

The Experience of Non-Full-Time Nursing Graduate Students in China: A Qualitative Study

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ABSTRACT

To address the disconnection between the educational structure of nursing teams and the rapid development of China's medical and health industry, there is a shortage of highly educated nursing personnel. In 2016, Chinese universities introduced a new training model for nursing graduate students: non-full-time nursing graduate students. Due to its late development, this model needs continuous improvement. Understanding the training experience of non-full-time nursing graduate students is crucial for refining the training model. This study explores the experiences of non-full-time nursing graduate students and provides a basis for improving their training in China. Semi-structured qualitative interviews were conducted with 20 non-full-time nursing graduate students. Data were collated and analyzed using Colaizzi's method. The analysis identified five themes related to the study experiences of non-full-time nursing graduate students: (1) maladaptation to diversified roles; (2) weak scientific research foundation; (3) lack of high-level guidance in clinical practice; (4) concern about social recognition; and (5) lack of educational and training resources. Competent government and training units should fully understand the experiences of non-full-time nursing graduate students and improve their training model from the students' perspective to promote the development of high-quality nursing talents. This will ultimately benefit employers, training units, individuals, and patients.

KEYWORDS

Nursing graduate student; Study experience; Qualitative research

1. INTRODUCTION

To meet the need for high-level, innovative, composite, and applied nursing talents for China's rapidly developing medical and health sectors (Baker et al., 2021; Fagan et al., 2021), the Academic Degrees Committee of the State Council of China issued the Guiding Training Program for Nursing Master's Degree Graduates in 2010. Since then, the full-time Master of Nursing professional degree has become the highest qualification in the field of nursing in China (Gao et al., 2012; Wong and Zhao, 2012). However, by the end of 2016, nurses with master's degrees in nursing accounted for only 0.2% of the total number of nurses in China (Fu et al., 2022; You et al., 2015), indicating a significant mismatch between the nursing education structure and the rapid development of medical and health services. Therefore, the "National Nursing Career Development Plan (2016-2020)" proposed rationally regulating the training structure of nursing talents and formulating measures to promote

coordinated training between nursing and education (Zhang et al., 2023). To further increase the reserve of high-level nursing talents, Chinese universities began enrolling non-full-time nursing graduate students in 2016 (Xing et al., 2023). Enrollment for non-full-time nursing graduate students primarily targets employed clinical nurses who must pass a national examination and gain admission to qualified universities, obtaining the status of higher education graduate students. Unlike their full-time counterparts, non-full-time nursing graduate students do not receive subsidies or scholarships and follow a centralized teaching method. Upon completing the required credits, they receive a general higher education graduate certificate and a master's degree certificate marked as "non-full-time." Non-full-time nursing graduate students are an essential supplement to higher nursing education in China, aiming to cultivate high-level, complex talents who integrate practice, research, teaching, and management, thereby providing a reserve of high-level nursing professionals for the rapidly developing medical and health sector (Goldsberry, 2018). The development of the training mode for non-full-time nursing graduate students in China is relatively recent, requiring continuous improvement in practice. The training experience during their studies is crucial for refining the training model. Currently, most research focuses on full-time nursing graduate students, with a lack of studies on non-full-time nursing graduate students. This study aims to understand the training experiences of non-full-time nursing graduate students and provide references for improving their training model.

2. METHODS

2.1. Study design

This study employs a descriptive qualitative design using focus group interviews. The goal of a descriptive qualitative approach is to capture individual perspectives and understand the reality of events and experiences. In this context, this study seeks to explore the experiences of non-full-time nursing graduate students during their studies.

2.2. Setting and Study Participants

A convenience sampling method was adopted for recruitment. The research team contacted the deans of five nursing schools in Guangdong and Hunan provinces, China. Three nursing schools declined due to busy schedules or participation in other research. Finally, two nursing schools in Hengyang City and Shenzhen City agreed to participate. Both schools are public universities that began enrolling non-full-time nursing graduate students in 2017.

The authors contacted graduate counselors at these schools to provide information about the study. With the help of the graduate counselors, the authors provided detailed information to 98 non-full-time nursing graduate students already enrolled. Twenty-four students expressed interest in the study. The authors contacted these students by phone to confirm their eligibility and schedule appointments.

