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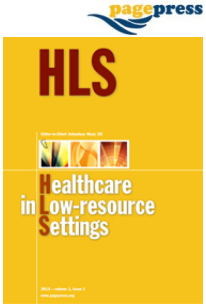

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Readiness of nursing students for clinical practice: a literature review

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Abstract

Clinical placement in nursing education largely depends on the nursing student's readiness to engage patient care. This review aims to illustrate the level of practice readiness in nursing students preparing for clinical placement, explore gender differences in practice readiness, identify the measurement tools used to assess readiness, and explore the various aspects of readiness measured. A systematic search was performed in the PubMed, SCOPUS, Ebsco, ProQues, ERIC, MEDLINE (EBSCOhost) databases. Relevant studies focused on nursing students, practice readiness before or during the professional education phase, and publications from 2018-2023. From 634 records, and seven articles meet the inclusion criteria. The studies utilized three primary measurement tools: the Casey-Fink Readiness for Practice Survey, RIPLS, and custom instruments to assess practice readiness. Results indicated high readiness scores for professional responsibilities and communication skills, interprofessional education, and mixed readiness for clinical practice and treating COVID-19 patients. These findings highlight the diverse factors influencing nursing students' preparedness for clinical practice. The assessment of readiness for practice in nursing students has diverse aspects. Nursing educational institutions need to make efforts in developing learning strategies before students enter the clinical environment.

Key word: Clinical practice; Nursing Education; Nursing student; Preparedness; Student Readiness.

Introduction

Nursing is a critical and dynamic profession that plays a vital role in the healthcare system. The quality of care provided by nurses directly impacts the health of patients,[1,2] making it imperative to ensure that prospective nurses are adequately prepared for clinical practice before going into the field.[3] Clinical practice is a crucial component of nursing education, offering students the chance to apply theoretical knowledge to actual patient care situations.[4,5] Several factors can obstruct the integration of theory into nursing clinical practice, such as insufficient resources, inadequate guidance, and limited time for practice.[6]

Clinical practice in nursing is an important step in preparing students for professional practice.[5] The goal of clinical practice is to prepare students with the skills and competencies needed to deliver patient care effectively, efficiently, and safely.[7] However, the success of clinical practice is highly dependent on the readiness of nursing students to engage in patient care. [8] Preparation before starting clinical practice covers a wide range of competencies, including technical skills, problem-solving ability, communication, and teamwork skills.[7]

The concept of practice readiness has gained attention in nursing education research in recent years, with various studies exploring factors that contribute to or hinder nursing students' readiness for practice. However, research has predominantly concentrated on the practice readiness of newly graduated nurses or new nurses when entering the workforce. It is suggested that the healthcare system, work environment, and the quality of interactions in the workplace affect the performance of nursing graduates. These novice nurses gradually develop practice readiness through a transitional continuum, ultimately achieving readiness based on factors within their educational environment and workplace. Speaking of the clinical education process and the clinical education environment that new nurses go through, they also need thorough preparation and practice readiness in the academic education phase (clinical placement) in order to facilitate them in learning to apply theoretical knowledge to actual patient care situations.

Several studies have identified factors that influence practice readiness in nursing students when clinical placement, including personal characteristics, educational factors,[9,10] cognitive aspects, psychological attributes, and social influences,[9-11] nursing education curriculum[12,13] and clinical environment,[9,14] Therefore, there is a need for adequate planning and preparation to ensure that nursing students are ready for clinical practice, and these factors must be considered to enable nursing students to have an effective clinical practice experience that is beneficial to their learning.

Practice readiness is an important concept in nursing education that is influenced by various factors. Understanding the picture of practice readiness of students is essential in developing effective teaching strategies and interventions that improve nursing students' clinical performance. This review will contribute to the existing literature on practice readiness in nursing education clinical placement and as a consideration in policy making in nursing education and nursing clinical practice guidelines.

Currently, many studies and reviews have been conducted to explore the concept of practice readiness in nursing students so that a review on practice readiness itself in nursing students is needed. This literature review seeks to offer a summary of the overall practice readiness of nursing students who will be starting the clinical practice phase, explore gender differences in practice readiness, and examine the measurement tools used to assess readiness. Understanding these aspects is crucial for ensuring students are well-prepared for clinical practice, identifying and addressing gender-specific needs, and ensuring reliable and valid assessments of readiness. By doing so, educators and policymakers can develop strategies to enhance nursing education and better support all students. The findings of this review are expected to have positive implications for nursing education. The information from this review can be used as a consideration for policy making in nursing education, curriculum and practice guidelines in order to improve clinical practice readiness for nursing students and in the long run will improve the quality of patient care.

