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# Transition Shock and Its Relationship with Patient Safety Attitudes, Professional Identity, and Climate of Caring Among Nursing Interns

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## ABSTRACT

***Background:*** *Transition from classroom to clinical practice is a challenging phase for nursing interns, often accompanied by transition shock that can affect professional development and patient care. Patient safety attitudes, professional identity, and the climate of caring are critical factors that may influence this transition, yet little research has examined these variables together in the context of nursing education in Pakistan.*

***Objective:*** *To examine the effect of a structured intervention on transition shock, patient safety attitudes, professional identity, and the climate of caring among nursing interns, and to explore the relationships among these variables.*

***Methods:*** *A quasi-experimental pre-test/post-test design with a non-equivalent control group was conducted at Indus College of Nursing, Tando Muhammad Khan. Eighty nursing interns were purposively assigned to experimental ($n = 40$) and control ($n = 40$) groups. The experimental group received a 48-hour structured intervention comprising simulation, mentored clinical practice, and reflective exercises, while the control group followed the standard curriculum. Data were collected using validated scales measuring transition shock, patient safety attitudes, professional identity, and climate of caring. Analysis was performed using t-tests, Pearson correlation, and multiple regression.*

***Results:*** *At baseline, no significant differences were found between groups. Post-intervention, the experimental group demonstrated significantly lower transition shock ($M = 2.61$, $SD = 0.36$) than the control group ($M = 3.39$, $SD = 0.43$; $p < 0.001$). Patient safety attitudes ($M = 3.89$ vs. $3.20$; $p < 0.001$), professional identity ($M = 4.02$ vs. $3.36$; $p < 0.001$), and climate of caring ($M = 4.01$ vs. $3.28$; $p < 0.001$) were significantly higher in the experimental group. Transition shock showed strong inverse correlations with patient safety attitudes ($r = –0.68$), professional identity ($r = –0.71$), and climate of caring ($r = –0.65$). Regression analysis identified professional identity ($\beta = –0.44$) as the strongest predictor of transition shock, followed by patient safety attitudes ($\beta = –0.36$) and climate of caring ($\beta = –0.31$), explaining 68% of the variance.*

***Conclusion:*** *A structured intervention significantly reduced transition shock while enhancing patient safety attitudes, professional identity, and perceptions of a caring climate among nursing interns. Strengthening these domains during clinical training can facilitate smoother transitions, improve professional outcomes, and foster safer healthcare environments.*

***Keywords:*** *Transition shock, patient safety, professional identity, climate of caring, nursing interns, Pakistan*

## INTRODUCTION

The transition from classroom learning to clinical practice is one of the most critical phases in nursing education.[1] This transitional journey, often occurring during the final year of the nursing program in the form of a clinical internship, serves as a gateway for students to transform into competent professionals.[2] Nursing students entering the clinical environment for the first time face a plethora of challenges that can significantly impact their learning, performance, and psychological well-being.[3] Globally, this phase has been termed a period of "transition shock," first coined by Duchscher (2009). Transition shock encompasses the physical, psychological, and emotional stress experienced by nursing interns as they adapt to their new roles. Students, once accustomed to structured classroom learning, find themselves in high-stakes environments where they are expected to make real-time decisions, communicate effectively with healthcare teams, and ensure patient safety, all while still developing their confidence and competence.[4] Several studies have confirmed that transition shock can result in reduced job satisfaction, high turnover rates, and compromised patient care. Nursing interns often experience a lack of preparedness, fear of harming patients, and an overwhelming sense of responsibility. These challenges are intensified in healthcare settings where support systems are inadequate or mentorship is lacking.[5] Patient safety is a cornerstone of healthcare delivery and is particularly relevant in nursing education.[6] The World Health Organization defines patient safety as the "prevention of errors and adverse effects to patients associated with healthcare." Attitudes toward patient safety are formed early during clinical exposure and are significantly influenced by educational content, role modeling, and organizational culture.[7] Nursing students with positive attitudes toward patient safety are more likely to report errors, adhere to safety protocols, and demonstrate higher overall competence. However, when students face transition shock, their focus often shifts from patient-centered care to task completion and error avoidance, which negatively impacts patient safety.[8] Nursing students in Karachi found that more than 60% of students felt unprepared to handle patient safety issues due to lack of clinical guidance.[9] Professional identity is defined as the internalization of core values, ethics, and behaviors associated with a particular profession.[10] In nursing, professional identity begins to take shape during educational training but is solidified during clinical practice. Factors influencing this development include curriculum design, mentorship, role modeling, and the organizational culture of clinical sites.[11] Professional identity plays a critical role in how nursing interns handle transition shock. A strong professional identity helps mitigate stress and promotes resilience. Conversely, a weak or conflicted identity can lead to disillusionment, burnout, and career dissatisfaction.[12] The climate of caring refers to the emotional, interpersonal, and cultural tone of a clinical environment.[13] A positive climate fosters open communication, mutual respect, and emotional support. It enhances learning and adaptation, especially for students and interns who are new to the clinical setting.[14] Empirical studies have shown that a strong climate of caring can reduce emotional exhaustion and facilitate the smooth integration of interns into professional roles. Caring environments lead to better clinical outcomes, improved student satisfaction, and lower rates of transition shock.[15] Although there is growing global literature on this topic, there is a dearth of research within Pakistan. No comprehensive studies have examined all three variables patient safety attitudes, professional identity, and climate of caring together in the context of transition shock among nursing interns. This study aims to fill that gap.

