



The Nurse Lecturer's Competencies: A Systematic Review

Authors:

Dian Novita^{1,2*}, Rr. Tutik Sri Hariyati³, Masfuri³, Besral⁴

1 Doctoral Program, Faculty of Nursing, University of Indonesia

2 Abdul Moeloek General Hospital, Lampung Province

3 Faculty of Nursing, University of Indonesia

4 Faculty of Public Health, University of Indonesia

*Corresponding Email: *atudian@gmail.com*

About the Author

1. 1st Author : Dian Novita, S.Kep., Ners., M.Kep., Sp.Kep.MB., FISQua
Affiliation : University of Indonesia – Faculty of Nursing
Mailing address : Faculty of Nursing, University of Indonesia, Jl. Prof. Dr. Bahder Djohan, Kampus UI, Depok, West Java, Indonesia, 16424
Email of author : atudian@gmail.com
Orcid ID : <https://orcid.org/0009-0000-7944-0348>
Google Scholar URL : (<https://scholar.google.com/citations?user=2ZPESEIAAAAJ&hl=id>)
Phone number : (081379533997)

2nd Author : Prof. Dr. Roro Tutik Sri Hariyati, S.Kp., MARS., FISQua
Affiliation : University of Indonesia – Faculty of Nursing
Mailing address : Faculty of Nursing, University of Indonesia, Jl. Prof. Dr. Bahder Djohan, Kampus UI, Depok, West Java, Indonesia, 16424
Email of author : rrtutik@yahoo.com
Orcid ID : <https://orcid.org/0000-0002-9962-1434>
Google Scholar URL : <https://scholar.google.com/citations?user=h1Q1WaYAAAAAJ&hl=id&authuser=2>
Phone number : 085782088101

3rd Author : Dr. Masfuri, S.Kp., MN
Affiliation : University of Indonesia – Faculty of Nursing
Mailing address : Faculty of Nursing, University of Indonesia, Jl. Prof. Dr. Bahder Djohan, Kampus UI, Depok, West Java, Indonesia, 16424
Email of author : masmasfuri@gmail.com
Orcid ID : <https://orcid.org/0000-0001-7533-5073>
Google Scholar URL : <https://scholar.google.co.id/citations?user=rldxUpAAAAAJ&hl=id>
Phone number : 081318965892

4th Author : Prof. Dr. Besral, SKM, M.Sc
Affiliation : University of Indonesia – Faculty of Public Health

Mailing address : Faculty of Public Health, University of Indonesia, Jl. Prof. Dr. Bahder Djohan, Kampus UI, Depok, West Java, Indonesia, 16424

Email of author : besral@yahoo.com

Orcid ID : <https://orcid.org/0000-0001-8140-7467>

Google Scholar URL : <https://scholar.google.co.id/citations?user=ZyZNvv0AAAAJ&hl=id>

Phone number : 081282575200

ABSTRACT

Clinical education for nurses is an integrated part of the nursing curriculum and is the foundation for bridging the gap between practice and theory. Evaluation of the competence of nurse lecturers in academic and practice settings aims to maintain the quality of nursing education. The purpose of the systematic review was to describe the assessment of nurse lecturer competence in Nursing Education. Systematic review of original articles using quantitative studies. Data source: Four data base sources were selected to obtain original articles: Science Direct, Proquest, Wiley, Scopus. The review method used PCO(s) criteria. Selected articles were limited by the criteria of using English, open access and full text, published between 2012 and 2023. Screening up to extraction using the covidence system. Critical appraisal was conducted using JBI. The proceed of the review showed that knowledge, skills and attitudes about leadership proved to be important for improving the competence of nurse lecturers. Lecturer self-confidence was also a competency associated with entrepreneurial experience and teaching it to students. This systematic review provides an overview of what instruments can be used to assess the competence of nurse lecturers. Competent nurse lecturers will encourage the improvement of the quality of nursing student graduates and nursing education. The most common competence found was competence.

Keywords: Nurse Lecturer; Competency; Measuring Instrument

ABSTRAK

Pendidikan klinis bagi perawat merupakan bagian yang terintegrasi dari kurikulum keperawatan dan menjadi landasan untuk menjembatani kesenjangan antara praktik dan teori. Evaluasi kompetensi dosen perawat di akademik dan lahan praktik bertujuan untuk menjaga kualitas pendidikan keperawatan. Tujuan sistematika review adalah untuk mendeskripsikan penilaian kompetensi dosen perawat dalam Pendidikan Keperawatan. Tinjauan sistematis pada artikel orisinal yang menggunakan studi kuantitatif. Sumber data : Empat sumber data Base dipilih untuk mendapatkan artikel orisinal : Science Direct, Proquest, Wiley, Scopus. Metode review menggunakan kriteria PCO (s). Artikel terpilih dilakukan limitasi dengan kriteria menggunakan Bahasa Inggris, open access dan full text, diterbitkan antara tahun 2012 sampai dengan 2023. Skrining sampai dengan ekstraksi menggunakan system covidence. Critical appraisal dilakukan dengan menggunakan JBI. Hasil tinjauan menunjukkan, pengetahuan, keterampilan, dan sikap tentang kepemimpinan terbukti penting untuk peningkatan kompetensi dosen perawat. Kepercayaan diri dosen juga menjadi kompetensi yang dikaitkan dengan pengalaman berwirausaha dan mengajarkannya kepada siswa. Tinjauan sistematis ini memberikan gambaran instrument apa yang bisa digunakan untuk menilai kompetensi dosen perawat. Dosen perawat yang kompeten akan mendorong peningkatan kualitas lulusan mahasiswa keperawatan dan Pendidikan keperawatan. Kompetensi yang paling banyak ditemukan adalah kompetensi pedagogi dengan menilai kompetensi dosen perawat melalui Instrumen penilaian dosen perawat diharapkan akan menjaga kualitas pendidikan keperawatan.