Participants were selected based on the following criteria: (a) a full-time undergraduate nursing degree; (b) admission as non-full-time nursing graduate students through a national examination; (c) previous clinical work experience; (d) good communication and comprehension skills, and voluntary participation. Exclusion criteria included: (a) recent undergraduate graduates; (b) employment unrelated to nursing before the master's degree; (c) possession of an equivalent master's degree in nursing. The sample size was determined by data saturation, where no new topics emerged during analysis and responses became repetitive. Finally, 20 of the 24 students agreed to participate, while the remaining 4 declined due to busy schedules. After providing written and verbal consent, the students participated voluntarily.

This study interviewed 20 non-full-time nursing graduate students, numbered 1 to 20. The general information of the interviewees is presented in Table 1. The average age of the 20 interviewees was 27.75 ± 3.97 years, including 18 females and 2 males.

Table 1. General Information Of Research Objects

Number	Gender	Age	Occupation	Working years	Married or not	Procreation or not
01	Female	26	Nurse	4	NO	NO
02	Female	24	Nurse	2	NO	NO
03	Female	25	Nurse	3	NO	NO
04	Female	28	Nurse	5	YES	YES
05	Female	33	Nurse	13	YES	YES
06	Female	30	Nurse	8	YES	YES
07	Female	23	Nurse	1	NO	NO
08	Female	24	Nurse	3	NO	NO
09	Male	24	Nurse	3	NO	NO
10	Female	29	Nurse	6	YES	NO
11	Male	30	Nurse	8	YES	YES
12	Female	35	Head Nurse	13	YES	YES
13	Female	38	Head Nurse	18	YES	YES
14	Female	28	Nursing Teacher	6	YES	NO
15	Female	26	Nurse	5	YES	NO
16	Female	29	Nurse	7	YES	YES
17	Female	27	Nurse	5	YES	NO
18	Female	25	Nurse	4	NO	NO
19	Female	24	Nurse	2	NO	NO
20	Female	27	Nurse	5	YES	NO

2.3. Data collection

Before the formal interviews, the purpose and significance of the research were explained to the participants, who then signed informed consent forms. A quiet, uninterrupted environment was selected for the recorded interviews. During the interviews, participants' willingness to narrate voluntarily was respected, and the data were kept strictly confidential. Observations of participants' verbal and non-verbal expressions were recorded. To ensure the authenticity and reliability of data collection, the repeat or rhetorical method was used to confirm the information. The interview process maintained a neutral attitude, avoiding personal opinions and emotions, and involved careful listening. All participants had completed qualitative research courses and had experience in qualitative interviews and analysis. The two authors conducted semi-structured, in-depth, face-to-face, one-on-one interviews and wrote field notes immediately after each interview. All interviews were conducted in Mandarin and recorded using two digital recorders. One research assistant transcribed the interviews verbatim in Chinese, and another checked the transcriptions for accuracy. Finally, the two authors double-checked the accuracy of the transcripts.

Participants chose comfortable locations and convenient times for the interviews. The interview outline was initially developed based on a literature review and expert consultation, and then revised through pre-interviews and expert feedback. Three interview outlines were finalized: (1) What are the biggest challenges you face during your non-full-time nursing graduate studies? (2) What are your views on non-full-time nursing graduate students? (3) What support or assistance would you like to receive during your non-full-time postgraduate nursing studies? Each interview lasted between 20 and 40 minutes. Data collection occurred from October 2022 to May 2023, until data saturation was achieved, with no new topics emerging (Morse, 2015; Vasileiou et al., 2018).

2.4. Data Analysis

Data analysis and collection were carried out simultaneously by two researchers, both highly accomplished in qualitative research. The interview recordings were transcribed within 24 hours, and the authors carefully read each transcript multiple times to immerse themselves in the data. Subject analysis was then conducted independently for each sentence. Meaningful statements were extracted, coded, re-categorized, and themed based on recurring statements and ideas. Connections between topics were identified to form thematic groups. Two other qualitative research experts reviewed the preliminary analysis and summary of the interviews, providing feedback. All authors met several times to discuss the findings until a consensus was reached.

2.5. Trustworthiness and Rigor

This study adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines. To ensure the study's credibility (Tong et al., 2007), the researcher explained to respondents at the beginning of the interview that their experiences were valuable and encouraged them to express themselves freely. Credibility was further established through prolonged contact between researchers and respondents. All interviews were conducted by two researchers with extensive qualitative research experience. This study also adopted a purposive sampling method. All interviews utilized standardized questions and recordings. An observer recorded the interviewees' movements, behaviors, and expressions to monitor non-verbal communication. For data accuracy, researchers met at each stage of data analysis to reach a consensus.