### Objective of the Study

To examine the relationship between transition shock and three critical constructs, patient safety attitudes, professional identity, and the climate of caring, among nursing interns at Indus College of Nursing, Tando Muhammad Khan.

## METHODOLOGY

### Research Design

A quasi-experimental design using a pre-test and post-test structure with a non-equivalent control group was chosen. This design is well-suited for educational interventions where random assignment is either impractical or unethical. In this case, the intervention consisted of structured patient safety and professional identity workshops provided to the experimental group, while the control group continued with the standard curriculum.

### Study Setting

The study was conducted at Indus College of Nursing, Tando Muhammad Khan, affiliated with Indus Medical Hospital. This institution offers a diverse clinical environment characterized by varying patient acuity levels, limited resources, and high service demand.

### Population and Sample

The study population consisted of all Nursing Interns enrolled in the internship program at Indus College of Nursing during the academic year 2024–2025. These students had completed their theoretical coursework and were undergoing their clinical placements.

### Inclusion Criteria

- Nursing Interns enrolled in the internship program
- Students who have completed at least one month of clinical practice
- Willingness to participate in both pre-test and post-test assessments

### Exclusion Criteria

- Students with prior professional clinical experience (e.g., diploma holders)

### Sample Size and Sampling Technique

A total of 80 students were selected using purposive sampling, with 40 assigned to the experimental group and 40 to the control group. The assignment was based on classroom divisions to maintain the integrity of the non-equivalent group design.

### Research Instruments

To ensure validity and reliability, standardized and validated tools were adapted for the local context and translated into Urdu for ease of understanding.

### Transition Shock Scale (TSS)

Developed by Duchscher (2009), the Transition Shock Scale assesses students' emotional, cognitive, and physical responses to their clinical placement. The scale includes 17 items rated on a five-point Likert scale. Items address role confusion, stress, anxiety, and adaptation challenges.

### Patient Safety Competency Self-Evaluation Tool (PSCSE)

This 40-item tool measures knowledge, skills, and attitudes toward patient safety. The tool was translated into Urdu and underwent content validation by a panel of experts.

### Professional Identity Scale

Adapted from professional nursing identity literature, this tool assesses self-conception, role confidence, and internalization of nursing values. It comprises 20 items rated on a Likert scale.

### Climate of Caring Assessment

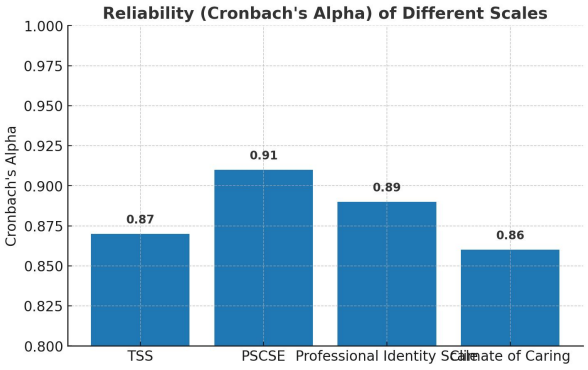
This 15-item tool evaluates the interns' perceptions of emotional and interpersonal support in their work environment. It measures aspects such as teamwork, respect, and supervisory support.

