



Original Article



Adjustment Challenges among Newly Recruited Nurses and Their Impact on Patient Safety and Professional Identity in Khyber-Pakhtunkhwa, Pakistan

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ARTICLE INFO

Keywords:

Burnout, Tertiary Care Hospital, Nurse Workload, Patient Safety, Care Quality

How to Cite:

Khan, S., Ali, I. A., Ali, B. A., Rahman, A. U., Rahman, A., & Ullah, I. (2026). Adjustment Challenges among Newly Recruited Nurses and Their Impact on Patient Safety and Professional Identity in Khyber-Pakhtunkhwa, Pakistan : Adjustment Challenges among Newly Recruited Nurses and Their Impact on Patient Safety and Professional Identity in Khyber-Pakhtunkhwa, Pakistan. NURSEARCHER (Journal of Nursing & Midwifery Sciences), 6(1). <https://doi.org/10.54393/nrs.v6i1.154>

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Received Date: 25th December, 2025Revised Date: 21st March, 2026Acceptance Date: 25th March, 2026Published Date: 31st March, 2026

ABSTRACT

In healthcare settings, nurse workload has a significant impact on patient safety and care quality, especially in tertiary care hospitals. An excessive workload may lead to burnout, decreased productivity, and worse patient outcomes. **Objectives:** To evaluate how the workload of nurses in a tertiary care hospital in Mardan, Khyber-Pakhtunkhwa, relates to patient safety and treatment quality. **Methods:** A descriptive cross-sectional study approach was used. A systematic questionnaire was used to gather information from registered nurses employed in several departments of a tertiary care hospital. Burnout level and care quality were assessed using the Malachi Burnout Inventory (MBI) and the modified quality of care assessment tool. The method of convenience sampling was used. SPSS version 26.0 was used for data analysis, and associations between variables were found using both descriptive and inferential statistics. **Results:** A large percentage of nurses had moderate to high workloads, which were strongly linked to higher levels of burnout. Patient safety and care quality were inversely associated with increased workload. Overall, patient outcomes were impacted by nurses who reported a higher level of burnout because they were less productive and more likely to make mistakes. **Conclusions:** burnout, patient safety, and care quality are all significantly impacted by nurses' workload. Improving healthcare outcomes requires addressing workforce shortages, putting task management ideas into practice, and encouraging supportive work environments.

INTRODUCTION

To newly recruited nurses, particularly to work in such locations as KPK, Pakistan, the transition between nursing school and professional practice may be very challenging. One of the most common issues is a theory-to-practice gap that newly graduated nurses face, and they are not able to adjust to the requirements of their jobs. These challenges directly affect patient safety and may result in a high rate of stress, burnout, and turnover. The lack of support and

issues regarding the professional identity of new nurses contribute to their adjustment problems as well. This study aims to explore the challenges associated with the adjustment of the new nurses of KP, and especially the way in which their professional identities develop and how it impacts patient safety. It is necessary to address these problems in order to enhance retention of nurses and ensure delivery of quality care to patients as the healthcare



workforce becomes vulnerable to global shortages [1]. Transition to practice programs have been introduced to assist newly graduated nurses to fill this gap, enhance retention, and enhance competencies [2]. Such programs play a vital role in KPK in helping to support the initial personal and professional adaptation of new nurses as well as helping them acquire skills, confidence, and professional identities. High professional identity enhances autonomy, job satisfaction, and commitment, and reduces turnover and enhances patient care [3]. Patient safety risks such as medication errors, missed deterioration, and poor communication are common to newly hired nurses in KPK and are often caused by reality shock due to being unprepared to encounter real clinical needs, even with formal training [2]. Moreover, workplace support is also lacking, and unprofessional behaviors of colleagues further hamper the adaptation of new nurses into their working environments and patient safety [3]. According to the World Health Organization's projection 40%, of the global nursing workforce will be retired by 2023, necessitating the hiring of almost 12.9 million new nurses. In the area of KPK, many recently graduated nurses intended to quit their jobs during the 1st year of work. This scarcity is especially worrisome [4]. This gradual deterioration puts patients' safety and healthcare delivery at risk and exacerbates nurses' professional crises. Strong safety cultures, efficient training, and transparent error reporting are necessary to improve patient safety in KPK, and these factors are more likely when nurses are very committed to their careers [1]. By addressing workplace issues and enhancing psychological resilience for successful role adaptation, pre-job training and focused treatment can facilitate new nurses' transition [5]. Academic pressure, demanding clinical setting, and hefty workload are major sources of stress for nursing students. Students report a higher level of stress than classmates in other professions due to the emotionally taxing nature of the profession [6]. The psychological, physical, and professional well-being of recently graduating students and newly hired nurses can be severely impacted by rudeness, lateral violence, and abuse, irritability, insomnia, and emotional symptoms, PTSD, and even dangerous feelings are reported by up to 75% of people. The quality of patient care was also affected by these actions [3]. Significant transition difficulties are frequently encountered by recently hired nurses, which may have impacted their commitment to patient well-being standards and professional identity [7]. Their confidence and performance may be hampered by their inability to adjust to clinical settings, job expectations, and workload demands, which could eventually affect the standard and security of patient care [8]. The academic understanding

