Coping Strategies and Stressors of Nursing Students in the Care of Sex Trafficking Victims

Abstract

During their clinical practice, nursing students face a number of complex clinical situations, which may include treating victims of sex trafficking. These clinical experiences can lead to stress for the nursing students, which may hinder their learning process. Nonetheless, there is very little educational training provided in nursing programs on this topic. The objective of this study was to identify the coping strategies and stressors perceived by nursing students in the care of sex trafficking victims. A pre-post study of a single group was carried out. The TREND guidelines were followed. The Perceived Stress Scale and Coping Behavior Inventory were used for data collection. On the Perceived Stress Scale, the average scores were lower after the intervention in all dimensions, except related to teachers and nursing staff and peers and daily life. Statistically significant differences were found when comparing the results of the total average score of the Perceived Stress Scale and the time of measurement (pre/post-intervention) ($t(106)=38.811$; $p<0.001$). Regarding the Coping Behavior Inventory, the average scores in each dimension increased after the intervention, except transference behaviors. Statistically significant differences were found when comparing the total average score of the questionnaire and the time of measurement ($Z=-13.357$; $p<0.001$). The total stress levels and coping strategies of nursing students in caring for victims of sex trafficking improved significantly after the intervention. Nursing educators should promote the training of future nursing professionals as a potential effective strategy for the rapid identification and adequate care of sex trafficking victims.

Keyword: Coping; nursing students; red flags; sex trafficking; stress

Introduction

Sex trafficking is internationally recognized as a violation of human rights and is considered a crime (Chaffe & English, 2015). Sex trafficking is defined as any sexual act carried out by force, fraud, or coercion, in which the person subject to carrying out such an act may or may not be a minor (Cary et al., 2016). Regarding the prevalence of sex trafficking, The Polaris Project (2018) reported 7,277 possible cases of sex trafficking in the United States, of which 65% involved women over the age of 18 (United Nations Office on Drugs and Crime, 2018). Victims of sex trafficking tend to be vulnerable individuals in society. People at a higher risk of being victims of sex trafficking include women who live in situations of extreme poverty, have low education levels, and have experienced abuse or family instability (Heaslip, 2018). Sex trafficking victims may suffer harmful long-term consequences on their mental and physical health, and have a higher likelihood of developing sexually transmitted diseases (U.S. Department of Health and Human Services, 2021).

Nursing professionals that work in emergency services are usually the first to assist victims who seek treatment for wounds or diseases as a result of their forced labor (Lamb-Susca & Clement, 2018). The identification of sex trafficking cases is challenging for nursing professionals (Byrne et al., 2019). Nevertheless, some specific "red flag" indicators have been established so health professionals can more accurately identify possible cases, such as repeated sexually trasmitted infections, multiple or frequent pregnancies, frequent or forced miscarriages, frequent relocation to avoid detection, inadequate clothing for the climate or place, use of common language in the commercial sex industry and tattoos indicating ownership or property (National Human

Trafficking Resource Centers, 2021). Nursing professionals also play a key role in identifying victims, providing interventions to improve physical and psychological health, and taking care of victims (Ernewein & Nieves, 2015).

Training programs facilitate the development of skills needed to respond to the complex needs of women who have experienced sex trafficking (Murray & Smith, 2019). In addition, educational interventions using lecture style format teaching on this topic increase the knowledge of nursing students (Lutz, 2018). However, specific training in recognizing and treating sex trafficking victims in nursing programs is scarce (Beck et al., 2015).

On the other hand, nursing students face numerous complex clinical situations during their clinical practice (Alshahrani et al., 2018), and one of them may be sex trafficking. These clinical experiences can lead students to feel stress, making it difficult for them to learn (Rafati et al., 2017). This stress is caused by a lack of clinical knowledge and skills (Labrague et al., 2018). In addition, the experiences nursing students face during clinical practice could determine whether they continue in or leave the profession, so nursing programs should train students to replace those stressful challenges with positive coping strategies (O´Mara et al., 2014).

Therefore, simulation experiments could help students to decrease their perceived stress and develop appropriate coping strategies for addressing victims of sex trafficking in clinical settings. However, no studies have been conducted which explore the stressors perceived by students and coping strategies developed in treating sex trafficking victims. Thus, the objective of this study was to identify coping strategies as well as stressors perceived by nursing students in the care of sex trafficking victims.

