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Preparedness, participation, and professional direction during the transition to clinical internship: a comparative qualitative study of domestic and international nursing students in China

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Abstract

Background

The transition from clinical observation to internship requires nursing students to reconsider their preparedness, participation, and professional future. Comparing domestic and international students within a shared clinical setting may help distinguish overlapping learning needs from concerns related to particular educational and linguistic experiences. This study explored and compared how students in these two groups interpreted this transition.

Methods

A qualitative descriptive study with a comparative focus was conducted at Guizhou Provincial People's Hospital, China. Purposive sampling identified one international nursing class and one domestic clinical placement group. Thirty-two students, comprising 16 international and 16 domestic students, participated in individual semi-structured interviews. All had completed approximately three months of clinical observation and were transitioning from their third to fourth year. Interviews were conducted in English or Mandarin Chinese. Data were analysed using the Framework Method, with comparisons within individual accounts and within and between groups.

Results

Three themes were identified: reconsidering what it means to be prepared for nursing practice; negotiating participation through uncertainty and interpersonal responses; and relating learning experiences to professional meaning and continuing uncertainty. Students distinguished academic understanding from the ability to respond to patients and perform clinical tasks. Communication difficulties occurred in both groups, while international accounts additionally highlighted movement between academic English and clinical Chinese. Observation could represent useful preparation or insufficient practical involvement. Assistance could provide reassurance, enable renewed participation, or result in the preceptor taking over. Perceived learning gains could coexist with uncertainty about future career development, while continuing career aspirations could accompany specific clinical preparation needs. Differences in interview coverage constrained interpretation of group contrasts.

Conclusions

Early clinical learning involved distinct judgements about task readiness, participation, and professional direction. Clinical educators should explore the meanings behind observation, hesitation, and help-seeking rather than infer needs from behaviour or student-group membership alone. Support should

address specific clinical and communication needs alongside opportunities to discuss career uncertainty. The effectiveness of these educational approaches requires further evaluation.

Introduction

The transition from clinical observation to internship requires undergraduate nursing students to move beyond familiarity with the clinical environment towards more active participation in patient care[1]. Previous classroom teaching, simulated practice, and observational experience provide a foundation, but students must learn to apply this preparation in less predictable clinical situations[2]. Alongside learning to care for patients, students must negotiate their position within clinical teams and consider what nursing work means for their professional future. Longitudinal qualitative research has shown that professional identity develops through interactions between personal expectations, clinical experiences, and recognition from others, with students following different developmental pathways[3, 4]. Understanding this transition therefore requires attention to both the demands students encounter and the meanings they attach to their experiences.

Research on belongingness and clinical supervision has established the importance of acceptance, supportive relationships, reflection, and opportunities to assume responsibility in students' learning and professional development[5, 6]. These studies have also illuminated how interpersonal experiences shape students' confidence and sense of legitimacy within clinical settings[5, 6]. Building on this evidence, an educationally relevant question is how students interpret their own preparedness and participation in relation to their developing views of nursing[7]. Participation, perceived capability, and professional aspirations represent related but distinct aspects of students' experiences. Examining them together may help educators understand concerns that are not readily apparent from students' observable performance alone.

For international nursing students, this transition occurs alongside adjustment to the linguistic and educational context of the host country[8]. Research in China has documented language difficulties, identity-related challenges, experiences of acceptance, and professional growth among African undergraduate nursing students[9]. A further qualitative study identified the professional networks and relational resources through which international nursing students experienced trust, empowerment, equality, and social cohesion during clinical learning[10]. These studies provide substantive explanations of how international students experience clinical education. However, neither included domestic students as a separately interviewed comparison group, leaving open how the experiences described relate to those of domestic students learning within a similar institutional context[9, 10].

Research involving both domestic and international nursing students offers complementary evidence. A study in culturally diverse postgraduate nursing classrooms examined shared challenges in navigating learning and teaching, while a mixed-methods study of undergraduate nursing students investigated academic and clinical performance and perceived influences on those outcomes[11, 12]. These contributions address important aspects of educational diversity, but their settings and analytical

priorities differ from an examination of how undergraduates interpret the transition towards more active clinical participation following an initial period of observation. Taken together, the studies reviewed here provide a rationale for a focused comparison of students' accounts of preparedness, participation, and professional meaning during this transition.

Such a comparison is educationally useful because student-group membership alone may offer an incomplete explanation of a learning difficulty[13]. An international student's uncertainty may involve both communication demands and concerns shared by other clinical beginners, while familiarity with the local language and educational system does not necessarily resolve a domestic student's uncertainty about patient care or a nursing career[14]. Examining similarities and differences within and between groups can help identify where support needs overlap and where students describe distinct concerns. The present study offered an opportunity to examine these issues within a shared hospital setting. Both groups had completed approximately three months of clinical observation before internship and had broadly comparable teaching arrangements, procedural learning opportunities, and patient contact. International students could communicate in Chinese in everyday situations, while teachers with stronger English proficiency were preferentially matched to them to facilitate clinical instruction. This context enabled attention to students' interpretations of clinical learning without presuming that international students' concerns primarily reflected difficulties with everyday Chinese communication.

The present study therefore focused on students' accounts of the transition from clinical observation to internship at a hospital in China. Its purpose was to explore and compare how domestic and international undergraduate nursing students described their preparedness for clinical practice, interpreted opportunities and difficulties in participation, and understood nursing work and their professional future. Through attention to both shared experiences and variation within and between groups, the study sought to inform clinical teaching that responds to students' expressed learning needs and professional concerns.