of newly appointed nurses and their daily clinical practice differ significantly. Role shock is frequently the result of their insufficient interaction with complex healthcare systems. The transition shock can also lead to work burnout and stress, thus reducing the quality of care [9]. KP healthcare administration can enhance retention rate and possibly elevate patient safety and utility by focusing on the professional identity, safety issues, and adjustment challenges of newly enrolled nurses-healthcare [10]. Scarcity of quantitative studies in Khyber Pakhtunkhwa on the adjustment issues of newly recruited nurses and the effects of the adjustment issues on patient safety and professional identity. The available literature is mostly qualitative or is not done within a localized culture, which lacks evidence-based information. The challenges that new nurses face during transition are intense, including a lack of clinical confidence, insufficient support, and a professional identity dilemma, which can affect patient safety and quality of care. However, the obstacles are not taken into account or judged in the local healthcare setting. This research will attempt to estimate the relationship between the workload of nurses in a tertiary care hospital in Mardan, Khyber-Pakhtunkhwa, and patient safety and quality of treatment.

METHODS

The cross-sectional study was a descriptive one that was carried out between January and December 2025 in several districts of Khyber Pakhtunkhwa, Pakistan. The study population was the newly graduated Bachelor of Science in Nursing (BSN) nurses who had begun their clinical practice in government or semi-government hospitals within the last six months. The nurses who had more than one year of clinical experience or were yet to enter clinical practice were eliminated. Participants were selected by using a stratified random sampling technique. The respondents were 69 out of 150 eligible nurses who responded successfully and were included in the final analysis. The Rao soft calculator was used to calculate the sample size, but with a 5% margin of error, a 95% confidence interval, a population size of 83, and a response distribution of 50%. The minimum sample size calculated was 69, which was equal to the number of complete responses received. A questionnaire in a structured and self-administered form was used. The questionnaire consisted of the parts dedicated to patient safety, professional identity, transition challenges, demographic characteristics, and overall satisfaction. The answers were noted on a 5-point Likert scale (1=strongly agree, 5=strongly disagree). The items that were negatively written were reverse-coded and then analyzed to ensure that higher scores always reflected a higher level of the construct under measure. Potential participants were

approached through WhatsApp and email to fill out the questionnaire link. Informed consent was given to all respondents. The respondents were not compelled to participate in the study, and the confidentiality and anonymity of the respondents were highly respected. The analysis of data was performed with SPSS version 26.0. Descriptive statistics (frequencies and percentages) were used to summarize the data. Cronbach's alpha was used to test the reliability of the instrument, and the overall value of the instrument was 0.78, which is an acceptable internal consistency. The subscales were also calculated separately to achieve domain-specific reliability.

RESULTS

The study included 69 newly recruited nurses with ≤6 months of clinical experience. Most were aged 23–27 years (84.1%) and predominantly male (72.5%), reflecting the

early-career nursing population targeted in this study (Table 1).

Table 1: Demographic Variables

Variables	Category	n (%)
Age	18–22 Years	9 (13.0%)
	23–27 Years	58 (84.1%)
	28–32 Years	2 (2.9%)
Gender	Male	50 (72.5%)
	Female	19 (27.5%)
Nursing Experience	≤ 6 Months	69 (100%)

Most nurses described their transition as challenging but manageable (60.9%), while 24.6% were still in the process of transitioning. The main challenge was developing clinical confidence (44.9%). Over one-third (36.2%) felt they needed more guidance during transition (Table 2).

