

A survey on The Current Status of Stressors and Their Coping Styles Among Student Nurses in Practice

Xinyi Wu^a

Macau University of Science and Technology, China
*934255654@qq.com

Abstract: This paper investigates the main stressors of student nurses and ways of coping with them, in order to provide a reference for nurse educators in stress analysis and psychological education of practical nurses. 100 student nurses in clinical practice in a hospital were surveyed using convenience sampling. Results The total score of practical nurses' stressors was (58.67±15.47), which was in the middle level. When faced with pressure, practical nurses usually adopt positive coping style and less negative coping style.

Keywords: Student nurses, Stressors, Coping style.

1. Introduction

The public's attention to medical care and health in today's society continues to grow, and there are higher demands on the overall quality of clinical nurses. Indirectly, this places greater demands on nursing students who are about to enter clinical practice[1]. (Sun, X. Yang et al.,2015.) Student nurses not only have to learn all kinds of nursing skills, but also have to deal with nursing school exams and the deepening contradiction between nurses and patients, so they are prone to various psychological problems under various pressures. (Li, Xiu-Chuan et al.,2022). Therefore, helping the student nurse to form correct professional values and a stable professional identity, alleviating anxiety and depression that may occur during their practice and maintaining a healthy psychological level can ensure the student nurse's successful completion of their nursing practice.

2. Survey Instruments

2.1. Study population and methods

A convenient sampling questionnaire survey was conducted among 100 student nurses in a hospital in Shenzhen. The selected student nurses are all nurses who are about to complete the internship plan. The survey was conducted in the form of questionnaires [2].

2.2. Research instrument

2.2.1. Self-administered general information questionnaire

The questionnaire includes gender, age, length of internship, whether they are an only child, family economic status, and willingness to continue nursing after graduation.

2.2.2. Student nurses' stressor scale

This scale (Xiao, Mei-Lian,2010) contains 37 items covering six aspects of stress: nature of work, workload, work readiness, interpersonal relationships, work support, and learning and work conflicts, and is rated on a four-point Likert scale from 0-3, where 0 is no stress, 1 is mild stress, 2 is moderate stress, and 3 is severe stress. The overall Cronbach's coefficient, split-half reliability, re-test reliability, and content validity indices for the scale are 0.937, 0.892, 0.815, and 0.925, respectively, indicating good reliability and validity[3].

2.2.3. Simplified Coping Style Questionnaire (SCSQ)

The scale (Xie, Yaning.,1998) consists of 20 items divided into two dimensions, positive and negative coping, and is rated on a four-point Likert scale from 0 to 3, where 0=not used, 1=sometimes used, 2=sometimes used, 3=often used. Higher scores indicate that respondents are more likely to use positive coping styles; lower scores indicate that respondents are more likely to use negative coping styles.

Table 1. Results of the general information survey

background variable	groups	count	Percentages (%)
gender	Male	10	10%
	female	90	90%
educational background	Undergraduate	93	93%
	Polytechnic-	7	7%
length of internship	-	(8.17±1.46) months	-
age	-	(21.22±3.91) years old	-
whether they are an only child	Yes	35	35%
	No	65	65%
willingness to continue nursing after graduation	Yes	77	77%
	No	23	23%
family economic status	Good	19	19%
	Average	66	66%
	Poor	15	15%

2.3. Statistical methods

The analysis was carried out using the statistical software SPSS 22.0. General description and t-test were used to analyse the data.

3. Results of the Study

3.1. Results of the general information survey

The results of the survey on the general information of the

intern nursing students are detailed in Table 1.

3.2. Results of student nurses' stressor score survey

The results of the student nurses' stressor score survey are shown in Table 2.

Table 2. Results of student nurses' stressor score survey

item	score
nature of work (9 items)	18.09±3.67
workload (5 items)	8.56±2.50
preparation for the placement (6 items)	10.06±3.33
interpersonal relationships (4 items)	4.93±2.66
work support (4 items)	5.20±2.61
learning and work conflicts (9 items)	11.92±5.84
total	58.67±15.47

3.3. Student nurses' coping styles

The coping styles of the student nurses are shown in Table

3.

The positive coping score of the student nurses was

(2.14±0.42) points and the negative coping score was (1.12±0.77) points, both of which were statistically significant when compared to the domestic normal mode (p<0.01)[4].

Table 3. Student nurses' coping styles

group	number of cases	positive coping score	negative coping score
student nurse	100	2.14±0.42	1.12±0.77
normal mode	846	1.78±0.52	1.59±0.66
t		6.90	-7.56
P		<0.01	<0.01

3.4. Results of the top ten stressors rated by student nurses in practice

The results of the survey on the top ten stressors rated by

student nurses are shown in Table 4.