Methods

Study design

A qualitative descriptive study with a comparative focus was conducted to explore domestic and international undergraduate nursing students' experiences of the transition from clinical observation to internship. The study examined how students described their preparedness for clinical practice, interpreted participation in clinical learning, and understood nursing work and their professional future. The Framework Method was used to support within-case and cross-case comparisons while preserving the context of individual accounts[15]. These areas of analytical interest were refined through engagement with the interview material rather than imposed as fixed coding categories. Reporting was guided by the Consolidated Criteria for Reporting Qualitative Research (COREQ) [16].

Setting and participants

The study was conducted at Guizhou Provincial People's Hospital, China. Participants were undergraduate nursing students transitioning from their third to fourth year of study. All had completed approximately three months of clinical observation before entering or preparing to enter formal internship. Domestic and international students followed broadly similar rotation schedules and preceptorship arrangements, with no substantial differences in the teaching provision, procedural learning opportunities, or patient contact available to the two groups. International students were able to communicate in Chinese in everyday situations. Teachers with stronger English proficiency were preferentially matched to international students to facilitate clinical instruction. These arrangements provided a shared institutional context for comparison, although students differed in their progress through formal internship at the time of interview.

Purposive sampling was used to select two cohorts relevant to the research question: one class of international undergraduate nursing students and one clinical placement group of domestic undergraduate nursing students. Eligible students were enrolled in an undergraduate nursing programme and were transitioning from clinical observation to internship or undertaking early internship training at the study hospital. All eligible students in the selected cohorts were approached through the clinical teaching team and provided with study information. All 32 students agreed to participate and completed an interview, comprising 16 international and 16 domestic students; no refusals or withdrawals occurred. Recruitment ended after all eligible students in the two selected cohorts had been interviewed. Sample size was therefore determined by the size of these cohorts rather than by a saturation-based stopping criterion.

International students were interviewed before domestic students. At the time of interview, eight international students had not yet undertaken a formal clinical internship and eight had completed one month. Among domestic students, 12 had completed one month and four had completed one and a half months. These durations refer specifically to formal internship and exclude the preceding clinical observation period. Participant characteristics are presented in Table 1.

Table 1
Participant characteristics.

Characteristic	International students (n = 16)	Domestic students (n = 16)	Total (N = 32)
Gender, n (%)			
Male	9 (56.3)	2 (12.5)	11 (34.4)
Female	7 (43.8)	14 (87.5)	21 (65.6)
Year of study, n (%)			
Year 3	16 (100.0)	16 (100.0)	32 (100.0)
Clinical observation before internship, n (%)			
Approximately 3 months	16 (100.0)	16 (100.0)	32 (100.0)
Duration of formal internship at interview, n (%)			
Not yet started	8 (50.0)	0 (0.0)	8 (25.0)
1 month	8 (50.0)	12 (75.0)	20 (62.5)
1.5 months	0 (0.0)	4 (25.0)	4 (12.5)

Data collection

Individual face-to-face interviews were conducted between May and August 2026. Interviews were led by the head nurse of the thoracic surgery department and lasted approximately 45–60 minutes each.

Two group-specific semi-structured interview guides were used (**Supplementary File 1**). Both addressed learning and adaptation, emotional responses, clinical communication and practice, support, and reflection. The international student guide additionally explored experiences of studying and living in China, language use, cultural and personal values, and career plans. The domestic student guide additionally addressed the transition from basic to clinical coursework, perceptions of nursing competence, and contact with international students. The guides shared broad domains but differed in individual questions and follow-up prompts. These differences in coverage and depth were considered during comparative analysis. **Supplementary File 1** presents the guides used during data collection.

Interview questions were available to students in advance, and participants may have discussed them with their peers. Each student was interviewed individually. Accordingly, similarities between accounts were interpreted with attention to both shared experiences and the possibility of prior discussion.

Interviews took place in a teaching and research office at the hospital, with only the participant and interviewer present. Domestic students were interviewed in Mandarin Chinese and international students in English. Clarification was sought when a response was unclear. Interviews were audio-recorded with participants' permission, and brief field notes were made after each interview to document contextual information and initial reflections.

Researcher characteristics and reflexivity

The interviewer also served as an educator in the clinical teaching department and had longstanding experience teaching international nursing students, including extensive experience delivering instruction in English. The interviewer had substantial experience conducting interviews and related research. This background supported the interview process and an understanding of participants' educational context.

The interviewer's relationship with participants was limited to teaching and did not extend to their everyday lives outside educational activities. The interviewer was not responsible for their clinical supervision or subsequent assessment. Nevertheless, the position of head nurse and educator could still have influenced participants' willingness to express criticism or discuss difficulties. This potential influence was considered during interpretation.

Before each interview, participants were informed that the study concerned their experiences rather than an assessment of their competence and that participation would not affect their clinical evaluation. The interviewer encouraged discussion of both positive and negative experiences.

During analysis, the research team maintained reflexive notes concerning assumptions about the two groups, expectations of clinical adaptation, and the possible influence of professional roles on interpretation. Attention was paid to whether accounts arose spontaneously or followed specific prompts. Difficulties were not assumed to reflect cultural differences solely because they were reported by international students.