Methods

Design

A pre-post study of a single group was carried out. The TREND guidelines were followed.

Participants

The study population consisted of 130 students. Considering a margin of error of 5% and a confidence level of 95%, the recommended sample size was 103 participants. Finally, a total of 124 nursing students, selected through a non-probability convenience sample, participated in the study. Six students were excluded for not meeting the inclusion criteria. The inclusion criteria established were as follows: A) to be enrolled in the subject of Evidence-Based Nursing in the Nursing program, and b) to have passed the clinical practice corresponding to the 2nd and 3rd courses. Exchange students were excluded, due to not mastering the native language.

Measure

Sociodemographic data. The sociodemographic data collected were sex; age; university class (A and B), the students' clinical practice setting; previous training on care for sex trafficking victims; and previous experience in caring for sex trafficking victims.

Perceived Stress Scale (PSS) (Sheu et al., 1997). This scale consists of 29 items, divided into 6 dimensions: 1) stress related to patient care (8 items); 2) stress related to teachers and nursing staff (6 indicators); 3) stress related to assignments and workloads (5 items); 4) stress related to peers and daily life (4 items); 5) stress related to lack of professional knowledge and skills (3 items) and 6) stress related to the clinical environment (3 items). The responses were chosen on a Likert-type scale from 0 to 4.

The total score could range from 0 to 116; the higher the score, the higher the stress level. Cronbach's alpha for this scale in the current study was 0.91.

Coping Behavior Inventory (CBI) (Sheu et al., 2002). The scale consists of 19 items, structured into 4 dimensions: 1) avoidance behaviors (6 items); 2) problem-solving behaviors (6 items); 3) optimistic coping behaviors (4 items) and 4) transference behaviors (3 items). The responses were chosen on a Likert-type scale from 0 to 3. The higher the score, the greater the use and effectiveness of the determined coping behavior. More specifically, for this study, Chronbach's alpha was 0.85.

Procedure

Firstly, permission was sought from the corresponding research committee, as well as from the original authors of the scales used in this study. The session, which was carried out in a simulation seminar room at the Department of Health Sciences, was divided into 3 parts: 1) Firstly, the participants were informed about the objective of the study and those who agreed to participate filled out informed consent forms. Prior to the intervention, the students completed a form with their sociodemographic information, as well as the PSS and CBI scales; 2) The second part of the session consisted of the intervention, which each student carried out individually. The simulated clinical case took place in an emergency room triage area, where the student had to identify a sex trafficking victim through recognition of the red flags and then make a clinical evaluation. For the intervention, a simulated scenario was used to analyze the coping behaviors of the students in this type of situation and to identify if dealing with sex trafficking victims influenced the perceived stress in order to detect the factors that may interfere with the students' training. 3) Finally, once the clinical case was finished, the

student filled out the PSS and CBI scales post-intervention. Lastly, the researchers thanked the students for their participation.

Ethical aspects

The study was approved by the Ethics and Research Committee (UALBIO2019/023). Firstly, all participants were informed about the objective and characteristics of the study, as well as the voluntary nature of their participation. In addition, they were guaranteed anonymity as well as the confidential treatment of their data. All participants signed informed consent prior to the start of the study. Ethical principles were followed in accordance with the Helsinki guidelines.

Data analysis

The data were analyzed using the SPSS version 26 program. First, a descriptive analysis of sociodemographic variables was performed. For quantitative variables, measures of central tendency and dispersion were calculated, while for categorical variables, frequencies and percentages were obtained. The normal distribution of the variables was previously verified by the Kolmogorov-Smirnov test. For the hypothesis contrast, the Student's T-test and Pearson's correlation test were used as well as the Mann-Whitney non-parametric U test and Spearman's correlation test. For comparison of the time of intervention in paired samples, the Student's T-test was used for related samples and Wilcoxon's non-parametric test, according to the distribution of the variable. A value of $p<0.05$ was considered significant.

Results

Participants' sociodemographic characteristics

A total of 124 students participated in this study (N=124), of which, 75.8% (n=94) were female and 24.2% (n=30) male. The average age of the participants was 23.39 years old (SD=6.05). All of the participants (N=124) were in their fourth year of their nursing degree. Regarding the setting of their clinical practice placement, 55.7% (n=69) of the participants were working at primary healthcare centers, while 44.3% (n=55) were at hospitals. The majority of participants had not received prior training on the topic (75.8%, n=94) nor had they ever faced a similar clinical case in their practice (90.3%, n=112). The sociodemographic characteristics of the participants are summarized in Table 1.

