

**How to Cite:**

Retnaningsih, D. (2022). Nursing competency for nursing students: An integrative review. *International Journal of Health Sciences*, 6(S5), 6051–6058.  
<https://doi.org/10.53730/ijhs.v6nS5.11316>

# Nursing competency for nursing students: An integrative review

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**Abstract**--Comprehensive nursing is a form of nursing services including biological, psychological, social, spiritual and cultural services necessarily performed by nurses. The literature review used an integrative review approach to explain nursing competency. The methods of this study used the theme analysis method by obtaining the data from Science Direct, Pro Quest, Pub Med, Science and Technology Index (SINTA) published from 2010 to 2021 and obtained 16 articles related to the development of instruments, competencies, comprehensive of nursing, nursing students. There were 3 themes of nursing competency. The first is competence related to the biological, psychological, social, spiritual and cultural competence. The second is competence related to caring and etikal knowlede for patients in any conditions and the third is knowledge and information technology competence. The term of competency refers to a comprehensive set of knowledge, skills, attitudes, and ethics required by the nurses to provide a safe and effective services to the clients. A nurse who has nursing competency is most likely capable of implementing the 3 themes of nursing competency.

**Keywords**--Instrument development, competency, comprehensive nursing, nursing student.

**Introduction**

The comprehensive nursing is a care service focused to recognize and integrate the biological, psychological, social, cultural, or spiritual environments and modality in everyday life and clinical practice. Besides, it is also able to create nursing and healing services for patients. (Barbara Montgomery Dossey, 2013)The application of comprehensive nursing including knowledge, skills, performance, attitudes and values indicated that this concept is acceptable and able to be developed according to the competency standards and assessment instruments.(Cowan, D.T., Wilson-Barnett, J., Norman, 2007) The nursing approach is a comprehensive model involving all aspects of care such as mental,

spiritual, and social needs of the patients. The Studies showed that most nurses were not familiar with the nursing model and only considered fulfilling biological needs.(Fallis, 2019)

The competency in nursing care is an appropriate mechanism of care services by optimizing patient health recovery. The development of nursing competencies among health care providers and nursing students was considered a major solution in improving the quality of care and reducing inequality in health services.(Bernhard et al., 2015; Blanchet Garneau et al., 2017; Rebecca M. Aldrich, 2017) The nursing competency must be apprehended by nurses and nursing students. ("Cultural Competence: Annotated Bibliography 2009–2014," 2017) The clinical nursing competency framework to reach a national and international consensus required supervision. The London competency standard claimed that the term of competency refers to a comprehensive set of knowledge, skills and attitudes required to perform the activity safely and effectively without direct supervision.(NMC), 2010) Canadian competency standards were defined as the ability of registered nurses to integrate and apply the knowledge, skills, judgments and personal attributes needed to perform the activity safely and ethically in the roles and settings determined by 10 cooperative nursing supervisory bodies.(Black, J., Allen, D., Redfern, 2008) Therefore, the assessment of nursing competency is important to be considered by educators and education managers.

Experienced nurses had intended to contribute significantly to the education of the future nurses despite the difficulties mainly due to the shift from field nurses to classroom nurses. (Boyd, P., & Lawley, 2009) The students required preparation and formal education to ensure initial competency for a better learning process and nursing facilities. (Salminen et al., 2021)The development of comprehensive nursing continued to change along with the development of health science and technology and the increasing complexity of health problems faced by the community. Nurses' sensitivity in providing nursing services was the main key to quality and affordable services. Critical nursing is a specialist area of nursing developed to meet the service needs of patients with acute and life-threatening health problems and required intensive care.

Some competency assessment instruments in nursing education lacked evidence of validity, reliability and flexibility. Otherwise, it was necessary to acquire the valid and reliable instruments which had an impact on learning through structured feedback to improve the quality of the graduates. Therefore, it was one of the duties of nurses to develop nursing competency instruments. The literature review used an integrative review approach to explain nursing competency.