Data preparation and management

An independent expert who had not participated in the interviews organised the interview files, transcribed the audio recordings verbatim, and checked the transcripts against the recordings for accuracy. Identifying information was removed, and participants were assigned identifiers C01–C16 for domestic students and W01–W16 for international students. De-identified materials were stored in a password-protected location accessible only to the research team.

Chinese and English materials were analysed in their original languages by researchers proficient in the relevant language. Chinese quotations selected for publication were translated into English and checked against the original text by a second bilingual researcher. Differences in interpretation were resolved

through discussion, prioritising the participant's intended meaning. Original-language passages were retained alongside translations.

Data analysis

Participant characteristics were summarised using frequencies and percentages. Interview data were analysed using the Framework Method[15]. Coding was primarily inductive, with the research question guiding the focus of comparison. Group membership was treated as a contextual characteristic rather than a predetermined explanation for participants' experiences.

Researchers first familiarised themselves with the material through repeated reading and prepared individual case summaries documenting clinical exposure, key experiences, and relevant contextual information. Interviews from both groups, reflecting variation in experience and detail, were then used to develop initial codes. Coding addressed the situations described, participants' interpretations, their responses, and reported consequences.

Related codes were organised into a provisional analytical framework, which was refined as additional interviews were examined. Earlier coded material was revisited when the framework changed. The resulting framework was applied across the dataset. Data were charted into a case-by-category matrix, with participants represented in rows and analytical categories in columns. Summaries retained references to the original passages to support contextual interpretation and retrieval.

Comparisons were undertaken within each group and then between groups, examining recurring patterns and divergent cases. Interpretation considered differences in clinical exposure, language background, patient contact, interview prompts, and the detail of participants' accounts. Non-mention of an experience was not treated as evidence of its absence, and comparisons were limited where questions or available contextual information were insufficiently comparable. In particular, differences in accounts of career aspirations were interpreted in light of the more explicit career-related questions in the international student guide.

Where the accounts permitted, experiences of classroom learning, simulation, clinical observation, internship, and everyday adjustment were distinguished. Anticipated experiences and intended actions were differentiated from events and actions reported as having occurred. Domestic students' comments about international students were interpreted as perceptions, with attention to whether they were based on direct interaction, information from others, or speculation. These comments were not treated as independent confirmation of international students' experiences.

Themes were developed according to their relevance to the research question and the strength and specificity of supporting evidence, rather than frequency alone. Experiences described by a single participant were distinguished from broader patterns. Connections between perceived progress, participation, and professional views were examined within individual accounts before considering patterns across participants. Because each participant was interviewed at a single time point,

descriptions of change were interpreted as retrospective accounts rather than evidence of longitudinally observed development. Quotations were selected to illustrate themes and meaningful variation.

One researcher led coding and matrix development, while a second reviewed the developing framework and selected coded passages from both groups. Interpretive differences were discussed with reference to the source material, and revisions were documented. Microsoft Excel was used to organise participant information and the analytical matrix. No inferential statistical tests were performed.

Trustworthiness

An audit trail linked source material, coding decisions, revisions to the analytical framework, and theme development. Accounts that challenged emerging interpretations were examined, and team discussions were used to assess alternative explanations and the adequacy of supporting evidence.

Differences in the length and detail of Chinese and English accounts were considered throughout analysis. Shorter responses were not assumed to indicate fewer difficulties or less meaningful experiences. Interpretations were assessed against the specificity and context of the supporting accounts, including variation within each group. Descriptions of the setting, participants, and clinical exposure were provided to enable readers to assess the transferability of the findings.

Results

Participant characteristics

Thirty-two undergraduate nursing students participated, comprising 16 international and 16 domestic students. Nine international students and two domestic students were male; seven international and 14 domestic students were female. All participants were transitioning from their third to fourth year and had completed approximately three months of clinical observation. At interview, eight international students had not yet started formal internship and eight had completed one month. Among domestic students, 12 had completed one month and four had completed one and a half months. Participant characteristics are presented in Table 1.

Three themes captured how participants understood their preparedness, approached participation, and interpreted their developing relationship with nursing: reconsidering what it means to be prepared for nursing practice; negotiating participation through uncertainty and interpersonal responses; and relating learning experiences to professional meaning and continuing uncertainty. These themes describe related aspects of students' experiences rather than successive stages through which all participants progressed. Accounts of clinical encounters were distinguished from classroom experiences, broader adaptation to studying in China, and expectations of future practice. Table 2 illustrates how selected interview excerpts were linked to codes, subthemes, and overarching themes.

Table 2
Illustrative links between interview excerpts, codes, subthemes, and themes.