Pre-Intervention Results

Perceived stress and types of stressors (Pre-intervention)

The average total score of the PSS at the time of pre-intervention was 51 (SD=12.58) with a range of scores between 23-108. In each dimension, the average scores were as follows: stress related to patient care (M= 14.46; SD=4.52); stress related to teachers and nursing staff (M=9.27; SD=3.24); stress related to assignments and workloads (M=10.24; SD=3.10); stress related to peers and daily life (M=4.28; SD=2.50); stress related to lack of professional knowledge and skills and (M=5.76; SD= 1.69) and stress related to the clinical environment (M=6.18; SD=2.39).

Coping Strategies (Pre)

Prior to the intervention, the average total score of the CBI scale was 29.92 (SD=3.97). Regarding each dimension, the scores were the following: avoidance behaviors (M=3.56; SD=2.19); problem-solving behaviors (M=12.95 SD=2.73); optimistic coping behaviors (M=7.23; SD=1.57) and transference behaviors (M=6.16; SD=1.61).

Post-Intervention Results

Perceived stress and types of stressors (Post)

Following the intervention, the average total score of the PSS was 48.62 (SD=13.69) with a range of scores between 20-101. Regarding the dimensions, the scores were as follows: stress related to patient care (M= 13.26; SD=3.93); stress related to teachers and nursing staff (M=9.90; SD=3.08); stress related to assignments and workloads (M=9.97; SD=3.57); stress related to peers and daily life (M=4.54; SD=2.11); stress related to lack of professional knowledge and skills and (M=5.15; SD= 1.94) and stress related to the clinical environment (M=5.94; SD=2.11).

Coping Strategies (Post)

The total average score of the CBI questionnaire after the intervention was 30.59 (SD=3.82). The total average score for each dimension were the following: avoidance behaviors (M=4.07; SD=2.09); problem-solving behaviors (M=13.43; SD=2.66); optimistic coping behaviors (M=7.56; SD=1.59) and transference behaviors (M=5.52; SD=1.44).

The average scores and SD of each of the dimensions can be consulted in Table 2.

Differences between perceived stress and coping strategies after the intervention

Firstly, considering the PSS, the average scores were lower after the intervention in all of the dimensions except that of "stress related to teachers and nursing staff" and "stress related to peers and daily life" as shown in Table 2. Statistically significant differences were found upon comparing the results of the total average score on the PSS and the time of measurement (pre/post-intervention) ($t(106)=38.811$; $p<0.001$). More specifically, at pre-intervention, the participants obtained a total average score of 51

(SD=12.58) compared to the total average score of 48.62 (SD=13.69) collected post-intervention. After the intervention, no statistically significant differences were found when comparing the total score with sex (t(68)=0.47; p=0,963), with the place where the students were doing their clinical practice, nor with age (r=-0.161; p=0.182).

As for the CBI, the average scores of each dimension increased after the intervention, except in transference behaviors (Table 2). In comparing the total average scores on the CBI and the time of measurement, statistically significant differences were found (Z=-13.357; p<0.001). More specifically, the students obtained an average total score of 29.92 (SD=3.97) prior to the intervention, as opposed to 30.59 (SD=3.82) obtained after the intervention. Statistically significant differences were found when comparing the total score of the CBI with sex (U=816.500; Z=-1.969; p=0.049). More specifically, male students scored higher on coping strategies (M=31.44; SD=3.51) than female students (M=29.48; SD=4.00) after the intervention. Statistically significant differences were not found when comparing the total score and the students' clinical practice setting (U=1524.000; Z=-0.296; p=0.767) nor their age (rs=0.181; p=0.055).

The relationship between Perceived stress and Coping strategies

With respect to the total perceived stress level, a positive correlation was observed with avoidance behaviors (rs=0.384; p=0.001) and a negative correlation with problem-solving behaviors (rs=-0.318; p=0.007); and optimistic coping behaviors (rs=-0.448; p<0.001. Regarding the CBI, a negative correlation was found with stress related to patient care (rs=-0.375; p<0.001). In Table 3, the results of the correlation between the dimensions of the PSS and CBI, as well as the total scores, can be observed.