2.6. Ethics

The research protocol was approved by the Hospital Science Ethics Committee. Participation was voluntary, anonymity was respected, and the study followed the recommendations of the Helsinki Declaration. All participants signed informed consent forms and were assured of anonymity and confidentiality throughout the study.

3. RESULTS

The main experiences during non-full-time nursing postgraduate study in China include: (1) maladaptation to diversified roles; (2) weak scientific research foundation; (3) lack of high-level guidance in clinical practice; (4) concerns about social recognition; and (5) lack of educational and training resources.

3.1. Maladaptation to Diverse Roles

Non-full-time nursing graduate students are primarily employed nurses and nurse teachers. Compared to full-time students, they hold significant roles in both society and family. Besides being students, respondents are clinical nurses, care administrators, or teachers, and within their families, they may be fathers, mothers, or children. Several respondents mentioned the difficulty in switching between multiple roles, leading to maladaptation.

“I was a student at school, a head nurse at the hospital, and a mother at home. I had to switch between these three roles almost every day. It was really difficult to adapt at the beginning.”(R5)

“I have been engaged in nursing education for several years, and I have been called a teacher. Now I am both a teacher and a student. I have to teach and attend classes.”(R6)

3.2. Weak Scientific Research Foundation

Cultivating academic proficiency and scientific research abilities is a primary objective of training non-full-time nursing graduate students, serving as a crucial benchmark for assessing the quality of graduate education. Most respondents indicated they lacked a firm grasp of the basic knowledge and skills necessary for nursing research and felt confused about selecting research topics. Fifteen respondents mentioned that their research foundation was not solid during the graduate training stage, leading to increased pressure in scientific research.

“The concentrated teaching time is short, and the knowledge related to scientific research methods and statistics is complex and detailed, making it difficult to understand and master in a short time” (R1)

“With a poor English foundation, reading foreign literature is long and difficult, the volume of literature read is small and narrow in scope, making topic selection extremely challenging.” (R4)

“The basic knowledge of statistics is not solid, problems in actual data statistical operations are endless, making graduation seem hopeless.” (R10)

3.3. Lack of High-Level Guidance in Clinical Practice

Developing clinical practice skills is a primary objective in training non-full-time nursing graduate students, alongside building scientific research abilities. Most interviewees had clinical practice experience before attending non-full-time graduate school and believed they could easily adapt to clinical practice. However, some respondents felt that the management of non-full-time nursing graduate students in hospitals is inadequate.

“I participated in clinical practice during my undergraduate period and am familiar with it again. However, my clinical practice skills still need improvement.” (R17)

“We have already experienced the basic stage of clinical practice. Now it is time to enter a higher level, and the hospital should arrange professional and senior clinical nursing experts to guide us.” (R11)

“After graduation, I have been engaged in clinical nursing work, constantly in clinical practice, which is just a daily job for us. However, I hope that the hospital will focus more on cultivating nursing graduate students, rather than using us to fill staffing gaps.” (R16)

3.4. Concern About Social Recognition

Currently, the number of non-full-time nursing graduate students who have graduated is very small, and most are concerned about societal recognition of graduates from this new education model.

“Our graduation certificate will be marked as 'non-full-time.' Most organizations prefer to recruit full-time graduates, and the recognition of our credentials is still relatively low, which will affect our future career choices.” (R2)

“Most people only know that there are full-time and non-full-time nursing graduate students, and they often equate non-full-time nursing graduate students with part-time students. The awareness of this training mode is still low, leading to low social recognition.” (R3)

“Currently, my work unit recognizes my upcoming education and degree and provides corresponding benefits. However, based on the current recruitment situation, it is uncertain whether the same recognition will be obtained in other organizations.” (R10)

3.5. Lack of Education and Training Resources

With the expansion of nursing graduate student enrollment, the insufficiency of education and training resources is becoming increasingly prominent. Some respondents in this study felt that mentors provided insufficient guidance to non-full-time nursing graduate students. They also noted that educational resources were unequally distributed, leading to a weak sense of belonging among non-full-time students.