Materials and Method

Design

The study focuses on nursing students, with no intervention or comparison involved, and aims to describe clinical practice readiness. Additionally, the Preferred Reporting

Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed to ensure clear and transparent reporting. The PRISMA flow chart (Figure 1) was utilized in this study to enhance transparency and facilitate the replication of the research.[15]

The specific research question aimed to provide an overview of practice readiness among nursing students. Practice readiness is a crucial aspect of the clinical mentoring process during the professional education phase. It is also important for educational policymakers to understand, as it helps identify the challenges faced by nursing students. This insight can help in creating strategies to enhance the practice readiness of future professional students and the job readiness of upcoming professional nurses. The implementation of this research is specifically influenced by the limited information related to how the actual picture of practice readiness (readiness to practice) quantitatively and qualitatively in nursing students, before conducting clinical practice or professional practice when clinical placement.

Search methods

The databases utilized were PubMed, SCOPUS, EBSCO, ProQuest, ERIC, and MEDLINE (EBSCOhost), focusing on English-language articles published between 2018 and 2023. This time frame was chosen to ensure access to the most current literature. Searches were performed using Boolean operators with predefined keywords, related synonyms, and Medical Subject Headings (MeSH) terms, with the PubMed database serving as the foundation for developing the MeSH terms. Additionally, truncation and wildcards were applied to some terms. Search terms for nursing students included nursing student, student nurse, pre-licensure nursing student and undergraduate nursing student as well as the use of truncation on the words nursing student* and student nurse* For practice readiness, search terms included readiness, practice readiness, readiness for practice, readiness to practice, clinical readiness and practice readiness.

Inclusion and exclusion criteria

Relevant studies were chosen based on predefined inclusion and exclusion criteria. For these types of reviews, which aim to assess prevalence and incidence data, the JBI

(Joanna Briggs Institute) recommends using the CoCoPop mnemonic. CoCoPop stands for Condition, Context, and Population, and is specifically designed to guide the inclusion criteria in reviews that evaluate prevalence and incidence data.[16,17] Based on CoCoPop, the inclusion criteria for this review are: populations are nursing students, the type of research used is descriptive, cross sectional, cohort and mixed method research, the study focuses on practice readiness or clinical practice readiness in the nursing education phase before or during the professional education phase or before clinical practice in all clinical settings, the country of study was not limited. The search criteria included research publications written in English and published between 2018 and 2023. Exclusion criteria for this study were studies focusing on practice readiness after the professional education phase, involving nurse participants who have completed their education, or those that were not research article.

Data extraction

Utilizing a self-created extraction matrix, the authors extracted data focusing on study characteristics such as author, country, study objectives, design, sample, data collection and analysis methods, and significant findings.

Quality appraisal

Critical appraisal (or methodological quality/risk of bias assessment) in this review was conducted by one reviewer. The reviewer evaluated the quality of each study using the JBI Critical Appraisal Tool. Some reviews that assess prevalence and incidence do not include a critical appraisal process, but only include 'minimum criteria' for inclusion.[16,17] The reviewer has a Master's degree and specializes in pediatric nursing.

Data analysis

The outcome data from the included studies were compiled and presented as narrative summaries using a thematic synthesis framework.

Results

Study characteristics

A total of 634 articles were found from all databases used, using predefined keywords. The number of articles from each database was 54 studies obtained from PubMed, 233 studies from Scopus, 101 studies from EBSCO, 185 studies from Proquest, 33 studies from ERIC and 28 studies from MEDLINE (EBSCO). From the total number of articles, seven articles that met the inclusion criteria were identified and included in the review. The details of the article selection process are outlined in Figure 1.
The total sample size of the research articles was 1752 respondents, most of whom were female students. The response rate of the overall study results ranged from 40-90% of the target sample size. Supplementary Table 1 presents the features of the studies that were collected. The articles analyzed are studies from countries spread across various continents (Europe, Asia, Australia and Africa) namely Serbia, Italy, Turkey, Oman, Japan and Nigeria. In the study approach, there were five studies that used a cross-sectional approach,[18-22] study with a cohort approach,[23] and one study with a mixed method approach.[24] All the articles analyzed had the main objective to determine the practice readiness of nursing students, in different aspects of practice. Then from each study also has other specific objectives. In two studies the research also intended to compare the readiness levels of nursing students with those of other health students; however, the analysis was limited to the results from two studies involving only the nursing student group.[21,24]