Discussion

The objective of this study was to identify coping strategies and stressors perceived by nursing students in the care of sex trafficking victims. In general, students perceived a moderate amount of stress similar to that obtained by studies in other countries (D'emeh & Yacoub, 2021; Dasgupta et al., 2020; Shdaifat et al., 2018). Consistent with previous studies, undergraduate nurses reported the "stress related to patient care" dimension as the most stressful (Al-Gamal et al., 2018; D'emeh & Yacoub, 2021). Nursing students often become stressed by the individual care of patients in clinical practice, especially when they have feelings of inadequacy due to their lack of experience and ability in providing nursing care (Bhurtun et al., 2021). They require advanced knowledge and skills to provide quality patient care (Karaca et al., 2017). Considering that taking care of patients is one of the most frequent types of stressors among nursing students, nursing educators should provide students with safe and supportive opportunities to improve their abilities and become competent in the necessary skills prior to dealing with patients in clinical settings (Al-Gamal et al., 2018; Onieva-Zafra et al., 2020).

The results of this research showed a significant reduction in total stress levels perceived by students following the intervention, supporting the efficacy of clinical simulation in laboratories to reduce stress, as suggested in previous studies (Al-Gamal et al., 2018; Turner & McCarthy, 2017). Nevertheless, a slight increase was observed in the average scores in the "stress related to teachers and nursing staff" and "stress related to peers and daily life" dimensions. Based on the literature, the inability to adequately respond to patient care issues and their concern for receiving low grades are two of the highest sources of stress in clinical training (Bhurtun et al., 2021; D'emeh & Yacoub, 2021; Hamaideh et al., 2017) which could partially explain these findings. Regarding the focus of this study, it is known that nurses frequently interact with sex trafficking victims, playing a fundamental role in the fight against this global health problem

(Twigg, 2017); however, many victims go unnoticed and do not receive the care they need due to the inadequate training of professionals (Jaeckl & Laughon, 2021). Therefore, it may be that the lack of support and orientation from teachers in undergraduate training to identify and provide quality care to sex trafficking victims raise students' concerns about patient care and bad grades, increasing their levels of "stress related to teachers and nursing staff" post-intervention. Simultaneously, the fact that students performed the simulation individually could lead to some competition amongst themselves (i.e., given the possibility of being compared to other peers in the evaluation of their intervention) which could explain the increase in their post-intervention "stress related to peers and daily life" levels.

Regarding the coping strategies adopted by nursing students when treating sex trafficking victims, "problem-solving behaviors" was the most widely used strategy and "avoidance behaviors" was the least used, coinciding with previous studies (Dasgupta et al., 2020; Hamaideh et al.,2017; Shdaifat et al., 2018). Students' use of coping strategies increased following the intervention, including "avoidance behaviors". According to the available literature, students tend to use avoidance behaviors more often when they experience higher levels of stress (Shdaifat et al., 2018), thus, the higher level of "stress related to teachers and nursing staff" and "stress related to peers and daily life" experienced by the students after the intervention could lead to a more frequent use of the avoidance coping strategy in this study. Conversely, the use of "transference behavior" decreased; most likely due to the reduction in nursing students' total stress levels, "stress related to the clinical environment" and "stress related to assignments and workloads", supporting the positive associations found between these variables and the use of transference coping strategy in literature (Alzayyat & Al-Gamal, 2014; Hamaideh et al., 2017).

Coping strategies used by nursing students in the care of sex trafficking victims correlated significantly with stress levels, which supports associations previously reported in literature. This study found correlations between avoidance and stress related to patient care, teachers and nursing staff, peers and daily life, and the clinical environment, as well as the total score on the PSS according to most of the studies (Dasgupta et al., 2020; Karaca et al., 2017; Shdaifat et al., 2018). On the contrary, there are studies with diverse results where avoidance was correlated with different types of stress (Bhurtun et al., 2021; Shdaifat et al., 2018). More specifically, in the study of Al-Gamal et al. (2018) no correlations were found with avoidance. Additional research is required to further explore the relationship between stress and avoidance coping strategies used among nursing students.

