Perceived Stressors, Coping Strategies, And Faculty Support Among Critical Care Accelerated Nursing Students

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Abstract

Background: There is an increased and continuous demand for nurses. The accelerated nursing program is a fast-track entry-level program and offers the quickest route to provide a baccalaureate degree in nursing for non-nursing graduates. Most of the enrolled students, particularly those who graduated from art and philosophical colleges, are beginners in complex and dense nursing curricula, e.g. critical care and emergency nursing courses. Those students experienced several stressors and challenges while trying to adapt or integrate into these complex nursing courses and these stressors contributed to students' dissatisfaction and altered students well-being, academic achievement, and increased failure rates. **Aim:** Determine the stressors, coping strategies used for stress resolution, and faculty support as perceived by accelerated students who enrolled in the critical care courses. **Design:** the study includes 2 parts quantitative and qualitative. For the quantitative part, a descriptive cross-sectional study design was employed. In addition, for the qualitative part. a qualitative survey consisting of one open-ended question was used to get an in-depth understanding of the other stressors that were not captured in the questionnaire. **Setting:** the study was conducted in the critical care nursing department at the faculty of nursing, Alexandria University. **Sample:** A convenience sampling of all students enrolled in the critical care nursing courses (I & II) who agreed to participate in the study were recruited. **Tools:** a self-reported online package included three tools used to determine stressors, coping strategies, and faculty support namely: (1) Student Nurse Stress Index Scale (SNSI). (2) Coping Orientation to Problems Experienced Inventory (Brief- COPE) Scale, and (3) Perceived Faculty Support Scale (PFSS). In addition, The qualitative survey consists of one structured open-ended question that asks the students to mention other stressors or challenges that were not captured in the SNSI and/or to provide more elaboration regarding their stressors. **Results** showed that the "fear of failing a course" was perceived as the most stressful among all students. In addition, the highest coping strategy adopted was "religion-related strategies", and the lowest adaptive coping strategy adopted by both groups was "humor". Adaptive coping styles had a significant negative correlation with maladaptive coping styles as ($r = -0.374$, $p < 0.001$) and a significant positive correlation with the perceived faculty support scale as ($r = 0.098$, $p = 0.027$). Maladaptive coping styles were significantly negatively correlated with the perceived faculty support scale as ($r = -0.244$, $p < 0.001$). These correlations suggest that higher stress levels were associated with more maladaptive coping styles and less perceived faculty support, while more adaptive coping styles were associated with less maladaptive and more perceived faculty support. Furthermore, qualitative analysis of the open-ended question revealed that the highest three themes that emerged were: limited time too much academic load, and financial burden. **Conclusions:** Based on the results of the current study, it could be concluded that all students who participated in this study were experiencing stressors. Adaptive coping styles had a significant negative correlation with maladaptive coping styles and a significant positive correlation with the perceived faculty support scale. While maladaptive coping styles were significantly negatively correlated with the perceived faculty support scale. These correlations suggest that higher stress levels were associated with more maladaptive coping styles and less perceived faculty support, while more adaptive coping styles were associated with less maladaptive and more perceived faculty support. Finally, limited time due to heavy academic loads, and financial burdens extracted from the analysis of the qualitative survey were identified as stressors by the vast majority of the students.

Keywords: accelerated critical care nursing students, stressors, coping strategies, faculty support

Introduction

The shortage of nurses is a worldwide problem that results from a discrepancy between the need and supply of nurses. Several studies have shown that the shortage of nurses was strongly associated with safety concerns for patients, as shortages could increase medical errors, morbidity, and mortality rates **(AACN, 2022; Drennan & Ross, 2019; Juraschek et al, 2019)**. The accelerated program was introduced to Egypt in September 2012 to overcome some issues related to the nursing shortage, to develop new careers in nursing (NCIN), and to solve the

unemployment problem. The basic concept of this program is to attract graduates from other higher education disciplines rather than nursing and rely on their previous learning experiences to attain a Baccalaureate degree in nursing in a shorter period (fast track - 24 months) than the traditional bachelor programs **(DeWitty et al., 2016).** The students admitted to the accelerated program receive the same educational instructions (theory and practice) attained by the students in the regular bachelor program, however, instructions are intense with no breaks between the academic semesters.

Critical care nursing is an emotionally demanding and stressful course "Nurses are always in contact with victims suffering, or in pain, with a disability, and even going to death." There is comprehensive literature about the stressors, coping strategies, and students' views regarding their instructors among students in traditional/baccalaureate nursing programs **(Baluwa et al., 2021; Bhurtun et al., 2021; Chaabane et al., 2021; Galvan et al., 2022; Hamadi et al., 2021; Lavoie-Tremblay et al., 2022; Onieva-Zafra et al., 2020).** However, in the case of students enrolled in accelerated nursing education, little information is available **(DeWitty et al., 2016).** In Egypt, the main motivation for students' enrollment in the accelerated baccalaureate is economic reasons that are aggravated by the unemployment problem. Students admitted to accelerated baccalaureate nursing programs experience stressors and challenges higher than their counterparts. **(Wolf et al., 2015)**. Some of the stressors are unique to accelerated students. Because of the students enrolled after they finished the first baccalaureate degree, the majority of them are older, household and often have children, are employed while attending a program, have financial obligations, have family responsibilities, and encounter other personal problems. Most of the enrolled students, particularly those who graduated from art and philosophical colleges, are beginners in complex and dense nursing curricula, and new careers **(Bell et al., 2017; Juraschek et al, 2019).**