Out of the ten items, five items belong to 'nature of work' stressors, two items belong to 'workload' stressors and three items belong to 'preparation for placement' stressors.

Table 4. Results of the top ten stressors items rated by student nurses in practice

item	score
nature of work	
Absence of a nurse trainer or doctor when the patient's condition changes rapidly	2.59±0.64
Caring for patients with infectious diseases	2.55±0.73
Needlestick injuries at work	2.47±0.79
Patient death	2.42±0.81
Caring for patients with violent behavior	2.35±0.41
workload	
Irregular working hours, working mid-night shifts and holidays	2.25±0.53
There wasn't enough time to complete the tasks my teacher gave me.	2.18±0.30
preparation for placement	
Poor theoretical foundation	1.91±0.46
Unfamiliarity with new instruments, equipment and techniques	1.87±0.83
There are no precise answers to the questions posed by patients	1.68±0.71

4. Discussion

4.1. Analysing the stressors and causes of nursing student internships

Each of the high scoring stressors in Table 4 is analysed below, with interpersonal stressors scoring the lowest in this study, together with the possible reasons for its lowest score[5].

4.1.1. Analysis of the causes of stressors due to the nature of work

According to the survey results in Table 4, the top five of the top ten scoring items were all 'nature of work' stressors. The top stressor item was 'absence of the teacher or doctor when the patient's condition changes dramatically'. This is in line with the results of the study by (Cao ying et al.,2001) Student nurses lack of clinical experience, clinical skills are also relatively rusty, the professional knowledge learned in school is not enough to cover the complexity of the changing clinical situation. So the vast majority of student nurses do not have the ability to deal with the patient's emergencies, in the face of rapid changes in the patient's condition alone, it is easy to be at a loss for what to do, and the dependence on the teaching teacher and the doctor, the need to teach nurses according to the nurse to be guided by the student's own situation.

The second and third places are caring for patients with infectious diseases and needlestick injuries. In clinical practice, it is inevitable for student nurses to encounter patients with other infectious diseases, and the more rudimentary operating skills and insufficient knowledge of countermeasures lead to a much higher risk of exposure for practical nurses (Huang Yi-Qing, 2014). Some studies (Lu, Shuang, et al.2020)have shown that the psychological state and working condition of nursing students can be adversely affected by needlestick injuries, and when caring for patients with infectious diseases, most nursing students are worried about the fear of being infected(Fan, F. et al.,2012)[6].

In fourth and fifth place were 'death of patients' and 'caring for violent patients'. For student nurses, witnessing patient deaths and caring for violent patients were stressors. This is consistent with the findings of studies (Yang, Y. L.et al.,2006). When student nurses carry out simulated practical operations on campus, the nursing objects are mostly experimental dummies or patient roles played by classmates or teachers. When nurses enter the clinic, they are confronted with real and living patients, and it is not uncommon for patients to experience death, anger and violence in the clinic. This will undoubtedly have a huge impact on the nurse's senses and cognition, leading to fear, anxiety, sadness and other negative emotions and a state of stress[7].

4.1.2. Analysis of causes of workload stressors

In terms of workload, years of educational experience have accustomed student nurses to the school holiday pattern of summer and winter breaks. After entering the clinical practice, student nurses' previous life pattern is disrupted by the three-shift or two-shift work system. The absence of fixed holidays and the high-intensity clinical work pattern easily lead to physical and mental exhaustion, complaints and dissatisfaction among student nurses. In this survey, 90 per cent of the student nurses are female, with relatively low physical strength compared to male, and once their energy was difficult to maintain, their emotions were low and stress

arose.

4.1.3. Analysis of the causes of internship preparation stressors

Preparation for internship is also one of the main sources of stress for student nurses, with three high scoring entries including poor theoretical foundation, unfamiliarity with new instruments, equipment, and techniques, and lack of accurate answers to questions raised by patients[8]. This is basically consistent with the findings of (Sun Ailing et al.,2015). The causes are analysed as follows.

First of all, the development of medical theory and technology is changing day by day, all kinds of advanced equipments and technologies are emerging, while textbook knowledge and traditional classroom teaching are relatively lagging behind, which will inevitably lead to the mismatch between what student nurses have learnt in school and what they need in the clinic. The learning of new equipment and new technology usually requires a longer cycle and repeated training, and it is more difficult for student nurses who rotate quickly in the department to learn the use of new equipment and new instruments and master new technology in the clinic.

Secondly, clinical teaching nurses are often multi-tasking, with many tasks and heavy workloads, making it difficult for them to have sufficient time and energy to provide detailed and personalised teaching to student nurses. Also, Clinical patients will not only ask questions about their illnesses, but also about the rules of daily life in the hospital, which are also unfamiliar to nursing students who have just arrived at the department and are not yet familiar with the department's environmental system and the common diseases in the department. This make it impossible for nursing students to accurately answer the questions raised by the patients, and they need to return to the teaching staff to ask for advice, which leads to the formation of a source of stress.