Instruments/measures of readiness

Of the seven studies analyzed in this review, three types of measurement tools were found, where their use was adjusted to the research objectives of each study. The three measuring instruments are the Casey-Fink Readiness for Practice Survey,[23] the Readiness for Inter-professional Learning Scale (RIPLS),[19-21,24] and measuring instruments developed by the researchers themselves.[18]

Aspects assessed in the research instrument

The Casey-Fink Readiness for Practice Survey measures four subscale factors, namely clinical problem solving, learning techniques, professional identity, and trials and tribulations. The RIPLS measuring instrument measures five main things, namely teamwork and collaboration, professional identity, respect for other roles, active and

interactive learning and social responsibility.[25] Meanwhile, the measurement tools developed by the authors are aimed at assessing students' readiness to conduct clinical practice during the COVID-19 pandemic and readiness to treat COVID-19 patients.[18,22]

Students' readiness for practice

In a study that used the Casey-Fink Readiness for Practice Survey,[23] the readiness score was rated as high, between 85-99%. The findings detailed those participants felt secure in their professional duties and believed they had sufficiently prepared for their roles, and they also affirmed their confidence in their communication abilities.

In four studies that used the RIPLS measurement tool assessed readiness in the context of nursing students' readiness to conduct interprofessional education (IPE).[19-21,24] Where learning related to IPE is obtained in the clinical practice phase. Of the four studies, the total RIPLS score of nursing students was in the range of 69.78 - 82.2. The highest RIPLS score was obtained in a study of nursing students in Japan, namely 82.2 ± 0.69.[24] This score illustrates that in general nursing students, with the current curriculum, are ready and willing to participate in IPE practices during clinical practice.

In two studies,[18,22] readiness was assessed in the context of students' readiness to conduct clinical practice during the COVID pandemic and readiness to care for COVID patients. In both studies, researchers used self-composed tools, developed based on a literature review. The measurement results in this instrument are not calculated using scoring, but in the form of a final categorization with the categories ready and not ready. The assessment results in the study stated that 61.7% of students reported feeling prepared for clinical practice during the pandemic, only a small percentage (30.7%) of students stated that they were ready to treat corona virus patients.[18] Meanwhile, in one of the research, stated that most students expressed their unpreparedness to carry out clinical practice during a pandemic (66.79%),[22] which means the same as the research, at that time not many students felt ready to treat COVID-19 patients, due to various factors.[18]

Discussion

The studies included in this review represent several countries around the world. Some similar studies were not captured in the search, because they did not meet several

criteria, including the scope of research years limited to the last five years of study, could not be accessed in full text and the purpose/method of research did not match the purpose of the search. Most of the studies related to readiness to practice with the keyword readiness are more in the population of students who have graduated from education to see readiness to practice after graduation and in the transition phase to become a new nurse, not in nursing students who will do clinical practice as students. From the seven studies analyzed in this review, in general, nursing students are considered ready to do clinical practice. Except during the COVID-19 pandemic, especially in the early phase, there are many factors that affect student readiness, both internal and external factors. Research by Joolaee et al indicated that nursing students may not be psychologically prepared to enter the clinical environment due to certain factors.[26] This condition can affect the quality of their learning and their readiness to learn in the field. Therefore, paying attention to the level of readiness of students, including their needs and psychological conditions before entering the clinical practice setting, can help improve students' competence and readiness when doing clinical practice placements.

In this study, nursing students were dominated by the female student population, this is indeed because in general, there are more female nurses than male nurses. Regarding gender differences in practice readiness, female students have been shown to be more prepared to work in teams and collaborate than male students.[27] In many countries the choice to become a nurse is mostly chosen by women, due to gender traditions,[28] but today more and more men are choosing the nursing profession as social changes and changes in gender views or due to cultural factors such as in Arabia. [29] In various studies, gender differences are not actually the causal factor that distinguishes readiness in practice, but there are many other factors both internally and externally from the student.

Assessment of student readiness can also include assessment of theoretical knowledge, professional attitudes, and practical experience. Evaluation of these students can include cognitive, psychomotor, and affective aspects. This evaluation is not only to see students' clinical abilities, but also to assess their psychological and emotional aspects, as in Joolaee *et al.* study which reviewed the psychological aspects of students.[26]

Assessment of practice readiness can also be done based on settings, conditions, and

cases in the field. This evaluation is very important to determine the extent to which nursing students have prepared themselves and the extent to which they have been prepared to enter the clinical environment and provide care to patients safely and effectively.