Interview excerpt and participant	Illustrative code	Subtheme	Theme
“In the textbook, a person might have that one particular disease. But in real life, several diseases can occur together, and that is difficult to understand.” (C01)	Difficulty applying disease-specific knowledge to patients with multiple conditions	Recognising that knowing the material did not ensure readiness	1. Reconsidering what it means to be prepared for nursing practice
“My main difficulty was understanding medical terms in English, not the nursing concepts.” (W07)	Distinguishing terminology difficulties from conceptual understanding	Distinguishing academic understanding from the ability to communicate in practice	1. Reconsidering what it means to be prepared for nursing practice
“Patients speak fast daily Chinese with many local slang words that I do not learn in class. Sometimes I fail to catch their small health problems quickly.” (W01)	Difficulty understanding patients’ rapid speech and local expressions	Distinguishing academic understanding from the ability to communicate in practice	1. Reconsidering what it means to be prepared for nursing practice
“When I translate between languages, I remember better. It's beneficial.” (W08)	Using translation across languages to support recall	Distinguishing academic understanding from the ability to communicate in practice	1. Reconsidering what it means to be prepared for nursing practice
“I know the theory, but before I try, I need to feel—not completely certain, but at least about 70% sure—that I can succeed.” (C15)	Requiring a personal level of confidence before attempting a procedure	Observing, attempting, or stepping back	2. Negotiating participation through uncertainty and interpersonal responses
“My first visit to the hospital was memorable. Everything was new, but I learned by watching others.” (W06)	Learning through observation in an unfamiliar clinical setting	Observing, attempting, or stepping back	2. Negotiating participation through uncertainty and interpersonal responses
“He said he did not want a student to do it and asked our teacher to come over.” (C09)	Encountering a family member’s refusal of student involvement	Observing, attempting, or stepping back	2. Negotiating participation through uncertainty and interpersonal responses
“Afterwards, the teacher kept reassuring and encouraging me. Because of that encouragement, I felt better.” (C12)	Feeling reassured by the teacher after a difficult experience	Interpreting feedback and deciding how to proceed	2. Negotiating participation through uncertainty and interpersonal responses

Interview excerpt and participant	Illustrative code	Subtheme	Theme
“After working for a while, I realised that what I was doing was meaningful. I was helping patients gradually recover and supporting their daily lives in hospital.” (C09)	Recognising professional value in everyday patient care	Recognising value in nursing work and imagining a professional future	3. Relating learning experiences to professional meaning and continuing uncertainty
“Now I'm interested in international nursing. I can see myself working in global health or international hospitals. Being multilingual is an advantage.” (W15)	Connecting international education and multilingualism with future career possibilities	Recognising value in nursing work and imagining a professional future	3. Relating learning experiences to professional meaning and continuing uncertainty
“At the beginning of my third year, I could not accept clinical placement work. Now I can accept it a little—perhaps about 20%.” (C02)	Describing partial acceptance of clinical work	Recognising gains while expressing unresolved concerns	3. Relating learning experiences to professional meaning and continuing uncertainty
“To be honest, I feel very lost, and I do not feel that I have learned very much.” (C15)	Expressing uncertainty about learning gains	Recognising gains while expressing unresolved concerns	3. Relating learning experiences to professional meaning and continuing uncertainty

Theme 1 Reconsidering what it means to be prepared for nursing practice

Recognising that knowing the material did not ensure readiness

Clinical encounters prompted domestic students to reconsider what it meant to know enough to provide care. Knowledge that appeared manageable in the classroom became harder to apply when patients had multiple conditions, procedures required adjustment, or patients asked for explanations. C01 contrasted textbook examples with actual patients:

“*In the textbook, a person might have that one particular disease. But in real life, several diseases can occur together, and that is difficult to understand*.” (C01, domestic student)

C12 similarly described uncertainty about applying knowledge to patients with several concurrent conditions and developing appropriate nursing plans. Procedural practice also exposed limits to previous preparation. C16 explained:

"*When we practised in class, the veins were always in perfect condition. But the patients you actually encounter have all kinds of vein conditions, which makes the procedure difficult*." (C16, domestic student)

In these accounts, preparedness involved more than recalling knowledge or reproducing a procedure: students described needing to respond to variation in patients' conditions and explain care to others. C07 described discovering that nursing extended beyond injections and infusions to answering patients' questions. C10 connected difficulty explaining procedures with recognising gaps in theoretical knowledge and returning to study.

However, clinical learning did not invariably undermine confidence in prior preparation. C02 found procedures broadly consistent with previous training and described the preceptor's explanations as making them understandable. C14 reported that practice was less frightening than anticipated. These contrasting accounts showed that students could experience clinical encounters as exposing gaps in preparation or as making previous learning more understandable.

Distinguishing academic understanding from the ability to communicate in practice

International accounts highlighted a related distinction between understanding nursing content and being able to use it in another language. W07 located a learning difficulty in terminology rather than the underlying concepts:

"*My main difficulty was understanding medical terms in English, not the nursing concepts*." (W07, international student)

For W13, English proficiency supported academic learning, while conversational Chinese was insufficient for following complex professional exchanges. W01 described difficulty understanding patients despite prior language learning:

"*Patients speak fast daily Chinese with many local slang words that I do not learn in class. Sometimes I fail to catch their small health problems quickly.*" (W01, international student)

Students responded by recording unfamiliar expressions, preparing vocabulary, and seeking explanations from teachers or peers. These accounts concerned particular demands of medical terminology, rapid speech, and local expressions rather than an inability to communicate in everyday Chinese. Academic terminology and patient communication also represented different language demands: understanding an English medical term did not necessarily ensure understanding a patient's description in Chinese.

Communication difficulty was not exclusive to international students. C05 and C11 described being unable to understand some patients' dialects. Domestic students also encountered difficulty explaining care or responding to questions despite sharing a language with patients.

Conversely, international students did not uniformly describe multilingual learning as a disadvantage. W08 stated:

"*When I translate between languages, I remember better. It's beneficial.*" (W08, international student)

Thus, language could be both a resource for learning and a source of difficulty in particular interactions. W15 had participated in history-taking during clinical observation and described continued preparation of medical Chinese vocabulary for future clinical work. This preparation reflected a perceived need for further development rather than an absence of previous patient interaction.