### Instrument Validity and Reliability

A panel of nursing educators and clinical supervisors reviewed all instruments for content validity. A pilot study was conducted with 10 nursing students not included in the main study. Cronbach's alpha coefficients for the instruments were:

- TSS: 0.87
- PSCSE: 0.91
- Professional Identity Scale: 0.89
- Climate of Caring: 0.86

These values indicated high internal consistency and reliability.




### Data Collection Procedure

The study was conducted in four phases:

1. **Preparation Phase:** Ethical clearance was obtained from the Indus Medical Hospital's Institutional Review Board. Consent was obtained from participants.
2. **Pre-Test:** All participants completed the pre-test surveys under supervision.
3. **Intervention (for Experimental Group):** Structured 48-Hour Intervention Program to Address Transition Shock and Enhance Patient Safety Attitudes among Nursing Interns

To address the challenges of transition shock among nursing interns and to enhance their patient safety attitudes, professional identity, and perception of a caring climate, a structured 48-hour intervention program was developed. The intervention was informed by principles of adult learning, simulation-based education, and patient safety training frameworks. It integrated a combination of didactic input, experiential learning, mentored clinical practice, reflective exercises, and simulation-based workshops. The program was delivered over one week and was divided into three major blocks: (a) Orientation & Simulation, (b) Mentored Clinical Practice, and (c) Consolidation & Simulation. The detailed schedule of the intervention is presented in

**Table 1: Structured Intervention**

| Block | Duration | Content/Activities | Strategies/Methods | Expected Outcomes |
|---|---|---|---|---|
| **Block A: Orientation & Simulation I** | **8 hours** (Day 1) | - Orientation to transition shock (role shift, workload, communication challenges) - Core patient safety principles (high-reliability concepts, SBAR, closed-loop, read-backs, error reporting, just culture) - Simulation I: medication error & patient deterioration scenario - Structured debrief (PEARLS framework) | - Interactive lecture - Group discussion - Simulation-based learning - Guided debriefing | - Awareness of transition shock - Improved patient safety attitudes - Initial coping strategies - Confidence in error prevention |
| **Block B: Mentored Clinical Practice** | **32 hours** (4 shifts × 8 hrs) | - Participation in safety huddles (start/end of shift) - Bedside safety drills (ID checks, med double-checks, device alarms) - Speaking-up practice (CUS, Two-Challenge rule) - Micro-reflections during shift - Mentor-supervised patient care | - Bedside mentoring - Safety checklists - Role-play for communication - Reflective journaling | - Strengthened patient safety attitudes - Reduced transition shock through guided support - Improved communication & teamwork - Integration of caring behaviors |
| **Block C: Consolidation & Simulation II** | **8 hours** (Final Day) | - Simulation II: handoff failure + infection control breach - Root Cause Analysis workshop - Professional Identity booster (narratives, role | - Simulation & debrief - Workshop discussions - Guided reflection - Action planning exercise | - Enhanced patient safety attitudes (primary outcome) - Reduced transition shock (secondary |

| | | |
|---|---|---|
| | model videos) - Caring Climate lab (micro-behaviors of empathy, teach-back exercises) - Action planning & coping toolkit - Posttest administration | outcome) - Strengthened professional identity - Reinforced caring behaviors |

This 48-hour structured intervention was specifically designed to provide nursing interns with both practical exposure and reflective learning opportunities. By integrating simulation, mentored clinical practice, and guided reflection, the program aimed to directly enhance interns' patient safety attitudes, while indirectly reducing transition shock and fostering a stronger professional identity within a climate of caring. The phased approach, moving from orientation, through practice, to consolidation, ensured that interns were progressively equipped with the knowledge, skills, and confidence required to navigate their transition into professional practice safely and effectively.

**Ethical Considerations**

- Approval was secured from the Research Ethics Committee of Indus College of Nursing.
- Informed consent was obtained from all participants.
- Confidentiality and anonymity were maintained.
- Participants were allowed to withdraw at any time without penalty.

**Data Analysis**

Data were analyzed using SPSS version 26. The following statistical methods were used:

- Descriptive statistics (mean, standard deviation, frequency) to describe demographic data
- Paired sample t-tests to evaluate pre-test and post-test changes within groups
- Independent sample t-tests to compare outcomes between groups
- Pearson correlation to examine relationships among transition shock, safety attitudes, identity, and caring climate
- Multiple regression analysis to identify predictors of transition shock
- A significance level of $p < 0.05$ was used.