Evaluating nursing students' readiness for practice varies in context and objectives across different studies. Therefore, the measuring instrument used must be adjusted to the purpose of measuring each aspect in the study. In Jamieson et al study, the Casey-Fink Readiness for Practice Survey was utilized as the measuring instrument.[23] This instrument measures nursing students' readiness to enter clinical practice by exploring four subscale factors, specifically, clinical problem-solving, learning strategies, professional identity, and trials and tribulations. Results in this questionnaire are presented for each subscale.[30] The Casey-Fink Readiness for Practice Survey has been utilized as a measurement tool in several studies to evaluate students' readiness in managing patient care tasks and in communicating with doctors. Multiple studies employing the Casey-Fink Readiness for Practice Survey have revealed that nursing students encounter significant challenges in managing patient care tasks, communicating with doctors, and caring for critically ill patients. In addition, students also need further assistance and guidance in developing clinical competencies, role development, and career planning during clinical practice from their seniors.[12] In addition to being used to explore students' readiness before clinical placement, this instrument has also been used in various research studies.

The study used the Readiness for Interprofessional Learning Scale (RIPLS) to assess nursing students' readiness for interprofessional practice. Four studies in this review assessed readiness in the context of nursing students' readiness to conduct Interprofessional Education (IPE).[19-21,24] Where learning related to IPE is obtained in the clinical practice phase. The main things assessed in the scale are Teamwork and Collaboration, Professional Identity, Respect for Other Roles, Active and Interactive Learning and Social Responsibility.[25] In addition, two studies developed their own measurement tools, as done by Nweke et al and Basso et al in their study to evaluate nursing students' readiness to practice during the COVID-19 pandemic.[18,22] These tools can be used separately or in combination to assess student preparedness more comprehensively.

Academic preparation is an important part of the readiness process for nursing students before clinical practice. The goal is to alleviate nursing students' fear and anxiety before they enter the clinical setting. In addition, Efforts are needed to close the gap between theory and clinical practice by providing all the necessary materials for field practice during the academic process. Educational institutions should also identify areas for improvement in nursing education programs and ensure that students are prepared to work as professional nurses after graduation. Thus, thorough academic preparation and appropriate strategies in linking theory and clinical practice can help improve nursing students' readiness and competence in clinical practice.

All of the studies analyzed provided clues about several learning strategies that can improve nursing students' practice readiness. The first strategy is the development of clinical skills through structured and measurable learning approaches, by providing diverse and contextually appropriate practice experiences. Second, interprofessional education and collaborative practice approaches can help nursing students work in teams with other health professionals. Third, the development of an inclusive nursing education curriculum and self-development and professionalism programs. It's also important to consider the latest advancements in the health sector and the evolving requirements for health worker qualifications due to changes in global situations and conditions. Self-development and professionalism programs can also help nursing students to continue learning and develop the skills needed in the future. It is hoped that by integrating these learning strategies, nursing students can become competent health workers.

Conclusions

Assessment of readiness for practice in nursing students has many aspects, so it is necessary to have an appropriate measurement tool to evaluate each aspect of student readiness. Educational institutions need to make efforts to develop learning strategies, such as clinical skills workshops and visiting hospitals before entering the clinical environment. The results of this systematic review can be a reference for the development of nursing higher education curriculum, especially in facing an increasingly complex professional world with interprofessional education and collaborative practice. Efforts to improve student readiness and knowledge can be made

through the development of an inclusive educational curriculum, interprofessional training, and self-development and professionalism programs.