Kata Kunci : Dosen Perawat; Kompetensi, Alat Ukur

INTRODUCTION

Professional Nurse in the future need extensive knowledge, problem-solving skills and independent learning skills, and the ability to transfer these competencies to patient in practice area (Dias, 2013). Nurse competence is generally seen as an integration of knowledge, come under professional judgment, skills, values and attitudes (Fukada, 2018). In evolution of the nursing education program has many levels, variations, and specific roles (Hogstedt, Jansson, Eriksson, Engstrom, 2022).

Nursing Science is a complex field of science that requires competent educators to work up the novice for their future (NLN, 2013). The transformation era require various stakeholders integrated in academic and clinical area to occupy the capability of nurse lecturers and apporiate to these change over (Shogi, 2019). The competence of nurse lecturers is a multidimensional phenomenon, and has

been the subject of discussion for decades (Deng, 2013). Today's nurse lecturers need to take charge of the digital technology environment, professional collaboration, evidence-based practice, and independence in increasing self-capacity (Töytäri et al., 2016).

Bittner & Bechtel (2017) states that there are many conflicting demands on the recognition of the role of nursing lecturers where officiate in relevance the research, teaching and practice in higher education, so that research evidence can provide a substructure for evidence-based clinical. Nursing lecturers are required to escalate their clinical skills, develop teaching skills, practice in research projects and construct the national and international networks. The development of nursing education has sustained a rapid process (Lejonqvist & Kajander-Unkuri, 2021).

Clinical education for nurses is an integrated part of the nursing curriculum and a foundation for bridging the gap between practice and theory (Well & McLoughlin, 2014). Raymond; Profetto-McGrath; Myrick; & Streaan, (2017) defines nurse educators as follows.

“Nurse educators are those individuals who teach nursing students in the classroom, laboratory, or clinical settings. Other terms used include faculty members, nursing instructors, or tutors. Nurse educators are employed by academic institutions that offer baccalaureate nursing programs for students studying to become RNs”

In other words, nurse educators are individuals who teach nursing students in classrooms, laboratories, or clinical settings. Other terms used include faculty member, nursing instructor, or tutor. Nurse educators are under the auspices of academic institutions that organize undergraduate nursing programs for students studying to become RNs.

In its current development, the competence of nurse educators, who are lecturers from educational institutions or referred to as nurse lecturers, has been discussed and debated in various literature (Breytenbach, Ten Ham-Baloyi & Jordan, 2017). According to Hart (2017) the role of a nurse lecturer has changed where the initial concept of a Nurse Lecturer or many terms known as Nurse educators began with nurses in hospitals who had gone through the certification process and received a license as Nurse educators who switched to Educational Institutions.

With this recruitment process, it is hoped that nursing lecturers will be guaranteed the quality of their competence (Hendricks, et al 2013.). Several studies report that nurse lecturers should have full responsibility in the learning process in clinical practice placements and produce competent nurses (Montes, Rodrigues & Azevedo, 2019).

There are several general notions that aim to describe the complexity of the concept of competency in which the main attributes are 'knowledge', 'skills' and 'attitudes' (including values), which interact and support each other in various ways (Xu & He, 2012). Landers (2015) describes knowledge as a cognitive competence that is supported by attitudes. Cognitive competence also includes informal knowledge gained from experience. Skills are considered as functional competencies or behavioral goals: knowing how to do a given task in a particular job field (Lejonqvist & Kajander-Unkuri, 2021; Landers, 2015). The underlying attitudes and values are personal qualities that direct and support the performance of a job (Landers, 2015).

According to Gonczi (2013), there are general and specific aspects of competency. Specific aspects, such as specific knowledge and individual characteristics, build on more general aspects such as the ability to make judgments. Many advocate a holistic approach to understanding the complexity of the notion of competence (Gonczi (2013)). Integrated knowledge and the ability to use that knowledge seem to be the essence of the elaboration of the competence of nurse lecturers (Pijl-Zieber, 2014; Kulju, 2016; Smith, 2012).

According to WHO (2016), the professional competencies of nurse lecturers who carry out their duties in education include: planning, implementing, and evaluating curriculum; have substantial theoretical and practical knowledge, and skills relevant to the world of work; creating and applying evidence-based knowledge. In addition, the need for management and leadership skills and organizational problem solving; pedagogical competency in educational, learning, and evaluation theories; digital competency in a varied teaching environment; general skills including critical thinking, communication, collaboration, and decision making; ethical professional behavior; and continuous professional development (WHO, 2016; American Association of Colleges of Nursing, 2017). A nurse lecturer must be able to use this competence not only in their environment, but also to develop in the international arena in a global partnership, be able to utilize existing resources, and be able to make important decisions based on critical analysis (Hansen, 2015).

In order to maintain the competency of these nurse lecturers, several countries have certification exams for nurse lecturers. The Australian Nurse Teacher's Society is one of the official state institutions in Australia that grants licenses to nurse lecturers in that country (Salminen, et al; 2013).

The competencies required by nurse lecturers are things that need to be discussed in depth (Zlatanovic, Havnes & Mausethagen; 2017). Varagona and Hold (2019) state that nurse lecturers experience the benefits of a balance of practice and learning on campus to maintain competence, confidence, increase skills and good relationships with practice areas so they can facilitate research. Based on the needs of students to oversee their educational process both in academics and in practice in the field, it is hoped that the competence of nurse lecturers can demonstrate a balanced quality between teaching abilities in class and "hands on" skills in clinics (Gatrix & Barrett, 2017).

Systematic review in the current study is essential for nurses to have a useful and reliable resource with competence nursing recommendations to help achieve the best outcomes. Therefore, the purpose of reviewing the measuring instrument for assessing the competence of nurse lecturers is to determine the competence of nurse lecturers in nursing education which requires further study.

METHODS

Literature Search Strategies and Databases

This systematic review in the first stage identifies and defines precisely the themes that will be reviewed (Aromataris & Pearson, 2014). We searched electronic databases: Science Direct, Proquest, Wiley, Scopus. This strategy comes from the PCOs format (**Table 1**). Keyword and inclusion criteria used for searching in each database are shown in **Table 2**. We developed the search terms based on MESH terms: 'nurse teacher' OR 'nurse lecturer' AND 'competence' AND 'instrument'.

