

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

Amal Abd Elsalam Abd Elazeem¹, Faten Mohamed Ahmed² and Eman Nabawy Abo Zeid³

(1) *Demonstrator of Psychiatric and Mental Health Nursing, Faculty of Nursing -Benha University*, (2) *Assistant Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing-Benha University*, and (3) *Lecturer of Psychiatric and Mental Health Nursing, Faculty of Nursing-Benha University*.

Abstract

Background: Persistent exposure to stress can have negative consequences on student's health and performance and the ability to handle stress is largely determined by resilience ability used by the students. Moreover, there is a bidirectional relation between problematic use of mobile phone and perceived stress. **Aim of study:** Was to examine the relation between perceived stress, resilience and problematic use of mobile phone among nursing students at faculty of nursing, Benha University. **Research design:** Descriptive correlational research design was utilized to achieve the aim of the study. **Setting:** This study was conducted at Faculty of Nursing, Benha University, Qalubia Governorate. **Study subject:** Convenience sample of 250 students from the first grade nursing students. **Tools of Data collection:** Four tools were used: **Tool 1:** Structured Interview Questionnaire, **Tool 2:** Perceived Stress Scale, **Tool 3:** Connor-Davidson Resilience Scale and **Tool 4:** Problematic Use of Mobile Phones Scale. **Results:** Nearly half (42.4%) of the studied nursing students had moderate stress and almost half (49.2%) of the studied nursing students had moderate resilience while almost two thirds (60.4%) of them had high problematic use of mobile phone. **Conclusion:** There was a highly statistically significant positive correlation between problematic use of mobile phones and perceived stress while there was a highly statistically significant negative correlation between the total resilience and both perceived stress and problematic use of mobile phones. **Recommendations:** A stress management program should be applied as an immediate measure to reduce perceived stress and its effect in problematic use of mobile phone among nursing students.

Key words: Nursing Students, Perceived Stress, Resilience, Problematic Use of Mobile Phones.

Introduction

Nursing profession is becoming more demanding and stressful occupation because during studying, nursing students experience higher levels of perceived stress than those of other disciplines in which students have to adapt to various clinical settings for practice and exposed to diverse patient conditions, fear of mistakes and death of patients. Moreover, nursing students have to apply theoretical knowledge to practice in order to bridge the theory-practice gap that consider an important source of perceived stress on nursing students (Alkaissi et al., 2022).

Perceived stress refers to the assessment of the degree to which the situation in individual's life is seen as stressful; therefore, it is related to the subjective assessment of life events and assessing how unpredictable, uncontrollable and overloaded individuals find their lives. Perceived stress leads to physical, psychological distress and has detrimental effects on well-being. Moreover, High level of perceived stress among nursing students can cause a drop in the educational performance (Aslan et al., 2020).

Nursing students especially juniors tend to have higher perception to stress compared to

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

seniors due to adjustment to the new university life, heavy workload, unclear assignments, having difficulty to understand the context, feeling of incompetence, poor motivation to learn, participation in class presentation, relationship with family and friends, time pressures, and sleeping habits may affect some students' mental health. Moreover, students who from a low socioeconomic background, financial support does not always come easy for them and this in turn cause them to feel anxious and experience stress (Thomas & Zolkoski, 2020).

Resilience plays a key role in determining the outcome of the stressor by reducing, minimizing or tolerating perceived stress which may prevent perceived stress. Nursing students adopt different ways of handling stressors which can be considered as effective (positive) or ineffective (negative). Effective coping strategies include seeking social support and using leisure activities while maladaptive coping strategies include avoidance and escape (Alqarni & Alasmee, 2020).

The perception of stress and ability to handle stress is largely determined by the resilience capacity used by the students. Nursing students who employed adaptive coping strategies as problem solving to manage stressors encountered in the clinical course of nursing programs experienced a low level of perceived stress. Conversely, those who utilized a maladaptive strategy showed a higher level of perceived stress and become prey to many physical and psychological health issues and could be a barrier in achieving challenges of nursing profession (Stecz et al., 2021).

Mobile phone usage has become indispensable and become academically

stressed out especially among the nursing students. Problematic use of mobile phone result from mobile phone use associated with at least some element of dysfunctional use such as anxiety when the phone was not available or neglect of other activities. In addition to this, Problematic use of mobile phones is associated with perceived concentration difficulties and affecting cognitive and learning abilities of nursing students (Wald, 2020).

The main motivation behind problematic behavior is to escape the stress and negative emotions in real life as when nursing students experience tension and stress, they use various coping strategies to relieve tension and eliminate the negative outcomes brought by perceived stress such as negative life events and studying troubles. In addition to this, previous studies have suggested that perceived stress is a trigger for problematic usage of mobile phone and better prognosticator of mental health problems than stress (Zhao et al., 2021).

Resilience has an important association with both problematic use of mobile phone and perceived stress in which use of mobile phone excessively may not help individuals cope with stressors effectively; contrarily, Problematic use of mobile phone can cause perceived stress, this depend on the perception of using one's mobile phone excessively that might be a deciding factor in increasing user's stress which in turn increase withdrawal from others or an inability to accomplish academic tasks. These negative outcomes associated with problematic use of mobile phone may further reduce people's perceived control over life circumstances and reinforce perceived stress among nursing students (Zhao & Lapierre, 2020).