Coping, a stress-resolution strategy, is the student's ability to cope with various sources of stress and it is as important as the stress itself. Stress resolution strategies, also called coping strategies, are used to reduce the negative impacts and consequences of stress, and unpleasant emotions, such as anxiety, fear, and anger. The coping process is described as a behavioral and cognitive effort to manage internal and external stresses **(Stallman, 2020)**. Two styles could be used to manage the stressors associated with nursing education: problem-focused and emotion-focused. Each student will adopt one of these strategies depending on the type of stress the student's personality and the type of feedback. Several research studies have demonstrated that nursing students employ a variety of coping styles. These styles are either adaptive or maladaptive. Adaptive coping strategies or styles include thoughts, behaviors, and actions such as acceptance, active coping, planning, religion, and positive reframing to deal with and resolve stress, resulting in improved student responses and outcomes **(García et al., 2018).** However, maladaptive coping strategies often result in negative unacceptable consequences, such as substance abuse, denial, and venting **(Raymond & Sheppard, 2017; Tate, 2019).**

Positive relationships between faculty and students had been identified as one of the most important factors contributing to students' success, this fact is supported by several research results. They had shown that strong faculty-student relationships (FSRs) are a mandatory element for students' motivation, belonging, academic achievement, well-being, and retention so strong FSRs must be considered a significant educational aim **(Dübbers, 2022; Murray et al., 2022; Snijders et al., 2022)**. Faculty-student relationships could be performed in a formal or informal form, inside or outside the classrooms with the emphasis that the informal relationship between student and faculty increases social and academic integration and belonging for students. Furthermore, and based on the fact that accelerated students are older and might be household and have children, FSRs must be established as an adult-adult relationship. Inherently the FSR is still hierarchical, a power advance in favor of the faculty, however, the faculty should try to flatten the hierarchy through learner-centered approaches respect student suggestions and opinions, and deal with course-related topics where students should in turn take more responsibility for their studies. Nursing students are affected by faculty support in many ways, for example, students can benefit from

faculty support through mentoring and advising **(Juraschek et al, 2019; Murray et al., 2022).**

Although the accelerated nursing program has been introduced at Alexandria University for more than 12 years, no research studies were conducted to address the accelerated nursing students' stressors or challenges that could affect the students well being and academic success. This study will be considered an initial reference and will shed light on this group of students to improve their success and retention in the program till graduation.

Significance of the Study

Recognizing the sources of stressors and challenges faced the accelerated nursing students could significantly impact the students' success in the critical care nursing courses and the program as a whole. Likewise, the lack of understanding may increase student failures and students leaving the program. Additionally, by researching and understanding the unique characteristics of this student population, faculty could assign mentors to help students address their stressors, encourage more proactive faculty engagement with students, follow more flexible time schedules, teach well-designed courses, facilitate the adoption of effective coping strategies, promote students 'success, satisfaction and retention in the program until graduation (Alharbi et al., 2019; Bell et al., 2017; Riley et al., 2019; Wolf et al., 2015).

Aim

Determine the stressors, coping strategies used for stress resolution, and faculty support as perceived by accelerated students who enrolled in the critical care courses.

Research Questions

1. What are the stressors and challenges perceived by accelerated students enrolled in critical care nursing courses?
2. What are the coping strategies used by accelerated nursing students to deal with these stressors and challenges?
3. How do accelerated nursing students enrolled in the critical care nursing courses describe their experiences of faculty support?

Materials & Methods

Study Design: the study includes 2 parts quantitive and qualitative design. A descriptive cross-sectional study design was employed to conduct the quantitive part of the current study while the qualitative parts followed the thematic analysis approach.

Sample: A convenience sampling of all students enrolled in the critical care nursing courses (I & II) who agreed to participate in the study were recruited. The sample size was determined by online sample size calculation based on the following parameters: confidence level (95%), the margin of error (5%), the proportion of the population (50%), and the minimum population size was 302.

Setting: the study was conducted in the critical care and emergency nursing department at the faculty of nursing, Alexandria University.

Tools: A self-reported online package of three tools was used to determine stressors, coping strategies, and faculty support.

Tool One consists of two parts:

Part I: Students' Personal and Academic Characteristics

The researcher developed this part to capture the basic personal and academic information of the students. It includes eight items: sex, marital status, age upon entering the accelerated program, living with your family during the study, working during the study, number of working hours, head of the household, number of children, and the first bachelor's degree.

Part II: Student Nurse Stress Index Scale (SNSI)

A self-reported scale was developed by Jones and Johnston (Junious et al., 2010) to evaluate nursing students' sources and levels of stress and it was adapted by the researcher.

Scoring System: A three-point Likert scale; 1 (not stressful), 2 (moderately stressful), and 3 (high stressful) with a minimum score of 22 and a maximum score of 66. A higher score means a higher level of stress. The scale consists of four subscales, and each subscale includes a group of items. Academic load evaluates the academic-related stressors and includes five items with a minimum score of 5 and a maximum score of 15. Clinical concerns deal with the students' stressors in the clinical environment. It consists of six items with a minimum score of 6 and a maximum score of 18. Personal problems evaluate the student's problems, health issues, and the health/relationships of other family members. It consists of four items with a minimum score of 4 and a maximum score of 12. Interface worries

describe relations with others. It involves seven items with a minimum score of 7 and a maximum score of 21.

The validity of this tool was done by five experts in the field of nursing (3 critical care experts and 2 experts in psychiatric nursing) Additionally, ***the reliability*** was assessed by using Cronbach's alpha with an overall reliability score of (0.78).