“Our tutors spend very limited time on graduate student guidance, and even less time on non-full-time nursing graduate students who are off-campus.” (R12)

“There are many meetings and activities in the school, but almost no non-full-time nursing graduate students attend. We hope the school can allocate education and training resources equally and give us the same attention and management as full-time students.” (R16)

4. DISCUSSION

In this study, most interviewees indicated that their role load was too heavy, resulting in role conflict during their study period. Role conflict arises from inconsistent value systems or the inability to meet the demands of different roles simultaneously, and can be divided into inter-role and intra-role conflict. Most conflicts faced by non-full-time nursing graduate students are intra-role conflicts, which occur when individuals face the demands of two or more roles simultaneously. According to research, nurses, teachers, and women in the workplace are all high-risk groups prone to role conflicts (Merighi et al., 2011; Okada et al., 2019). Most interviewees in this study are female nurses from teaching hospitals, with some being nursing managers. While managing family responsibilities, clinical nursing work, and teaching duties, they also need to complete the credits required for non-full-time nursing graduate students as per university requirements. Therefore, role conflict is more pronounced in the early years of study.

Influencing factors leading to role conflict can be broadly categorized into organizational behavior factors and individual factors. Since the education of non-full-time nursing graduate students in China is still in its initial stage, the training mode and curriculum system of colleges and universities are in preliminary exploration. Therefore, most universities follow the training mode and curriculum system of full-time nursing graduate students, making only minor adjustments. However, non-full-time and full-time nursing graduate students play different social roles. Full-time nursing graduate students primarily focus on being students, dedicating their main energy and time to study and research. In contrast, non-full-time nursing graduate students take on more social roles, and their time and energy allocation are constrained by their employment relationships. Therefore, at the organizational level, colleges and universities need to adjust the training mode to fit the characteristics of non-full-time nursing graduate students, such as centralized teaching time and a simplified curriculum system. Additionally, employers of non-full-time nursing graduate students need to provide corresponding support. At the individual level, non-full-time nursing graduate students should manage their time effectively, improve work and study efficiency, and strengthen their ability to cope with multiple roles.

As an essential component of high-level nursing talents, the academic level and scientific research ability of non-full-time nursing graduate students determine the development prospects of the nursing profession (You Liming, 2023). As an essential component of high-level nursing talents, the academic level and scientific research ability of non-full-time nursing graduate students determine the development prospects of the nursing profession (Lam et al., 2014; Okada et al., 2019). However, currently, the academic level and scientific research ability of Chinese nursing postgraduates are generally at a medium level (Hsu and Shu, 2021; Sun et al., 2023; Zhang et al., 2022). Additionally, the breadth and depth of nursing research have not kept pace with the rapid development of the nursing discipline (Qin et al., 2023).

In this study, most interviewees believe their scientific research foundation is not solid, which is a main reason for the weak scientific research ability of non-full-time nursing graduate students. Subjectively, this is because non-full-time nursing graduate students are not recent graduates and have been away from theoretical learning for a long time. Consequently, their English literature reading ability, mastery of statistical methods, and other basic knowledge are weaker than those of recent undergraduates. Objectively, this also stems from the late start of non-full-time nursing graduate education in our country, an immature training model, and a weak faculty (Wang et al., 2018). Therefore, the teaching time for basic scientific research theory should be extended in the training of non-full-time nursing graduate students, and special training in scientific research fundamentals should be strengthened. Additionally, many interviewees mentioned confusion about topic selection and worries about graduation. These concerns reflect weaknesses in research design and practical capabilities.

Research indicates that even nursing graduate students from top universities like "211, 985" have relatively weak research design and practical research abilities (Shi et al., 2022; Wang et al., 2023a; Zhang et al., 2022). The same is true for non-full-time nursing graduate students. Additionally, nursing research primarily focuses on cross-sectional investigations, lacking breadth and depth, which further limits nursing research. Interdisciplinary cooperation is a new model to broaden the scope of nursing research (Hsu and Shu, 2021; Liu, 2021; Zhou et al., 2021). This approach should be integrated into the entire training process of non-full-time nursing graduate students, promoting the broadening of research ideas and the conduct of diversified, in-depth research from a multidisciplinary perspective.

Non-full-time nursing graduate students primarily focus on cultivating clinical nursing practice abilities, especially specialized nursing practice skills (You et al., 2015). The Ministry of Education also mandates that professional personnel training be "career-oriented and focus on practical abilities" (Ma et al., 2023; Zhang et al., 2021). In this study, all interviewees held a positive and optimistic attitude towards clinical practice. However, multiple studies (Wang et al., 2023b; Yuhuan et al., 2022) have shown that Chinese nursing postgraduates have a negative evaluation of clinical practice. This is due to high pressure in clinical practice and a lack of effective guidance in clinical thinking, scientific research, and other comprehensive abilities, consistent with the findings of this study.

