



Trial by fire: The qualitative essence of interns' baptism into medical responsibility

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Abstract:

BACKGROUND: The transition from medical student to intern represents a challenging period of professional and personal development. This study aimed to explore junior doctors' experiences navigating this critical passage.

MATERIALS AND METHODS: An exploratory qualitative study was conducted on a junior intern doctor working in a tertiary care hospital, in Gujarat. About 40 junior doctors participated in semi-structured interviews reflecting on their internship transition. Data were analyzed using thematic analysis.

RESULTS: Perceived deficits in preparedness for clinical work and emotional readiness were a major theme. Interns felt underprepared in skills like clinical reasoning and procedures. The abrupt onset of patient care responsibility provoked anxiety and eroded confidence. Difficulty adapting to workplace culture and hierarchies was another challenge. Long work hours, unfamiliar team dynamics, and new professional relationships were demanding. The intensity of workload and patient care duties provoked overwhelming stress, fatigue, and burnout risk during the junior doctor transition. Peer support and mentoring facilitated adaptation. Enhanced undergraduate training in practical skills and professional competencies was advised to improve preparedness.

CONCLUSION: Junior doctors face major challenges to their well-being, confidence, and competence as they transition into clinical practice. Support structures to ease this demanding passage of professional development are needed. Medical schools must strengthen curricula to address preparedness gaps. Improved onboarding and supervised orientation may also benefit new interns. Facilitating an optimal student-to-doctor transition has important implications for physician training, satisfaction, and retention.

Keywords:

Internship, medical education, preparedness, socialization, transition

Introduction

The transition from medical student to first-year resident, also known as internship or foundation year 1 (FY1), represents a critical stage in physician development. During this time, new graduates take on significantly greater clinical responsibility as they begin practicing independently in hospital settings. However, the drastic change in role from supervised student to autonomous clinician can be challenging for many junior doctors. The

existing literature indicates the transition to residency comes with substantial anxiety, stress, and feelings of underpreparedness among trainees.^[1,2] Evidence suggests the junior doctor transition experience impacts well-being, burnout risk, and intention to remain in medicine.^[3,4] Consequently, there is a need for a deeper understanding of this pivotal transition period in early clinical practice.

The responsibilities and duties interns face differ greatly from those of medical students. As students, learning is the primary objective and patient care tasks are

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performed under close supervision. The internship year requires new doctors to rapidly transform into medical professionals who make independent judgments and provide comprehensive care for a full panel of patients.^[5] Additionally, interns must navigate team dynamics, organizational systems, and delicate hierarchies within the hospital environment. Coping with unpredictable workflows, complex medical decisions, and newfound autonomy in an intense setting can be highly demanding initially.

Surveys have found a majority of junior doctors report feeling inadequately prepared at the start of an internship, especially regarding clinical and practical skills.^[6,7] In a study across seven UK medical schools, 88% of FY1 residents did not feel their experience as a student prepared them well for the responsibilities they faced. Deficits in skills such as diagnostic reasoning, prescribing, and surgical assisting have been highlighted. Furthermore, non-technical skills like communication, leadership, organization, and time management may require rapid development in early residency.^[7,8] Misalignments between medical school training and the needs of clinical practice appear to hinder perceived preparedness.

The complex socialization process in the medical profession also poses challenges during the student-to-doctor transition. New interns must rapidly adapt to the culture, customs, and performance expectations of their clinical environment.^[9,10] Tensions navigating new professional relationships with senior physicians and figuring out one's place within the medical hierarchy are often encountered. Many new doctors report making frequent mistakes that erode self-confidence in their work.^[6] Coping with the emotional and physical stresses of full patient responsibility can be fatiguing initially. Consequently, the junior doctor transition has been identified as a major risk factor for burnout during the first year's post-graduation.

While quantitative surveys have provided insights into preparedness, competence, and well-being during an internship, in-depth qualitative data is lacking on junior doctors' lived experiences navigating this critical professional transition. A robust understanding of the challenges from their perspective is needed, as well as adaptive strategies that ease their adjustment. This study aims to explore first-hand accounts of the early residency transition through interviews with new interns and junior residents. Semi-structured interviews allow for open narration of both positive and negative elements of participants' transitions.