Across the two groups, the accounts distinguished knowing something in an educational setting from being able to use or explain it in a clinical interaction. Domestic examples included adapting procedures and explaining care, whereas international examples also involved working across languages. These examples indicated overlapping demands without establishing that either type of difficulty was confined to one group.

Theme 2 Negotiating participation through uncertainty and interpersonal responses

Observing, attempting, or stepping back

Students' decisions about participation reflected how they judged their competence and the possible consequences of an unsuccessful attempt. Domestic participants described concern about causing pain, making errors, being unable to answer questions, and receiving criticism. C15 expressed a personal threshold for attempting a procedure:

"*I know the theory, but before I try, I need to feel—not completely certain, but at least about 70% sure—that I can succeed.*" (C15, domestic student)

Observation could therefore represent deliberate preparation rather than a lack of interest. C02 preferred to watch in the neonatal setting because of concern about working with very small infants. In contrast, C07 felt that observation without sufficient practice left procedural proficiency underdeveloped. Students who remained observers differed in whether they regarded observation as useful preparation or as insufficient for developing practical skills.

International accounts also presented observation as a way of approaching unfamiliar practice. W06 recalled:

"*My first visit to the hospital was memorable. Everything was new, but I learned by watching others.*" (W06, international student)

W08 distinguished procedural practice with mannequins and classmates from patient interaction during clinical observation. W08 and W15 had asked patients about their medical histories but had not

performed hands-on skills such as physical examination or blood collection. Their descriptions therefore concerned limited experience of direct clinical procedures, rather than a complete absence of patient contact.

Participation also depended on others' responses. C03 and C09 described opportunities being offered when the procedure was familiar and the patient was stable or receptive. C09 recalled a family member questioning student involvement after an attempt to resolve an infusion problem:

"*He said he did not want a student to do it and asked our teacher to come over.*" (C09, domestic student)

The participant described disappointment and turning to the preceptor in similar circumstances. C06 likewise described becoming less inclined to communicate directly after difficult interactions with families in paediatric care. For these participants, stepping back was connected not only to uncertainty about their own abilities but also to how their involvement was received. Such withdrawal was described in particular encounters and did not establish a general lack of motivation.

Interpreting feedback and deciding how to proceed

Difficult encounters did not have a uniform relationship with subsequent participation. Students described reviewing knowledge, seeking assistance, practising further, or temporarily stepping back. Teacher responses helped shape how some participants understood an unsuccessful attempt. C12 recalled:

"*Afterwards, the teacher kept reassuring and encouraging me. Because of that encouragement, I felt better*." (C12, domestic student)

Reassurance helped C12 feel better after the experience. C16 described feeling disappointed after an unsuccessful arterial puncture but using the preceptor's explanation to identify what to change on the next occasion. Here, the account moved from an unsuccessful performance to a specific learning need rather than a general conclusion of inability.

Seeking help also had different consequences. C14 described admitting uncertainty about a medicine, consulting the teacher, and returning to explain it to the patient. By contrast, C09 described asking the teacher to take over after a difficult interaction. Assistance could therefore support a return to the interaction or enable someone else to complete it; the accounts did not always establish what happened afterwards.

International accounts illustrated both reported changes in learning practices and intended responses to future uncertainty. Following a difficult patient interaction, W01 reported collecting and practising clinical Chinese expressions. When asked what would be done differently now, W01 proposed consulting a translation notebook or application and trying simple questions before seeking help. This was an intended approach rather than a confirmed subsequent clinical action. W06 described greater willingness to participate in class:

"*At first, I was nervous to speak in class, but now I participate more.*" (W06, international student)

This change concerned classroom participation and was not assumed to extend to bedside practice. Confidence also remained situational. C03 reported renewed nervousness with unfamiliar procedures, whereas C14 described relatively comfortable adjustment and W11 reported no difficulty with classroom interaction.

Further questioning indicated that international students also recognised similar experiences of uncertainty and support during clinical learning. Across the accounts, seeking assistance could accompany preparation, emotional recovery, or renewed engagement. The examples differed in detail and setting, but did not support a simple contrast between domestic and international students in willingness to participate.

Theme 3 Relating learning experiences to professional meaning and continuing uncertainty

Recognising value in nursing work and imagining a professional future

Clinical experiences provided some domestic students with new ways of understanding the value of nursing. Several described entering the programme through allocation rather than an active initial preference. Their later accounts did not simply replace negative expectations with positive ones; recognition of meaningful work could coexist with awareness of its demands.

C09 described initially feeling that clinical work did not match expectations and questioning the value of the preceding years of study. The participant subsequently identified a contribution in everyday patient care:

"*After working for a while, I realised that what I was doing was meaningful. I was helping patients gradually recover and supporting their daily lives in hospital.*" (C09, domestic student)

C10 similarly retained an awareness of difficult working conditions while describing a greater sense of accomplishment:

"*When I entered clinical practice, I realised that although the work really is hard, my sense of achievement had also increased greatly.*" (C10, domestic student)

Other accounts broadened the meaning of nursing beyond technical tasks. C16 described recognising a need for humanistic care in addition to treatment, while C07 identified answering questions and addressing patients' concerns as part of the role.