Finally, resilience is an essential trait that helps nursing students cope with the enormous stresses experienced by them and prepares them for their professional role after graduation and plays an important role in academic success and helps nursing students to cope effectively with adversities and challenges in the clinical setting which in turn reduces the problematic use of mobile phone as a tool to reduce stress. Students with lower resilience capacity may be more vulnerable to adverse psychological outcomes, such as perceived stress, while students with higher resilience capacity can cope more effectively with stress and become less vulnerable to stress complications such as problematic use of smart phone (Wald, 2020).

Significance of the study:

Perceived stress has become an imperative part of daily life of nursing students and the clinical environment considered an important source of stress in any undergraduate nursing curriculum so it is important for reducing nursing students' perceived stress levels which has a negative impact on students' learning, clinical and academic performance as well as physio-psychosocial health and well-being. Resilient nursing students who are better equipped to deal with the psychological and academic demands of nursing college are associated with positive effects on psychological well-being. Moreover, diverse studies accompanied worldwide stated the prevalence of perceived stress among nursing students ranging from 30% to 78%. Additionally, a study done in Egypt revealed the prevalence of high stress levels which were 40.2% and resilience levels were 51.7% among nursing students (Okasha et al., 2021).

Nursing students are one of the most vulnerable groups for problematic use of mobile phone owing to their better dealing with technological advances and more

inadequate impulse control compared with adults. Mental health issues are statistically significant concerns with smartphones overuse. Withdrawal, preoccupation, tolerance, lack of control, depression and low self-esteem are reported among students with problematic use of mobile phone .In Egypt the number of mobile phone users is estimated to be around 23.6 million population most of them youth and young adults. Moreover, high mobile phone use is associated with high level of perceived stress for the nursing students, which in turn can affect their physical and psychological health and academic performance (Mohamed & Mostafa, 2020).

Aim of the study:

This study aims to assess the relation between perceived stress, resilience and problematic use of mobile phone among nursing students at Faculty of Nursing, Benha University.

Research Questions:

- What is the level of perceived stress, resilience, and problematic use of mobile phones among nursing students at Faculty of Nursing, Benha University?
- What is the relation between perceived stress, resilience, and problematic use of mobile phones among nursing students at Faculty of Nursing, Benha University?

Subject and Methods:

Research design:

A descriptive correlational research design was used to achieve the aim of the study.

Research setting:

The present study was carried out at faculty of nursing, Benha University, Qalyubia governorate. The faculty consisted of four floors containing four educational grades. It contains six scientific departments, namely, psychiatric and mental health nursing department, medical surgical nursing

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

department, pediatric nursing department, obstetrics & gynecological nursing department and nursing administration department.

Sample type & technique:

A convenience sample of 250 first grade nursing students from the above mentioned setting was selected for the study.

Sample size:

The study sample was consisted of (250) first grade nursing students from the total number of first grade students which was (610) students. The sample size calculated according to slovin's formula for determination of the sample size (**Rayan, 2013**).

$$n = \frac{N}{1+N(e)^2}$$

n=sample size

N= population size

e=margin of error

Tools of data collection:

The data was collected using the following tools:

Tool I: Structured Interview Questionnaire:

This questionnaire was developed by the researcher to elicit data about socio-demographic characteristics of the nursing students which included: age, sex, residence, marital status, work during study and family income.

Tool (II): Perceived Stress Scale (PSS):

Perceived stress scale was originally developed by **Cohen et al., (1983)**. It is the most commonly scale used for assessment of the degree to which people perceive their lives as stressful. It consists of 10 items, each item was rated on five point Likert scale ranged from (0 to 4) as the following: never = (0), rarely = (1), sometimes = (2), often = (3) and always = (4).

Scoring system:

The total scores of perceived stress scale ranged from (0 to 40) with higher scores indicated higher perceived stress. To get the total score of the scale the researcher firstly, reversed of scores of the four positively stated items (4, 5, 7 & 8) and then each scale item was graded and then added together to give total score.

Scoring system indicated the following:

- (> 30%) = Low perceived stress
- (30 - 65%) = Moderate perceived stress
- (< 65%) = High perceived stress

Tool (III): Connor-Davidson Resilience Scale (CD-RISC):

The scale was originally developed by **Connor & Davidson, (2003)**. This scale used to measure the ability to cope with stress and adversity. It included 25 statements with five subscales, Subscale I (8 statements) describing personal competence. Subscale II (3 statements) related to control the environmental situations. Subscale III (5 statements) related to positive acceptance of change. Subscale IV (7 statements) measuring trust in one's instincts and Subscale V (2 statements) covering the spiritual influences. Each item was rated on a five point Likert scale ranged from (0 to 4) as the following: never = (0), rarely = (1), sometimes = (2), often = (3) and always = (4).

Scoring system:

The total score was calculated by summing up all item responses. It ranged from (0 to 100), with higher scores reflecting greater resilience.