Some studies have shown that in the later stages of internship, nursing students' mastery of operational knowledge is significantly better than their mastery of nursing theoretical knowledge (Gou, J.,2012). Clinical nursing work is very demanding, intern nursing students in clinical nursing work to do a lot of basic nursing work, long-term repetition of the same operation, certainly familiar with the basic nursing work, but a large number of basic nursing work also compressed the student nurses on the patient's state of independent assessment, thinking time. In addition, some clinical teaching teachers do not pay enough attention to the theoretical knowledge of student nurses, resulting in student nurses' operation skills are excellent, but the theoretical knowledge is not solid, in the face of the nurse manager's questions, the theoretical assessment of the department, the performance is not good, and the nursing students feel that the theoretical foundation is poor, which forms a source of pressure[9].

4.1.4. Analysis of the causes of interpersonal stressors

In the survey of the six stressors, the lowest ranked stressor was interpersonal relationships. This is inconsistent with the results of some research studies on the stressors of student nurses (Han Meng,2020; Sun, A. L et al.,2015). There are three possible reasons for this.

Firstly, the subjects of this study were all from the same hospital, and most of the nursing students were from the same school, so the situation of difficult to get along between the nursing students in the workplace was less frequent[10].

Secondly, many nursing schools in nursing students will be previewed before the internship: part of the clinical teaching teachers may not be as patient as the school teacher tolerance, patients and families are more difficult to communicate with the situation is common, etc. In advance to do a good job of psychological construction of nursing students, so the nursing students in the face of criticism from the head nurse or teaching teacher, the patients and their families do not trust the unreasonable demands, often be able to openly accept to do what is necessary to change.

Thirdly, the release of this questionnaire was concentrated in the middle and late stages of the nursing internship, where the student nurses' level of basic nursing practice had improved compared to the early stages of the internship[11]. As a result, the satisfaction and trust of teachers and patients have increased.

4.2. Nursing students' coping styles

Coping is the effort of an individual to engage in changing perceptions and behaviors in order to achieve specific internal and external environmental demands that he or she evaluates to be beyond the scope of his or her ability and resources (Yuan H ta al.,2004).

On the Simple Coping Styles Scale, the higher the positive coping score, the more likely the student nurses are to adopt positive coping styles, while the lower the negative coping score, the less likely the student nurses are to adopt negative coping styles. According to the results in Table 3, most of the student nurses were able to take positive and proactive measures when faced with stressors in practice, such as talking to people, pouring out their inner worries, trying to put things in a positive light, seeking advice from relatives, friends or classmates, and learning from others' ways of dealing with similar difficult scenarios, etc., and they were less likely to adopt, or even not to adopt, negative and negative coping styles, such as taking medication and food by smoking, drinking alcohol to relieve worries, trying to forget the whole thing, etc[12].

5. Intervention Measures

Based on the stressors of nursing interns, this paper proposes relevant interventions in three main stressors.

In terms of "nature of work" stressors, nursing students lack the ability to cope with emergency situations with patients, fear of infection, fear and anxiety in the face of death, and violent patients. This suggests that school educators should strengthen the training of nursing students' ability to deal with emergency situations. Simulation teaching methods can be used to allow nursing students to complete a resuscitation work or work with the teacher to cooperate with the patient's resuscitation work, after the completion of the summary by the teacher to supplement the students' self-reflection, so as to deepen the memory of nursing students for the resuscitation of knowledge and operation. Schools and clinical educators should pay attention to the process of post-needle-stick injury treatment measures, nursing patients with infectious diseases, self-protection methods of teaching, to ensure that every nursing student can understand, master. Focus on the mental health of nursing students, death education, relevant classes and lectures, to establish a correct concept of death for nursing students. Provide relevant training for nursing students to learn how to cope with the violent tendency of patients[13].

With regard to the pressure source of "workload", nursing

students who have just entered the clinic are still immersed in the rest mode of double holidays and summer and winter holidays of their previous schools, and are not adapted to the high-intensity work in the clinic. We can consider holding pre-service training and mid-term summary training meetings for nursing interns, inviting the previous interns to share their experiences, so that nursing students can adapt to the role change from students to nursing students as soon as possible, and correctly look at the scheduling mode of the nursing profession, so as to reduce the lack of holidays and summer and winter vacations for the nursing students.