RESULT AND DISCUSSION

The keyword search format used is using PCOs (Population, Context, Outcome and Study design). Each of the elaborations includes Population = nurse teacher, Context = instrument, Outcome = nurse teacher's competence, Study design = the original quantitative research studies published during 2012-2023 (10 years). The questions in this study are what are the competencies of nurse lecturers in nursing vocational education?

<i>P</i> (Population)	<i>C</i> (Context)	<i>O</i> (Outcome)	<i>S</i> (Study)
Nurse Teacher	Instrument	competency	Quantitative research with all study design related to nurse teacher's competency (during 2012 -2023)
Dosen Perawat	Vocational education	Competence	Quantitative research with all research designs related to the competence of nurse lecturers (during the year 2012-2023)

Table 1. *PCO'S FRAMEWORK*

Eligibility Criteria

Participants in this study were nurse lecturers who became good teachers at polytechnics. For clinical lecturers or clinical perceivers are not included in the inclusion criteria. In addition, the inclusion criteria in this systematic review include the selected studies which are quantitative studies. Qualitative studies and articles that constitute reviews serve as exclusion criteria. The author also makes limitations, among others, the language chosen is English, articles come from databases that have open access and are full text with a range of search years between 2012 and 2023.

From these search criteria, we obtained four databases and selected articles to be systematically reviewed (Science Direct, Scopus, Proquest, Wiley).

Data Base	Keyword	Total Article	Limitation	Result after limitation
Science Direct	'nurse teacher' OR 'nurse lecturer' AND 'competenc*'	45756	Open access and full text Year Range 2012-2023 Research Journals, English	400
Scopus	('nurse AND teacher') ('nurse AND lecturer') AND ('competence') AND 'instrument'	59	Open access and full text Year Range 2012-2023, Research Journals, English	4
Proquest	'nurse teacher' OR 'nurse lecturer' AND 'competenc*' AND 'instrument'	2566	Open access and full text Year Range 2012-2023, Research Journals, English	201
Wiley	'nurse teacher' OR 'nurse lecturer' AND 'competence'; AND 'instrument'	1247	Open access and full text Year Range 2012-2023 , Research Journals, English	60
Total of articles				665

Table 2. Keywords and inclusion criteria used for searching in each database

The author conducted an output analysis of the results of this research article related to measuring instruments for assessing competence. The competency assessment that appears in this article explains that the competence of nurse lecturers is closely related to knowledge, skills and attitudes.

Quality Appraisal of the Studies

The screening process is carried out by selecting articles that are duplicative and irrelevant. The total number of articles is 665 articles and there are 210 articles removed due to duplication and then 455 articles are obtained. Screening was carried out based on title (n = 455), abstract (n = 4360 and full text (n = 19). Critical appraisal of articles was also carried out using the JBI for Cross-sectional study (JBI, 2014). After the article selection process was carried out using the Covidence program, obtained 4 articles that are relevant to the keywords and the purpose of the article search.

Data Extraction

The two original articles selected were determined based on publication, country of origin, purpose, participants, methodology (study design, data collection, and data analysis), and research results (Munn and Aromataris, 2014) (Table 3). The data is then analyzed by identifying the competencies of nurse lecturers and then classifying the data into the areas of knowledge, skills, and attitudes of nurse lecturers (Munn and Aromataris, 2014). The grouping of nurse competencies based on several institutions can be seen in table 1.

Source	Area of Competence
<i>WHO (World Health Organization) (2016)</i>	Theories and Principles of Adult Learning
	Curriculum and Implementation
	Nursing Practice
	Research and Evidence
	Communication, Collaboration and Partnership
	Ethical/legal Principles and Professionalism
	Monitoring and Evaluation
<i>NLN (National League for Nursing) (2021)</i>	Management, Leadership and Advocacy
	Facilitate Learning
	Facilitate Learner Development and Socialization
	Use Assessment and Evaluation Strategies
	Participate in Curriculum Design and Evaluation of Program Outcomes
	Pursue Continuous Quality Improvement in the Academic Nurse Educator Role
<i>FINE (The European Federation of Nurse Educators) (2007)</i>	Engage in Scholarship, Service and Leadershi
	Competence as a person
	Operative competencies
	Competence regarding academia
	Collaborative competencies

Table 3. Components of Nurse Lecturer Competence

Risk of Bias

The four studies used validated data collection instruments to measure the competence of nurse lecturers. The studies performed have reported research results on a variety of measures, including percentages, mean values and standard deviations of the number of variables, or sub-dimensional mean scores. For the purposes of interpretation of results, all values have been recalculated and presented in this analysis in percentage form. The results of bias were assessed and presented in tabel 4.

No	Author (year), country	Title	Critical appraisal JBI	Design	Research objective	Participant (n)	Research instrument
1	Pei-Ling Wu et al. (2020), Taiwan	<i>Development and Validation of Clinical Nursing Teacher Self-Efficacy Scale and Investigation of Self-Efficacy among Clinical Nursing Teachers</i>	6	Correlational study	To assess competency improvement of nursing students and faculty members	Nurse Educators (n = 205)	Self-evaluated teaching efficacy The Cronbach coefficient scale = 0.92; and 0.83, 0.91, 0.93, and 0.87 on the four subscales
2	Lovrić et al. (2017), Croatia	<i>Changes in nursing students' expectations of nursing clinical faculties' competences: A longitudinal, mixed methods study</i>	5	Mixed-methods (survey and reflection)	To explore what competencies nursing students expect from their lecturers during their education and whether those expectations change during their studies (three years)	Nursing students (n = 34)	The Nursing Clinical Teacher Effectiveness Inventory (NCTEI) Coefficient Alpha Cronbach = 0,94
3	Ramsburg and Childress (2012), USA	<i>An initial investigation of the applicability of the Dreyfus skill acquisition model to the professional development of nurse educators</i>	7	A cross sectional survey	To design and validate competency models for the role of nurse lecturer	Nurse Educators (n= 374)	The Nurse educator skill acquisition Assessment Tool (NESAA) Koefisien Alpha Cronbach = 0,977
4	Salminen et al. (2013), Finlandia	<i>The competence and the cooperation of nurse educators</i>	6	A descriptive, cross sectional survey	To analyse the nurse lecturers competence	Nurse educator (n = 342) Nursing student (n = 202) Educational Administrator (n = 17) Nurse Leader (n = 64) Nurse Mentor (n = 64)	A Tool For Evaluation of Requirements of Nurse Teacher (ERNT) Koefisien Alpha Cronbach = 0,97