- Low resilience = (> 50 %).
- Moderate resilience = (50-75%).
- High resilience = (<75 %).

Tool IV: Problematic Use of Mobile Phones Scale (PUMP):

This scale was originally developed by Merlo et al., (2013). It used for assessment of the degree for which the usage of mobile phone considered problematic and measure frequency and intensity of cellular phone behaviors and self-report feeling of problematic use of mobile phone. It consisted of 20 items, each item was rated on a five-point Likert scale ranging from (1 to 5) as the following: strongly disagree = (1), somewhat disagree = (2), neither agree nor disagree = (3), somewhat agree = (4) and strongly agree = (5).

Scoring system:

The total score ranged from (20-100), with the higher scores indicated more usage of mobile phones and more problematic use.

0% =Low problematic use of mobile phone.

(50-75%) =Moderate problematic use of mobile phone.

(>75 %) =High problematic use of mobile phone

Validity of tools:

Arabic translation was done by the researcher for tools of the study and tested for their translation and validity of tools by making jury of five experts in psychiatric and mental health nursing, Faculty of nursing, Benha University, who checked the relevancy, comprehensiveness, clarity and applicability of the questions. According to their opinions, modifications were done and the final form was developed. The modifications were included (modification of some words in the Arabic form of the four tools to give the right meaning of the phrases.

Some modifications were done in tool (2) Perceived Stress Scale that was used in the research study was modifications were in the

scoring system to be as the following: never (0), rarely (1), sometimes (2), often (3) and always (4), instead of 5 responses that were used (never (0), almost never (1), sometimes (2), fairly often (3) and very often (4).

Reliability of tools:

Testing the reliability of the tools through Alpha Cronbach reliability analysis.

Tools	No .of items	Alpha Cronbach
Perceived Stress Scale	10	0.855 (Good)
Connor-Davidson Resilience Scale	25	0.903 (Excellent)
Problematic Use of Mobile Phones	20	0.897 (Good)

Ethical consideration:

Before conduction of the study the researcher clarified the purpose and significance of the study to the studied students and assured them about confidentiality of the collected data. All the studied students were informed that the participation in the study was voluntary and no name was to be included in the questionnaire sheet. Studied students were informed that the content of the tools was used for research purpose only, and they informed that they had the right to be withdrawn from the study at any time of data collection without any consequences. Moreover, an informed oral consent for participation in the study was obtained from each student before conduction of data collection.

Pilot study:

Before starting of data collection pilot study was conducted on (30%) of the total sample to ensure clarity and applicability of the study tools and identifying the time needed for each subject to fill each tool and to identify the problems and obstacles that may be encountered during conduction of the

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

study. According to the result of pilot study some modifications were done, therefore, the pilot study sample was excluded from the total sample.

Field Work

Before starting data collection, an official permission was obtained from the Dean of Faculty of Nursing, Benha University requesting these permission and cooperation to conduct the study. The researcher started data collection by introducing himself to the studied nursing students and provided a clear explanation of the aim, significance and types of tools needed to fill in the study to gain cooperation of the studied nursing student. An oral consent was obtained from each of studied student before data collection. Data was collected through interviewing of the studied nursing student in the Faculty of Nursing, Benha University over a period of seven months started from **(November, 2021 till the end of May 2022)**. The researcher was attended to the faculty to collect the data one day per week (every Wednesday) during the period of data collection. The average number of interviewed students was between 9-10 students per day as the researcher interviewed students as a group interview. The studied students filled in the study tools independently and each student needed about 30 minutes to complete the study tools and revised to check their completeness to avoid any missing data. The researcher followed the specific precautions (wear mask, personal distance and using alcohol) due to corona virus circumstances after provided explanation and reassurance of studied nursing student.

Statistical analysis:

The collected data were organized, coded, computerized, tabulated, and analyzed by using Statistical Package for Social Science (SPSS) program (version 25). Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data: the arithmetic mean (\bar{X}) and standard deviation (SD) for quantitative data.

While the qualitative variables were compared using Chi Square test (χ^2) which used for relation tests and person correlation coefficient (r) was used for correlation analysis. The degree of significance was identified at:

Significant result when P - value < 0.05 .

Highly significant result when P - value < 0.01 .

Non-significant result when P -value > 0.05 .

Results:

Table (1): Shows that the mean age of the studied students is **(18.22±1.04)** years. Regarding to sex, about two thirds (68.4%) of them are females. Moreover, more than three quarter of them (81.2%) are from rural residence. Regarding to marital status, the majority of them (98.8%) are single. Moreover, more than three quarter of them (87.6%) aren't work during study and nearly three quarters of them (74.0%) have enough family income.

Figure (1): Shows that, nearly half of the studied nursing students (42.4%) have moderate stress and more than one third of them (37.6%) have high stress, while less than one quarter (20.0%) have low stress.

Figure (2): Shows that, almost half of the studied nursing students (49.2%) have moderate resilience, more than one third of them (34.0%) have low resilience, while less than one fifth 16.8% of them have high resilience.

