



Original Article

Prevalence of Perceived Stress among Nurse Interns in Teaching Hospitals of Khyber Pakhtunkhwa

Sheraz Khan¹, Abdur Rahman², Noor Islam³, Iftikhar Ali Khan⁴, Fazal Maula^{5,6}, Aneela Marriam⁷, Sabiha Khanum^{8*} and Amir Sultan⁹¹Aman Ullah Khan Medical and Nursing Institute, Nowshera, Pakistan²MTI Mardan College of Nursing, Bacha Khan Medical College, Mardan, Pakistan³PIMS College of Nursing, Peshawar, Pakistan⁴Department of Nursing, Nowshera College of Nursing, Nowshera, Pakistan⁵Provincial Health Department, Khyber Pakhtunkhwa, Pakistan⁶Pakistan Nursing and Midwifery Council, Islamabad, Pakistan⁷Health Department, District Headquarters Hospital, Kalarkahar, Pakistan⁸Institute of Nursing Sciences, Khyber Medical University, Peshawar, Pakistan⁹Tasleem College of Nursing and Health Sciences, Swat, Pakistan

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*Corresponding Author:

Sabiha Khanum

Khyber Medical University, Peshawar, Pakistan

sabiha.ins@kmu.edu.pkReceived Date: 19th January, 2024Acceptance Date: 4th March, 2024Published Date: 31st March, 2024

ABSTRACT

The concept of perceived stress refers to an individual's response to a perceived danger in their environment, which is believed to provide a challenge to their capabilities and overall well-being. Internships play a crucial role in the nursing profession by providing valuable introductory experiences. **Objective:** To reveal level of stress among intern nurses. **Methods:** In this study, nurse intern stress level was measured by using descriptive cross-sectional design. The sample size was 105 and data were collected via Google form in teaching hospitals of district Peshawar and Mardan, Khyber Pakhtunkhwa. **Results:** In this study, majority of the participants were male n=93 (88.6%) followed by female n=12 (11.4%). Almost nine-tenth (87.6%) n=92 of the study participants was placed in age group less than 25 years. None of the participants were placed in higher stress level although, more than four score (81.9%) of the participants fell in moderate stress level. However, 18% of them perceived low stress. **Conclusions:** The moderate level of stress was found to be significantly affecting the performance in early career of nurses. The goal should be to provide nursing students with improved strategies for handling stress.

INTRODUCTION

Among all the factors that affect nurses' burnout, perceived stress has the most impact [1]. The concept of perceived stress refers to an individual's response to a perceived danger in their environment, which is believed to provide a challenge to their capabilities and overall well-being [2]. The concept of perceived stress pertains to an individual's subjective experience and interpretation of stress, extending beyond the mere quantifiable aspects of stress. Hence, it may be argued that the subjective

interpretation of a stressful circumstance holds greater significance than the objective assessment of stressors, since it has the potential to impact an individual's performance [3]. The phenomenon of stress has been examined in several aspects, the primary concepts highlighted in academic research revolved around stress as a reactive reaction, stress as an external stimulus, and stress as an interactive process between an individual and their surroundings. Perceived stress arises when an

individual experiences a sense of powerlessness in effectively coping with a stressful circumstance or handling the resulting emotional reaction [4]. The word "intern" is used to denote a nurse who is in the first phase of their professional journey, having recently completed their education at a university and being situated in the transitional period between being a student and becoming a qualified nurse. The internship term serves as a crucial transitional phase during which intern-nurses acquire knowledge and skills necessary to prepare themselves for the challenges of their future careers [5]. Nurse interns refer to baccalaureate nursing students who engage in an internship training program aimed at facilitating the transition from a senior nursing student to a professional nurse [6]. Internship programs offer students the chance to apply their theoretical knowledge gained in academic settings, while also providing them with guidance and gradually increasing responsibilities that promote their development into confident professionals [7]. The internship period holds significant importance for nursing students, as it serves as their initial exposure to practical situations and contributes to the development and polishing of their clinical abilities and expertise. Stress occurs as a result of the interaction between an individual and environmental forces, wherein the individual views challenging circumstances as exceeding their ability to efficiently cope [8]. During their internships, nursing students encounter multiple stresses as they acquire the necessary skills to effectively navigate diverse individuals and circumstances prior to entering professional practice. The sources of stress experienced by nurse interns encompass challenges in establishing professional relationships, limited knowledge of operating procedures and the hospital environment, inadequate professional skills, making mistakes, uncertainty regarding patients' expectations, ineffective clinical teaching methods, the complexity of the work environment, unfamiliarity with hospital regulations, and difficulties in acquiring necessary competencies in communication with patients and their families. Furthermore, the absence of expertise and self-assurance in providing patients with secure and autonomous treatment, apprehension regarding the configuration of medical equipment, incapacity to execute machine procedures or tests, managing confusing instructions, new diagnoses, or orders that have not been encountered previously [9]. Furthermore, it is worth noting that the experience of stress among nurse intern students can be attributed to a confluence of personal and extracurricular circumstances, rather than being only influenced by the educational program [10]. An excessive workload is identified as a significant stressor among trainee nurses [11]. the transition from the student role to the staff nursing position is often accompanied by feelings

