

RESEARCH ARTICLE

Psychological experience among internship nurses at different internship stages: A qualitative study

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Abstract

Aim: Some studies have found that clinical practice has caused great pressure and negative psychological experience to nursing students. Therefore, this study aimed to identify psychological experience at different internship stages among internship nurses.

Design: A qualitative study.

Methods: In this qualitative study, one-to-one in-depth interviews and mixed data analysis strategies were conducted among internship nurses from May 2018 to February 2019.

Results: The pressure of the initial stage was operational pressure (80.0%), intermediate stage was nurse–patient communication (50.0%), and last stage was employment pressure (70.6%). Nursing students mainly expected to improve their operational and communication skills, and to acquire clinical experience, thinking ability and frontier knowledge. 62.5% students said ambivalent on “let us practice with being monitored,” especially in the last stage (88.2%). Clinical nursing teaching should pay attention to this dynamic experience and their factors and take corresponding measures to improve the quality of internship.

KEYWORDS

nursing students, occupational health, psychology, qualitative approaches, stress

1 | INTRODUCTION

Nursing internship is an orientation for the professional life, where it facilitates the transition from students' to staff nurse role before graduation (Bahari et al., 2022; Graf et al., 2020). The basic nursing education in China is a 4-year undergraduate degree education or 3-year junior college education. Student education includes the process of theoretical learning in school and nursing internship in hospital. Usually, every student enters the clinical environment to experience and implement actual care and management of patients about 9–12 months before graduation in China. The theories, knowledge and skills acquired during a college education are used to care

for patients, which help students to deeply comprehend nursing as a profession and make a better transition to practice (Church et al., 2019), but the nursing internship causes a variety of emotions that impact a big source of pressure (Weurlander et al., 2018). Many students, even senior nursing students, treat clinical practice as a stressful event (Güner, 2015).

Previous studies (Edo-Gual et al., 2014; Weurlander et al., 2018) found that medical and nursing students have experienced a series of emotional challenges in the face of patients' illness and death, unprofessional behaviour among healthcare professionals, dilemmas about patients' treatment during clinical practice. Demographic characteristics of nursing students, such as age, language, financial

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status and family education background, can adversely impact students' learning experiences and their practice as professional nurses (Koch et al., 2014). In the process of practice, a positive and permissive learning atmosphere and visible preceptors are essential to achieve the maximum learning effect (Bradshaw et al., 2018). Feridouni believed that the internship is a beneficial experience by assessing the attitudes of students, professors and clients towards formation and community (Fereidouni et al., 2017). As far as nursing students themselves are concerned, their unpreparedness for entering the clinical environment can lead to fear and anxiety and can even cause sleep disorders (Xu et al., 2020). However, compared with other personality characteristics, professional identity had the strongest impact on the role stress level of nursing students and had a negative correlation (Sun et al., 2016). At present, although there were around 11% of Registered Nurses being male (Clifton et al., 2018), male nursing students also have encountered a dilemma in clinic internship: social and cultural impact, gender discrimination, lack of interpersonal communication etc (Al-Momani, 2017). In addition, the author (Arkan et al., 2018) described the impact of educational atmosphere, students' personality and education in school on the clinical learning process. However, there may be more reasons.

In recent years, researchers have studied about improving the clinical environment and promoting the effect of internship: exploring students' internship experiences, developing students' reflective learning, increasing their basic clinical skills and enhancing their patient safety (Bradshaw et al., 2018; Song & Guo, 2019). A stress management based on attention training and resilient thinking implemented by Chesak et al. (2019) scholars can positively enhance new nurse's transition to work.

Although these studies have shown that they were committed to focusing on nurse students' internship experiences and improving practice effect, a review (McCarthy et al., 2018) recognized that more qualitative studies are needed to capture the experience of stress from the students' perspective. It is neither very clear about how nursing students experience at different internship stages, nor what kind of pressure will lead to students experiencing different emotions. The aim of this study was to explore the experience and cognition among internship nurses at different stages so as to recognize the process as a whole, which may help nursing educators to formulate targeted education measures and provide valuable reference for others.