The main reason for this difference is that the above research focuses on full-time nursing graduate students, whereas non-full-time nursing graduate students are a relatively new group. Unlike full-time nursing graduate students, most non-full-time nursing graduate students have considerable clinical practice experience before their studies, so they do not feel as much pressure in clinical practice. However, because non-full-time nursing graduate students have rich clinical practice experience and fall under both university status management and hospital personnel management, nursing managers in hospitals often view them more from a nursing human resources perspective rather than focusing on their clinical practice training.

This study, like others, has high expectations for improving the comprehensive clinical practice abilities of students, leading to higher demands on clinical practice tutors. However, China currently lacks standardized selection criteria for clinical practice tutors for nursing graduate students (Shi et al., 2022), and the guidance provided by these tutors has academic limitations (Huang et al., 2023; Wu et al., 2019). Additionally, clinical practice tutors are busy and face multiple pressures from society, patients, hospitals, and families. Consequently, the training of comprehensive clinical practice abilities for non-full-time nursing graduate students does not meet expected outcomes. Xiao et al. (2022) proposed that the "double tutorial system" is beneficial for cultivating the comprehensive clinical practice abilities of nursing graduate students. However, cooperation between university tutors (scientific research tutors) and hospital tutors (clinical tutors) still needs strengthening. Additionally, the selection criteria for clinical practice tutors should be further standardized, and the continuing education of clinical practice tutors in nursing research should be strengthened.

In 2016, the Ministry of Education initiated a new chapter in China's graduate education by reforming non-full-time graduate education. Non-full-time and full-time graduate students are trained according to unified quality standards, with both given the same legal effect and status (Fu et al., 2022; You et al., 2015). Although the government has effectively publicized the value of non-full-time and full-time graduate students, the learning style is still reflected in the graduation certificate as full-time or non-full-time, and social units still retain the stereotype of "low quality" associated with traditional non-full-time graduate students from before the reforms. Regarding non-full-time nursing graduate students, hospitals, universities, and other public institutions typically only recruit "full-time" nursing graduate students. Consequently, non-full-time nursing graduate students often have to apply as undergraduates, resulting in different salary levels.

To address the low social recognition of non-full-time nursing graduate students, efforts must focus on two main areas: improving the overall training quality to provide high-level talents for society, and increasing publicity by government departments and educational institutions to correctly interpret the new policy and eliminate prejudice and misunderstanding about non-full-time graduate students.

The disparity in educational resources perceived by non-full-time nursing graduate students in this study stems from a teacher shortage caused by the expansion of graduate enrollment. A single nursing graduate advisor often needs to supervise multiple students, both full-time and non-full-time. Instructors frequently have limited energy, making it difficult to give adequate attention to all students. Additionally, non-full-time nursing graduate students spend less time on campus compared to full-time students, resulting in a weaker sense of belonging and less close communication with their supervisors. The level of management and care provided by the school to non-full-time students is relatively lower than that for full-time students. Consequently, non-full-time nursing graduate students are more likely to perceive a disparity in educational resources.

The most important measure to address the above problems is for colleges and universities to expand enrollment while maintaining a reasonable teacher-student ratio based on their faculty strength. This is fundamental for optimizing education and training resources. Additionally, the evaluation system for college nursing graduate advisors should be optimized to include graduate student evaluations, teaching quality, and other relevant metrics, thereby ensuring tutors pay adequate attention to the teaching quality of non-full-time nursing graduate students. Finally, enhancing the sense of belonging for non-full-time nursing graduate students is essential. Schools should encourage their participation in various activities, and strengthen communication and interaction between teachers and students, and between schools and students. Schools should invite outstanding non-full-time nursing graduate students to give lectures and share experiences to inspire their peers. Additionally, schools should prioritize the management and care of this group, addressing their needs to enhance their sense of belonging.

5. LIMITATIONS

The study was conducted at the nursing schools of two universities in Shenzhen and Hengyang, China. Therefore, the findings from this qualitative study cannot be generalized to all non-full-time nursing graduate students in China.

6. CONCLUSION

Non-full-time nursing graduate education in China is in its infancy and has many areas needing improvement. Through qualitative interviews, this study explored the experiences of non-full-time nursing graduate students and identified five key themes: maladaptation to diverse roles, weak scientific research foundation, lack of high-level guidance in clinical practice, concern about social recognition, and lack of education and training resources. Identifying these themes helps government

and training units improve the training model for non-full-time nursing graduate students, enhancing the quality of high-level talent cultivation.

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