International students connected their educational experiences with future possibilities, although these reflections extended beyond clinical placement alone. W15 described studying in China as opening an

interest in international nursing:

"*Now I'm interested in international nursing. I can see myself working in global health or international hospitals. Being multilingual is an advantage.*" (W15, international student)

For W01, communication difficulties had not changed the intended career direction:

"*No, these small communication difficulties do not change my career plan. Instead, they make me want to learn more Chinese to become a better nurse later.*" (W01, international student)

C09 and C10 linked professional meaning to their experiences of everyday care, whereas W15 located future possibilities within the broader experience of international education. W01 described a continuing career intention despite communication difficulties. These were different ways of relating present learning to nursing as a profession, rather than evidence that one group had stronger professional commitment. Career plans were also explored more explicitly in the international interview guide.

Recognising gains while expressing unresolved concerns

Participants' positive appraisals of learning did not always extend to all aspects of their experience. Within C02's account, self-reported gains in knowledge, skills, and outlook coexisted with only partial acceptance of clinical work:

"*At the beginning of my third year, I could not accept clinical placement work. Now I can accept it a little—perhaps about 20%.*" (C02, domestic student)

This percentage was the participant's way of expressing limited acceptance rather than a formal measure. C02's continuing reservations were situated within uncertainty about future career development. Recognising gains during clinical learning had not resolved how the participant viewed a future in nursing.

C15 offered a different account, describing learning strategies and access to support but remaining unsure how much had been gained:

"*To be honest, I feel very lost, and I do not feel that I have learned very much.*" (C15, domestic student)

C15's sense of uncertainty also concerned future career development. In this account, doubts about learning gains were accompanied by uncertainty about professional direction. Unlike C02's account, however, the material did not clearly establish a perceived increase in capability. Career uncertainty therefore appeared alongside different appraisals of learning, rather than a single pattern of progress.

International accounts also distinguished confidence in one area from readiness in another. W15 described independence in living and studying in China while wanting greater confidence in clinical skills. W01 described broader gains in confidence and an unchanged career plan while continuing to seek more independent communication with patients. Here, the unresolved concerns centred on clinical skills or

communication, while the accounts also contained positive views of future possibilities or a continuing career intention.

Positive evaluations of support did not resolve all of these needs. W01 considered existing support sufficient while requesting more clinically focused Chinese training. C16 similarly valued available support but wanted additional opportunities for hands-on practice. C15 described receiving help while noting that some advice was difficult to put into practice.

Taken together, the accounts distinguished uncertainty about performing clinical tasks from uncertainty about future career development. These concerns could coexist, but were not interchangeable. Some participants recognised learning gains while remaining unsure about their professional future; others expressed a continuing career intention while identifying specific skills they still needed to develop. Positive evaluations of support likewise coexisted with requests for more targeted assistance. These combinations describe participants' appraisals of their experiences rather than a common developmental sequence.

Discussion

This study explored how domestic and international undergraduate nursing students understood their preparedness, approached clinical participation, and interpreted their developing relationship with nursing. Although all participants had completed approximately three months of clinical observation, familiarity with the clinical environment did not necessarily translate into confidence in performing particular tasks or clarity about a future nursing career. The findings suggest that early clinical learning involved several related but distinguishable judgements: whether students could apply what they knew, whether they felt ready to participate in a particular situation, and whether their experiences strengthened their sense of professional meaning or direction. Positive appraisals in one area could coexist with uncertainty in another. In particular, uncertainty about undertaking clinical tasks differed from uncertainty about future career development, with potentially different implications for educational support.

The comparative contribution lies in showing how these concerns appeared across students learning within broadly similar clinical arrangements but with different educational and linguistic backgrounds[17]. Domestic students' accounts situated communication difficulties, hesitation, and reliance on others within experiences shared by clinical beginners, while international accounts highlighted the distinction between everyday language use and communication in professional situations. The comparison does not establish that the groups had equivalent experiences or that particular concerns were unique to either group. Rather, it provides a contextual account of overlapping learning needs and different ways of interpreting participation and professional possibilities.

Reconsidering preparedness through clinical experience

Students' accounts suggest that perceived preparedness was revised through encounters with actual patients[18]. Domestic students described recognising that recalling a procedure or understanding a textbook example was insufficient when patients presented with multiple conditions, unfamiliar responses, or questions requiring explanation. For international students, academic understanding could coexist with difficulty following spoken Chinese in clinical interactions. Across these accounts, the issue was not simply how much students knew, but whether they could make their knowledge usable in a particular encounter.

Related evidence from a case-based study of nursing students' perspectives on AI-mediated communication highlighted perceived professional responsibilities for contextualising information and supporting patient understanding[19, 20]. Although that study examined responses to educational scenarios, it offers a complementary perspective on nursing communication as more than the transmission of factual knowledge. The present accounts situate this concern within students' experiences of explaining care and responding to patients during early clinical learning.

This interpretation is consistent with research showing that clinical experiences contribute to students' developing understanding of nursing roles and responsibilities. A four-year longitudinal qualitative study identified tensions between expectations and reality, developing competence, and recognition from others as relevant to professional identity formation[3]. The present study adds detail about how students interpreted these demands during the transition from observation to internship. Previous exposure enabled familiarity with clinical settings, but students still had to judge whether they could explain care, adapt a procedure, or respond to a patient themselves[21]. Observation and more active participation therefore represented different demands within their accounts, rather than interchangeable indicators of clinical experience[22].

Recognising a gap in preparation should not automatically be interpreted as declining ability or unsuccessful adaptation[23]. Awareness of the complexity of a task may accompany a more specific understanding of what remains to be learned. In some accounts, recognising uncertainty prompted review, clarification, and more deliberate practice. In others, it accompanied reluctance to act. Our data cannot determine whether either response predicted subsequent competence, but they suggest that expressions of uncertainty need to be interpreted alongside the student's understanding of the situation and intended next step. Similarly, confidence reported in an interview should not be equated with independently assessed clinical competence[24].