2 | METHODS

2.1 | Design, setting and samples

In this qualitative study, one-to-one in-depth interviews and mixed data analysis strategies were conducted. The researchers took samples from the overall internship nurses list of the hospital nursing department. Purposive sampling with maximum variation was used for selecting participants and was conducted from May 2018 to February 2019. The total internship time is 9–12 months. This study

defined the initial stage as the first 1–3 months of internship, the intermediate stage as the next 4–8 months and the last stage as the final 9–12 months. A face-to-face qualitative interview was conducted among internship nurses.

2.2 | Theoretical framework

Firstly, this qualitative research is a phenomenological study that uses a conventional content analysis (Lewis, 2015) to examine the stressful experiences and psychological processes of internship nurses. Qualitative content analysis is an autonomous method, which can be used at varying levels of abstraction and interpretation (Graneheim et al., 2017). This kind of one-to-one in-depth interview method, in which the interviewer and the interviewee are not affected by the outside world, and it is well explore the deep secret unknown and the real feelings of the researchers, is described and applied in litera (Al-Momani, 2017; Fereidouni et al., 2017). Furthermore, quantitative methods were used to refine and generalize the qualitative data so as to recognize the process as a whole.

2.3 | Data collection

Semi-structured in-depth interviews were conducted to collect data. The interviewees participated voluntarily after clinical practice. Before each interview, the interview time and place were arranged with the respondents, and one-to-one interview was conducted in a hospital conference room without any interference. The individual interviews were conducted by the corresponding author using a semi-structured interview outline, who has more than 20 years of clinical teaching experience. Each interview was designed to last for approximately 40–60 min. To ensure that interviewees had sufficient time to think about the interview content, the interview process was designed in two parts, including the interview questionnaire and interview recording.

First, the investigator introduced herself in detail (e.g. teaching interest and research reasons) to gain trust. The respondents were fully informed the purpose, content and methods of the interview. The name of each respondent was replaced with a code to guarantee anonymity, and each respondent signed a written informed consent at the start of each interview. Then demographical information (gender, age, education, school, nationality and internship time) and information for the interview outline were collected in written form. Finally, the interview process was audio recorded according to the interview outline and did not mention the names of the interviewees during the whole process. Attention was paid to the interviewee's facial expressions, the speed of their speech and the intonation of their voice to clarify and confirm their views or feelings, which were supplementary notes. The participants were informed about that the participation was voluntary and confidential and signed the informed consent before the interview. At the end of the interview, participants received a gift worth ¥20 yuan in appreciation of their time.

The following topics were used to stimulate the students' reflections regarding their clinical experience.

1. How do you feel about your internship now? How do you feel about the effect of your internship?
2. Is there any pressure during the process of your recent internship? If yes, then what is it, or can you give some examples?
3. What do you think about the practice of nursing, and what do you want to learn from the instructor?
4. How do you treat "let us practice with being monitored"?

2.4 | Analytic strategy

The Colaizzi method was used to analyse and refine the interview data (Lewis, 2015). The two researchers read each interview in depth, including the interview questionnaire and interview recording, and encoded the transcripts with the same code tree, respectively. Then, the authors collaboratively compared the codes, determined the similarities, solved the differences and make adjustments in the whole coding process. Data saturation is considered when no new code is generated from transcripts. The authors adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines (Tong et al., 2007) in this research.

In the quantitative analysis stage, SPSS 21.0 (SPSS Inc.) was used to summarize the qualitative data as a whole. Continuous variables were expressed as the mean \pm standard deviation, because of their normal distribution and variance homogeneity, and a one-way ANOVA was used for comparison between groups. Categorical variables were expressed by rate, and intergroup comparison was expressed by the chi-square test. $p < .05$ was considered statistically significant.

2.5 | Ethics

This study was in line with the guiding ethical principles of the Declaration of Helsinki. Before carrying out the study, ethical clearance was sought from the Ethics committee of hospital, and there was no plausible harm to participants. Ethics approval was obtained from the Ethics committee of Second Xiangya Hospital, China (2019/S178).