of unease. The transition phase from nursing student to intern is widely acknowledged as a source of stress, and several graduate nurses have challenges in adapting to their new responsibilities during the initial months of their employment [12]. Upon entering the professional setting, newly graduated nurses might experience a state of surprise and disorientation, mostly resulting from their restricted clinical exposure and proficiency, as well as challenges in adapting to their new surroundings [13]. Several studies have identified that a dearth of self-assurance and inadequate support as well as an abrupt surge in responsibilities as significant factors contributing to stress among newly graduated nurses [14]. According to the study conducted by Wangenstein et al., there are several detrimental attributes that might have a negative impact on clinical performance [15]. The phenomenon in question is frequently linked to the experience of stress [16].

In Pakistan, especially in Khyber Pakhtunkhwa, nursing institutions have increased would lead enhance number of nursing graduates. There is a scarcity of literature on nurse intern so this area should be investigated to find the level of stress among them. Therefore, the present study was conducted with the aim to investigate level of stress among internship students.

METHODS

In this study, nurse intern stress level was measured by using descriptive cross-sectional design. The study was conducted in teaching hospitals of Khyber Pakhtunkhwa from July to Dec 2023. Assessing the total population, using 95% confidence level, 5 margin of error and 50% prevalence, the sample size was calculated to be 105. Data were collected from the teaching hospitals of district Peshawar and Mardan, Khyber Pakhtunkhwa using non-probability sampling technique. The inclusion criteria of the study were graduated nurses enrolled in One Year Internship programme, while students who completed internship, were absent during data collection and non-willing to become part of the study voluntarily were excluded from the study. The questionnaire was adopted and consist of two sections. The first section was socio-demographic including gender, age, experiences and institution. The second section comprised perceived stress scale (PSS) that contained ten questions related to perceived stress. The questionnaire was based on five item Likert scale starting from 0 – never, 1 – almost never, 2 – sometimes, 3 – fairly often, 4 – very often. Scores for questions 4, 5, 7, and 8 were reversed accordingly. The PSS allowed for individual score ranging from 0 to 40, where higher scores corresponded to higher perceived stress [13]. Low stress was defined as scores between 0 and 13. Stress levels between 14 and 26 were regarded as

moderate. A score between 27 and 40 was thought to indicate high perceived stress. The data analysis procedure was performed through Excel and SPSS version 23.0 as descriptive and inferential statistics. Chi-square test was used to identify the relationship of perceived stress with demographic variables.

RESULTS

In this study, majority of the participants were male $n=93$ (88.6%) followed by female $n=12$ (11.4%). Almost nine-tenth (87.6%) $n=92$ of the study participants placed in age group less than 25 years. More than four score (81%) $n=85$ of the study participants belonged to private institutions and (19%) $n=20$ had studied bachelor in Nursing from public institutions. More than third-quartile (77.1%) $n=81$ of the nurse interns had more than six months' experience followed by experience ranged 3 to 6 months in (10.5%) $n=11$ and up to three months' experience in (12.4%) $n=13$ as shown in table 1.