The comparison also cautions against treating international status as a sufficient explanation for communication difficulty. Domestic students described problems with dialects and explaining care, whereas international students described additional movement between academic English and clinical Chinese. Conversely, some international students regarded multilingual learning as an advantage. Previous research with African nursing students in China identified language challenges alongside support, personal effort, and professional growth[25]. Our findings complement that work by distinguishing everyday communication, understanding academic terminology, and responding to

patients in real time. In this setting, international students could communicate in everyday Chinese and had access to teachers with stronger English proficiency, yet some continued to identify specific clinical communication needs. Support for classroom understanding and support for patient interaction should therefore not be assumed to serve the same purpose.

Understanding participation through students' judgements and others' responses

A second implication concerns the interpretation of participation. Observation could reflect an appropriate wish to understand unfamiliar care before attempting it, but it could also be experienced as insufficient opportunity to develop proficiency[26]. Similarly, seeking help could enable a student to return to an interaction or result in the preceptor taking over. These behaviours cannot be assigned a single meaning without examining the circumstances.

This finding resonates with research on belongingness and clinical learning. Levett-Jones and Lathlean linked students' experiences of acceptance and belonging with their capacity to engage in clinical learning[5]. The present accounts illustrate encounters in which participation was negotiated through patients' or families' responses and preceptors' guidance. A refusal of student involvement could be experienced as discouraging even when the student remained interested in learning[27]. However, a difficult encounter alone does not establish a sustained lack of belonging, and choosing to observe does not necessarily indicate exclusion.

The distinction between completing care and supporting learning is particularly relevant. When a preceptor takes over, the immediate clinical problem may be resolved, but the student's interpretation of the event may remain unaddressed. Taking over may be appropriate to the situation and should not itself be interpreted as inadequate teaching. The educational question is whether the student subsequently understands why this occurred and what it means for further learning. Conversely, explanation and encouragement can help a student identify a specific area for improvement[28]. The accounts therefore suggest the value of examining what follows assistance, rather than treating the availability of assistance alone as evidence that a learning need has been met.

A qualitative study of a student-centred supervision model similarly described learning through structured guidance, reflection, and increasing responsibility[29, 30]. Our findings are consistent with this approach and draw attention to the task-specific nature of support. Reassurance may address immediate distress, explanation may clarify a knowledge gap, and supervised participation may provide an opportunity to practise. These forms of assistance can complement one another, but evidence that a student felt reassured should not be treated as evidence that performance or participation subsequently improved.

These observations also complement research on international nursing students' workplace social capital in China, which identified trust, empowerment, equality, and professional relationships as important features of clinical learning[10]. That research already demonstrated how relationships can

enable or restrict participation. The present comparison offers examples of how students in both groups interpreted assistance in relation to a particular learning need. It supports examining the content and consequences of help alongside the availability of supportive relationships, without assuming that international and domestic students require categorically different forms of support.

Distinguishing learning progress from professional meaning and direction

The findings distinguish uncertainty about clinical performance from uncertainty about a professional future. C02 recognised gains while remaining unsure about future career development, whereas C15 expressed both doubts about learning gains and uncertainty about professional direction. W01 described a continuing career intention alongside specific communication needs. These accounts show why clinical confidence, perceived learning, and career direction should not be treated as interchangeable indicators of adaptation.

Professional identity research already recognises variation in development. A longitudinal qualitative study of nursing students identified different identity trajectories shaped by personal characteristics and educational experiences[4]. Our findings are compatible with such variation but do not establish trajectories or show that aspects of development progressed at different rates. The contribution is more specific: within individual accounts, students could evaluate their learning positively while remaining uncertain about their future, or maintain a career intention while identifying substantial preparation needs. These positions need not be contradictory because they concern different aspects of becoming a nurse.

This distinction changes the educational interpretation of career uncertainty. Additional procedural practice may address a student's lack of familiarity with a task, but may not answer questions about the kind of professional life the student wants[31]. Conversely, discussing career aspirations alone may not resolve uncertainty about communicating with patients or performing a procedure. The appropriate response depends on what the student is uncertain about, rather than the presence of uncertainty itself.

The group comparison requires similar caution. Domestic students were asked more directly about programme choice and expectations, while international students were asked about studying abroad and future career opportunities. Differences in the resulting narratives cannot establish stronger professional identification in either group. Moreover, aspirations for international work may reflect the wider experience of overseas education rather than clinical placement alone. The distinction between professional uncertainty and specific learning needs is therefore an interpretive finding across individual accounts, not a basis for assigning domestic students a more uncertain career outlook or international students a more confident one.

Implications for nursing education

The findings suggest that teaching during the transition from observation to internship should address perceived preparedness, participation, and professional concerns separately. A brief discussion could ask what the student feels able to do, which situations lead them to observe or seek help, and what questions clinical experience has raised about their future in nursing. This would help distinguish a task-specific difficulty from broader uncertainty about career development. These are proposed applications of the findings, rather than interventions evaluated in this study.

Observation could be made more purposeful by agreeing what the student should attend to, discussing what was learned, and identifying an appropriate next opportunity for supervised participation[32]. For students who regard observation as useful preparation, the discussion could clarify when and how they might attempt part of the activity. For students who feel that observation is no longer sufficient, it could identify what limits participation and what supervised practice is appropriate. A uniform response to all students who remain observers could overlook these different needs.