3 | RESULTS

3.1 | Single factor analysis of the nursing students' general data in different internship stages

From the third month to the 11th month of the internship, 51 students were invited, of which 48 volunteered for the interview (P1–P48), including 40 female students. One of the nursing students refused to have her interview audio recorded. Therefore, after the

interview questionnaire, she only had an interview and recorded it in detail. The general data of nursing students at different stages showed that there were no significant differences in gender, age, nationality, educational background and audio time among the three groups ($p > .05$), as shown in Table 1. There was no significant difference in the satisfaction degree of the internship effect, although the satisfaction degree was the lowest (62.5%) at the intermediate stage.

3.2 | Nursing students' different internship experiences at different stages

3.2.1 | Main themes in the initial stage

Anxiety and tension

Eleven of the 15 interviewees from the initial stage showed anxiety and tension to varying degrees. Some students were worried that their professional knowledge and operational ability were not sufficient and that they may harm their patients. Some students wanted teachers to ask questions and simultaneously worried about the questions due to their lack of self-confidence. Student P4 stated, "We acquire a great deal of knowledge through practice. Theory and practice in school are far from each other. Every time you go to a new department, you remember the points that the teacher said, and particularly worry about being hurt by mental patients." Student P13 mentioned, "I have experienced three different specialty departments. At the infectious diseases department, I was particularly afraid of occupational exposure, so I did everything very carefully. At the psychiatry department, I was afraid of excessive behavior." Student P5 mentioned, "I worry about operating skills. If I fail to puncture, the patients may lose their temper and get angry. I would most like to practice injection skills now." Student P10 said, "I worry that not having enough rest before the night shift will affect my work efficiency; I must rest excessively during the day."

Confusion and puzzlement

Seven of 15 interviewees had various degrees of confusion and puzzlement. Some students lacked self-learning ability. Nursing student P6 said, "First, when arriving at each department, I did not know what specific knowledge I needed to master." Student P9 stated, "If the teacher does not ask me questions, I do not know what to learn when I go home, or I even forget." Even individual student wanted their teachers to sort out and summarize information for themselves. Two nursing students mentioned that when the patient's condition needed to be notified to the doctor, the doctor's answer was "continue to observe" the patient, and they did not know what to do.

Novelty and fear

At the beginning of the internship, the students' desire for knowledge is generally better, and they can actively learn to adapt themselves to clinical work as soon as possible, but it is inevitable that the operation will fail or that unexpected situations will arise, which

TABLE 1 Single factor analysis of internship nurses' data at different internship stages

	Total (n = 48)	Initial stage (n = 15)	Medium-term stage (n = 16)	Later stage (n = 17)	p
Female, n (%)	40 (83.33)	12 (80.00)	14 (87.50)	13 (76.47)	.847
Age, years ($\bar{x} \pm s$)	21.04 ± 1.35	20.60 ± 1.12	21.00 ± 1.16	21.47 ± 1.62	.192
Nationality, n (%)					
The Han nationality	42 (87.50)	12 (80.00)	15 (93.75)	15 (88.23)	.509
Minority nationality	6 (12.50)	3 (20.00)	1 (6.25)	2 (11.76)	
Education degree, n (%)					
Junior college	16 (33.33)	5 (33.33)	5 (31.25)	6 (35.29)	.970
Undergraduate	32 (66.67)	10 (66.67)	11 (68.75)	11 (64.70)	
Audio time, min ($\bar{x} \pm s$)	18.00 ± 5.28	18.21 ± 3.49	16.31 ± 6.36	19.41 ± 5.22	.242
Internship effecton, n (%)					
Satisfactory	34 (70.83)	12 (80.00)	10 (62.50)	12 (70.59)	.563
General	14 (29.17)	3 (20.00)	6 (37.50)	5 (29.41)	
Let us practice with being monitored, n (%)					
Ambivalence	30 (62.50)	8 (53.33)	7 (43.75)	15 (88.23)	.021
Firmness	18 (37.50)	7 (46.67)	9 (56.25)	2 (11.76)	

may cause students to feel fear. Student P7 said, "Once a patient's venous indwelling needle was removed by me. Maybe pressed improperly, the puncture site was resulted in swelling and pain, and then the patient lost his temper, which left a psychological scar and caused me to dare not pull out the needle for a long time."