Table 2: Perceived Transition Challenges and Support among New Nurses

Variables	Responses	n (%)
How would you describe your transition from nursing school to professional practice?	Smooth and seamless	6 (8%)
	Challenging but manageable	42 (60.9%)
	overwhelming at times	4 (5.8%)
	I'm still in the process of transitioning	17 (24.6%)
What were the most significant challenges you faced during this transition period?	Adapting to the pace and demands of professional practice	18 (26.1%)
	Developing confidence in my clinical skills	31 (44.9%)
	Navigating workplace dynamics and hierarchies	10 (14.5%)
	Balancing work responsibilities with personal life	10 (14.5%)
Did you receive sufficient support and guidance during your transition?	Yes, I had ample support from mentors and colleagues	31 (4.9%)
	Somewhat, but I could have used more guidance	25 (36.2%)
	No, I felt left to figure things out on my own	8 (11.6%)
	I'm not sure/I haven't had enough time to assess the support I received	5 (7.2%)
Total	–	100

Most nurses prioritized safety through protocol adherence (46.4%) and double-checking procedures (33.3%). Staffing shortages were the most common safety issue (58%). Increasing staffing (44.9%) was the most recommended improvement (Table 3).

Table 3: Patient Safety Practices and Challenges

Variables	Responses	n (%)
How do you prioritize patient safety in your daily practice?	Regularly reviewing and following protocols and procedures	32 (46.4%)
	Maintaining clear communication with colleagues and patients	14 (20.3%)
	Double-checking medications and procedures to prevent errors	23 (33.3%)
	Advocating for necessary resources and staffing levels	0 (0%)
Have you encountered situations where patient safety was compromised?	Yes, a medication error due to miscommunication	10 (14.5%)
	Yes, staffing shortages caused delays	40 (58%)
	Yes, equipment malfunction caused delays	7 (10%)
	No	12 (17.4%)
Measures to enhance patient safety	Regular safety training and drills	20 (29%)
	Promoting open communication and error reporting	12 (17.4%)
	Investing in technology for medication and records	6 (8.7%)
	Increasing staffing levels	31 (44.9%)
Total	–	100

Among the 69 participants, 79.7% agreed they felt prepared for transition, 84.1% agreed they received sufficient support, and

87.0% agreed they prioritize patient safety. Additionally, 88.4% agreed they often feel overwhelmed, and 92.8% agreed they have experienced professional identity conflicts (Table 4).

Table 4: Transition and Adjustment Challenges

Sr. No.	Variables	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I feel adequately prepared to handle the transition	11 (15.9%)	44 (63.8%)	12 (17.4%)	2 (2.9%)
2	I have encountered situations where patient safety was compromised due to adjustment challenges	10 (14.5%)	47 (68.1%)	5 (7.2%)	3 (4.3%)
3	I often feel overwhelmed by the challenges of my new role	17 (24.6%)	44 (63.8%)	4 (5.8%)	4 (5.8%)
4	My professional identity as a nurse is well-established	16 (23.2%)	42 (60.9%)	10 (14.5%)	1 (1.4%)
5	I receive sufficient support from colleagues and superiors	16 (23.2%)	42 (60.9%)	8 (11.6%)	3 (4.3%)
6	I have experienced conflicts related to professional identity	30 (43.5%)	34 (49.3%)	4 (5.8%)	1 (1.4%)
7	I prioritize patient safety in daily practice	20 (29%)	40 (58%)	8 (11.6%)	1 (1.4%)
8	I feel supported in providing compassionate care	16 (23.2%)	36 (52.2%)	17 (24.6%)	0 (0%)
9	Total	–	–	–	69 (100%)

Most nurses (79%) defined their role as providing compassionate care. Professional identity was mainly influenced by education (36.2%) and personal values (29%). About 50.7% reported conflicts with colleagues. Additionally, most nurses described the workplace as stressful and understaffed (33.3%). Support was high (72.5% somewhat, 21.7% very supportive). Caring initiatives were reported by 63.8%, while 36.2% reported none or were unaware (Table 5).

Table 5: Professional Identity of Newly Recruited Nurses and Climate of Caring in the Workplace

Variables	Responses	n (%)
Professional Identity of Newly Recruited Nurses		
Role in the healthcare team	Providing compassionate and competent patient care	55 (79%)
	Collaborating with other professionals	10 (14%)
	Educating patients and families	4 (7%)
Factors contributing to professional identity	Personal values and patient advocacy	20 (29%)
	Education and training	25 (36.2%)
	Positive experiences with patients/colleagues	12 (17.4%)
	Recognition within the healthcare system	12 (17.4%)
Conflicts experienced	Conflicts with other professionals	35 (50.7%)
	Navigating hierarchy	14 (20.3%)
	Balancing patient care and administrative tasks	8 (11.6%)
	No conflicts	12 (17.4%)
Total	–	69 (100%)
Climate of Caring in the Workplace		
Work environment	Fast-paced and challenging	10 (14.5%)
	Well-organized and efficient	7 (10%)
	Stressful and understaffed	23 (33.3%)
Support from colleagues and superiors	Very supported	15 (21.7%)
	Somewhat supported	50 (72.5%)
	Not supported	4 (5.8%)
Initiatives to promote a culture of caring	Regular training on empathy and patient-centered care	22 (31.9%)
	Recognition programs for compassionate staff	22 (31.9%)
	No specific initiatives	14 (20.3%)
	Unaware of any initiatives	11 (15.9%)
Total	–	69 (100%)