**RESULTS**

**Table 2: Demographic Characteristics of Participants**

| Variable | Experimental (n=40) | Control (n=40) |
|---|---|---|
| Age (Mean ± SD) | 22.1 ± 0.8 | 22.3 ± 1.1 |
| Gender (M/F) | 36/4 | 35/5 |
| GPA (Mean) | 3.16 | 3.18 |

The mean age of the participants in the experimental group was 22.1 years (SD = 0.8), while the control group had a mean age of 22.3 years (SD = 1.1). The gender distribution was comparable between the two groups, with 36 males and 4 females in the experimental group, and 35 males

and 5 females in the control group. The mean GPA of the experimental group was 3.16, whereas the control group reported a mean GPA of 3.18. These findings indicate that both groups were homogeneous with respect to demographic and academic characteristics at baseline, thereby ensuring comparability before the intervention.

**Table 3: Pre-Test Results**

| Variable | Experimental (Mean ± SD) | Control (Mean ± SD) | t-value | P-value |
|---|---|---|---|---|
| Transition Shock | 3.42 ± 0.51 | 3.40 ± 0.47 | 0.182 | 0.856 |
| Patient Safety Attitudes | 3.10 ± 0.45 | 3.14 ± 0.41 | -0.362 | 0.718 |
| Professional Identity | 3.32 ± 0.38 | 3.35 ± 0.40 | -0.307 | 0.760 |
| Climate of Caring | 3.29 ± 0.44 | 3.27 ± 0.42 | 0.217 | 0.829 |

At the pre-test stage, no significant differences were observed between the experimental and control groups across all study variables. The mean transition shock score was 3.42 (SD = 0.51) in the experimental group and 3.40 (SD = 0.47) in the control group ($t = 0.182$, $p = 0.856$). Patient safety attitudes were comparable, with mean scores of 3.10 (SD = 0.45) and 3.14 (SD = 0.41), respectively ($t = –0.362$, $p = 0.718$). Professional identity showed similar values, with a mean of 3.32 (SD = 0.38) for the experimental group and 3.35 (SD = 0.40) for the control group ($t = –0.307$, $p = 0.760$). Likewise, the climate of caring mean scores were 3.29 (SD = 0.44) and 3.27 (SD = 0.42), respectively ($t = 0.217$, $p = 0.829$).

**Table 4: Post-Test Results**

| Variable | Experimental (Mean ± SD) | Control (Mean ± SD) | t-value | p-value |
|---|---|---|---|---|
| Transition Shock | 2.61 ± 0.36 | 3.39 ± 0.43 | -9.63 | <0.001 |
| Patient Safety Attitudes | 3.89 ± 0.33 | 3.20 ± 0.41 | 8.87 | <0.001 |
| Professional Identity | 4.02 ± 0.29 | 3.36 ± 0.37 | 9.67 | <0.001 |
| Climate of Caring | 4.01 ± 0.30 | 3.28 ± 0.38 | 9.42 | <0.001 |

The post-test results revealed statistically significant differences between the experimental and control groups across all study variables. Transition shock was markedly lower in the experimental group ($M = 2.61$, $SD = 0.36$) compared to the control group ($M = 3.39$, $SD = 0.43$), $t = –9.63$, $p < 0.001$. Patient safety attitudes were significantly higher in the experimental group

(M = 3.89, SD = 0.33) than in the control group (M = 3.20, SD = 0.41), t = 8.87, p < 0.001. Similarly, professional identity scores were elevated in the experimental group (M = 4.02, SD = 0.29) relative to the control group (M = 3.36, SD = 0.37), t = 9.67, p < 0.001. The climate of caring was also rated higher by the experimental group (M = 4.01, SD = 0.30) compared to the control group (M = 3.28, SD = 0.38), t = 9.42, p < 0.001.

**Table 5: Within-Group Comparisons**

| Group | Variable | t-value | P-value |
|---|---|---|---|
| Experimental | Transition Shock | 10.21 | <0.001 |
| Experimental | Patient Safety Attitudes | -11.34 | <0.001 |
| Experimental | Professional Identity | -12.15 | <0.001 |
| Experimental | Climate of Caring | -11.02 | <0.001 |
| Control | All variables | — | P > 0.05 |

Within-group analyses demonstrated significant improvements across all study variables in the experimental group following the intervention. Transition shock decreased significantly (t = 10.21, p < 0.001), while patient safety attitudes (t = –11.34, p < 0.001), professional identity (t = –12.15, p < 0.001), and climate of caring (t = –11.02, p < 0.001) all showed significant increases. In contrast, no statistically significant differences were observed in the control group across any of the variables (p > 0.05).