3.2.2 | Main themes in the intermediate stage

Self-confidence

Six of the 16 interviewees showed a sense of relaxation and self-confidence. In the intermediate stage of their internship, the basic operation was fundamentally mastered, and students' attention began to shift to challenging issues. For example, student P18 said, "At present, I feel the internship is good, and my self-evaluation score is 9 points." Student P25 said, "I feel that there are many things to learn, which may not be learned in school, such as emergency triage. When encountering patients with poor blood vessels, I hope to try to puncture and get more guidance from the teacher and clinical experience."

Decreased passion and monotony

Six of the 16 interviewees showed a feeling of reduced passion. This is mainly because the students thought that they were gradually becoming familiar with the basics of clinical operation, and the main work content was measuring blood pressure, measuring body temperature, conducting intravenous infusion etc. The nursing students said that the work was very simple, mechanical and of low difficulty. At this time, the students actively participated in more interaction with patients, but a few students still experienced communication barriers, especially introverted and timid students. Student P23 pointed out, "I feel that I have not reached the internship goal.

At present, I still lack the courage to communicate with patients. Sometimes, I am very nervous when puncturing. There is no sense of achievement."

Confusion

Students began to pay attention to surrounding environment and team atmosphere. Nursing student P26 stated, "If the teachers in that department are good to patients, and the other staff are good to patients too, but another department is different in style." Nursing students P23 and P31 stated, "Patients treat doctors and nurses differently. Sometimes you treat patients so well that they think you are collecting money, but it is not the same as the doctor."

3.2.3 | Main themes in the last stage

Burnout and emotional instability

Five of the 17 interviewees showed lower levels of passion and even burnout, while three were still full of enthusiasm and self-confidence. At the postinternship stage, the basic operation of nurses is relatively skilled, and their comprehensive quality has been improved. However, they face new pressures, such as employment, postgraduate entrance examination and vocational examination, which lead to emotional instability. P41, a nursing student from a designated unit, said, "I feel less enthusiastic when I come to work after the Spring Festival. When I think about the end of my internship, I feel a sense of laziness and I want to go back to school. However, I am anxious when I think about going to work formally." Nursing student P36 stated, "Sometimes I experience a trance-like state if I did not sleep well or for other reasons." Nursing student P42 said, "Recently, I am very nervous at practice and afraid of making mistakes, because I always attend some interviews, examinations and so on."

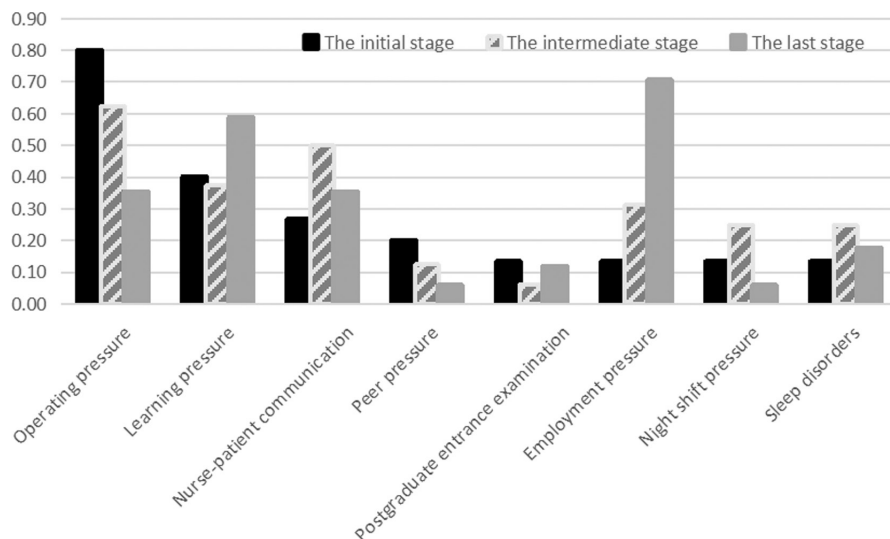


FIGURE 1 Stress trend of internship nurses at different stage

Regret

At the last stage of the internship, because of the large number of interns in the hospital, some students regretted that they could not gain experience in the operation room, the paediatric department or an intensive care unit. Some students also hoped to have access to and experience indwelling gastric tubes and catheters during their internships.