Tool Two: Coping Orientation to Problems Experienced Inventory (Brief-COPE) Scale

A self-self-reported scale, a brief version (28 items). The scale was developed by Carver et al., 1997 to find out the coping responses of the participants. On a 4-point Likert scale where 1 = "I usually do not do this at all" and 4 = "I usually do this a lot". The scale consists of two types of coping strategies: adaptive and maladaptive. Adaptive coping strategies consist of seven subscales and each subscale includes two items. Active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, and using instrumental support. Maladaptive coping consists of seven subscales and each subscale includes 2 items. Self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. The brief COPE scale revealed an appropriate construct validity and a high level of reliability (Cronbach's alpha: 0.72 to 0.82).

Tool Three: Perceived Faculty Support Scale (PFSS)

A self-reported scale was developed (Shelton., 2012) and aims to measure the students' perception of faculty support. It consists of two parts psychological support (14 items) and Functional support (10 items). The students' responses were presented on a five-point Likert scale; where five means "strongly agree" and one means "strongly disagree".

Scoring System: the higher the score, the higher the satisfaction with faculty support, with scores ranging from 24 to 120. The reliability coefficient of the entire scale by Cronbach's alpha was 0.96.

Ethical Considerations:

The ethical approval to conduct the research was obtained from the Research Ethics Committee of the Faculty of Nursing at Alexandria University (IRB0003620). All students were informed that there were no negative consequences or repercussions to their refusal to participate. Students' anonymity was assured. Students' clicking on the link to the online survey was considered a student agreement to participate in the study. All data were managed confidentially. Data were only accessible to the researcher

Pilot Study:

A pilot study was conducted among 50 students to examine the clarity of the questionnaires as well as any other practical problems that the participants faced while filling out the questionnaires. The results of the pilot study indicated that the questionnaires were clear and understandable.

Method:

The same faculty and clinical instructors managed all students in both courses (I & II) in the critical care and emergency nursing department. The online surveys (tools I, II, & III) and the qualitative survey were created by the researcher using Google Drive Forms, and the link was sent to all students through WhatsApp. Before data collection, All the quantitative questionnaires were translated into Arabic to suit the students' context.. Two bilingual experts in English and their mother tongue Arabic translated the English version into Arabic. The two versions were submitted to the third bilingual expert to compare them for concept similarity and equivalence. The researcher sent a voice message explaining the study's aim and the strategy to complete or fill in each survey. All students' responses were collected and revised by the researcher and any incomplete responses were excluded from the sample. the results of the qualitative survey were sent to the biostatistician expert in the analysis of qualitative data.

Data Analysis

IBM SPSS software package version 23.0 was used for data entry and analysis. The chi-square test (Monte Carlo correction) was used to compare categorical variables between different groups. A comparison between the two categories was performed using the ANOVA test. The student's t-test was used to compare two categories of normally distributed quantitative variables. The correlation coefficient between quantitative variables with a normal distribution was used. The significance of the obtained results was evaluated at the 5% level.

Thematic analysis was used to analyze the open-ended question. texts written by the students were read carefully, and coded, themes were generated and reviewed, provided names to the themes, and created a report.

Results

Table 1 reveals the personal and academic characteristics of the students. A total of 510 students (276 students enrolled in CCNgI and 234 students enrolled in CCNgII) participated in the study. Regarding the students' gender, slightly more than half of all students were females (53.3%) compared to 46.7% males with statistical significance between both groups as (p= 0.010). Moreover, the highest age group among both groups ranged between 25 – 30 years old. This age group was higher among the first year than second-year students (95% vs 81.6%) with statistical significance between both groups as (p <0.001). Additionally, about two-thirds of the first–year students were single (66.7%) compared to 51.7% of the second-year students with statistically significant as (p=0.002). As regards the living city, more than fifty percent of all students (56.9%) were living in their hometown away from Alexandria and 49.4% needed between 2 – 3 hours to reach the faculty. Furthermore, among all students, 78.1% were households and 67.9% had 2 – 3 children. In addition, 73.7% worked during the study and 62.5% of them worked more than 6 hours. As regards the first bachelor's degree, students came graduated from scientific background colleges were higher among the students enrolled in CCNgII than students enrolled in CCNgI (66.7% & 49.3%) respectively.

Table 2 illustrates the perceived stressors according to the student nurse stress index scale among the studied groups. According to the four subscales of the SNSI, academic loads, clinical concern, and personal problems subscales were significantly higher in the first-year students (55.51±19.49, 52.11±16.58, & 42.87 ±25.50) than in the second-year students. However, the fourth subscale of the interface worries was significantly higher in the second-year students (53.66 ±22.97) compared to the first-year students. The SNSI total mean scores for both groups were (48.69 ±13.61 & and 46.36±21.10) with no statistically significant differences.

Table 3 portrays the coping styles (adaptive and maladaptive) that the students used or adopted to alter and adapt to the different stressors they experienced. It can be noted that the highest mean score of adaptive coping strategies adopted among both groups (1&II) was Religion-related strategies (96.86 ±11.98 & 82.05 ±19.43) respectively, and the lowest mean scores of adaptive coping strategies among both groups (1&II) were "humor" (27.42±20.77 & 34.19 ±31.82) respectively. Moreover, the highest mean score of maladaptive coping strategy adopted by the first–year study Venting compared to Behavioral Disengagement (39.25±24.85) & (68.95 ±27.44) respectively. In addition, Substance Use was the lowest mean score of maladaptive coping strategies among the first and second–year students respectively (0.00 ±0.00 & 4.84 ±11.77).

Table 4 portrays the students ' perceptions and experiences with faculty support. The finding highlighted that the minority of both groups of students found the faculty support was inadequate; low (2.2% & 4.3%) respectively. On the other hand, about one-third of both groups perceived the faculty support as moderate (30.3% and 32.5%) respectively. Furthermore, slightly more than two-thirds of both groups perceived faculty support as high (67.4% and 63.2%) respectively.