Figure (3): Reveals that almost two thirds (60.4%) of the studied sample have high problematic use of mobile phone, almost one third of them (32.8%) have moderate problematic use of mobile phone while 6.8% of them have low problematic use of mobile phone.

Table (2): Shows that there is a highly statistically significant positive correlation between problematic use of mobile phones and perceived stress among the studied

students. This means when perceived stress increases, problematic use of mobile phones increases. While there is a highly statistically significant negative correlations between the total resilience and both perceived stress and

problematic use of mobile phones among the studied students. This means when resilience increases, perceived stress and problematic use of mobile phones decrease.

Table (1): Socio-demographic characteristics of the studied sample (n= 250).

Socio-demographic characteristics	N	%
Age		
17 < 18	14	5.6
18 – 19	236	94.4
Mean± SD 18.22±1.04		
sex		
Male	79	31.6
Female	171	68.4
Residence		
Rural	203	81.2
Urban	47	18.8
Marital status		
Single	247	98.8
Married	3	1.2
Work during study		
Not work	219	87.6
Work part time	31	12.4
Family income		
Not enough	65	26.0
Enough	185	74.0

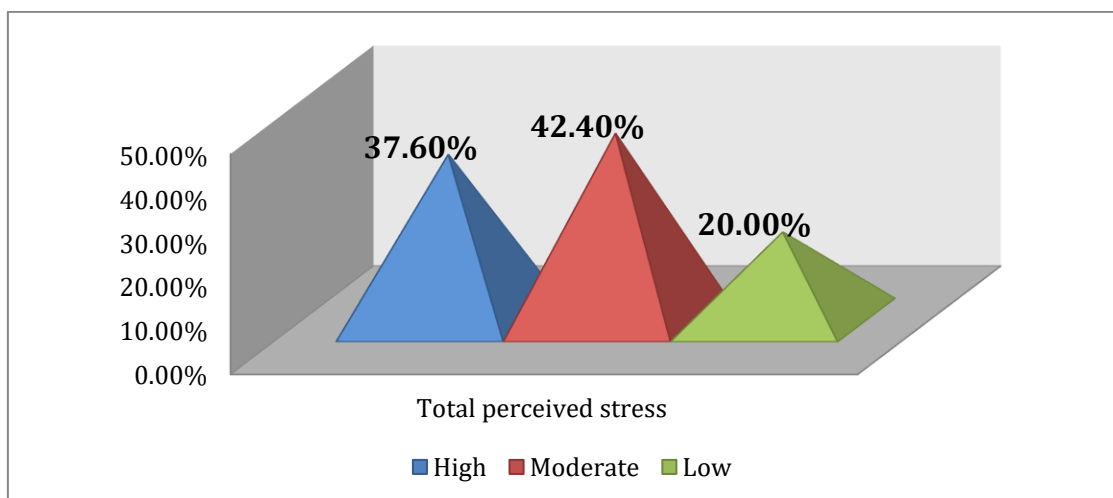


Figure (1): Distribution of the studied sample regarding to their total perceived stress (n=250).

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

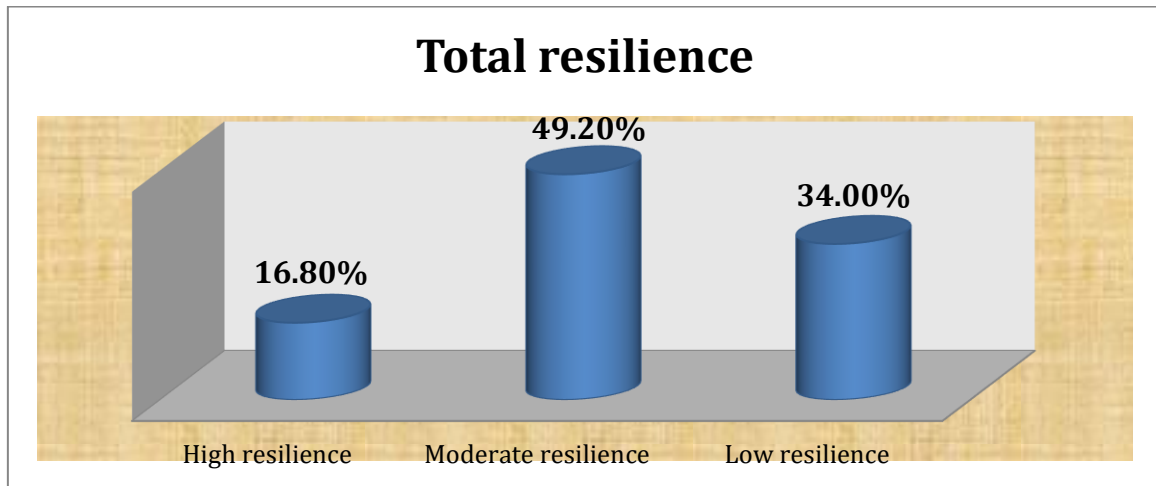


Figure (2): Distribution of the studied sample according to their total resilience (n=250).