Lack of a holistic nursing concept

In the last stage, four nursing students were interviewed and asked, "Did you carry out systematic observations and holistic nursing for a patient from admission to discharge?" They mostly answered, "Hardly any." Only one nursing student answered, "I want to do it, but I do not know how to do it."

3.3 | Different stress emphasis at different stages

Figure 1 shows that the pressure sources were similar in different stages of the internship, but the emphasis was different. In the initial stage, the main pressure of the internship was operating pressure (80.0%); in the intermediate stage, the main pressure was communication between the nurses and the patients (50.0%); and in the last stage, the main pressure was employment (70.6%). Nursing student P16 mentioned, "If the companion is better than me, I feel a lot of pressure; my limited knowledge cannot help the patient solve their problem." There were cases of sleep disorders caused by students' stress at each stage of the internship. Nursing student P3 said, "The night shift is tiring, sleepless and acne-prone." Nursing student P19 said, "I have biological clock disorder, which means that I sometimes wake up suddenly in the middle of the night." Students P23 and P27 stated that they did not rest before the night shift and wanted to doze off at work, but they could not sleep off the night shift until noon. At the last stage, three nursing students mentioned, "Others have found a job, but I have not. I have been very anxious and unable to sleep now and before the postgraduate entrance examination."

Other stresses came from low educational background (junior college), economic pressure etc.

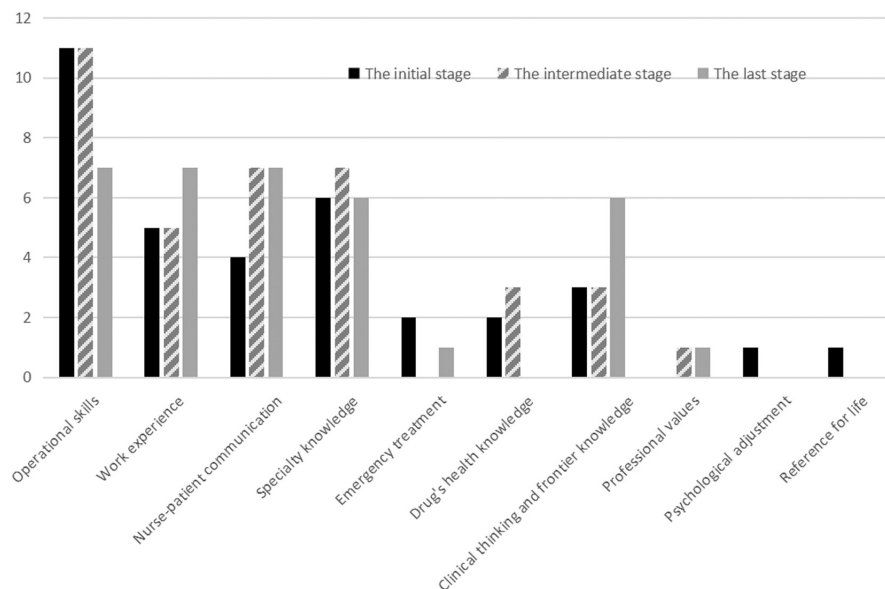
3.4 | Diverse internship expectations

Figure 2 shows that nursing students in the initial and intermediate stages are mainly expected to improve their operational skills, work experience, communication skills and specialty knowledge. Nursing students in the last stage are expected to improve their clinical thinking ability and learn clinical frontier knowledge. P47 said, "When I communicate with patients, they sometimes ask me why you choose a nursing profession? I don't know how to answer, because I feel that he discriminates against male nurses. I'm confused about the professional value of male nurses." P22 stated that sometimes patients had different attitudes toward doctors and nurses, which made me confused.