Table 5 presented the correlations between student nurse stress, adaptive and maladaptive coping styles, and the perceived faculty support scale. The student nurse stress index scale had a significant positive correlation with maladaptive coping styles as ($r = 0.212$, $p < 0.001$) and a significant negative correlation with the perceived faculty support scale as ($r = -0.314$, $p < 0.001$). Adaptive coping styles had a significant negative correlation with maladaptive coping styles with ($r = -0.374$, $p < 0.001$) and a significant positive correlation with the perceived faculty support

scale with (r = 0.098, p = 0.027). Maladaptive coping styles were significantly negatively correlated with the perceived faculty support scale with (r = -0.244, p < 0.001). These correlations suggested that higher stress levels were associated with more maladaptive coping styles and less perceived faculty support, while more adaptive coping styles were associated with less maladaptive and more perceived faculty support.

Part one: Quantitative Data

Table (1): Distribution of Study Sample According to the Personal and Academic Characteristics.

Characteristics	N = 510				χ^2	P
	First Year (CCNgI) (n= 276)		Second Year (CCNgII) (n= 234)			
	No	%	No	%		
Age at the time of entry into the accelerated program						
20-<25	168	60.9%	98	41.9%		
25-<30	94	34.1%	93	39.7%		
30-<35	14	5.1%	28	12.0%	35.704*	^{MC}p <0.001*
35-<40	0	0.0%	9	3.8%		
45-45and more	0	0.0%	6	2.6%		
Gender						
Male	114	41.3%	123	52.8%	6.698*	p= 0.010*
Female	162	58.7%	110	47.2%		
Marital status						
Single	184	66.7%	120	51.7%		
Married	88	31.9%	105	45.3%	12.069*	p=0.002*
Separated	4	1.4%	7	3.0%		
Living in or out of Alexandria during the study						
In my hometown (not Alexandria)	168	60.9%	122	52.1%		
In Alexandria with family	98	35.5%	83	35.5%	14.435*	p= 0.001*
In a rented house in Alexandria	10	3.6%	29	12.4%		
The duration (minutes/hours) needed to reach the place of the study if you live outside of Alexandria,						
≤ one hour	96	34.8%	82	35.0%		
2- 3 hrs.	140	50.7%	112	47.9%	0.759	p=0.684
≥ 3 hrs.	40	14.5%	40	17.1%		
Head of the household						
Yes	76	27.5%	118	50.6%	28.601*	p <0.001*
No	200	72.5%	115	49.4%		
Number (s) children do you have						
0 – 1	196	71.0%	140	59.8%		
2 – 3	80	29.0%	91	38.9%	9.223*	^{MC}p = 0.006*
4-5	0	0.0%	3	1.3%		
Work during the study						
Yes	198	71.7%	178	76.1%	1.225	p= 0.268
No	78	28.3%	56	23.9%		
Number of hours of work (n = 376)						
< 6 hrs.	32	16.2%	25	14.0%	0.327	p= 0.568
> 6 hrs.	166	83.8%	153	86.0%		
First bachelor's degree						
Science degree	136	49.3%	156	66.7%	15.650*	P<0.001*
Non–science degree	140	50.7%	78	33.3%		

CCNg1 = Critical Care Nursing I
CCNgII = Critical Care Nursing II
χ^2: **Chi-square test**
MC: **Monte Carlo**
*: Statistically significant at p ≤ 0.05

Table (2): Perceived Stressors according to the SNSI Scale among the Studied Groups

Subscales of SNSI.	First-year (n= 276)		Second year (n= 234)		t	p
	Mean	±SD	Mean	±SD		
Academic Load						
Total score	10.55	±1.95	9.99	±2.24	3.040*	0.002*
Mean Percent score	55.51	±19.49	49.87	±22.38		
Clinical Concerns						
Total score	12.25	±1.99	10.81	±3.12	6.312*	<0.001*
Mean Percent score	52.11	±16.58	40.10	±26.00		
Personal problems						
Total score	5.57	±1.53	5.16	±1.74	2.829*	0.005*
Mean Percent score	42.87	±25.50	35.97	±29.04		
Interface Worries						
Total score	13.07	±2.66	14.51	±3.22	5.448*	<0.001*
Mean Percent score	43.37	±19.02	53.66	±22.97		
Overall Student Nurse Stress Index Scale						
Total Score	**41.45**	**±5.71**	**40.47**	**±8.86**	**1.504**	**0.147**
Total Mean Score	**48.69**	**±13.61**	**46.36**	**±21.10**		

t: Student t-test

*: Statistically significant at $p \leq 0.05$

Table (3): Adaptive and Maladaptive Coping Strategies Employed by the Studied Groups