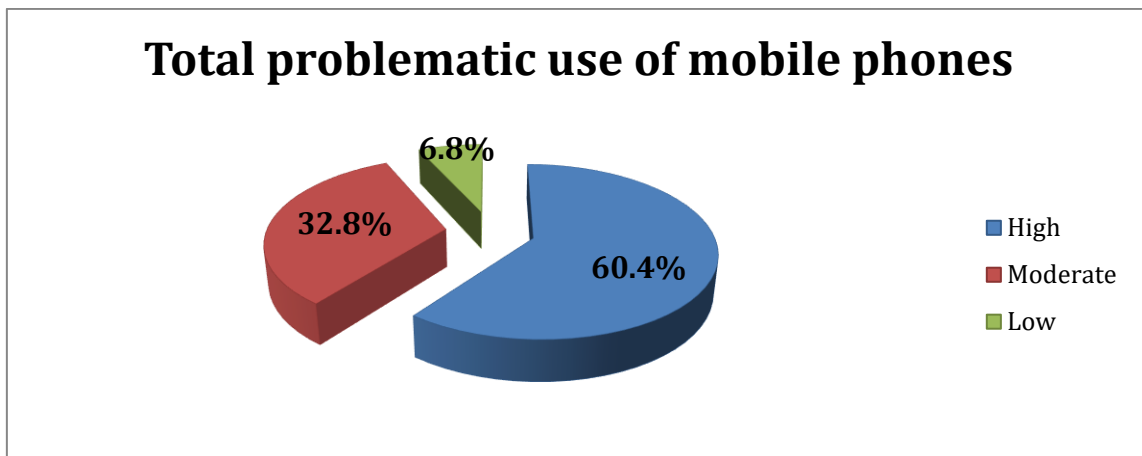


Figure (3): Distribution of the studied sample according to their total problematic use of mobile phones (n=250).

Table (2): Relationship between socio-demographic characteristics of the studied students and their total emotional intelligence (n=350).

Correlation between the studied variable		Total perceived stress	Total resilience	Total problematic use of mobile phone
Total perceived stress	r.		-.514	
	p		.001**	
Total resilience	r.			-.556
	p			.001**
Total problematic use of mobile phone	r.	.768		
	p	.000**		

Discussion

Nursing students need extensive training since the 1st day of nursing college to be a proficient nurse. During this training, nursing students are often subjected to varied stressors that cause perceived stress such as academic expectations and adjustment to college that can affect health and could lead to psychological distress and psychosomatic illness. Moreover, nursing students can use their mobile phones excessively to reduce perceived stress which in turn can increase their stress levels as problematic mobile phone use can lead to stress and anxiety. In addition to this, the perception of stress and ability to handle it is largely determined by the resilience capacity of the students as the individual with good resilience tends to perceive less stress in a difficult environment and overcome the stressful situation easier than the one with less resilience (**Nebhinani, 2020**). Therefore the current study aimed to assess the relation between perceived stress, resilience and problematic use of mobile phone among nursing students.

Concerning the age of the studied students the present study showed that, the age of the majority of the studied students ranged between 18-19 years old with a mean age of **(18.22±1.04)** years. From researcher's point of view this could be due to that all the studied students were from the first grade of the faculty of nursing. This result was in agreement with (**Vore et al., 2019**) who conducted a study entitled "perceived stress in undergraduate nursing students" and found that, the majority of the studied students were between 18 to 20 years old.

Regarding sex, the result of the present study revealed that more than two thirds of the studied students were females. From researcher's point of view this may be due to that nursing profession is a female dominated field and women are caring and incredibly smart and bring a lot of skills into the

profession. Moreover, males used to be less enthusiastic for nursing as community believes that nursing was not a traditional male role.

The result of the study was in agreement with (**Sheroun et al., 2020**) who conducted a study entitled "perceived stress and coping strategies among undergraduate nursing students of selected colleges in Pune during COVID-19" and found that nearly two thirds of sample in their study were females. Conversely, this finding was in disagreement with (**Abdulghani, et al., 2020**) who conducted a study entitled "Association of COVID-19 pandemic with undergraduate nursing students' perceived stress and coping, and mentioned that more than two thirds of studied students were males.

Concerning residence, this study revealed that more than three quarters of the studied students were residing in rural areas. From the researcher point of view this might be due to that the study conducted in Faculty of Nursing at Benha University and the students from rural areas surrounding Benha city came to study at these faculties. Moreover, this could be due to that nursing in Egypt offers an opportunity for governmental employment immediately after graduation and rural population usually interested in governmental appointment than urban population because of the low standards of living and higher poverty rates in rural residence.

This result was in accordance with (**Begam & Devi, 2020**) who conducted a study entitled "A study to assess the perceived stress among nursing students during COVID-19 lockdown" and found that nearly three quarters of the studied subjects were living in rural areas. In the other hand, this finding was in disagreement with (**Awoke et al., 2021**) who conducted a study entitled "Perceived stress and coping strategies among undergraduate students of Jimma University amid the COVID-19 outbreak"

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

and found that nearly three-quarters of studied subjects were living in urban areas.