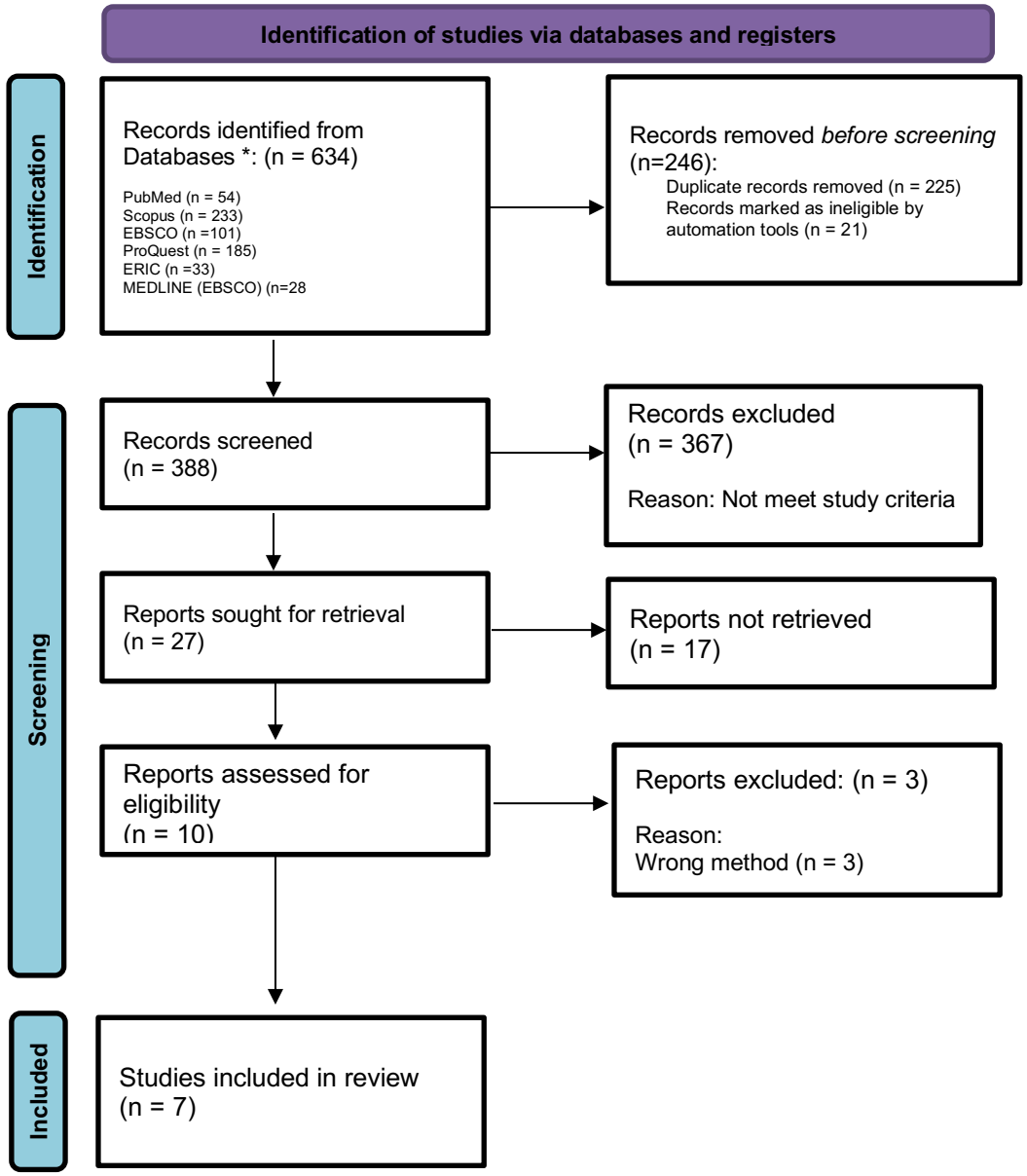
References

1. Driscoll A, Grant MJ, Carroll D, et al. The effect of nurse-to-patient ratios on nurse-sensitive patient outcomes in acute specialist units: a systematic review and meta-analysis. Eur J Cardiovasc Nurs 2018;17:6-22.
2. Blegen MA, Goode CJ, Spetz J, et al. Nurse staffing effects on patient outcomes. Med Care 2011;49:406–14.
3. Usher K, Mills J, West C, Park T, Woods C. Preregistration student nurses' self-reported preparedness for practice before and after the introduction of a capstone subject. J Clin Nurs 2015;24:3245–54.
4. Eyikara E, Baykara ZG. The importance of simulation in nursing education. World J Educ Technol Educational Technology Current Issues 2017;9:2-7.
5. Kaphagawani NC, Useh U. Analysis of nursing students learning experiences in clinical practice: literature review. Ethno Med 2013;7:181–5.
6. Fathi KY, Ibrahim RH. Factors influencing integration of theory into practice in clinical skills acquisition among nursing students. Inform Med Unlocked 2023;37:101181.
7. Mirza N, Manankil-Rankin L, Prentice D, et al. Practice readiness of new nursing graduates: a concept analysis. Nurse Educ Pract 2019;3:68–74.
8. Davies H, Sundin D, Robinson S, Jacob E. Does participation in extended immersive ward-based simulation improve the preparedness of undergraduate bachelor's degree nursing students to be ready for clinical practice as a registered nurse? an integrative literature review. J Clin Nurs 2021;30: 2897-911.
9. Lee T, Damiran D, Konlan KD, et al. Nurse education in practice factors related to readiness for practice among undergraduate nursing students: a systematic review. Nurse Educ Pract 2023;69:103614.
10. Yu M, Tong H, Li S, et al. Clinical competence and its association with self-efficacy and clinical learning environments among Chinese undergraduate nursing students. Nurse Educ Pract 2021;53:103055.
11. Baumbusch J, Leblanc M-E, Shaw M, Kjorven M. Factors influencing nurses '