With regard to the stressor of "preparation for the placement", learning educators should focus on improving the disconnect between textbook knowledge and clinical techniques, increasing the teaching of the latest medical techniques and devices, and guiding students to read relevant papers and watch relevant videos. Arrange for students to participate in apprenticeship activities to see more clinical instruments and techniques. In addition, clinical educators should pay attention to the theoretical knowledge of nursing students, can be in the end of the daily nursing work, combined with the patient's condition changes and nursing care points of the day to explain to nursing students, regular inspection of the theoretical knowledge of the nursing students, urging nurses to adhere to the theoretical knowledge of learning[14].

The sample size of the 100 student nurses selected for this study was small in terms of males, and the subjects were all from the same hospital, and the questionnaire collection was mainly concentrated in the middle and late stages of the trainee nurses' internships, all of which affected the results of this study to some extent, making the study somewhat limited.

6. Conclusion

The total stressor score of student nurses is 58.45 ± 15.47 , which is in the middle level. The ten highest scoring items were concentrated in the three dimensions of nature of work, work load and preparation for internship. Student nurses are generally concerned about exposure to occupational hazards, patient deaths and violent conflicts. The high work pressure in nursing and the gap between education and clinical practice can also be stressful for student nurses.

The positive coping score of 2.14 ± 0.42 is much higher than the normal mode, and the negative coping score of 1.12 ± 0.77 is lower than the normal mode, both of which are statistically different ($p < 0.01$), indicating that student nurses are able to adopt positive coping styles when faced with different types of pressure.

References

- [1] Huang, Yi-Qing. (2014). Stressor analysis and preventive countermeasures of practical nurses. *Chinese Medicine*, 27(6), 141-143.
- [2] Sun, X. Yang, X. Li, C. Yu, D. Guo, Q. Xiao, H. Ling. (2015). Research Progress on Stressors and Stress Reduction Interventions for Practising Nurses. *China Modern Distance Education of Traditional Chinese Medicine*, 13(11), 161-163. <https://doi.org/10.3969/j.issn.1672-2779.2015.11.081>
- [3] Li, Xiu-Chuan, Chun-Fang Liu, Ting-Ting Yang, & Jing Li. 2011 A new species of the genus *Pseudourostyla* (Hymenoptera, Braconidae) from China. (2022). Investigation and analysis of stressors and coping styles of clinical nursing students in late internship. *Journal of Bengbu Medical College*,

- 47(7), 984-987. <https://doi.org/10.13898/j.cnki.issn.1000-2200.2022.07.035>
- [4] Xiao, Mei-Lian, Tao, X. L., & Ding, S. C.. (2010). Development of a nursing student internship stress scale. *Nursing Research*, 24(13), 1213-1215. <https://doi.org/10.3969/j.issn.1009-6493.2010.13.048>
- [5] Xie, Yaning. (1998). A preliminary study of the reliability and validity of the Brief Coping Style Scale. *Chinese Journal of Clinical Psychology* (02), 53-54.
- [6] Cao Y., Xiang H., Yu Y. Q.. (2001). A survey study on stressors and coping styles of undergraduate nursing students during clinical practice. *Chinese Journal of Nursing*(07),11-14.
- [7] Yang, Y. L. & Zhao, Q. L.. (2006). A study of factors associated with stress levels and coping styles of undergraduate nursing students during clinical placement. *Nursing Research (Intermediate Edition)* (32), 2928-2930.
- [8] Lu, Shuang, Tongping Huang, Mengdie Hu, Yao Chen, Zhuangzhi Zhou & Baofeng Duan. (2020). A qualitative study on the psychological state and coping styles of undergraduate trainee nursing students after needlestick injuries. *China Health Industry* (16), 109-111. doi:10.16659/j.cnki.1672-5654.2020.16.109.
- [9] Fan, F. & Wang, F..(2012). Investigation and countermeasures on the impact of infectious diseases on the psychological status of intern nursing students. *Northern Pharmacy* (12), 80.
- [10] Sun, Ai-Ling, Tian, Wu-Zong & Yu, Xia. (2015). Investigation of stressors and analysis of coping styles of intern nursing students. *Contemporary Nurses (Lower Decade)* (12), 36-37.
- [11] Gou, J.(2012). Investigation and analysis of clinical intern nursing students' mastery of basic nursing knowledge. *Massage and Rehabilitation Medicine*,(32):474-475.
- [12] Sun, A. L., Peng, S. H., Zhang, S. L. & Xu, X. L.. (2015). Investigation and analysis of nursing students' work stress and clinical placement satisfaction. *Journal of Nursing* (08),73-75.
- [13] Han Meng. (2020). Current status of research on stressors and psychological stress response of intern nursing students. *Tianjin Nursing* (03),376-378.
- [14] Yuan H., Li S. M.. (2004). Effects of stress management training on stress levels of undergraduate nursing students. *Journal of Nursing*(01),7-9.