Table 4. Data extraction and risk of bias

Respondent Characteristics	Article 1	Article 2	Article 3		Analysis
Participant	Clinical Nurse Teacher under Faculty di Taiwan	Undergraduate Students in Croatia	Nurse Lecturer in USA	Nurse Lecturer at the Nursing Vocational Polytechnic in Poland	Three articles discuss it from the lecturer's own point of view, while 1 article assesses the lecturer's competency from the student's point of view
Age	Mean 41,2 SD = 6,41	1 st year students, and followed up to 3 rd year	NA	Mean = 50 SD = 7,7	There are two articles showing that most of the participants are in the 50 year range. While one article is the age of the participants, the age of students from level 1 to level 3. And one article does not discuss the age of the respondent
Gender	Female = 100% (n=205)	NA	NA	Female = 97% (331) Male = 13% (n=11)	There are two articles showing that there are more female participants than male participants. And two other articles did not explain the gender of the respondent
Last Educational Level	Undergraduate = 28,3 % (n= 59) Master = 71,7% (n= 146)	Undergraduate Candidate	Master (n = 192; 57.1 %) Post Master certificate (n = 24; 7.1 %). Doctoral (n = 88; 26.2 %) Undergraduate) n=32; 9,5%)	Not available	Only article 1 does not provide an overview of the characteristics of respondents based on their level of education
Teaching experiences	1-5 y= 68 (33.17%) 6-10 y = 55 (26.83%) 11- 15 y = 66 (32.20%) more than 16 y = 16 (7.80%)	NA	At diploma program (n = 153; 40,83%) Working at community college (n = 118, 34.9 %) State university (n = 119; 35,2%) At private university (n=96; 25,6%)	Mean = 14 SD = 8,2	Three articles describe the experiences of nurse lecturers. One article does not explain this because the participants are students

Table 5. Participant Characteristics

The search results for articles are original research used for systematic reviews, where these articles come from Taiwan, Croatia, USA and Finland. Of the 665 articles that had been screened through the Covidence application program, four articles were obtained for review. Article selection is shown in Figure 1 using the PRISMA Flowchart.