COPE Scale Items	Critical I (First-year) (n= 276)		Critical II (Second year) (n= 234)		t	p
	Mean	±SD	Mean	±SD		
Active Coping						
Total score	4.90	±2.05	5.87	±1.31	6.448*	<0.001*
Mean Percent score	48.31	±34.13	64.46	±21.92		
Emotional Support						
Total score	6.26	±1.70	4.91	±1.69	8.931*	<0.001*
Mean Percent score	71.01	±28.38	48.58	±28.18		
Instrumental Support						
Total score	5.21	±1.45	4.90	±1.48	2.403*	0.017*
Mean Percent score	53.50	±24.16	48.29	±24.70		
Planning						
Total score	5.83	±1.40	6.12	±1.63	2.190*	0.031*
Mean Percent score	63.77	±23.35	68.66	±27.11		
Positive Reframing						
Total score	5.67	±1.52	6.66	±1.48	7.415*	<0.001*
Mean Percent score	61.11	±25.37	77.64	±24.72		
Acceptance						
Total score	4.40	±1.46	6.41	±1.33	16.129*	<0.001*
Mean Percent score	39.98	±24.33	73.50	±22.23		
Humor						
Total score	3.64	±1.25	4.05	±1.91	2.885*	0.008*
Mean Percent score	27.42	±20.77	34.19	±31.82		
Religion						
Total score	7.81	±0.72	6.92	±1.17	10.138*	<0.001*
Mean Percent score	96.86	±11.98	82.05	±19.43		
Adaptive Coping Styles						
Total score	**43.72**	**±6.23**	**45.84**	**±7.05**	**3.575***	**<0.001***
Mean Percent Score	**57.74**	**±12.98**	**62.17**	**±14.70**		
Self-Distraction						
Total score	3.66	±1.49	4.08	±1.41	3.259*	0.001*
Mean Percent score	27.66	±24.90	34.69	±23.51		

COPE Scale Items	Critical I (First-year) (n= 276)		Critical II (Second year) (n= 234)		t	p
Self-blame						
Total score	3.84	±1.43	3.49	±1.69	2.556*	0.011*
Mean Percent score	30.68	±23.80	24.79	±28.23		
Venting						
Total score	4.36	±1.49	4.22	±1.42	1.024	0.307
Mean Percent score	39.25	±24.85	37.04	±23.73		
Behavioral Disengagement						
Total score	4.01	±1.81	6.14	±1.65	13.736*	<0.001*
Mean Percent score.	33.57	±30.22	68.95	±27.44		
Denial						
Total score	3.46	±1.41	3.49	±1.68	0.171	0.864
Mean Percent score	24.40	±23.54	24.79	±28.02		
Substance Use						
Total score	2.00	±0.00	2.29	±0.71	6.836*	<0.001*
Mean Percent score	0.00	±0.00	4.84	±11.77		
Maladaptive Coping Styles						
Total score	**21.33**	**±6.06**	**23.71**	**±5.39**	**4.634***	**<0.001***
Mean Percent score	**25.93**	**±16.83**	**32.51**	**±14.96**		
Overall COPE Inventory Scale						
Total score	**65.05**	**±9.10**	**69.55**	**±11.36**	**4.873***	**<0.001***
Mean Percent score	**44.11**	**±10.83**	**49.46**	**±13.52**		

t: Student t-test *: Statistically significant at $p \leq 0.05$

Table (4): Perceived Faculty Support by Studied Students

Perceived Faculty Support Scale	First-year (n= 276)		Second year (n= 234)		χ^2	p
	No	%	No	%		
Low	6	2.2	10	4.3		
Moderate	84	30.4	76	32.5	2.280	0.320
High	186	67.4	148	63.2		
Total score	102.37±14.33		98.99± 17.07		t= 2.395*	0.017*
Mean Percent score	98.99±17.07		78.13 ±17.76			

χ^2:Chi-square **test** t: Student t-test *: Statistically significant at $p \leq 0.05$

Table (5): Correlations between student nurse stress, adaptive, maladaptive coping styles, and perceived faculty support scale (n = 510)

(n = 510)		Student Nurse Stress Index Scale	Adaptive Coping Styles	Maladaptive Coping Styles
Student Nurse Stress Index Scale	r			
	p			
Adaptive Coping Styles	r	-0.054		
	p	0.220		
Maladaptive Coping Styles	r	0.212*	-0.374*	
	p	<0.001*	<0.001*	
Perceived Faculty Support Scale	r	-0.314*	0.098*	-0.244
	p	<0.001*	0.027*	<0.001*

r: Pearson Correlation Statistically significant at $p \leq 0.05$

Part Two: Qualitative Data

Other Stressors/ Challenges Extracted by Qualitative Survey **Some Students' Quotes**
1) Limited Time
Limited time caused by academic load was perceived by the vast majority of the students as a stressor. Students expressed limited time as they did not had enough time to finish the required homework, study and prepare for the exams, take care of their children and or families, had no social life, and be employed. The students also mentioned inadequate time as a leading cause of personal mistrust, pressure, and burnout. "*ah…. really, accelerated truly means accelerated*, *I have a feeling that not the program is accelerated, it is my breath, my heart rate, and everything around me is accelerated……I cannot breathe*." "*I did not have the time to absorb everything I learned; I feel heaviness on my chest*." "*I cannot balance between a condensed accelerated academic load, being a mom and a wife, she described this feeling as trying to drink water from an acid hose*." "*In my other educational experience, the studied subjects were difficult, and my GPA was 3.8/4, this means I was not an academically weak student; however, I never felt this level of stress. I cannot schedule any social events because I am always busy with my academic workload.* This *made me unwell and unmotivated*". "*My personal and social life are paused until finish the program*." "*Trying to learn and keep up with the grades was hard by absorbing all of this information*." "I *lived in another country, and I found a problem attending lectures, exams, and clinical training on time*. *This developed a conflict with the instructor and ended in punishment*". " *half of my grades were deducted as a punching for my lateness."* *"I felt exhausted at the end of the day."* *"Seriously I am thinking about saving my life and my marriage by leaving the program. Now, I returned with my children to live with mom and dad to help me in caring for my children."*
2) Financial Burdens
The financial burden was perceived by the students as a stressor. They expressed the stress caused by the financial burden of fear of failing a course because this means they have to pay again to repeat that course. The vast majority of the students reported that: "*Parental support has been granted with previous degrees; however, students have the responsibility of financing their education*." "*I have children in school and have to pay for them at the same time*. *I am in conflict; have I paid for them or me*?" "*The intensity and rigors of the nursing program limit us to work, however, we do work to finance our education fees, it looks like a vicious circle, and which one comes first, the egg or the chick, all the students laughed.*" "*Financial plan for financing the program should not be developed based on unfixed employment*, *such as overtime"* "I *planned to pay the expenses of the previous semester from my private work over time; however, I did not receive the planned money and my dream went away from the window, and the result was I did not pay on time*." "*We think to leave the program*."