The findings will characterize the essence of traversing the divide between supervised students and independent

practitioners. This study addresses important gaps in the literature by elucidating the transition experience directly from those undergoing it. The results can inform improvements in medical education curricula and residency programs to prepare students better and support new interns through this demanding adjustment period. Facilitating an optimal transition benefits workforce stability, patient care quality, and physician well-being during the crucial formative years as new doctors develop their professional competencies and identity.

Materials and Methods

Study design and setting

The exploratory qualitative study employed semi-structured interviews to gather insights directly from junior doctors regarding their transition experiences from Jan 2023 to June 2023.

Study participants and sampling

Participants: 40 participants were recruited using purposive sampling. The study specifically targets junior doctors during their internship period immediately after graduation. Exclusion criteria include factors that interfere with the participant's ability to provide meaningful insights into the transition experience, such as significant interruptions in clinical practice or experiences that deviate significantly from the typical transition from medical student to the junior internship. Maximum variation sampling was utilized to obtain perspectives from a diverse range of interns across different specialties, hospitals, ages, genders, and cultural backgrounds.

Data collection and technique

Participants partook in 30–60 minute semi-structured interviews either in-person or via videoconference based on preference. The interview guide covered various topics, including perceived differences between medical student and intern roles, preparedness for clinical responsibilities as an intern, main challenges faced during the transition, sources of stress as a new intern, coping strategies and supports utilized, changes in confidence over the course of the internship, and advice for smoothing the transition for future trainees. Interviews were audio-recorded and transcribed verbatim, while field notes were taken during and after interviews. Data collection continued until thematic saturation was reached.

Data analysis

Transcripts were analyzed using thematic analysis following a 6-phase approach: data familiarization, initial code generation, searching for themes, reviewing themes, defining, and naming themes, and report writing.^[10] Two

researchers independently coded the first five transcripts to refine the codebook before dividing the remaining transcripts. Codes were categorized into overarching themes and subthemes related to the research objectives. Qualitative data analysis software NVivo facilitated the analysis.

Given the qualitative nature of the study, extensive statistical analysis was not applicable. Descriptive statistics were used to characterize the sample population, including measures of central tendency and dispersion for demographic variables such as age, gender, and specialty.

Ethical considerations

The study protocol was submitted for ethics approval from an institutional review board before participant recruitment and data collection (REF. No; 38/01/2023). All participants provided written informed consent after being given information about the study's aims, risks/benefits, and measures to protect confidentiality. Participation was voluntary, and participants could withdraw from the study at any time. Interview transcripts were de-identified during analysis, and any identifiable information was removed from reported findings.

Rigor

Several strategies were employed to ensure trustworthiness and methodological rigor based on Lincoln and Guba's evaluative criteria (1985).^[11] Credibility was established through participant checking of interview summaries and peer debriefing among the research team. Transferability was promoted by providing thick descriptions of context and using purposive sampling for maximum variation. Dependability was supported by creating an audit trail documenting the research process, methodology, and analysis decisions. Confirmability was strengthened by involving multiple researchers in coding and establishing an audit trail.

Results

Table 1 outlines the socio-demographic makeup of the 40 junior medical interns who participated in qualitative interviews regarding their transition experiences entering residency training. The sample contained diverse perspectives, comprising equal numbers of younger (20-25 years) and older (>25 years) interns (both 50%). There was also balanced representation across genders, with 45% (n = 18) identifying as male and 55% as female (n = 22). The most common specialty rotations were General Surgery at 25% (n = 10) followed by Internal Medicine at 20% (n = 8), though a range of other clinical and non-clinical fields such as pediatrics, emergency medicine, and psychiatry were also included to capture

Table 1: Socio-demographic characteristics of the participants (n=40)

Variable	Frequency	Percentage
Age		
20–25 years	20	50%
25 years	20	50%
Gender		
Male	18	45%
Female	22	55%
Specialty		
Medicine	8	20%
General Surgery	10	25%
Pediatrics	5	12.5%
Emergency Medicine	5	12.5%
Psychiatry	3	7.5%
Obstetrics and Gynecology	3	7.5%
Other	6	15%
Stay		
Home	15	37.5%
Hostel	25	62.5%

diverse settings. Over half the participants (62.5%, n = 25) resided in hostel accommodations as opposed to at home (37.5%, n = 15). Generating qualitative data from a varied cross-section of early-career physicians provided richer, more transferable insights into this formative transitional period in medical socialization.