**Table 6: Correlation Analysis**

| Variables | R | p-value |
|---|---|---|
| Transition shock & Patient safety attitudes | -0.68 | <0.01 |
| Transition shock & Professional identity | -0.71 | <0.01 |
| Transition shock & Climate of caring | -0.65 | <0.01 |
| Patient safety attitudes & Professional identity | 0.67 | <0.01 |

The correlation analysis revealed significant associations among the study variables. Transition shock demonstrated strong negative correlations with patient safety attitudes (r = –0.68, p < 0.01), professional identity (r = –0.71, p < 0.01), and climate of caring (r = –0.65, p < 0.01), indicating that higher transition shock was associated with lower levels of these positive outcomes. Conversely, patient safety attitudes showed a strong positive correlation with professional identity (r = 0.67, p < 0.01), suggesting that enhanced safety attitudes were linked with a stronger sense of professional identity.

**Table 7: Multiple Regression Analysis**

| Predictor | β | p-value |
|---|---|---|
| Professional Identity | -0.44 | <0.001 |
| Patient Safety Attitudes | -0.36 | <0.001 |
| Climate of Caring | -0.31 | <0.001 |
| Model Summary | $R^2$=0.68, F=54.22 | p<0.001 |

The multiple regression analysis demonstrated that professional identity, patient safety attitudes, and climate of caring were significant predictors of transition shock. Professional identity emerged as the strongest predictor ($\beta = -0.44$, $p < 0.001$), followed by patient safety attitudes ($\beta = -0.36$, $p < 0.001$) and climate of caring ($\beta = -0.31$, $p < 0.001$). The overall model was statistically significant ($R^2 = 0.68$, $F = 54.22$, $p < 0.001$), accounting for 68% of the variance in transition shock.

## DISCUSSION

The significant reduction in transition shock in the experimental group post-intervention supports the premise that structured educational programs can ease the stress and disorientation commonly associated with the transition from student to professional nurse. The use of role-play, active discussions, and flipped-classroom approaches created an environment where students could practice critical skills and build confidence. The findings of this study reinforce previous evidence that structured orientation and preparatory interventions can mitigate the negative psychological effects of transition periods.[16] The improvement in patient safety attitudes following the intervention is a crucial achievement. A significant increase in post-test scores suggests that focused education on safety protocols, communication, and error reporting effectively reshapes students' perceptions and commitment to safety. This finding aligns with recent evidence showing that targeted safety training enhances nursing students' awareness and preparedness to prevent adverse events in clinical practice.[17] The development of a stronger professional identity among students in the experimental group reveals the intervention's impact on how interns perceive and internalize their nursing roles. Professional identity is a key determinant of a nurse's long-term commitment to the field. By engaging interns in reflective exercises, scenario-based learning, and discussions on ethical challenges, the intervention enabled deeper self-recognition of their professional responsibilities. Engaging interns in reflective exercises, scenario-based learning, and discussions on ethical challenges provided opportunities for self-exploration and meaning-making in relation to their future roles. Reflection, in particular, has been shown to deepen professional values and foster identity formation by encouraging students to critically examine their experiences and align them with professional standards.[18] Similarly, scenario-based and ethical discussions allow learners to grapple with complex clinical dilemmas, promoting moral reasoning, confidence, and professional socialization.[19] The correlation analysis found statistically significant inverse relationships between transition shock and all three independent variables: patient safety attitudes, professional identity, and climate of caring. These relationships underscore that as interns feel safer, more professional, and more supported, their levels of shock and stress decrease. Similar results have been reported in previous studies, where positive perceptions of safety culture were associated with lower stress and improved adaptation among nursing students.[20]

## Conclusion

The study demonstrated that a structured intervention could significantly reduce transition shock and improve key outcomes such as patient safety attitudes, professional identity, and perceptions of caring climate among nursing interns. These improvements have critical implications for the future of nursing education.

## Limitations of the Study

While this study provides important insights, a few limitations should be noted. First, it was conducted at a single institution, which means the findings may not fully represent nursing interns in other settings or cultural contexts. Second, the follow-up period was relatively short, so the long-term impact of the intervention could not be assessed. Third, because the study relied on self-reported questionnaires, there is always the chance of response bias, with participants possibly giving answers they believed were expected rather than their true feelings. Finally, cultural factors may have influenced how openly interns shared their experiences, which could have affected the depth and accuracy of some responses.

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