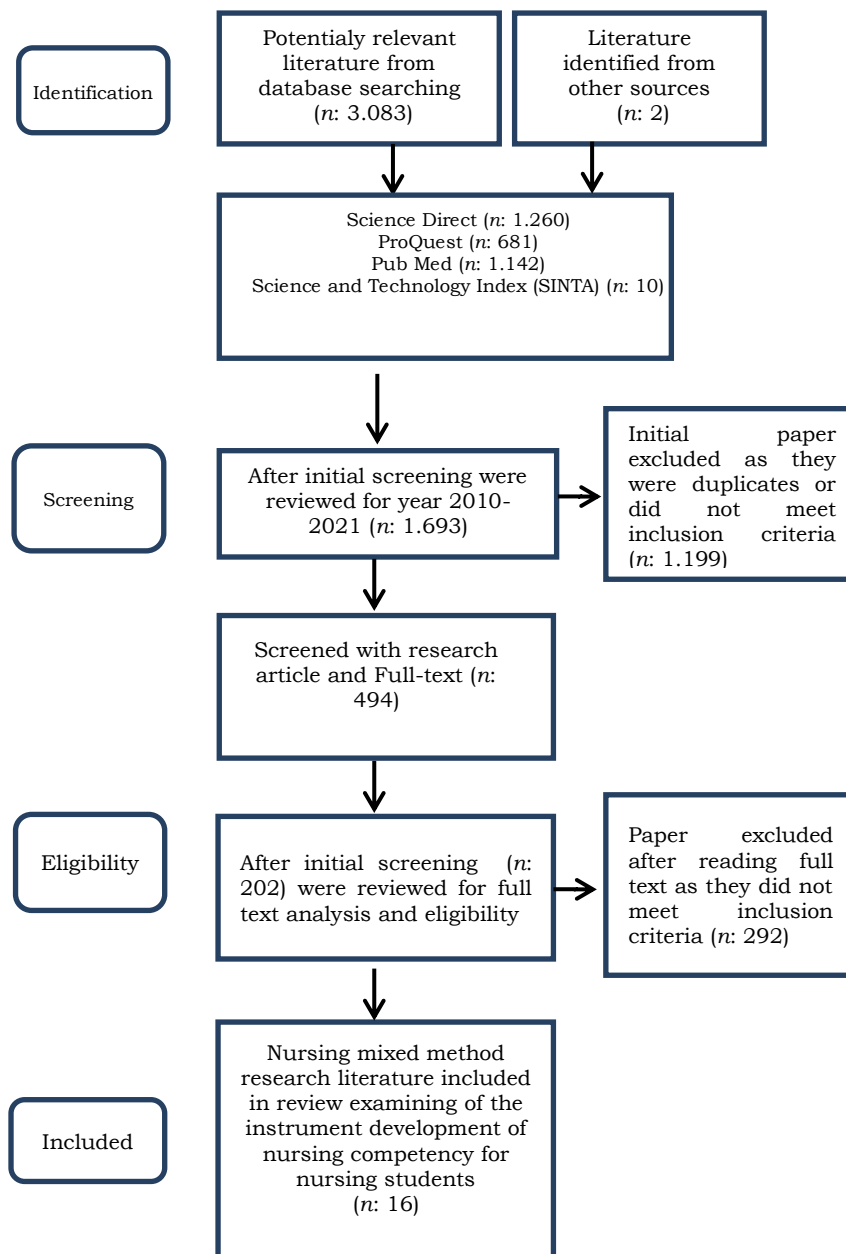


Fig. 1. Flow chart of study selection process

## Method

An integrative review was conducted to perceive the comprehensive knowledge on the development of current nursing competency in nursing studies. The purposes of an integrative review are to explain the definition and themes of nursing competency as well as the domain of nursing competence.

The integrative review methodology provides a broad overview towards a greater understanding of interesting issues, which is in line with the goal of developing nursing competencies in nursing students professionally. (Whittemore & Knafl, 2005) Integrative reviews include qualitative, quantitative and theoretical sources. The review phase includes problem identification, literature research, data evaluation, data analysis and discussion of findings. (Whittemore & Knafl, 2005)

### *Identification of problems*

Professional competency is a basic ability in decision making process according to the clinical decisions using previous experience in certain situations. (Honken, 2013) The development of nursing competency has rarely been reviewed collectively. A review of these concepts was needed to facilitate the development of nursing instruments. The aim was to collect the data from a research article database for developing nursing competency instruments in nursing students; to compare several articles related to developing nursing competencies in nursing students and to conclude the nursing competencies for nursing students.

### *Data collection methods*

Database searches were conducted at Science Direct, Pro Quest, Pub Med, Science and Technology Index (SINTA). A number of 3,083 (Shen, 2015) articles was found using keywords; instrument development; competency, comprehensive nursing; nursing students. Identification of several articles related to the research topic was conducted from 2010 to 2021. Inclusion criteria included the research articles on the development of nursing competencies in nursing students using the methodology of qualitative, quantitative studies, literature reviews, systematic reviews and an integrative review. Exclusion criteria included specific competency areas such as cultural competencies, spiritual competencies. There were 16 articles corresponding to the topic.

### *Data Evaluation*

The data evaluation was carried out by classifying the articles and evaluating the quality of each study. (Whittemore & Knafl, 2005) There were 14 out of 16 articles which focused on the instruments development with mixed method. The other 2 articles used qualitative methods.

### *Data Analysis*

Data analysis was perceived as a challenge in an integrative review. From the several articles reviewed, an epistemological analysis was carried out in the articles obtained. The process of analysis data were as follows; Each article was read and categorized into subgroups based on the type of evidence. (Whittemore & Knafl, 2005) In conducting an integrative review, the method of grouping data using the following columns: author, year, and location; purpose; sample and instrument characteristics; method; results; conclusion. Furthermore, the data was displayed, compared, examined and the categories of data were developed.