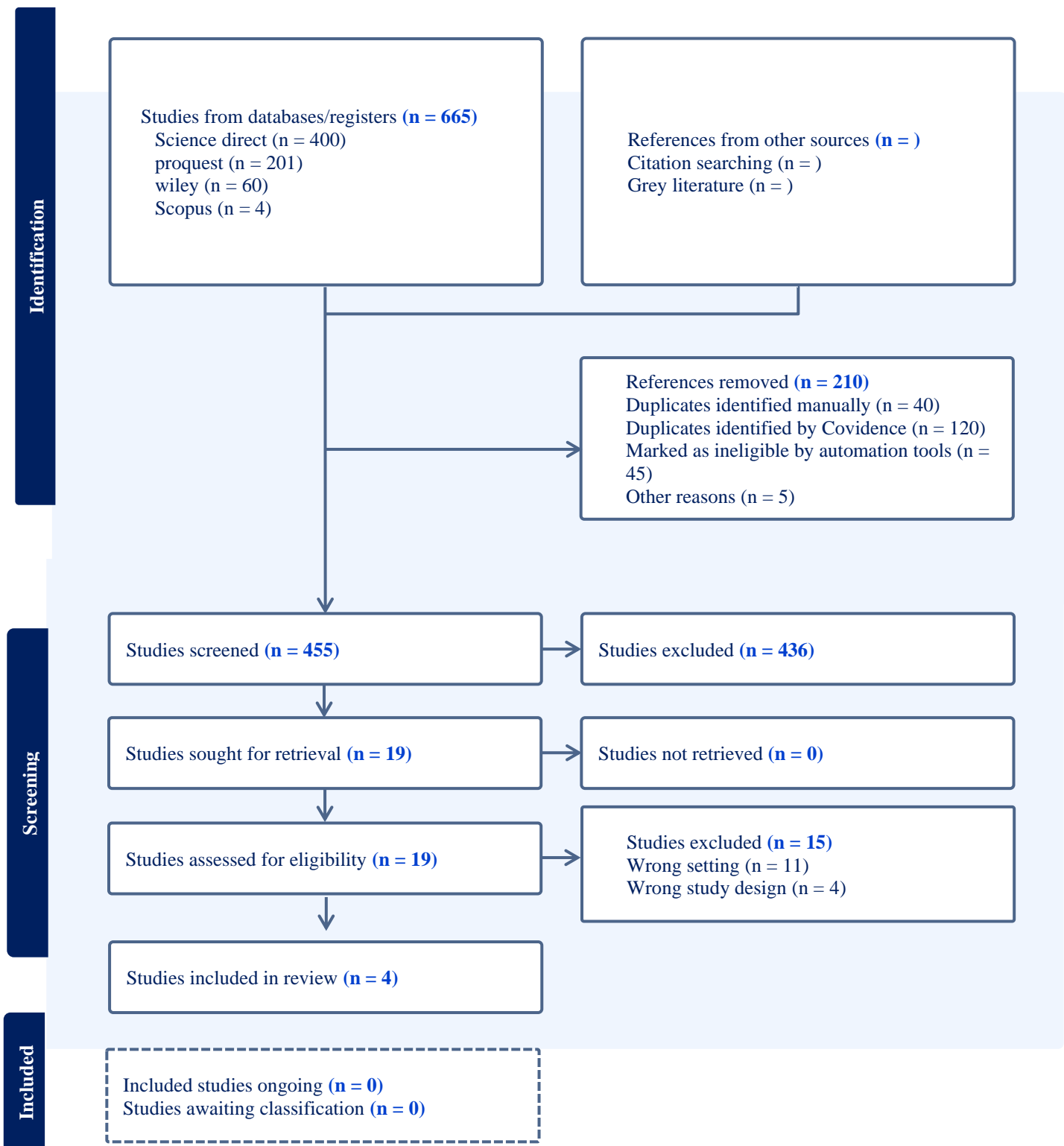


Figure 1. PRISMA Flow Diagram

Characteristic Nurse

Participants in the three articles were nurse lecturers and one article came from Taiwan assessing the competence of nurse lecturers through student participants. The classification of the types of demographic data in the two studies also has slight differences. In article 1, the researcher chose the type of respondent's data for age and length of work using a categorical scale. While in the second article, the participants' age and length of work were selected by the researcher using a numerical scale.

There are two articles showing that most of the participants are in the 50 year range. While one article describes the age of the participants, the ages of students from grade 1 to level 3. And one article does not discuss the age of the respondent. There are two articles showing that there are more female participants than male participants. And two other articles do not explain the gender of the respondents. Three articles describe the experiences of nurse lecturers. One article does not explain this because the participants are students.

Outcome Measure

In-depth studies in both studies, including scientific knowledge, the use of evidence based in conducting teaching activities have been carried out many variations in the competence of nurse lecturers. In a research article Salminen et al (2013) discusses how the competence of nurse lecturers in vocational education is not only cognitive, skills and attitudes, but also pedagogical skills, interactive teaching skills, motivating skills and build good relationships with students. Students also assess the competence of their lecturers (Oerman, 2017). Although several instruments are used to assess both academic lecturers and clinical lecturers, research results show that the instruments measure the same thing. Therefore it can be said that the competence of teaching lecturers and clinical lecturers is more or less the same.

The theories used in the development of competency assessment instruments for Petawatt lecturers use more learning theories (Salminen et al, 2013). Currently the development of learning theory is more directed towards pedagogic competence and student-centered learning (Mikkonen et al, 2020). So it needs to be considered in developing competency instruments which also lead to the pedagogic competence of nurse lecturers.

In the findings of this review, the competence of nurse lecturers, apart from clinical competence, is also managerial competence, which are the points assessed where leadership in the nursing profession is also assessed (Lovric, 2017).

Area of competence	Elaboration	Instrument
Clinical competence	Responsibilities of the nurse educator role in clinical practice	<i>The Nursing Education Competence Inventory (NECI)</i>
		<i>Self-evaluated teaching efficacy</i>
		<i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i> <i>A Tool For Evaluation of Requirements of Nurse Teacher (ERNT)</i>
Pedagogic Competence	Skills or abilities	<i>The Nursing Education Competence Inventory (NECI)</i>
	Educator intelligence	<i>Self-evaluated teaching efficacy</i>
	Belief in knowledge	<i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i>
	Setting instructional objectives	<i>A Tool For Evaluation of Requirements of Nurse Teacher (ERNT)</i>
	Develop a learning strategy	
Presenting learning material		
Evidence-based practice competency	Clinical management capabilities	<i>Self-evaluated teaching efficacy</i>
	Involvement in EBP	
	Get involved in the search for scholarships	

	Research orientation and research implementation Development of research and innovation	
Competence facilitates individual learning	Facilitate the development and socialization of students Career promotion Learning and innovation	<i>The Nursing Education Competence Inventory (NECI)</i> <i>Self-evaluated teaching efficacy</i>
Competence to create a safe learning environment	Create a safe classroom environment and clinical situation	<i>The Nursing Education Competence Inventory (NECI)</i>
Competence to develop continuing education	To improve the quality of Education clinical teaching process To participate in curriculum design and learning evaluation To develop roles	<i>The Nursing Education Competence Inventory (NECI)</i> <i>Self-evaluated teaching efficacy</i> <i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i>
Competence to develop a professional personality	Professional knowledge/competence Nurse educator personality instrument	<i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i>
Competency management	Orient students to the rules and regulations of Education Effective time management Leadership Manage course administration Maintain discipline Economic management	<i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i>
Competence related to relations between communities	Communication and collaboration Teaching relationship Relations with students Clinical faculty interactions with students, patients, families and the community Interpersonal skills	<i>The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)</i>

Table 6. Instrument content

In this systematic review, lecturer competencies are divided into several categories related to knowledge, skills, and attitudes. Salmine, et al. (2013) conducted research focusing on measuring the skills of lecturers and the personality factors of these lecturers. As well as placing a strong emphasis on subject knowledge and evidence-based knowledge (Breytenbach, C., Ten Ham-Baloyi, W. & Jordan, P.J., 2017).

Nurse lecturers have a professional responsibility to apply evidence-based knowledge in their daily work environment (Breytenbach, C., Ten Ham-Baloyi, W. & Jordan, P.J., 2017). Students as future professional candidates are expected to be competent to integrate theory into practice (Booth, T. L., Emerson, C. J., Hackney, M. G., & Souter, S. (2016). That is why those who teach nurses need an effort to maintain competence in their fields (Da Silva, P.S. & Almeida de Figueiredo, N.M., 2017). In addition, they need to equip students with learning skills such as creativity and innovation in the field of Health (Farzi, S., Shahriari, M. & Farzi, S., 2018).

In this systematic review, the sophistication of learning models and leadership) is highlighted as another important element of nurse lecturer competence (Salminen et al., 2013). In addition, WHO (2016) also explains the importance of educator ethics as an important component of the competence of nurse lecturers. This review shows that knowledge, skills, and attitudes about leadership are proven to be important for increasing the competence of nurse lecturers (Gaberson, K.B., Oermann, M.H. & Shellenbarger, T., 2017). In addition, lecturers' confidence in their own competence is associated with having entrepreneurial experience and teaching it to students (Salminen et al., 2012).