Regarding to marital status, the present study revealed that, the majority of the studied students were single. This could be due to that most of nursing students refuse marriage before graduation from their faculties and being student at faculty of nursing necessitate daily attendance for lectures and frequent assignments and duties which considered overload on the students, therefore, marriage became difficult due to poor economic conditions. These results agreed with **(Isac & Abraham, 2020)** who conducted a study entitled “Daytime sleepiness among Omani nursing students: Estimate of its determinants and impact on perceived stress” and mentioned that the majority of the studied students are single.

Concerning work during study, this study revealed that more than three quarters of the studied students didn't work during study. This might be interpreted that all nursing students were from the first-grade students of the faculty of nursing and was occupied by learning, studying lessons, periodic exams and evaluations so that they didn't have enough time and experience to work. This result was supported with **(Algaralleh et al., 2019)** who conducted a study entitled “Preliminary psychometric properties of the Arabic version of Sheu and colleagues Perceived Stress Scale among nursing students at Jordanian universities” and mentioned that more than three quarters of the studied students were not work during study.

Regarding family income, this study revealed that nearly three quarters of the studied students had enough family income. This result was in accordance with **(Mussi et al., 2020)** who conducted a study entitled “Stress level among undergraduate nursing students related to the training phase and socio-demographic factors” and found that

more than three quarters of the studied students had enough monthly family income. In the other hand, this findings was in disagreement with **(Madian et al., 2019)** who conducted a study entitled “Level of stress and coping strategies among nursing students at Damanhur University” and found that only one quarter of the studied students were have enough family income.

Regarding the total level of perceived stress, this study revealed that nearly half of the studied students had moderate perceived stress and more than one third of them had high perceived stress while less than one quarter of them had low perceived stress. From the researcher's point of view this may be due to that nursing students experience more stress levels than students of other disciplines as a result of many factors such as clinical training, academic and environmental stressors. Moreover, lack of professional knowledge and skill.as nursing students spend most of their time in the clinical setting as face many stressors during patient care. Furthermore, in this study the student were from first grade and had less experience which in turn increase their perceived stress.

These results were consistent with **(Yildirim-Hamurcu & Terzioglu 2021)** who conducted a study entitled “Nursing students' perceived stress: Interaction with emotional intelligence and self-leadership” and mentioned that the stress levels perceived by the majority of nursing students were moderate. In addition, this findings was in in the same line with **(Rafati et al., 2020)** who conducted a study entitled “Perceived stress among Iranian nursing students in a clinical learning environment” and found that more than half of the studied students experience moderate stress levels in clinical settings.

Concerning to the total level of resilience, the results of this study revealed that, half of the studied students had moderate resilience

and more than one third of them had low resilience, while less than one fifth of them had high resilience. From the researcher's point of view this may be due to that perceived stress and resilience influence each other as when perceived stress goes higher resilience become lower and vice versa. In addition the junior students face study difficulties and nursing field is usually stressful. Therefore, the student's perception of stress mediates their effect and when perceived stress was moderate the resilience level was moderate.

This result was in agreement with (**Sam & Lee, 2020**) who conducted a study entitled "Do stress and resilience among undergraduate nursing students exist." and found that almost half of the studied students had moderate resilience. In the other hand, this finding was in disagreement with a study carried out by (**Du et al., 2020**) who conducted a study entitled "Increased resilience weakens the relationship between perceived stress and anxiety on sleep quality" and found that less than one third of the studied students had moderate resilience.

According to the problematic use of mobile phones level among the studied students, the result of this study revealed that, almost two thirds of them had high problematic use of mobile phone, while almost one third of them had moderate problematic use of mobile phone. From the researcher point of view this may be due to that the students of this generation has become completely dependent on taking their needs and information through mobile phone and tend to use their mobile phone excessively. Moreover nursing students expose to more stress during study and clinical training which in turn make them more susceptible to excessive use of mobile phone as a way to reduce their perceived stress.

This result was in the same line with (**Celikkalp et al., 2020**) who conducted a study entitled "The smartphone addiction levels and the association with communication skills in nursing and medical school students" and mentioned that the majority of the studied students had high problematic use of mobile phone. In the other hand, this finding was in disagreement with a study carried out by (**Ramjan et al., 2021**) who conducted a study entitled "The negative impact of smartphone usage on nursing students" and mentioned that only less than one fifth had high problematic use of mobile phone.

Regarding correlation between problematic use of mobile phones and perceived stress among the studied students, the result of this study showed that there was a highly statistically significant positive correlation between problematic use of mobile phones and perceived stress among the studied students. From the researcher point of view this could be due to that when perceived stress increase, problematic use of mobile phone increase and vice versa.

This result was supported with (**Sadoughi, M. 2021**) who conducted a study entitled "The Relationship between Problematic Mobile Use and Sleep Quality among Nursing Students: The Mediating Role of Perceived Stress" and mentioned that there was a highly statistically significant positive correlation between problematic use of mobile phones and perceived stress among the studied students. Moreover, this result was in the same line with (**Zhao & Lapierre, 2020**) who conducted a study entitled "Stress, dependency, and depression: An examination of the reinforcement effects of problematic smartphone use on perceived stress and later depression" and mentioned that there was a highly statistically significant positive correlation between problematic use of

Perceived Stress, Resilience and Problematic Use of Mobile Phone among Nursing Students at Benha University

mobile phones and perceived stress among the studied students.