Table 2 presents major thematic categories emerging from the interview transcripts, along with illustrative participant quotes reflecting both common and unique perspectives linked to each theme. Analytical examination of the inductively derived findings revealed locality-specific cultural dynamics like intergenerational divides and gender barriers as important aspects influencing transition experiences. Contextual influences related to hierarchies, relationships, wellness, and alignment between skill sets and specialty environments emerged as critical factors shaping new doctors' transitions in India's contemporary medical education and healthcare ecosystem.

Table 3 categorizes and defines the key factors deriving from the qualitative analyses that determine whether transitions prove smooth versus difficult for new medical graduates. The identification of complex interactional effects related to medical hierarchies, gender marginalization in clinical contexts, electronic records burdens, etc., highlights the sociocultural particularities of Indian healthcare environments encountered by incoming medical professionals. Understanding these locally specific facilitators and barriers can inform tailored interventions to support the next generation of India's medical workforce.

Table 4 draws comparisons across the clinical and non-clinical subgroups demonstrating variability in

Table 2: Qualitative themes and quotations from interviews with junior intern doctors (n=40)

Theme	Subtheme	Quotes
Preparedness	Knowledge/skills	"There were gaps in my pharmacology knowledge." "I didn't feel comfortable doing certain procedures like placing IVs."
	Emotional readiness	"I was overwhelmed initially by the responsibility." "The transition provoked a lot of self-doubt for me."
Socialization	Professional relationships	"It was an adjustment learning how to communicate with specialists and nurses." "As an intern, you are at the bottom of the hierarchy."
	Culture	"The team dynamic was very different than what I experienced as a student." "The expectations to work long hours were challenging."
Challenges	Patient care duties	"Going from following just 1–2 patients to having a full panel was very difficult." "I struggled with time management and prioritizing tasks."
	Stress and burnout	"I was exhausted those first few months working 80-hour weeks." "I had so much anxiety that I wasn't catching things."
Coping and adaptation	Support systems	"My co-interns were crucial for advice and emotional support." "I received good mentorship from senior residents."
	Personal growth	"My clinical reasoning and confidence improved a lot." "After a few months, I started feeling like I could handle the job."
Advice	Clinical skills preparation	"Students should get more hands-on practice." "There should be more simulation training."
	Orientation and supervision	"Having structured onboarding would have helped ease the transition." "More supervision initially would have prevented mistakes."
	Wellness promotion	"Self-care needs to be emphasized for new interns." "There should be lessons on coping with stress."
Growth	Confidence gains	"The more I practiced, the less anxious I felt about my skills."
	Specialty clarity	"After exposure across specialties, I felt clearer on which field was the best fit."

Table 3: Factors influencing transition experiences among junior intern doctors (n=40)

Factors	Smooth Transitions	Difficult Transitions
Preparedness	Feeling well-prepared in clinical knowledge and skills	Perceived unpreparedness for clinical responsibilities
Support Systems	Robust support from peers and mentors	Challenges in workplace culture and professional relationships
Adaptive Coping Strategies	Effective coping strategies, seeking help, managing stress	Intense workload, burnout risk
Clinical Exposures	Breadth and depth of hands-on patient care during medical school	Limited exposure to diverse patient cases, inadequate practical experience
Specialty Attributes	Unique workflow, team structures, and learning curves of assigned field	Difficulty adapting to the specific demands and nuances of the chosen specialty
Generational Culture	Inter-generational dynamics and barriers between new and experienced doctors	Resistance or lack of understanding from older colleagues, difficulty integrating into established teams
Medical Hierarchy	Perceived power structures related to gender, seniority	Feeling marginalized or overlooked due to hierarchical structures, gender biases
System Obstacles	Institutional barriers like electronic records, documentation burden	Coping with cumbersome administrative processes, electronic health record challenges
Work-life Imbalance	Challenges managing responsibilities inside and outside the hospital	Struggling with an overwhelming workload affecting personal life balance

how prior exposures, knowledge, and responsibilities affected adaptations. The findings reveal tensions between specialty environments which new Indian physicians must balance and reconcile while forming their professional identities in an evolving healthcare landscape. Centering the authentic voices of those navigating present-day clinical training provides humanistic insights to guide supportive reforms.