## Discussion

Developing the nursing competency instruments is the ability to assess nursing competencies in nursing students. Articles relating to the development of nursing competency instruments described themes of nursing competence. Articles related to the development of nursing competency instruments in nursing students came from Japan, Germany, Iran, Singapore, Spain, Taiwan, Canada, Turkey, Denmark, Ireland, Slovenia, USA, Norway, Jordan, and Australia.

The nursing competence is defined as the ability of the nurses to effectively demonstrate a set of attributes, such as personal characteristics, attitudes, values, knowledge, and professional skills. Furthermore, it is also necessary for the nurses to fulfill their professional responsibilities through nursing practice. A competent nurse must possess these attributes, such as motivation and ability to provide the effective and professional safety nursing care to the clients. (Takase & Teraoka, 2011)

There were 3 themes of nursing competency namely, the competence related to the biological, psychological, social, and spiritual competence. (Kinchen, 2015). The competence related to the caring and etikal knowlede in any healthcare which includes the attitudes, knowledge of ethics, moral and ethics, relationship with the patients and other nurses. The competence related to the knowledge of information technology. This competence includes the learning purposes in ICU and emergency room, the knowledge of nursing care, the knowledge on the technology and its implication on the nursing care process.

In the research article, it was conveyed that nursing competencies are personal competencies; social competency; professional competency; and methodological competency. (Carius et al., 2016) In the research articles on development and psychometrics of assessment instruments, it is explained that there are 4 domains and assessment items, namely professional, legal and ethical nursing practice; care management; nursing leadership and management; professional development. In other research articles on nursing competencies, it was stated that the scale of nursing competencies is general aptitude; education; ethical practice orientation; team work; professional development.

The competence related to the biological, psychological, social, and spiritual competence. The biological needs related to the physical problems. The psychological or emotional needs include the needs to provide love, feel the love, be loved and treated with respect, have the intimacy (feeling close to others), provide a touch and be a good listener. (Ambarwati et al., 2017) Social needs can be fulfilled by the social interaction and freedom of expression. The thing that should be considered in social interaction is the ability to understand others since it can lead to a good relationship due to the mutual trust between each other. (Ambarwati et al., 2017) The spiritual needs related to the belief and religious practice and obligation as well as the needs to receive the forgiveness, love and have faith in God. (Hana Nur Arini, Wastu Adi Mulyono, 2015)

The competence related to the caring and etikal knowlede in any healthcare which includes the attitudes, knowledge of ethics, moral and ethics, relationship with

the patients and other nurses. The variables of attitudes include how nurses provide client-centered nursing care; follow basic principles in nursing practice; make their own decisions in nursing practice and take responsibility; predict risk factors and prevent the medical errors in their own practice; modify plans and prioritize nursing care according to the client needs; gather information to get a complete understanding of the client; evaluate the results of nursing care towards goals. The variables of moral and ethics include how nurses are able to provide nursing care according to their main tasks and functions; confirm the completion of tasks when nurses delegate their duties to other nurses; and report if there is any medical errors likely endanger the patients. The variables of relationship with the patients and other nurses include how nurses are able to communicate with clients regardless of the age, cultural background, and value system; communicate the client needs to other health care professionals. (Takase & Teraoka, 2011) The variables of nursing care in team include how nurses are able to communicate to establish good relations with nurses and other health professionals.

The competence related to the knowledge of information technology include the needs of learning purpose, the knowledge of nursing care, the knowledge on the technology and its implication on the nursing care process. This competences include how the nurses are able to identify the cause and solution of the problem; identify the problems around themselves by conveying the truth; identify the learning needs and reflect the nursing practice; make a self-study plan for professional improvement and look for the answers to the questions that arise from nursing practice. (Takase & Teraoka, 2011)

## **Conclusion**

The literature study was conducted from a database on the assessment of nursing competencies in nursing students in the last 10 years. The greater the number of samples used to develop and test the evaluation scale and the many statistical methods used the better the data to be used nationally and internationally. Most of the studies reported were cross sectional studies required to determine changes in competence throughout the nurse education process and also on nursing students expected to become a qualified nurse. A psychometric assessment in nursing competence required further assessment with analysis methods and the application of a more sophisticated assessment scale, the possibility must exist. With a large database available, combining databases from various studies and several instruments in searching for common dimensions for nursing competencies was able to form a better instrument in the future. Competency standards included the personal characteristics, professional attitudes, values, knowledge, and skills to fulfilling their professional responsibilities through necessary practice.

An integrative review was conducted to explore the development of nursing competencies in nursing students as presented in 16 peer-reviewed articles. There were 3 themes of nursing competency. The first is competence related to the biological, psychological, social, spiritual and cultural competence. The second is competence related to caring and etikal knowlede for patients in any conditions and the third is knowledge and information technology competence.

## Acknowledgments

Appreciation was given to the supervisor who supported the whole process of this study.

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