Concerning the correlations between the total resilience and both perceived stress and problematic use of mobile phones among the studied students, the result of this study showed that there was a highly statistically significant negative correlation between the total resilience and both perceived stress and problematic use of mobile phones among the studied students. From the researcher point of view this could be due to that when resilience increased, perceived stress and problematic use of mobile phone decrease and vice versa. the results of this study come in agreement with (Sahu et al., 2019) who conduct a study entitled “Perceived stress and resilience and their relationship with the use of mobile phone among nursing students” and found that Perceived stress and problematic mobile phone use were correlated significantly and negatively with resilience.

Conclusion

Nearly half of the studied nursing students had moderate level of total perceived stress. Moreover almost half of the studied nursing students had moderate resilience. Furthermore, almost two thirds of the studied nursing students had high problematic use of mobile phone. Furthermore, there was a highly statistical significant positive correlation between problematic use of mobile phones and perceived stress among the studied students. Moreover, there was a highly statistically significant negative correlation between the total resilience and both perceived stress and problematic use of mobile phones among the studied students.

Recommendations

- A stress management program should be applied as an immediate measure to reduce stress, and its effect in problematic use of mobile phone among nursing students.

- Developing psycho-educational module or brief-intervention to strengthen student’s resilience, enhancing their skills to manage stress as well healthy use of mobile phone.

References:

- Abdulghani, M., Sattar, K., Ahmad, T., & Akram, A. (2020).** Association of COVID-19 pandemic with undergraduate medical students' perceived stress and coping. *Psychology research and behavior management*, 13, 871.
- Algaralleh, A., Altwalbeh, D., & Alzayyat, A. (2019).** Preliminary psychometric properties of the Arabic version of Sheu and colleagues Perceived Stress Scale among nursing students at Jordanian universities. *Journal of Multidisciplinary Healthcare*, 12, 777.
- Alkaissi, A., Said, N., Qadous, S., AlMahmoud, O., & AlKony, M. (2022).** Resilience among undergraduate nursing students: Findings of the first cross-sectional study in Palestine. 10.21203/rs.3.rs-1091162/v1.
- Alqarni, H., & Alasmee, N. (2020).** Perceived Stress Level and Coping Mechanisms Among Health Allied Students. *Global Journal of Health Science*, 12(9), 1-50.
- Aslan, I., Ochnik, D., & Çınar, O. (2020).** Exploring perceived stress among students in Turkey during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 17(23), 8961.
- Awoke, M., Mamo, G., Abdu, S., & Terefe, B. (2021).** Perceived stress and coping strategies among undergraduate students of jimma university amid the COVID-19 outbreak: online cross-sectional survey. *Frontiers in psychology*, 12, 639955.
- Begam, B., & Devi, K. (2020).** A study to assess the perceived stress among nursing students during COVID-19 lockdown. *International Journal of Science and Healthcare Research*, 5(4), 388-393.

- Celikkalp, U., Bilgic, S., Temel, M., & Varol, G. (2020).** The smartphone addiction levels and the association with communication skills in nursing and medical school students. *Journal of Nursing Research*, 28(3), e93.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983).** A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396.
- Connor, K., & Davidson, R. (2003).** Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82.
- Du, C., Zan, H., Cho, J., Fenton, I., Hsiao, Y., Hsiao, R., & Tucker, M. (2020).** Increased resilience weakens the relationship between perceived stress and anxiety on sleep quality: a moderated mediation analysis of higher education students from 7 countries. *Clocks & sleep*, 2(3), 334-353.
- Isac, C., & Abraham, J. (2020).** Daytime sleepiness among Omani nursing students: Estimate of its determinants and impact on perceived stress. *Clinical Epidemiology and Global Health*, 8(3), 739-743.
- Madian, A., Abdelaziz, M., & Ahmed, H. (2019).** Level of stress and coping strategies among nursing students at Damanhour University, Egypt. *Am J Nurs Res*, 7(5), 684-96.
- Merlo, L., Stone, A., & Bibbey, A. (2013).** "Measuring problematic mobile phone use: development and preliminary psychometric properties of the PUMP Scale." *J Addict*; Article ID 912807;p 7.
- Mohamed, S. & Mostafa, M. (2020).** Impact of smartphone addiction on depression and self-esteem among nursing students. *Nursing Open*, 7(5), 1346-1353.
- Mussi, C., Pires, S., Silva, D., Macedo, D., & Santos, T. (2020).** Stress level among undergraduate nursing students related to the training phase and socio-demographic factors. *Revista Latino-Americana de Enfermagem*, 28.
- Nebhinani, M., Kumar, A., Parihar, A., & Rani, R. (2020).** Stress and coping strategies among undergraduate nursing students: A descriptive assessment from Western Rajasthan. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine*, 45(2), 172.
- Okasha, T., Saad, A., Ibrahim, I., Elhabiby, M., Khalil, S., & Morsy, M. (2021).** Prevalence of smartphone addiction and its correlates in a sample of Egyptian university students. *International Journal of Social Psychiatry*, 68(8), 1580-1588.
- Rafati, F., Rafati, S., & Khoshnood, Z. (2020).** Perceived stress among Iranian nursing students in a clinical learning environment: A cross-sectional study. *Advances in Medical Education and Practice*, 11, 485.
- Ramjan, M., Salamonson, Y., Batt, S., Kong, A., McGrath, B., Richards, G., & Crawford, R. (2021).** The negative impact of smartphone usage on nursing students: An integrative literature review. *Nurse Education Today*, 102, 104909.
- Sadoughi, M. (2021).** The relationship between problematic mobile use and sleep quality among nursing students: the mediating role of perceived stress. *Adv Nurs Midwifery [Internet]*. 2018 Jan 6 27 (3): 15-20.
- Sahu, M., Gandhi, S., Sharma, K., & Marimuthu, P. (2019).** Perceived stress and resilience and their relationship with the use of mobile phone among nursing students. *Investigacion y educacion en enfermeria*, 37(3).
- Sam, R., & Lee, P. (2020).** Do stress and resilience among undergraduate nursing students exist. *Amarjeet Kaur Sandhu*, 12(1), 146-149.
- Sheroun, D., Wankhar, D., Devrani, A., Lissamma, V., & Chatterjee, K. (2020).** A study to assess the perceived stress and coping strategies among B. Sc. nursing students of selected colleges in Pune during COVID-19. pandemic lockdown. *International Journal of*