3.5 | Different views on "let us practice with being monitored"

The students in different internship stages had different views on "let us practice with being monitored" ($p = .021$), as shown in Table 1. Over half of the total sample had feelings of ambivalence (62.5%), especially in the last stage (88.2%). Nursing students thought that if they were skilled in operations, simple operations, such as changing liquids or checking fasting blood sugar could be completed independently after the teacher approved their abilities. However, after asking 25 students about the process of changing liquids, "If another bottle of prepared medicine is hung on the infusion stand, how do you change it?," twenty-two students only checked the patient's bed number, name and medicine name, but did not recheck the quality of the medicine or did not do a self-awareness check. They believed that the medicine had already been dispensed and checked.

FIGURE 2 Internship expectations of internship nurses at different stage



4 | DISCUSSION

The nursing internship experience, sources of stress and learning expectations vary with the different stages of the internship. The different internship stages are not isolated, but are intrinsically linked and interacted. The nursing students experienced various degrees of trepidation and confusion during the whole process of the internship, especially in the early stage, which mainly came from the new environment, new teaching methods, unskilled operations, facing various interpersonal relationships and fear of errors or accidents. These findings were consistent with an integrative review (Bhurtun et al., 2019), and other research results (Kaur et al., 2020), that was, students feel moderate to high pressure during clinical training, and teachers, nursing staff and social support were strong stressors. The encouraging evaluation from teachers and the self-reflective practices will help to improve the learning ability and self-awareness of nursing practice, further reduce stress and anxiety, and have a positive impact on the effect of practice (Contreras et al., 2020). In the last stage of the internship, although their comprehensive ability had significantly improved and they basically had the professional requirements of junior nurses, the nursing students were faced with more complex sources of pressure, such as employment interviews, the graduate entrance examination and graduation report. Chamberlain et al. (2016) survey of third-year nursing students found that obtaining a position in a competitive graduate nurse transition programme after graduation was a predictor of psychological resilience. In keeping with it, employment has become the main source of stress in the later stage of internship in this study. Because of stress and anxiety, some nursing students have weakened their enthusiasm about the nursing internship and even become passive and lazy about it, and some students have also relaxed the regulation "let us practice with being monitored."

Rejection of occupation, fear and anxiety were the causes of nursing students' inadaptability in clinical practice (Xu et al., 2020). They were not psychologically prepared to cope with inadaptability

before their clinical practice (Xu et al., 2020). In this study, some nursing students stated that the nursing profession was not their ideal occupation. Moreover, until the end of their internship, they still did not accept that they were a nurse and lacked interest in the nursing profession. This inner refusal to work affected their initiative to learn and their professional attitude and led to a decline in self-confidence and an increase in feelings of fear and anxiety. It may be interesting to further study the relationship and influence between professional willing and psychological stress in clinical practice. It may also be that some nursing students do not understand the balance of sleep, health and nursing and cannot allocate time for rest with their work. Some nursing students stated that they could not accept the nature of night shifts in the nursing profession and were reluctant to engage in clinical nursing. In this study, 20.83% of nursing students had sleep disorders. This study showed that employment stress was the main source of psychological stress in the last stage of nursing practice. For various reasons, finding job is still one of the stressors for many interns before graduation (Sirili et al., 2019). Most intern nurses in China can only get their first job by looking for employment opportunities and interviews; otherwise, they will experience unemployment. We believe that the value of pre-internship professional education, psychological guidance (Gonella et al., 2020) and the provision of an appropriate professional environment, such as rest places, are effective ways to reduce psychological stress.