On the other hand, consistent with the vast majority of studies focused on stress and coping strategies among nursing students (Al-Gamal et al., 2018; Dasgupta et al., 2020; Shdaifat et al., 2018), this study supports the idea that students' stress levels tend to decrease as the coping strategies known as "problem-solving behaviors" and "optimistic coping behaviors" increase. Furthermore, it provides evidence that as the use and effectiveness of coping strategies increases, student stress levels related to patient care tend to decrease, strengthening the results of other studies (Al-Gamal et al., 2018; Dasgupta et al., 2020). These findings should be considered by nursing educators and faculty members in order to design effective strategies to reduce and prevent stress among nursing students during clinicals.

Nursing professionals play a key role in identifying and caring for victims of sex trafficking, however, sometimes they lack effective training and are unable to recognize the signs of victimization and risk factors associated with being a victim of sex

trafficking (Yaklin & Rolin, 2020). This novel study contributes to the literature by highlighting that the use of interventions similar to those used in the current study can reduce stress levels and enhance the coping strategies of nursing students in the identification and care of sex trafficking victims. In addition, nursing students represent the future of the nursing profession, thus, integrating these skills into their university education could help address one of the main barriers to recognizing sex trafficking victims today, lack of specific training (Boswell et al., 2019).

There are a number of limitations to consider when interpreting these results. The study was carried out among students in their fourth year of their nursing degree at one single university drawn from a convenience sample, which may limit the generalization of the findings on other groups or study contexts. Data collection was self-reported; thus, students' responses might fall into social desirability bias. Randomized controlled studies should be conducted to assess the effectiveness of the implemented intervention in depth as well as assess the effectiveness of the intervention and to generalize results. In addition, further research is needed to study the influence of this and other similar interventions on the knowledge and skills of nursing students in the care of sex trafficking victims.

Conclusions

Nursing professionals play a key role in the identification and care of victims of sex trafficking, therefore specific training for nursing students on this topic is key. Students use "problem-solving behaviors" as their main coping mechanism in caring for sex trafficking victims. In contrast, the "avoidance behaviors" strategy is used the least, although students tend to resort to using this mechanism when their perceived stress levels increase. Students show a moderate total level of perceived stress when faced

with identifying and caring for victims of sex trafficking, with “stress related to patient care” being the main stress factor. In general, the students reduced their stress levels and increased their use of coping strategies following the intervention.

Relevance for clinical practice

Improving the education of future nursing professionals could lead to rapid identification and adequate care of sex trafficking victims, therefore, research is needed to assess the knowledge and skills of nursing students in order to identify any shortcomings in their nurse training and to develop effective educational strategies. Health and educational institutions should promote the training of nursing professionals in this field.

References

Al-Gamal, E., Alhosain, A., & Alsunaye, K. (2018). Stress and coping strategies among Saudi nursing students during clinical education. *Perspectives in Psychiatric Care*, *54*(2), 198–205.

Alshahrani, Y., Cusack, L., & Rasmussen, P. (2018). Undergraduate nursing students' strategies for coping with their first clinical placement: Descriptive survey study. *Nurse Education Today, 69,* 104-108.

Alzayyat, A., & Al-Gamal, E. (2016). Correlates of stress and coping among Jordanian nursing students during clinical practice in psychiatric/mental health course. *Stress and Health*, *32*(4), 304-312.

Beck, M. E., Lineer, M. M., Melzer-Lange, M., Simpson, P., Nugent, M., & Rabbitt, A. (2015). Medical providers’ understanding of sex trafficking and their experience with at-risk patients. *Pediatrics, 135*(4), e895-e902.

Bhurtun, H., Saaranen, T., Estola, M., & Turunen, H. (2021). Stress in the Clinical Learning Environment: Perceptions of First-Year Finnish Nursing Students. *Nursing Education Perspectives, 42*(1), 2–6.

Boswell, K., Temples, H. S., & Wright, M. E. (2019). LGBT Youth, Sex Trafficking, and the Nurse Practitioner's Role. *Journal of Pediatric Health Care, 33*(5), 555–560.

Byrne, M., Parsh, S., & Parsh, B. (2019). Human trafficking: Impact, identification, and intervention. *Nursing Management, 50*(8), 18-24.

Cary, M., Oram, S., Howard, L. M., Trevillion, K., & Byford, S. (2016). Human trafficking and severe mental illness: an economic analysis of survivors' use of psychiatric services. *BMC Health Services Research, 16*(1), 1-8.

Chaffee, T., & English, A. (2015). Sex trafficking of adolescents and young adults in the United States: healthcare provider's role. Current Opinion in Obstetrics and *Gynecology, 27*(5), 339-344.