Discussion

Although several studies had been conducted to determine the stressors and coping strategies used by the traditional 4 years baccalaureate nursing students, there are limited references about accelerated nursing students in Egypt. This study was the first study aimed at determining the stressors, coping strategies used for stress resolution, and faculty support as perceived by accelerated students who enrolled in the critical care courses **(Abd El-Aziz Mohamed Madian et al., 2019; Amponsah et al., 2020; Anjalatchi, 2023; Baluwa et al., 2021; Bhurtun et al., 2021;**

Chaabane et al., 2021). Moreover, the results of the current study will put a spotlight on the stressors nursing students face which could facilitate effective coping strategies, support learning, promote student retention, and increase the number of nurses, which meets the healthcare needs of the population growing. The discussion of the study will be extracted from both quantitative and qualitative results.

Among the accelerated students who enrolled in the current study, the number of females was higher than the males. This could be explained by that the nursing profession continues to be dominated by females, but the number of male nurses is growing over time. this is proven by the increasing number of male students enrolled in the first year compared to males enrolled in the second year and they were single. This might be explained by economic reasons, as the students need money to fulfill their financial obligations. In addition, for accelerated students, it is common to work during their studies. During the study, approximately two-thirds of students were working in private institutions. The nursing graduate students found nursing a rescue for their financial difficulties as the unemployment rate increased. To finance their studies and meet family responsibilities, they may be employed as nurse assistants during their education time.

The current study revealed that all students, regardless of their academic level or studied courses, perceived stressors. Among the stressors mentioned by four subscales of SNSI (academic loads, clinical concern, personal problems, and interface worries), as they mention the following statements while analyzing their qualitative data "fear of failing in course", "examinations or grades", "I am not sure what is expected of me" "Too many responsibilities", "Personal & family problems", and "Lack of free time" were perceived as the highest sources of stressors by the first – year and second – year students respectively. This result could be explained by the fact that nursing as a profession includes an emotionally, physically demanding, and highly stressful profession for all students. in addition to a multitude of reasons specific to the accelerated students. Returning to study was difficult for most of the students, with new complex subjects, especially for students who graduated from colleges with philosophical backgrounds such as arts, law, social work, anthropology, psychology, and business. They need to learn how to prioritize the demanding workload and organize their time, especially if there are no mentors or tutoring services set up to help students. Fear of failure, grades, and too many responsibilities could be linked to a financial burden. Most students considered the financial burden to be a burden and feared from the failure of the course because of the cost of repeating it. The students need to work because they are responsible for financing their education, also, they have families' responsibilities and financial obligations. The lack of time could be attributed to the rigor and intensity of the study. In addition, a program requires a high minimum pass rate in all nursing courses to progress through the program and failure of more than one course may result in the dismissal from the program. The findings of the current study are consistent with the other studies that concluded among other healthcare disciplines colleges, nursing has a higher level of stress. Some of these stressors are unique to the accelerated program students**. (Ali & El-Sherbini, 2018; Bell et al., 2017; Raymond & Sheppard, 2017; Tate, 2019; Wolf et al., 2015; Zheng, 2022).**

Coping strategies could either protect or harm the students. In the current study, the overall mean scores of adaptive coping strategies were significantly higher than the mean scores of the maladaptive coping strategies. Among the first and second-year students, coping strategies of religious-related had the highest mean scores, this means that the students found comfort in their religion or spiritual beliefs during praying or meditating. Moreover, the lowest maladaptive coping strategy adopted by both groups was substance use. The adoption of adaptive coping strategies, especially religious strategies, could be attributed to the nature of the religious growth of either Muslims or Christians. They actively grow their faith, feel the presence of God in their relationships with others, believe that their lives have a purpose, share their faith with others, believe that God guides them, and follow Jesus Christ in their behavior. use faith to face life's major events and stresses. This result was consistent with many studies done in such field which shown that religion plays an important role in dealing with stress, depression, and anxiety **(Osman & Ahmed, 2021; Philip et al., 2019; Waithaka & Gough, 2017).** Moreover, the

findings of a study done by Amponsah et al.2020) who report that adaptive coping strategies, such as religious therapy, are more accurate indicators of adjusting to academic stress.

The success of nursing students is significantly influenced by the support received from their faculty and clinical instructors. The current study revealed that slightly more than two-thirds of the students perceived high levels of faculty support. High perceived faculty support mentioned by the majority of the students is congruent with Boath et al., (2016) The qualitative study part had showed that a mobile text support application increased their sense of belonging and encouraged them to stay enrolled in the health care program after the first year. (Boath et al., 2016). Contrary to the result of the current research, students did not receive the support from the faculty they needed with some students leaving their program due to a lack of faculty support **(Bakker et al., 2019; WHO, 2019).** In another study conducted by Ten Hoeve et al., (2017), they reported that about 92% of the students found their peers as the first line of support during the program.

Limitations of the study

The study was based on self-reported questionnaires that could give rise to possible bias, although our factor analysis results did not indicate any significant common methodology bias. The questionnaires were conducted fully online. The researcher was unable to reach students who might not had an internet access or who were embraced to ask for more clarifications such students might perceived higher levels of stress. Such limitations should be further considered in future studies.