Overall, expanding the diversity and depth of the junior doctor experiences illuminated through rigorous qualitative methodology provided a multidimensional

understanding of the transition to medical responsibility within localized sociocultural contexts. The rich narratives offer targeted opportunities to ease this "baptism by fire" for the inheritors of India's healthcare system.

Discussion

This qualitative study explored junior doctors' first-hand experiences transitioning from the role of medical student to intern. The rich interview narratives provide insights into the complex process of navigating this

Table 4: Variations in transition experiences across clinical and non-clinical subgroups. (n=40)

Subgroups	Clinical	Non-Clinical
Smooth Transitions	Interns in clinical specialties who had exposure to similar settings during their undergraduate training reported smoother transitions, leveraging their prior experiences. This group found familiarity in the clinical environment, enabling a more seamless integration into their roles as junior doctors. Their familiarity with patient care settings and procedures from their academic training provided a foundation for a smoother transition.	Importance of diverse career paths, adaptability
Difficult Transitions	On the other hand, those in clinical specialties facing high patient loads and complex cases reported more challenges, especially related to workload and stress. The intensity of patient care responsibilities and the complexity of cases posed significant challenges for this subgroup. The pressure associated with managing high patient volumes and intricate medical scenarios contributed to a more difficult transition experience.	Conversely, non-clinical interns faced challenges related to adjusting to clinical settings, especially when confronted with patient care responsibilities. Despite their non-clinical backgrounds, this subgroup encountered difficulties when transitioning into roles that required direct patient care. Adapting to the clinical environment and taking on patient-related responsibilities presented unique hurdles for these interns, contributing to a more challenging transition.

critical professional passage. Our findings align with existing literature indicating the transition to residency is marked by perceived deficits in preparedness, difficulties adapting to new professional demands, and high stress.^[12,13]

Interns overwhelmingly felt underprepared across both clinical knowledge and skills, consistent with previous research.^[14,15] Even basic proficiencies did not feel second nature for many beginning residencies. The abrupt onset of full patient responsibility provoked self-doubt and eroded confidence initially. Misalignments between medical school and clinical practice appear to hinder preparedness.

Navigating new professional relationships and hierarchies was an unexpected challenge. Interns expressed difficulties finding their place within the medical team and working with senior doctors, as noted in earlier studies.^[16,17] The rigorous demands and exhausting work hours also represented a cultural shock.

Our study provides concerning insights into the overwhelming stress, fatigue, and burnout commonly experienced during an internship, aligning with existing evidence.^[18,19] Coping with expanded duties, uncertainty, and fear of errors was highly distressing. The intensity led many participants to suffer from anxiety, eroded confidence, and exhaustion initially.

Limitation and recommendation

Limitations include the modest sample size and retrospective self-report design. Additional research through observation and surveys is warranted to further characterize this critical transition.

Recommendations include enhancing pre-graduation preparation, designing structured onboarding programs, improving supervision, promoting access to mental health resources, and reducing work hours to better

support new interns. Facilitating an optimal transition has important implications for physician well-being, patient safety, and workforce stability.

Conclusion

This study elucidates the challenges and distress that commonly afflict junior doctors as they transition into clinical practice, highlighting major gaps in preparedness. Ensuring trainees are competent in both clinical skills and professional demands before graduation and providing adequate support structures during an internship can facilitate this crucial passage of professional development. A smoother transition to residency has important implications for physician well-being, workforce stability, and patient safety.

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Conflicts of interest

There are no conflicts of interest.

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