The results of the study reported that the lecturers considered themselves competent in the field of teaching competence. However, from the results of interviews with nursing students, nurse leaders

and nurse mentors, it appears that nursing students assess the competence of their lecturers (Salminen et al., 2013). The study conducted by Lovric et al (2022) is a study that is rarely carried out at the student level. Where students are asked to assess the abilities of their lecturers during the first year, second year and third year as long as the student is in the learning process. And the results are analyzed whether there is a change in the way students evaluate and is associated with the expectations and achievements of the students themselves. In this study, participants reported experiencing a lack of knowledge and skills in managing technology issues. Even though the ability to use technology for nurse lecturers is part of the competencies that must be fulfilled.

These four studies both suggest that nursing lecturers maintain aspects of maintaining clinical credibility to bridge the gap between theory and practice in students, and the importance of continuing to update knowledge, skills and attitudes in finding appropriate learning models to prepare students to graduate with good result. Msiska et al (2014) stated that clinical updates by nurse lecturers would increase students' perspectives so that the credibility of nurse lecturers would be maintained. With clinically credible nurse lecturers, it is certain that the knowledge, skills and attitudes of students will support learning readiness in the clinic (Leonard, et al; 2015).

Salmine, et al. (2013) conducted a study by looking at how nurse lecturers foster good relations with students, in line with the goal of bridging the competency gap between theory and practice so as to help increase student confidence (Akram, 2018). This review tries to provide information about the instruments developed to assess the competence of nurse lecturers in the need for developing the lecturers' own competence and learning in nursing education.

LIMITATION

The author experienced problems in finding articles that discussed the competence of nurse lecturers in vocational education when looking for articles that used a quantitative study design. Obstacles were also felt after reading the full text regarding the definition of a Nurse Educator or nurse educator or nurse lecturer who have almost the same characteristics, but in several articles they discuss more about nurse lecturers who come from clinics (clinical Preceptors). Research that discusses learning areas in vocational education related to the competence of nurse lecturers from vocational education institutions is still limited compared to articles discussing nurse educators who come from clinical grounds. Meanwhile, vocational education which is still widely held in Indonesia will be an interesting study to discuss.

CONCLUSION

The systematics of this review has explained that the competence of nurse lecturers is a phenomenon that has been under-researched. To identify the competencies needed by nurse lecturers is very important which aims to prepare highly competent nurses in the future. In this systematic review the authors have a deficiency in the search for empirical evidence and knowledge about which areas of competence are needed to improve and improve the quality of nursing education. The author suggests that further research is needed, to create and test a model of core competencies for nurse lecturers.

Teachers or educators in the health sector are expected to have adequate pedagogical and research competencies, skills, and have international networks, skills and abilities in leadership and management, as well as the application of evidence-based practice. Based on the results of this systematic review, only a few studies have discussed how to maintain the competence of nurse lecturers. Lifelong learning is essential for the future. This systematic review shows that the competence of nurse lecturers in nursing education still needs to be studied more deeply and tested further.

DECLARATION OF CONFLICT OF INTEREST

The writer states that there is not any conflict of interest in this article.

FUNDING

There is no source of funding for the writing of this article and the author declares that this article is not for commercial purposes

REFERENCES

- Adibelli, D. & Boyaci, B. (2018). The Views of Nurses Related to Innovative Practices In Clinical Teaching. *International Journal of Caring Sciences*. 11(2). 734–742.
- Akhter, Z., Malik G., & Plummer V. (2021). Nurse educator knowledge, attitude and skills towards using high - fidelity simulation: A study in the vocational education sector. *Nurse Education in Practice*. Vol 53. 103048. <https://doi.org/10.1016/j.nepr.2021.103048>
- Akram, A.S., Mohamad, A. & Akram, S. (2018). The role of clinical instructor in bridging the gap between theory and practice in nursing education. *International Journal of Caring Sciences*. 11(2). 876–882. <https://doi.org/10.19080/JOJNHC.2018.07.555707>
- American Association of Colleges of Nursing (2015). *The doctor of nursing practice: Current issues and clarifying recommendations*. Retrieved from <https://www.aacnnursing.org/Portals/42/DNP/DNP-Implementation.pdf>.
- American Association of Colleges of Nursing (2017). *The preferred vision of the professoriate in baccalaureate and graduate nursing programs*. Retrieved from <https://www.aacnnursing.org/News-Information/Position-Statements-White-Papers/Preferred-Vision>.
- American Association of Colleges of Nursing Essentials for Professional Nursing Practice (2019). Retrieved from <https://www.aacnnursing.org/Education-Resources/AACNEssentials>.
- Australian Government: Department of Education, Skills and Employment, 2020. [online] Available at: <https://www.employment.gov.au/> [Accessed 02 March 2023].
- Basak, T., Unver, V., Moss, J., Watts, P., Gaioso, V., (2016). Beginning and advanced students' s perceptions of the use of low- and high-fidelity mannequins in nursing simulation. *Nurse Education Today*. 36, 37–43. <https://doi.org/10.1016/j.nedt.2015.07.020>.
- Berragan, L. (2014). Learning nursing through simulation: A case study approach towards an expansive model of learning. *Nurse Education Today*. 34(8), 1143–1148. <https://doi.org/10.1016/j.nedt.2014.03.005>
- Billett, S. (2015). *Integrating practice-based learning experiences into higher education programs*. New York: Springer Science. doi:[10.1007/978-94-017-7230-3_1](https://doi.org/10.1007/978-94-017-7230-3_1).
- Bittner, N. P., & Bechtel, C. F. (2017). Identifying and describing nurse faculty workload issues: A looming faculty shortage. *Nursing Education Perspectives*. 38(4), 171–176.
- Bohnert, C.A., Lewis, K.L., (2018). Certification, accreditation and professional standards: striving to define competency, a response to ASPIH standards for simulation-based education: process of