Conclusions

The present study was to determine the perceived stressors, coping strategies, and faculty support by the accelerated nursing students enrolled in the critical care nursing courses. Based on the results of the current study, it could be concluded that:

- A vast majority of the students who participated in this study were experiencing stressors.
- Religion was the highest adaptive coping strategy employed almost by all the students to cope with the stressors. However, the highest maladaptive coping style employed by the students enrolled in Critical Care I was venting compared to behavioral disengagement among the students enrolled in Critical Care II.
- Slightly more than two-thirds of the students had experienced positive relationships with their faculty and clinical supervisors.
- Limited time due to heavy academic loads, and financial burdens extracted from the analysis of the qualitative survey were identified as stressors by the vast majority of the students.
- Adaptive coping styles had a significant negative correlation with maladaptive coping styles and a significant positive correlation with the perceived faculty support scale. While maladaptive coping styles were significantly correlated negatively with the perceived faculty support scale. These correlations suggest that higher stress levels were associated with more maladaptive coping styles and less perceived faculty support, while more adaptive coping styles were associated with less maladaptive and more perceived faculty support.

Recommendations:

Recommendations Relevance for Nursing Education

Based on the fact that accelerated students are older and might be in households that have children, employed during the study, the correlations which suggest that higher stress levels are associated with more maladaptive coping styles and less perceived faculty support, while more adaptive coping styles were associated with less maladaptive and more perceived faculty support, the following recommendations should be considered:

- Faculty and clinical instructors should understand and establish an adult-to-adult relationship. Additionally, they should work to flatten their relationship with students instead of an inherent hierarchy relationship that depends only on the faculty who is controlling the situation and the students' opinions, and feedback are neglected, for example, adoption of student-centered approaches and students'

feedback and opinions should be respected and considered as relevant program-related issues, and in turn, students exhibit more responsibility regarding their studies.

- Conduct regular meetings with students and recruit therapeutic and professional communication skills to discuss the stressful times and situations in the program, and possible coping interventions that could help the students to overcome such events.
- Ensure that the teaching-learning environment encourages a positive and relaxed atmosphere as well as emphasizing the role of advising and guiding students through coaching or mentoring.
- Assess the frequency, characteristics, and necessity of tasks. Make sure that the assignments are convenient and meet the learning objectives as much as possible to save time.

Recommendations Relevance for Research

- A further study to explore the influence of faculty support on students' stress levels, coping strategies, and student outcomes would help in academic success and retention until graduation from the program.
- Future research to determine the perceptions and experiences of faculty and clinical supervisors regarding relationships with accelerated program students.
- Another comparative study to compare the perceived stressors, coping strategies, and faculty support among the regular 4–year bacculate nursing students and accelerated nursing students.

References

AACN. (2022). Nursing Shortage Fact Sheet. *Health Care*, *202*, 1–5. http://www.aacn.nche.edu/media/pdf/NrsgShortageFS.pdf

Abd El-Aziz Mohamed Madian, A., Mahmoud Abdelaziz, M., & Abo Elsoud Ahmed, H. (2019). Level of Stress and Coping Strategies among Nursing Students at Damanhour University, Egypt. *American Journal of Nursing Research*, *7*(5), 684–696. https://doi.org/10.12691/ajnr-7-5-3

Alharbi, M., McKenna, L., & Whittall, D. (2019). Social barriers experienced by female Saudi nursing students while studying nursing: A phenomenological study. *Nurse Education in Practice*, *34*(November 2018), 123–129. https://doi.org/10.1016/j.nepr.2018.11.018

Ali, A., & El-Sherbini, H. (2018). Academic Stress and Its Contributing Factors among Faculty Nursing Students in Alexandria. *Alexandria Scientific Nursing Journal*, *20*(1), 163–181. https://doi.org/10.21608/asalexu.2018.207756

Amponsah, K. D., Adasi, G. S., Mohammed, S. M., Ampadu, E., & Okrah, A. K. (2020). Stressors and coping strategies: The case of teacher education students at University of Ghana. *Cogent Education*, *7*(1). https://doi.org/10.1080/2331186X.2020.1727666

Anjalatchi. (2023). A study to assess the stress level and coping strategies among 1 year nursing students at Era College of Nursing, Lucknow. *IP Journal of Nutrition, Metabolism and Health Science*, *6*(1), 19–27. https://doi.org/10.18231/j.ijnmhs.2023.004

Bakker, E. J. M., Verhaegh, K. J., Kox, J. H. A. M., van der Beek, A. J., Boot, C. R. L., Roelofs, P. D. D. M., & Francke, A. L. (2019). Late dropout from nursing education: An interview study of nursing students' experiences and reasons. *Nurse Education in Practice*, *39*(October 2018), 17–25. https://doi.org/10.1016/j.nepr.2019.07.005

Baluwa, M. A., Lazaro, M., Mhango, L., & Msiska, G. (2021). *Stress and Coping Strategies Among Malawian Undergraduate Nursing Students*. 547–556.

Bell, C., Coxon, V., Mentor, F., Taliaferro, D., Member, C., Stephens, V., & Member, C. (2017). *STRESSORS EXPERIENCED BY NURSING STUDENTS ENROLLED IN BACCALAUREATE by A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree Doctor of Philosophy Capella University July 2017*. *July*, 137.