Chan, C. K., So, W. K., & Fong, D. Y. (2009). Hong Kong baccalaureate nursing students' stress and their coping strategies in clinical practice. *Journal of Professional Nursing, 25*(5), 307-313.

Dasgupta, A., Podder, D., Paul, B., Bandyopadhyay, L., Mandal, S., Pal, A., & Mandal, M. (2020). Perceived Stress and Coping Behavior among Future Nurses: A Cross-Sectional Study in West Bengal, India. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine, 45*(2), 204–208.

D'emeh, W. M., & Yacoub, M. I. (2021). The visualization of stress in clinical training:

A study of nursing students' perceptions. *Nursing Open*, *8*(1), 290–298.

Ernewein, C., & Nieves, R. (2015). Human sex trafficking: Recognition, treatment, and referral of pediatric victims. *Journal for Nurse Practitioners, 11*(8), 797-803.

Hamaideh, S. H., Al-Omari, H., & Al-Modallal, H. (2017). Nursing students' perceived stress and coping behaviors in clinical training in Saudi Arabia. *Journal of Mental Health*, *26*(3), 197–203.

Heaslip, V., Hean, S., & Parker, J. (2018). The etemic model of Gypsy Roma Traveller community vulnerability: is it time to rethink our understanding of vulnerability?. *Journal of Clinical Nursing*, *27*(17-18), 3426-3435.

Jaeckl, S., & Laughon, K. (2021). Risk Factors and Indicators for Commercial Sexual Exploitation/Domestic Minor Sex Trafficking of Adolescent Girls in the United States in the Context of School Nursing: An Integrative Review of the Literature. *Journal of School Nursing*, *37*(1), 6–16.

Karaca, A. (2017). Perceived level of clinical stress, stress responses and coping behaviors among nursing students. *Journal of Psychiatric Nursing*, 32–39.

Labrague, L. J., McEnroe-Petitte, D. M., Papathanasiou, I. V., Edet, O. B., Tsaras, K., Leocadio, M. C., ... & Velacaria, P. I. T. (2018). Stress and coping strategies among nursing students: an international study. *Journal of Mental Health, 27*(5), 402-408.

Lamb-Susca, L., & Clements, P. T. (2018). Intersection of human trafficking and the emergency department. *Journal of Emergency Nursing*, *44*(6), 563-569.

Li, H. C., Wang, L. S., Lin, Y. H., & Lee, I. (2011). The effect of a peer-mentoring strategy on student nurse stress reduction in clinical practice. *International Nursing*

Review, *58*(2), 203–210.

Lutz, R. M. (2018). Human trafficking education for nurse practitioners: Integration into standard curriculum. *Nurse Education Today, 61*, 66-69.

Murray, A., & Smith, L. (2019). Implementing evidence-based care for women who have experienced human trafficking. *Nursing for Women's Health, 23*(2), 98-104.

National Human Trafficking Resource Centers. (2021). Identifying Victims of Human Trafficking: What to Look for in a Healthcare Setting. Available at: https://humantraffickinghotline.org/sites/default/files/What%20to%20Look%20for%20during%20a%20Medical%20Exam%20-%20FINAL%20-%202-16-16_0.pdf

O'Mara, L., McDonald, J., Gillespie, M., Brown, H., & Miles, L. (2014). Challenging clinical learning environments: Experiences of undergraduate nursing students. *Nurse Education in Practice, 14*(2), 208-213.

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,* 1–9. https://doi.org/10.21203/rs.2.10722/v2

Polaris Project. (2018). Hotline statistics 2017. Available at: https://polarisproject.org/2017statistics

Rafati, F., Nouhi, E., Sabzevari, S., & Dehghan-Nayeri, N. (2017). Coping strategies of nursing students for dealing with stress in clinical setting: A qualitative study. *Electronic Physician, 9*(12), 6120.

Shdaifat, E. A., Jamama, A., & Al-Amer, M. (2018). Stress and Coping Strategies Among Nursing Students. *Global Journal of Health Science*, *10*(5), 33.

Sheu, S., Lin, H., Hwang, S., Yu, P., Hu, W., Lou, M. (1997). The development and testing of perceived stress scale of clinical practice. *Nursing Research, 5*(4), 341–351.