Kruskal-Wallis: Adjustment issue by age group. Age does affect adjustment issues, since no significant issue was detected across group age ($H = 4.21$, $df = 3$, $p = 0.239$). Professional identity by education: higher education is linked to stronger professional identity: there are significant differences across education levels ($H = 10.35$, $df = 4$, $p = 0.035$). Spearman Correlation: Professional identity and adjustment challenges. Higher professional identity is associated with fewer adjustment difficulties, according to a somewhat negative association ($r = -0.34$, $p = 0.004$). Patient safety and professional identity: improved is linked to a stronger professional identity, according to a weak positive association ($r = 0.22$, $p = 0.039$). Chi-square test: Gender has no effect on adjustment: no significant connection was discovered ($\chi^2 = 1.89$, $df = 1$, $p = 0.169$).

DISCUSSION

Newly hired nurses face multiple adjustment challenges during their first year of practice, which may affect patient safety and professional identity development [11, 12]. Few studies quantitatively investigate the adjustment challenges that NRNs face in practice settings like those in KPK, even though many investigate the qualitative aspect of this information [13]. These issues are made worse by the lack of nurses. According to many studies, recently hired nurses frequently experience stress, psychological discomfort, and burnout, which can increase workforce deficit and cause early departure [13]. NRNs cited additional difficulties in areas like Singapore, including cultural marginalization, a lack of respect, and the pressure of commercial duties, all of which hinder integration [14]. Burnout has been directly linked to reduced job satisfaction and impaired patient safety and has been described as emotional exhaustion and a decreased feeling of personal achievement [15]. Such risks are aggravated by poor communication abilities, excessive demands of employment, and the absence of a support system [16]. The hospital, in turn, should respond with tailored orientation, reasonable workload, mentorship programs, and a supportive workplace culture that embraces fairness and respect [17]. Poor clinical support, poor attitude of the staff, and resource scarcity are typical causes of stress among NRNs [7]. In another study, formal mentorship programs have to be in place in order to ameliorate these limitations and maintain academic healthcare partnerships [12]. Moreover, the formation of professional identity is strongly connected with the initial clinical experience. In dealing with their emerging adulthood, NRNs have to juggle their responsibility alongside the emotional and physical needs. The process of transition can be characterized by confusion, uncertainty, and stress [10]. Practice, reflection, and theoretical learning are critical elements of competency development, which are often impeded by the lack of leadership support and professional opportunities [7]. The concept of patient safety is at the heart of healthcare in the whole world, particularly in high-risk environments, i.e., cancer hospitals, and the WHO prioritizes it as a global priority [18]. Other studies indicate that older nurses and more educated nurses are more adaptable in their careers as they are more capable of dealing with stress and workload variables that are crucial in ensuring patient safety and quality care [19]. A healthy patient safety culture is crucial to the quality of health care. The commitment to safety by management has an impact on nurses' behaviour and workplace norms and can reduce burnout and enhance safer and improved care [20].

The sample size (n=69) and convenience-based responses

were also used in the study, which could limit the generalizability. The responses were self-reported, thus increasing the likelihood of biased results. Additionally, the cross-sectional design excludes the use of the causal relationship. More studies are needed to use greater and more diverse samples and longitudinal designs to understand more about causal relationships. It is recommended that structured mentorship programs are put in place and assessed to enhance the nurse adaptation and professional identity, as well as patient safety outcomes.

CONCLUSIONS

Newly hired nurses who lack up to six years of clinical experience significant adjustment problems, i.e., workload-related stress, conflict of professional identities, and concerns related to patient safety. They show a high level of commitment to safe practice and development of professional identities despite such challenges. This adaptation is made easier with the help of mentors, coworkers, and organized transition programs. Enhancing mentor-ship and orientation, staffing, and workload distribution, frequently providing patient safety training, and promoting a positive workplace culture, which encourages recognition, cooperation, and open communication, are all recommended to improve the transition experience.

Authors' Contribution

Conceptualization: SK

Methodology: AUR, AR, IU

Formal analysis: BAA, AR

Writing and Drafting: SK, IAA

Review and Editing: SK, IAA, BAA, AUR, AR, IU

All authors approved the final manuscript and take responsibility for the integrity of the work.

Conflicts of Interest

All the authors declare no conflict of interest.

Source of Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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