Bhurtun, H. D., Turunen, H., Estola, M., & Saaranen, T. (2021). Changes in stress levels and coping strategies among Finnish nursing students. *Nurse Education in Practice*, *50*(June 2020), 102958. https://doi.org/10.1016/j.nepr.2020.102958

Chaabane, S., Chaabna, K., Bhagat, S., Abraham, A., Doraiswamy, S., Mamtani, R., & Cheema, S. (2021). Perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa: an overview of systematic reviews. *Systematic Reviews*, *10*(1), 1–17. https://doi.org/10.1186/s13643-021-01691-9

DeWitty, V. P., Huerta, C. G., & Downing, C. A. (2016). New Careers in Nursing: Optimizing Diversity and Student Success for the Future of Nursing. *Journal of Professional Nursing*, *32*(5), S4–S13. https://doi.org/10.1016/j.profnurs.2016.03.011

Drennan, V. M., & Ross, F. (2019). Global nurse shortages - The facts, the impact and action for change. *British Medical Bulletin*, *130*(1), 25–37. https://doi.org/10.1093/bmb/ldz014

Dübbers, F. (2022). *Promoting Motivation in Higher Education : Scalable Interventions based on Self-Determination Theory*.

Galvan, A. D. A., Cruz, J. M. D., & Cabale, W. J. S. (2022). Exploring Stress and Coping Among Nursing Students: Towards Developing a Holistic Student Program. *SocArXiv. July*, *9*(July). https://doi.org/10.31235/osf.io/2wrq8

García, F. E., Barraza-peña, C. G., Wlodarczyk, A., Alvear-carrasco, M., & Reyes-reyes, A. (2018). *Sarickin Clanak.Pdf*.

Hamadi, H. Y., Zakari, N. M. A., Jibreel, E., Al Nami, F. N., Smida, J. A. S., & Haddad, H. H. B. (2021). Stress and coping strategies among nursing students in clinical practice during COVID-19. *Nursing Reports*, *11*(3), 629–639. https://doi.org/10.3390/nursrep11030060

Junious, D. M. L., Malecha, A., Tart, K., & Young, A. (2010). Stress and perceived faculty support among foreign-born baccalaureate nursing students. *Journal of Nursing Education*, *49*(5), 261–270. https://doi.org/10.3928/01484834-20100217-02

Juraschek et al. (2019). *Scholarship & Creative Works @ Digital UNC Faculty ' s Experience Providing Nursing Student Support : An Interpretative Phenomenological Analysis*.

Lavoie-Tremblay, M., Sanzone, L., Aubé, T., & Paquet, M. (2022). Sources of Stress and Coping Strategies Among Undergraduate Nursing Students Across All Years. *Canadian Journal of Nursing Research*, *54*(3), 261–271. https://doi.org/10.1177/08445621211028076

Murray, T. A., Simmons, K. J., Boyd, E., Holmes, S., Bobo, T. L., & Turner, J. (2022). Evidence-based strategies to advance BSN student diversity. *Journal of Professional Nursing*, *39*(August 2021), 122–130. https://doi.org/10.1016/j.profnurs.2021.12.013

Onieva-Zafra, M. D., Fernández-Muñoz, J. J., Fernández-Martínez, E., García-Sánchez, F. J., Abreu-Sánchez, A., & Parra-Fernández, M. L. (2020). Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study. *BMC Medical Education*, *20*(1), 1–9. https://doi.org/10.1186/s12909-020-02294-z

Osman, A., & Ahmed, I. O. M. (2021). Religious Orientation, Academic Stress and Religious Coping among First Year Undergraduate Students. *IIUM Journal of Educational Studies*, *9*(2), 123–140. https://doi.org/10.31436/ijes.v9i2.244

Philip, S., Neuer Colburn, A. A., Underwood, L., & Bayne, H. (2019). The Impact of Religion/Spirituality on Acculturative Stress Among International Students. *Journal of College Counseling*, *22*(1), 27–40. https://doi.org/10.1002/jocc.12112

Raymond, J. M., & Sheppard, K. (2017). Effects of peer mentoring on nursing students' perceived stress, sense of belonging, self-efficacy and loneliness. *Journal of Nursing Education and Practice*, *8*(1), 16. https://doi.org/10.5430/jnep.v8n1p16

Riley, J. M., Collins, D., & Collins, J. (2019).

Nursing students' commitment and the mediating effect of stress. *Nurse Education Today*, *76*(May 2018), 172–177. https://doi.org/10.1016/j.nedt.2019.01.018

Snijders, I., Wijnia, L., Kuiper, R. M., Rikers, R. M. J. P., & Loyens, S. M. M. (2022). Relationship quality in higher education and the interplay with student engagement and loyalty. *British Journal of Educational Psychology*, *92*(2), 425–446. https://doi.org/10.1111/bjep.12455

Stallman, H. M. (2020). Health theory of coping. *Australian Psychologist*, *55*(4), 295–306. https://doi.org/10.1111/ap.12465

Tate, A. S. (2019). *Accelerated Baccalaureate Nursing Students' Perceptions of Stress*. https://www.proquest.com/openview/48df5b67e8b53c5e1727f88ef738041e/1?pq-origsite=gscholar&cbl=18750

Waithaka, A. G., & Gough, D. M. (2017). The Influence of Religion on Stress and Coping of College Students. *International Journal of Novel Research in Education and Learning*, *IV*(1), 27–40. www.noveltyjournals.com

WHO. (2019). Failure to Complete BSN Nursing Programs: Students' Views. *Journal for the Advancement of Educational Research International*, *13*(1), 101–106.

Wolf, L., Stidham, A. W., & Ross, R. (2015). Predictors of Stress and coping strategies of US Accelerated vs. Generic baccalaureate nursing students: An embedded mixed methods study. *Nurse Education Today*, *35*(1), 201–205. https://doi.org/10.1016/j.nedt.2014.07.005

Zheng, Y. (2022). *Stress levels of nursing students*. *1*, 1–6.