Sheu, S., Lin, H.-S, Hwang, S.-L. (2002). Perceived stress and physio-psycho-social status of nursing students during their initial period of clinical practice: the effect of coping behaviors. *International Journal of Nursing Studies, 39*(2), 165–175.

Turner, K., & McCarthy, V. L. (2017). Stress and anxiety among nursing students: A review of intervention strategies in literature between 2009 and 2015. Nurse Education in Practice, 22, 21–29. https://doi. org/10.1016/j.nepr.2016.11.002

Twigg, N. M. (2017). Comprehensive Care Model for Sex Trafficking Survivors. *Journal of Nursing Scholarship, 49*(3), 259–266. https://doi.org/10.1111/jnu.12285

United Nations Office on Drugs and Crime. (2018). Global Report on Trafficking in Person. Available at: https://www.unodc.org/unodc/data-and-analysis/glotip.html

U.S. Departament of Health and Human Services, Administration for Children and Families, Campaign to Rescue and Restore Victimins of Human Trafficking. (2021). Resources: Common Health Issues seen in victims of human trafficking.

Available at: https://www.justice.gov/sites/default/files/usao-ndia/legacy/2011/10/14/health_problems.pdf

Yaklin, S., & Rolin, D. (2020). Recognizing the risk factors, signs, and symptoms of domestic minor sex trafficking in mental health clinical practice. *Journal of Psychosocial Nursing and Mental Health Services*, *58*(11), 21–28.

Table 1. Sociodemographic characteristics of the participants

Variable	n	%
Sex		
Male	30	24.2
Female	94	75.8
Age	23.39*	6.05**
Clinical practice setting		
Primary healthcare center	69	55.7
Hospital	55	44.3
Prior training on the subject		
Yes	30	24.2
No	94	75.8
Faced a similar situation in their clinical practice		
Yes	12	9.7
No	112	90.3

*Mean

**Standard Deviation

Table 2. Average scores and SD of the dimensions of the PSS and CBI.

Scale		Dimension	Pre-Intervention		Post-Intervention	
			M*	SD**	M*	SD**
Perceived Stress Scale		Stress related to patient care	14.46	4.52	13.26	3.93
		Stress related to teachers and nursing staff	9.27	3.24	9.90	3.08
		Stress related to assignments and workloads	10.24	3.10	9.97	3.57
		Stress related to peers and daily life	4.28	2.50	4.54	2.11
		Stress related to lack of profesional knowledge and skills	5.76	1.69	5.15	1.94
		Stress related to the clinical environment	6.18	2.39	5.94	2.11
		Total PSS	51	12.58	48.62	13.69
Coping Behavior	Inventory	Avoidance behaviors	3.56	2.19	4.07	2.09
		Problem-solving behaviors	12.95	2.73	13.43	2.66
		Optimistic coping behaviors	7.23	1.57	7.56	1.59
		Transference behaviors	6.16	1.61	5.52	1.44
		Total CBI	29.92	3.97	30.59	3.82

*Mean

**Standard Deviation

Table 3. Correlation between Perceived Stress and Coping Strategies

Dimensions		Avoidance behaviors	Problem-solving behaviors	Optimistic coping behaviors	Transference behaviors	Total CBI
Stress related to patient care	rs	**0.333**	**-0.456**	**-0.526**	-0.087	**-0.375**
	p	**0.000**	**0.000**	**0.000**	0.363	**0.000**
Stress related to teachers and nursing staff	rs	**0.440**	**-0.295**	**-0.322**	-0.148	-0.115
	p	**0.000**	**0.002**	**0.001**	0.118	0.227
Stress related to assignments and workloads	rs	0.188	-0.113	**-0.239**	-0.195	-0.109
	p	0.116	0.350	**0.044**	0.104	0.366
Stress related to peers and daily life	rs	**0.355**	**-0.198**	-0.114	-0.127	0.004
	p	**0.000**	**0.035**	0.231	0.181	0.966
Stress related to lack of profesional knowledge and skills	rs	0.064	-0.180	-0.175	0.040	-0.170
	p	0.502	0.057	0.064	0.673	0.071
Stress related to the clinical environment	rs	**0.259**	**-0.251**	**-0.274**	-0.065	-0.182
	p	**0.006**	**0.007**	**0.003**	0.496	0.054
Total PSS	rs	**0.384**	**-0.318**	**-0.448**	-0.239	-0.202
	p	**0.001**	**0.007**	**0.000**	0.056	0.094