stress. Conversely, the current results were inconsistent with the finding of a study done by Sheroun, et al., (2020) who explored that most participants reported moderately stressed feeling. While the high perceived their stress score was seen in only 13.35 % of the participants.

Regarding the EI levels among nursing students, the present research results explored that approximately two thirds of the nursing students get moderate emotional intelligence level, followed by slightly over one quarter of them showed high EI, and only seven percent of the sample reported low EI level. The probable evidence of the current result involved the fact that through the COVID-19 virus outbreak EI had been suggested as a potential instrument to raise happiness of the students, which would result in better life. While the finding of a study done by (Mascia et al., 2020). Who reported another explanation which might be mentioned by the researcher that EI is an essential factor for nursing students to cope properly with different stressors and meet high academic demands.

The present finding was compatible with the finding of Egyptian study done by Hussien, et al., (2020) who stated that EI total scores, for which KSA students

recorded significantly higher than Egyptian students with ($p < .01$). In addition, a moderate level of total EI score was reported among Similar sample, in a study done by Alnjadat and Al-Rawashdeh (2021) who found that the total emotional intelligence score for the students' respondents falls into the mean range ($M = 39.6$). Additional recent results were parallel with the current study finding of a study done by Cheema (2022) who reported that (86%) of students had an average degree of EI. While fourteen percent only had high degree of EI. Conversely, the finding of a study done by Ainiyah et al., (2021) illustrated that most of the student had high EI level. It should be emphasized that the various used questionnaires and their subscales, as well as the various cultural structures of the researched populations, may be the cause of the variations of the findings among the present study and other studies.

Regarding to the relation between nursing students' distance education perception, perceived academic stress and emotional intelligence, with their demographic data. The findings of the current study clarified that there was a statistically significant relation between nursing students' distance education perception, with their demographic characteristics except for platforms used in online learning. This result may be due to; the presence of multiple factors that affect students' perception about distance education as sex, their age group, residence, different academic years, and devices used during the online classes, that in turn affects students' academic stress and emotional intelligence. According to the researchers, the results showed that males had more time and flexibility to utilize mobile devices and the internet than girls. Concerning residence, it could be connected to the casual factor that rural areas had a lot of barriers which impact on availability and accessibility of internet facilities than urban ones.

The findings were supported by recent research carried out by Rana Khagi, et al., (2021) who claimed that access to the internet, the requirement for using mobile phone data, and academic level were all strongly correlated with the student's perception. Similarly, the finding of a study done by Kusum Lata and Surat Ram Kudi. (2022) who reported that significant association was found between overall perception of students nursing regarding virtual classes with year of nursing education and availability of static internet. Conversely, the current research was contradicted with the finding of a study done by Jyoti et.al. (2020) who discovered that the perception of students and year of study had no statistically significant relation.

The results of this research showed that there was a statistically significant association between perceived academic stress of nursing students and their demographic data except for platforms used in online learning. This finding may be attributable to a significant factor that technological elements and socio-demographic data predict academic stress in students nursing. This findings was congruent with the findings of a study done by Aslan & Pekince (2021) who

described a significant difference in perceived stress scale score in terms of age as well as gender with ($P < .001$ and $P < .001$, respectively). On the same respect, the finding of a study done by **Gavurova, et al. (2020)** discovered another confirming evidence for the present research that demonstrated a significant difference in stress related to socioeconomic characteristics through the COVID-19 pandemic. Conversely, the finding of a study done by **Tuffah, & Al-Jubouri (2021)** who reported that p-values of 0.381, 0.425, 0.072, 0.235, and 0.390, regarding age, gender, university, residency respectively, and intent to pursue nursing profession which did not differ from the relevant academic pressures.

Moreover, the current study findings referred to the presence of significant association between EI of nursing students and their demographic data except for platforms used in online learning. Regarding age, the study results agreed with the finding of study done by **Alnjadat & Al-Rawashdeh (2021)** who demonstrated how age affected the students' levels of EI. The results showed that students who older than 21 years old had higher EI scores than other students. Previous research done by **Gardner and Lambert (2019)** provided support for the study's conclusions that proved a significant positive relation between EI as well as age. As regards gender, the current study results could be due to a significant reason that most nursing teachers being females, which could impact on students of nursing positively in the topic of EI. This was in accordance with the finding of study done by **Sarvanan, et al. (2022)** who reported that girls had significantly higher emotional intelligence compared to boys. Concerning the academic year, the study's findings supported the research study held by **Vargas Valencia, et al. (2022)** who found a significant difference between student groups by school year within the three EI subscales with ($p < 0.05$). Students' self-perceived EI improved as a result during the course of the subsequent academic year.

The present study results reported a strong negative statistically significant correlation between distance education perception scale and perceived academic stress scale. This might reflect the terrible covid-19 pandemic's effects on students which were categorized as an acute academic stress perceived by them that in turn affected students' perception of distance education. The pandemic's multifaceted effects on nursing students who had caused extraordinary changes in their academic performance, professional surroundings, and personal lives across all geographic areas (**Emory et al., 2021**). Another factor might have to consider with university students is fear. Additionally, the pandemic's elevated stress levels due to the abrupt adoption of a new teaching strategy (**Sahu, 2020**). This was partially supported by **Ali et al., (2022)** study who found a high, statistically significant negative association between the study subjects' average experience of stress and perception of distance learning with ($P=0.001$).

stress and EI was assessed in the existing study. The current study results displayed a strong negative statistically significant correlation between perceived academic stresses with emotional intelligence. This may be attributed to the strong impact of pandemic situation on the student nursing. On the other hand, students who had trouble adapting to environmental changes will have trouble doing so when they faced with the academic pressures. The link between coping strategies, EI, and perceived stress among undergraduate nursing students was examined in a supported study. According to the current research, there is a negative correlation between EI and students' perceived stress level. According to this finding, less stress is experienced by the undergraduate nursing students when EI rises (**Rebello, 2020**). While there was a positive significant connection between distance education perception scale and EI scale. This result might be related to the fact that participants were trying to build EI and keep themselves away from boredom and sad thoughts to adapt with the negative effects of the current pandemic condition (**Chandra, 2021**).

Conclusion

According to the study's findings, there are statistically significant relation between demographic characteristics, perceptions of distant education, perceived academic stress, and the EI level. Additionally, there is a significant and strong negative correlation between the perceived academic stress level and the perception of distant education. Also, there is a significant negative statistically correlation between the perceived academic stress scale and the EI scale. Although there is a statistically significant positive correlation between the emotional intelligence scale and the perception scale for distant education.

Recommendations:

- Introducing novel developments of distance learning methodologies in the learning programs as well as training students on the utilization of the electronic library to get the best outcomes.
- Further research for evaluating students' opinion related critical factors that impact on their perception as well as acceptance of online learning through the crisis.
- Assessing the academic and non-academic stressors that nursing students experience in order to provide appropriate EI training that will help them improve their coping mechanisms.
- Developing simulation applications of practical skills in order to ascertain the nursing students' training requirements with respect to distance education.

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