- consultation, design and implementation. *BMJ Simul. Technol. Enhanc. Learn.* 4 (3), 114–116. <https://doi.org/10.1136/bmjstel-2018-000308>.
- Booth, T. L., Emerson, C. J., Hackney, M. G., & Souter, S. (2016). Preparation of academic nurse educators. *Nurse Education Practice.* 19, 54–57. <https://doi.org/10.1016/j.nepr.2016.04.006>.
- Breytenbach, C., Ten Ham-Baloyi, W. & Jordan, P.J. (2017). An integrative literature review of evidence-based teaching strategies for nurse educators. *Nursing Education Perspectives.* 38(4), 193–197. <https://doi.org/10.1097/01.NEP.0000000000000181>
- Bvumbwe, T. & Mtshali, N. (2018). Nursing education challenges and solutions in sub Saharan Africa: An integrative review. *BMC Nursing.* 17(1), 1–11. <https://doi.org/10.1186/s12912-018-0272-4>
- Bvumbwe, T. (2016). Enhancing nursing education via academic–clinical partnership: An integrative review. *International Journal of Nursing Sciences.* 3(3), 314–322. <https://doi.org/10.1016/j.ijnss.2016.07.002>
- Chen, J.H., Björkman, A., Zou, J.H., Engström, M. (2019). Self–regulated learning ability, metacognitive ability, and general self-efficacy in a sample of nursing students: a cross-sectional and correlational study. *Nurse Education Practice.* 37, 15–21. <https://doi.org/10.1016/j.nepr.2019.04.014>.
- Da Silva, P.S. & Almeida de Figueiredo, N.M. (2017). The teacher’s body elements that influence the teaching-learning process of university nursing students. *Investigacion y educacion en enfermeria.* 35(3), 268–275. <https://doi.org/10.17533/udea.iee.v35n3a03>
- Dadgaran, I., Parvizy, S. & Peyrovi, H.(2012).A global issue in nursing students’ clinical learning: The theory–practice gap. *Procedia-Social and Behavioral Sciences.* 47, 1713–1718. <https://doi.org/10.1016/j.sbspro.2012.06.888>
- Davis, A.H., Kimble, L.P., Gunby, S.S., 2014. Nursing faculty use of high-fidelity human patient simulation in undergraduate nursing education: a mixed-methods study. *Journal of Nursing Education.* 53 (3), 142–150 <https://doi.org.ezproxy.lib.monash.edu.au/10.3928/01484834-20140219-02>.
- Deng, F.-F. (2015). Comparison of nursing education among different countries. *China Nursing Res.* 2 (4), 96–98. <https://doi.org/10.1016/j.cnre.2015.11.00>.
- Dias, J. (2013). The future of nursing education. *Canadian Medical Education Journal.* 4 (1), e113–4. Retrieved from (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4563656/>)
- Dyson, S. (2018). Critical Pedagogy in Nursing Transformational Approaches to Nurse Education in a Globalized World. *Palgrave Macmillan.* pp. 1–190. <https://doi.org/10.1057/978-1-137-56891-5>.
- Engström, M., Mårtensson, G., Pålsson, Y., Strömberg, A. (2021). What relationships can be found between nurses' working life and turnover? A mixed-methods approach. *Journal of Nursing Management.* 1–10 <https://doi.org/10.1111/jonm.13494>.
- Eriksson, E., Berg, S., Engström, M. (2018). Internationally educated nurses' and medical graduates' experiences of getting a license and practicing in Sweden - a qualitative interview study. *BMC Med. Educ.* 18, 1–14. <https://doi.org/10.1186/s12909-018-1399-4>.

- Evans, S. (2012). *Nurse Educators' Perceptions of Skill Sets Needed For Effective Teaching Using High Fidelity Patient Simulator Scenario Experiences In A Baccalaureate and A Practical Nursing Degree Program*. (Ed.D.): D'Youville College. Retrieved from <<http://search.ebscohost.com/login.aspx?direct=true&db=jlh&AN=109859792&site=ehost-live>>
- Fukada, M. (2018). Nursing competency: definition, structure and development. *Yonago Acta Med.* 61, 1–7. <https://doi.org/10.33160/yam.2018.03.001>.
- Gaberson, K.B., Oermann, M.H. & Shellenbarger, T. (2017). *Clinical teaching strategies in nursing*. 4th edn., Springer, New York, NY.
- Ghazal, L.V., Ma, C., Djukic, M., Squires, A. (2020). Transition-to-U.S. practice experiences of internationally educated nurses: an integrative review. *West. J. Nurs. Res.* 42, 373–392. <https://doi.org/10.1177/0193945919860855>.
- Halabi, J.O., Nilsson, J., Lepp, M. (2021). Professional competence among registered nurses working in hospitals in Saudi Arabia and their experiences of quality of nursing care and patient safety. *Journal of Transcultural Nursing.* 32, 425–433. <https://doi.org/10.1177/1043659621992845>.
- Halcomb, E., Salamonson, Y., Davidson, P., Kaur, R., Young, S. (2014). The evolution of nursing in Australian general practice: a comparative analysis of workforce surveys ten years on. *BMC Fam. Pract.* 15 (52), 52. <https://doi.org/10.1186/1471-2296-15-52>.
- Harder, B.N., Ross, C.J., Paul, P. (2013). Instructor comfort level in high-fidelity simulation. *Nurse Education Today.* 33 (10), 1242–1245. <https://doi.org/10.1016/j.nedt.2012.09.003>.
- Hart, S. (2017). Today's learners and educators: Bridging the generational gaps. *Teaching and Learning in Nursing.* 12(4), 253–257. <https://doi.org/10.1016/j.teln.2017.05.003>
- Joanna Briggs Institute (JBI). (2014). *Joanna Briggs Institute Reviewers Manual*. 2014 Ed. JBI Institute. University of Adelaide : South Australia
- Landers, R.S.. (2015). *Implementation of a Faculty Peer Review Program*. Doctoral dissertation, Department of Nursing Science. Capella University: TN.
- Lejonqvist, G.-B.&Kajander-Unkuri, S. (2021). Evaluating nursing competence with the nurse competence scale from an ontological and contextual point of view: an integrative literature review. *Nord. J. Nurs. Res.* 1–11 <https://doi.org/10.1177/20571585211000972>.
- Leonard, L., McCutcheon, K. & Rogers, K.M. (2016). In touch to teach: Do nurse educators need to maintain or possess recent clinical practice to facilitate student learning?. *Nurse Education in Practice.* 16(1), 48–151. <https://doi.org/10.1016/j.nepr.2015.08.002>
- Lovrić, R., Prlić, N., Milutinović, D., Marjanac, I., & Žvanut, B. (2017). Changes in nursing students' expectations of nursing clinical faculties' competences: A longitudinal, mixed methods study. *Nurse Education Today*, 59, 38–44. <https://doi.org/10.1016/j.nedt.2017.08.013>
- Luhanga, F.L. (2018). The traditional-faculty supervised teaching model: Nursing faculty and clinical instructors' perspectives. *Journal of Nursing Education and Practice.* 8(6), 124–137. <https://doi.org/doi.org/10.5430/jnep.v8n6p124>
- McAllistair, M. & Flynn, T. (2016). The capabilities of nurse educators (CONE) questionnaire: development and evaluation. *Nurse Educ. Today.* 39, 122–127.