readiness to care for hospitalised older people. Int J Older People Nurs 2016;11:149–59.
12. Woods C, West C, Mills J, et al. Undergraduate student nurses' self-reported preparedness for practice. Collegian 2014;22:359-68.
13. Fowler SM, Knowlton MC, Putnam AW. Reforming the undergraduate nursing clinical curriculum through clinical immersion: a literature review. Nurse Educ Pract 2018;31:68–76.
14. Papastavrou E, Dimitriadou M, Tsangari H, Andreou C. Nursing students' satisfaction of the clinical learning environment: a research study. BMC Nursing 2016;15:44.
15. Page MJ, Mckenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021; 372:n71.
16. Munn Z, Moola S, Lisy K, et a. Methodological guidance for systematic reviews of observational epidemiological studies reporting prevalence and cumulative incidence data. Int J Evid Based Healthc 2015;13:147-53.
17. Munn Z, Stern C, Aromataris E, et al. What kind of systematic review should I conduct? a proposed typology and guidance for systematic reviewers in the medical and health sciences. BMC Med Res Methodol 2018;18:5.
18. Nweke CI, Abazie OH, Adetunji AJ, Okwuikpo MI. Readiness for clinical practice amidst coronavirus among nursing students in southwest Nigeria. Int J Afr Nurs Sci 2021;15:100328.
19. Arulappan J, Matua GA, Alzaabi O, et al. Knowledge and readiness for inter professional education and collaborative practice among undergraduate nursing students in a middle eastern country-a pilot study. Nurse Educ Today 2021;100:104865.
20. Tosunöz İK, Yikar SK, Çerçer Z, et al. Perceptions of interdisciplinary education and readiness for inter-professional education of nursing students: a sample of three different cities in Turkey. Nurse Educ Today 2021:97:104673.
21. Milutinovic D, Lovric R, Simin D. Interprofessional education and collaborative practice: psychometric analysis of the Readiness for interprofessional learning scale in undergraduate Serbian healthcare student context. Nurse Educ Today 2018:65:74-80.
22. Basso I, Gonella S, Londa M, et al. Readiness for practice in undergraduate nursing students during the COVID-19 pandemic: a cross-sectional study. Ann Ig 2022;34:558–71.

23. Jamieson I, Sims D, Basu A, Pugh K. Readiness for practice: the views of New Zealand senior nursing students. Nurse Educ Pract 2019;38:27–33.
24. Numasawa M, Nawa N, Funakoshi Y, et al. A mixed methods study on the readiness of dental, medical, and nursing students for interprofessional learning. PLoS One 2021;16:e0255086.
25. Cant R, Leech M, Hood K. Factors affecting Australian medical students' attitudes to interprofessional education; validity of the Readiness for Inter-professional Learning Scale-Med. J Interprof Educ Pract 2015;1:90–6.
26. Joolaee S, Amiri SRJ, Farahani MA, varaei S. Iranian nursing students' preparedness for clinical training: a qualitative study. Nurse Educ Today 2015;35:e13-e17.
27. Axelsson M, Jakobsson J, Carlson E. Which nursing students are more ready for interprofessional learning? A cross-sectional study. Nurse Educ Today 2019;79:117–23.
28. Mcdowell J. Masculinity and non-traditional occupations: men's talk in women's work. Gend Work Organ 2015;22:273-91.
29. Popper-Giveon A, Keshet Y, Liberman I. Increasing gender and ethnic diversity in the health care workforce: the case of Arab male nurses in Israel. Nurs Outlook 2015;63:680–90.
30. Casey K, Fink R, Jaynes C, Cet al. Readiness for practice: the senior practicum experience. J Nurs Educ 2011;50:646-52.

Figure 1. PRISMA flow diagram.



Online Supplementary Materials

Table 1. Distribution of study characteristics.