Science and Healthcare Research, 5(2), 280-288.

Stecz, P., Makara-Studzińska, M., Bialka, S., & Misiolek, H. (2021). Stress responses in high-fidelity simulation among anesthesiology students. *Scientific Reports*, 11(1), 1-14.

Thomas, C., & Zolkoski, S. (2020). Preventing stress among undergraduate learners: The importance of emotional intelligence, resilience, and emotion regulation. In *Frontiers in Education* (Vol. 5, p. 94). Frontiers.

Vore, E., McGee, A., & Henderson, A. (2019). Perceived Stress in Undergraduate Nursing Students. *Nursing Masters Papers*. 372. Available at: <https://openriver.winona.edu/nursingmasters/372>.

Wald, H. (2020). Optimizing resilience and wellbeing for healthcare professions trainees and healthcare professionals during public health crises—Practical tips for an ‘integrative resilience’ approach. *Medical Teacher*, 42(7), 744-755.

Yildirim-Hamurcu, S., & Terzioglu, F. (2021). Nursing students' perceived stress: Interaction with emotional intelligence and self-leadership. *Perspectives in Psychiatric Care*.

Zhao, C., Xu, H., Lai, X., Yang, X., Tu, X., Ding, N., & Zhang, G. (2021). Effects of online social support and perceived social support on the relationship between perceived stress and problematic smartphone usage among Chinese undergraduates. *Psychology Research and Behavior Management*, 14, 529.

Zhao, P., & Lapierre, A. (2020). Stress, dependency, and depression: An examination of the reinforcement effects of problematic smartphone use on perceived stress and later depression. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 14(4), article 3. Available at: <https://doi.org/10.5817/CP2020-4-3>.

الضغط النفسي المدرك والمرونة وإشكالية استخدام الهاتف المحمول بين طلاب التمريض بجامعة بنها

أمل عبد السلام عبد العظيم - فاتن محمد أحمد - إيمان نبوى أبوزيد

أصبح الضغط النفسي المدرك جزءاً حتمياً من الحياة اليومية. تعد الدراسة العملية جزءاً مهماً فى أي منهج التمريض من مناهج التمريض ، لذا فمن المهم الحد من مستويات الضغط النفسي المدرك لدى طلاب التمريض وتطوير مهارات التأقلم الصحية والمرونة وتجنب الاستخدام الإشكالي للهاتف المحمول لأنه يؤثر سلباً على تعلم الطلاب وأدائهم العملى والأكاديمي و الصحة الجسمانية والنفسية. لذلك هدفت الدراسة الى تقييم العلاقة بين الضغط النفسي المدرك والمرونة وإشكالية استخدام الهاتف المحمول بين طلاب التمريض بكلية التمريض بجامعة بنها. وقد اجريت الدراسة بكلية التمريض جامعة بنها فى محافظة القليوبية على 250 طالب/ طالبة من طلاب الفرقة الأولى بكلية التمريض. وقد كشفت النتائج انه توجد علاقة إيجابية ذات دلالة إحصائية عالية بين الاستخدام الإشكالي للهواتف المحمولة والإجهاد المدرك بين الطلاب الذين شملتهم الدراسة. كما كان هناك ارتباط سلبي ذو دلالة إحصائية عالية بين المرونة وكلا من الإجهاد المدرك والاستخدام الإشكالي للهواتف المحمولة بين الطلاب الذين شملتهم الدراسة. كما اوصت الدراسة بتطبيق برنامج إدارة الضغط المدرك كإجراء فوري للحد من الضغط النفسي ، وتأثيره في الاستخدام الإشكالي للهاتف المحمول بين طلاب التمريض