Following an unsuccessful or difficult encounter, feedback could combine explanation of the clinical issue with exploration of how the student interpreted it. When a preceptor takes over, a subsequent conversation could distinguish the immediate requirements of care from the student's longer-term learning needs[33]. Where appropriate to patient preferences and assessed competence, a planned opportunity to participate again could help connect feedback with practice. This recommendation follows from the different functions of assistance described in the interviews; the study did not test its effectiveness.

Communication support should likewise respond to actual needs. International students may benefit from practice connecting familiar nursing concepts with Chinese patient expressions and clinical conversations[34, 35]. Domestic students may also require support with dialects, explaining procedures, or responding to distressed relatives. Short discussions or simulations based on communication situations encountered during placement could address these needs in either group. English-language support for professional instruction may remain useful for international students, while additional practice in clinical Chinese addresses a different demand.

Career-related support should allow students to discuss uncertainty without treating it as a lack of commitment or an assessment failure. Exploring meaningful, disappointing, or unexpected aspects of clinical work may help students articulate whether their concerns relate to a particular placement, their preparation, or future career options. Where concerns extend beyond an immediate learning task, access to career guidance may be appropriate.

Finally, positive overall evaluations of support should be followed by questions about remaining needs. W01 valued existing support while requesting clinically focused language training, and other students requested further practice despite describing available help positively. Placement review could therefore combine an overall appraisal with specific questions about practice opportunities, communication, and professional concerns. Satisfaction alone may provide an incomplete picture of the support students seek.

Strengths, limitations, and future research

Including domestic and international students within one hospital enabled comparison of shared concerns and context-specific experiences. Both groups had completed a similar period of clinical observation and had broadly comparable teaching and participation opportunities. This shared context helped situate the comparison, although it did not remove differences in individual encounters or internship experience. Attention to contrasting accounts also helped avoid presenting adaptation as a uniform movement from difficulty to confidence. Table 2 makes selected links between excerpts, codes, and themes explicit, while the interpretation depends on the broader interview context.

Nevertheless, the study involved one international class and one domestic placement group. Cohort characteristics, gender composition, prior educational experiences, and clinical exposure may have contributed to differences and limit transferability to other settings. International students were interviewed before domestic students, and their formal internship experience differed. Group differences therefore cannot be attributed to international or domestic status alone.

The interviews provided retrospective accounts rather than prospective observation of psychological change. Consequently, the findings cannot establish developmental stages, causal mechanisms, objective competence, or subsequent career decisions. Professional meaning and direction are interpretive aspects of the accounts, not outcomes of a formal assessment of professional identity. Descriptions of intended actions also do not establish subsequent behaviour.

Question coverage and depth differed between groups, and some international accounts were brief or concerned classroom learning and life in China rather than hands-on clinical care. These differences constrain comparison, particularly regarding professional uncertainty. Short accounts should not be interpreted as evidence of limited reflection or an absence of difficulty, and non-mention cannot establish that a concern was absent.

Although the interviewer was not responsible for participants' clinical supervision or subsequent assessment, the role of head nurse and educator may still have encouraged favourable responses. Advance access to the questions and possible peer discussion may have influenced similarities in the accounts; individual interviews do not eliminate these possibilities. Analysis of Chinese and English materials in their original languages and bilingual checking of translated quotations supported attention to meaning, but differences in language and expression may still have influenced the detail available for comparison.

Future research could follow students across placements and combine interviews with observation and feedback records to examine how particular encounters relate to subsequent participation and professional attitudes. Using a shared set of core questions alongside group-specific prompts could strengthen comparison while retaining relevant linguistic and educational context. Educational studies could also evaluate structured reflection and supported participation, assessing perceived readiness, observed performance, and professional direction separately. Such work would help determine whether

the teaching implications proposed here improve students' learning experiences and how their usefulness varies across individuals.

Conclusion

The transition from clinical observation to internship involved more than applying previously acquired knowledge. Domestic and international nursing students also judged their readiness to participate and considered what clinical experiences meant for their professional future. Their accounts revealed overlapping concerns, with variation within and between groups. Perceived learning gains could coexist with career uncertainty, while continuing career aspirations could accompany specific clinical preparation needs.

Clinical educators should explore the meanings behind observation, hesitation, and help-seeking rather than infer students' needs from these behaviours or group membership alone. Support should distinguish task-specific preparation and communication needs from broader concerns about professional direction. These findings offer a basis for more responsive teaching during early internship, although the effectiveness of the proposed approaches requires further evaluation.

Declarations

Ethics approval and consent to participate

This study was approved by the Ethics Review Committee of Guizhou Provincial People's Hospital (Ethics Number: 2026 − 137). Written informed consent was obtained from all participants before data collection. All procedures involving human participants were conducted in accordance with the Declaration of Helsinki and relevant institutional guidelines.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Authors' information

Not applicable.

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Author Contribution

XY, CX and DW conceptualized and designed the study. XY and DW led the methodological development and formal analysis. DW, XH, FW, DL, JY, BZ, LY, WG, CX, and XY contributed to data curation and analysis of relevant empirical literature and adoption studies. XY, DL and DW drafted the initial manuscript. XY and DW critically reviewed and revised the manuscript for important intellectual content and provided overall supervision. XY were responsible for project administration and funding acquisition. All authors read and approved the final manuscript.

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Data Availability

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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