The teaching content and teaching method vary with each stage of the nursing internship. The clinical teaching content should be combined with students' expectations in every step of practice and pay attention to the training of their clinical thinking (Sodeify & Moghaddam Tabrizi, 2020). In the initial stage of the internship, teachers should give plenty of encouragement, because of the insufficient clinical skills of nursing students, and they should take note of their teaching method, language and tone. Even if the operation fails, we should avoid educating nursing students in front of patients to prevent damaging the enthusiasm

and self-esteem of nursing students. At the postinternship stage, it is suggested that real-time employment information, additional interview training courses and employment guidance should be provided to alleviate the pressure of nursing students. Devoting enough time for teaching consultations and participation in safe and effective nursing skills is the basis for students acquiring good clinical experience (Henderson & Eaton, 2013). Under the background of culture and tradition, there are some negative effects of society on male nursing as a career (Al-Momani, 2017). Setting up correct professional values will help to improve their occupation interests, especially in the internship stage.

In this study, 30 students (62.5%) were ambivalent about the "let us practice with being monitored." In the last stage of practice, more nursing students were blindly confident, believing that some simple operations, such as blood pressure measurement, body temperature, rapid blood sugar and replacement of infusion bottles, could be completed independently. This left a hidden risk of adverse events for uncertain clinical conditions, which may lead to adverse events. From a psychological point of view, the moral exclusion seems to be prevalent in the hearts of all people (Tenenbaum et al., 2018). Students may reject teachers' supervision from the bottom of their hearts. However, supervision from supervisors, mentors and peers is critical to the growth and development of students in the course of clinical practice (Sommer et al., 2020). The "let us practice with being monitored" is not only a clinical guidance but also an effective supervision mechanism. It runs through the whole process of the practice, fundamentally prevents adverse events, ensures the medical safety of patients and promotes students' career development.

It can be said that although the values and practice of holistic nursing have been integrated into undergraduate nursing education (Kinchen, 2019), a considerable number of nursing students still lacked the concept of holistic nursing at the end of the internship. The reason may be that college and undergraduate nursing students pay more attention to the acquisition of clinical skills, lack of knowledge or lack of time. It was suggested that under the guidance of teachers, students' holistic nursing ability can be cultivated through case nursing, combined with students' expectations of clinical thinking ability and learning clinical frontier knowledge.

4.1 | Limitations

There are some limitations in this study. First, the descriptive results come from qualitative interviews rather than quantitative surveys, and the generalizability may be affected. However, it is important to acknowledge that these results are derived from the subjects' inner experience and are not influenced by the scale implications. The design (interviewing different applicants in different stages of their placement) did not consider the participants' personal characteristics (i.e. personality and grade point average). Therefore, the results may be influenced by a series of other confounding factors.

5 | CONCLUSION

This study explored the psychological experience among internship nurses by the qualitative study with mixed data analysis strategies. They have different feelings at different internship stages, which are influenced by various sources of stress, learning expectations and professional attitudes. It is very important to focus on the training of operation and humanistic communication in the initial stage and interview training in the later stage. Even if students are skilled in the later stage, they cannot be deregulated. Strict adherence to checking is accompanied by the lifetime of the nursing profession, so as to avoid adverse nursing events. There is still a long way to go to cultivate the concept of holistic nursing and apply it to honour comprehensive, patient-centred and relationship-based care. Case nursing and situational teaching may be an effective method. These results indicate that fully given the different influencing factors and practice expectations, any efforts both improving the clinical learning environment at hospital level and improving self-quality at the personal aspect should be encouraged and pursued to promote the development of nursing profession.

6 | RELEVANCE FOR CLINICAL PRACTICE

At different stages of internship, students have different concerns and problems to be solved. We can add some courses, such as humanistic nurse-patient communication and job interview guidance. Regular communication meeting between students and teachers is a good way to solve the needs of students. The combination of clinical teaching and psychological counselling maybe better relieve the psychological pressure of interns. Only the joint efforts of students and teachers can effectively improve the quality of teaching, provide patients with comprehensive and patient-centred holistic nursing and promote professional development.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>)]:

- substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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CONFLICT OF INTEREST

The authors report no conflict of interest.

DATA AVAILABILITY STATEMENT

Derived data supporting the findings of this study are available from the corresponding author on request.

ETHICS STATEMENT

The study was approved by the Ethics committee of Second Xiangya Hospital, China (2019/S178).

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