Table 1: Demographic data of the study participants ($n=105$)

Variables	Frequency (%)
Gender	
Male	93 (88.6)
Female	12 (11.4)
Age	
Less than 25 years	92 (87.6)
25 and above years	13 (12.4)
Study institution	
Private	20 (19)
Public	20 (19)
Working organization	
Private	77 (73.3)
Public	28 (26.7)
Experience	
Up to 3 months	13 (12.4)
3 to 6 months	11 (10.5)
6 and above months	81 (77.1)

None of the participants placed in higher stress level, although, more than four score (81.9%) of the participants fall in moderate stress level. However, 18% of them perceived low stress as shown in table 2.

Table 2: Perceived stress scale

Stress level	Frequency (%)
Low	19 (18.1)
Moderate	86 (81.9)
High/Very high	0 (0)

The perceived stress scale was categorized into three level as low, moderate and high, and chi square test was performed to find their association demographic variables. All the p-values for the association of gender and age were greater than 0.05 so it indicated there were no significant association found between them. However, there was

significant association between work experience and level of stress as shown in table 3.

Table 3: Level of stress and its association with selected variables

Variables	Level of stress			p-value
	Low stress	Moderate stress	High stress	
Male	15	78	0	0.145
Female	4	8	0	
Less than 25 years	16	76	0	0.430
25 and above years	3	10	0	
Up to 3 months	0	13	0	0.032
3 to 6 months	0	11	0	
6 and above months	19	62	0	
Total	19	86	0	-

DISCUSSION

Stress poses our well-being as a challenge or a threat. It is defined as any circumstances that threaten or are perceived to threaten one's well-being. The aim of this study was to uncover the prevalence of perceived stress among nursing internes. Nursing practice is crucial for preparing students to become professional nurses by putting their academic knowledge to use in the real world and bridging the theory-practice gap that often befalls recently trained nurses [17, 18]. This study was carried out among nursing interns employed by Khyber Pakhtunkhwa's tertiary care hospitals. It found that the majority of the interns were male, under 25 years old, and from private institutions. The majority of nursing interns have experience longer than six months. The study's findings showed that, while more than (81.9%) of the participants felt moderate levels of stress and 18% felt low levels of stress, none of the individuals felt severe levels of stress throughout their internship. The majority of interns were under stress, according to the study's main findings, because they were unable to control important aspects of their lives and were overburdened with work. The findings of an already published study show that all nursing interns experienced moderate levels of stress [13]. The nurse interns' concerns about finishing the internship training program, their involvement in patient care and exposure to a new environment, and the fact that they spend a significant amount of time in clinical settings with the weighty responsibility of being accountable for patient care were the main causes of the moderate level of stress. A study carried out at the hospital of Zagazig University revealed that intern nurses had elevated levels of stress [6]. The high level of stress was brought on by the following factors: some students were unable to manage their stressors because they lacked an appropriate study plan; nurse interns faced the challenges of routine organization and work practice responsibilities; they spent a significant amount of time in clinical settings and worried about their ability to complete the internship training program, engage

in patient care, and experience a new environment. The findings of study performed by Pérez Contreras *et al.*, demonstrate that the real-world experience of providing care as well as a lack of professional knowledge and abilities were the primary sources of stress for nursing students during their first clinical rotation [11]. Survey research revealed that the three most commonly identified occupational stresses were poor preparation, workload, and death and dying of patients [19]. Previous research studies involving recently graduated nurses also recognized these three pressures as significant stressors. It's possible that they are unfamiliar with the new work environment and have little experience as nurses, newly graduated nurses may therefore feel inexperienced, unconfined, and lacking in abilities [4, 20]. The study by Pérez Contreras *et al.*, demonstrates, in contrast to this one, the correlations between stress levels and student demographics, indicating that women are noticeably more susceptible to stress than men [11].

CONCLUSIONS

It can be concluded that none of the participants placed in higher stress level, although, more than four score (81.9%) of the participants fall in moderate stress level. However, 18% of them perceived low stress. The moderate level of stress has been found significantly lead to affect the performance in early career of nurses. The goal should be to provide nursing students with improved strategies for handling stress.

Authors Contribution

Conceptualization: SK1, SK2

Methodology: AR, NI, IAK, FM

Formal analysis: AR, FM, AS

Writing-review and editing: AM, SK2, AS

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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