- Munangatire, T., Naidoo, N. (2017). Exploration of high-fidelity simulation: nurse educators' perceptions and experiences at a school of nursing in a resource-limited setting. *Afr. J. Health Prof. Educ.* 9 (1), 44. <https://doi.org/10.7196/AJHPE.2017.v9i1.739>.
- National League for Nursing. (2012). *Certified Nurse Educator (CNE) 2012 Candidate Handbook*. (<http://www.nln.org/> (15.2.2023)).
- Nilsson, J., Engstrom, M., Florin, J., Gardulf, A., Carlsson, M. (2018). A short version of the nurse professional competence scale for measuring nurses' self-reported competence. *Nurse Educ. Today* .71, 233–239. <https://doi.org/10.1016/j.nedt.2018.09.028>.
- Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D. et al., (2021). Updating guidance for reporting systematic reviews: Development of the PRISMA 2020 statement. *Journal of Clinical Epidemiology*. 134, 103–112. <https://doi.org/10.1016/j.jclinepi.2021.02.003>
- Phillips, K.F., Mathew, L., Aktan, N. & Catano, B. (2017). Clinical education and student satisfaction: An integrative literature review. *International Journal of Nursing Sciences*. 4(2), 205–213.
- Powell, E., Scrooby, B. & Van Graan, A. (2020). 'Nurse educators' views on implementation and use of high-fidelity simulation in nursing programmes. *African Journal of Health Professions Education*. 12(4), 215–219. <https://doi.org/10.7196/AJHPE.2020.v12i4.1411>
- P.-L. Wu et al. (2022). Development and Validation of Clinical Nursing Teacher Self-Efficacy Scale and Investigation of Self-Efficacy among Clinical Nursing Teachers. *Asian Nursing Research*, 16 (2022), 125-133. <https://doi.org/10.1016/j.anr.2022.05.001>
- Ramsburg, L., & Childress, R. (2012). An initial investigation of the applicability of the Dreyfus skill acquisition model to the professional development of nurse educators. *Nursing Education Perspectives*, 33(5), 312–316.
- Salminen, L., Minna, S., Koskinen, S., Katajisto, J., & Leino-Kilpi, H. (2013). The competence and the cooperation of nurse educators. *Nurse Education Today*, 33(11), 1376–1381.
- Shoghi, M., Sajadi, M., Oskuie, F., Dehnad, A. & Borimnejad, L. (2019). Strategies for bridging the theory-practice gap from the perspective of nursing experts. *Heliyon*. 5(9), e02503. <https://doi.org/10.1016/j.heliyon.2019.e02503>
- Simes, T., Roy, S., O'Neill, B., Ryan, C., Lapkin, S., & Curtis, E. (2018). Moving nurse educators towards transcendence in simulation comfort. *Nurse Education in Practice*, 28, 218–223. <<https://doi.org/10.1016/j.nepr.2017.10.024>>.
- Taniyama, M., Kai, I. & Takahashi, M. (2012). Differences and commonalities in difficulties faced by clinical nursing educators and faculty in Japan: A qualitative cross-sectional study. *BMC Nursing*. 11(1), 1–11. <https://doi.org/10.1186/1472-6955-11-21>
- Wells, L. & McLoughlin, M. (2014). Fitness to practice and feedback to students: A literature review. *Nurse Education in Practice*. 14(2), 137–141. <https://doi.org/10.1016/j.nepr.2013.08.006>
- Wheeler, R.M., Foster, J.W., Hepburn, K.W. (2013). The experiences of internationally educated nurses in the southeastern United States of America. *Int. Nurs. Rev.* 60, 397–404. <https://doi.org/10.1111/inr.12023>.

- World Health Organization. (2016). *Nurse educator core competencies*. viewed 02 March 2023. from https://www.who.int/hrh/nursing_midwifery/nurse_educator050416.pdf.
- World Health Organization, 2020. State of the World's Nursing 2020: Investing in Education, Jobs And Leadership.
- Xu, Y., He, F. (2012). Transition programs for internationally educated nurse: What can the United States learn from the United Kingdom, Australia, and Canada?. *Nursing Economy*. 30, 44-46
- Yu, M., Tong, H., Li, S., Wu, X.V., Hong, J., Wang, W.(2021). Clinical competence and its association with self-efficacy and clinical learning environments among Chinese undergraduate nursing students. *Nurse Education Practice*. 53, 103055 <https://doi.org/10.1016/j.nepr.2021.103055>.
- Zlatanovic, T., Havnes, A., & Mausethagen, S. (2017). A research review of nurse Teachers' competencies. *Vocations and Learning*, 10, 201– 233. <https://doi.org/10.1007/s12186-016-9169-0>