

# Development of a Nursing Competency Framework: Thematic Content Analysis

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## Abstract

**Background:** Competency is one of the controversial issues in health care that is of great importance in various nursing areas such as education, clinical care and nursing management. Although several studies have been conducted on the various dimensions of this concept, such as the meaning of competency and how it is measured in nursing, and many articles have been published in this regard, but there are hardly any study conducted to identify competency frameworks in nurses and development of such frameworks. Accordingly, the present study attempts to investigate the competency framework in nursing. Identifying the competency framework in nursing allows managers and educators to take the effective steps to enhance nurses' professional competencies by choosing appropriate strategies. Therefore, this study aims to design, formulate and develop a competency framework in nursing.

**Methods:** In this research, the thematic qualitative content analysis was used. Using a purposive sampling method, 5 nursing experts and 10 nursing staff working in clinical setting were selected as the participants. The structured interview was used to collect the information.

**Results:** regarding the theme of "formulation and development of the competency framework in the nursing profession", a total of 10 categories and 20 sub-categories were extracted.

**Conclusion:** The results of this study showed that providing a competency-based model, and expanding and standardization of competency concept in different dimensions of nursing profession is a necessity; considering that clarification of the concept of competency, the recognition of its dimensions, characteristics and the factors affecting it will be helpful in determining the criteria and standardizing the competency tools.

**Key words:** Competency, Competency framework, Nursing profession

## INTRODUCTION

The term "competency" has become one of the most common words in nursing. Competency is a complex and ambiguous concept, and it is also one of the controversial topics in health care, which is of significant importance in different areas of nursing including education, clinical setting and nursing management. There are numerous definitions of this concept, and several studies have been

published in this regard. However, there is a lot of ambiguity and confusion in understanding this concept (1). Nursing services are one of the most important components of hospital services and the quality of health care depends on the competency of nurses to a great extent and, with the advancement of nursing profession, the nurse is expected to be able to provide more complex care according to the needs of patients. In this regard, achieving professional competencies during training enables nurses to perform their roles and duties with an appropriate quality (2). The goal of nursing education programs is to prepare nursing students to act as clinical nurses, maintain professional standards and promote community health (3). Nurses are the largest group among health workers and must be accountable for the quality of care provided from both the legal and ethical perspectives. Nurses, as the largest portion of the professional staff in providing health care

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services, have the most contact with clients and have diverse roles and numerous tasks. Due to the diversity and complexity of their roles, nursing is a professional activity that requires a sense of responsibility, accuracy, and awareness, and any deficiency and lack of competency in this group directly affects the quality and quantity of health care and ultimately the health of individuals and society (4). Today, with the rapid progress of science and the growing trend of new technologies in various fields, we are seeing tremendous changes in all professional groups, including those related to human health (5). Changes that have led to the emergence of new educational perspectives and the extension of knowledge boundaries for providing better human care; thus, nursing is certainly not excluded from this rule due to its occupational status and because, in the 21<sup>st</sup> century, consumers of health services are increasing every day, the role of nurses as key members of the healthcare system is evident in providing effective care to the help seekers (6). The Department of Higher Education in Massachusetts (DHE) and Massachusetts Organization of *Nurse* Executives (MONE) presented a framework called Nursing of Future (NOF) for nursing education and performance in the future, which provides 10 core competencies in the field of knowledge, including: patient-centered care, Professionalism, technology and informatics, evidence-based performance, leadership, health system requirements-based performance, security, communication skills, teamwork and quality improvement (7). In Iran, the need to pay attention to the clinical competency of nurses in recent years is felt more than before because health services systems have to inevitably increase the effectiveness of human resources employed in this systems due to the increased awareness of patients and the expectation of the community about the quality of services (8). Despite the fact that some issues related to the competency and clinical competency frameworks, such as the viewpoint of managers, educators, students and nursing graduates about clinical education, the problems in clinical education and the outcomes of nursing clinical education are mainly studied in the form of student dissertations and by positivist quantitative approaches, but extensive qualitative research has been very limited in this regard and to our knowledge so far no study on the content analysis of the nursing competency framework has been published in the world and Iran (9). Therefore, a widespread attention to the competency, development and standardization of this concept in various aspects of nursing profession is a necessary. Also, clarifying the content of qualifications, recognizing the dimensions, characteristics and factors affecting it will be helpful in determining the criteria for standardizing the competency tools and, consequently, in evaluating students, nurses and quality of care (10). However, the development of any competency framework in the first step requires reaching a consensus on the

definition of competency (11, 12). Then, based on the definition and the adopted approach a qualification model can be developed. In the past decade, several frameworks and models have been introduced as competency frameworks. These frameworks are often different in terms of information they collect. Some patterns emphasize the generic abilities and qualitative characteristics of individuals, while another frameworks focus on nursing specialized skills. In this paper, it was tried to provide job competency grounds in a comprehensive approach by considering three factors of job roles, occupational behaviors, and a combination of individual competencies. The most important step in designing training programs based on this approach is to determine a competency model and framework. Indeed, this stage is the underlying ground of development plans (13, 14). Although competency and competency frameworks have been reconsidered by educators and policy makers in recent years, but there is little agreement in many areas, and the recent discovery of the weakness of the educational process and content has attracted the attention of the community to this issue and made it a concern. Competency is considered as an important goal of nursing and nursing education (11). In recent years, some studies have been conducted in Iran and the world about the competency of medical personnel and students from various medical sciences. However, the total of these studies has not reached a consensus on nursing care and competency-based education in the nursing group, and a competency framework in the nursing group has not yet been provided (15, 16). Providing a comprehensive, competency-based framework and extension and standardization of the concept of competency is a necessity in the nursing group. Through a thematic analysis of competency content, the researcher seeks to clarify the concept of competency, to recognize its dimensions, characteristics and the factors affecting it in determining the criteria for standardizing the competency framework and, consequently, to contribute to students education and the quality of care.

## METHODS

In this research, the thematic qualitative content analysis method was used. Using a purposive sampling method, 5 nursing experts and professors, as well as 10 nursing staff working in clinical setting were selected as the participants. The structured interview was used to collect information. To do this research, a qualitative approach with thematic content analysis method was used, which is a way to gain insight through the discovery of meanings. This insight is obtained through the perception of the whole situation. In this research, 5 nurses working in different parts of hospitals of country and 5 nursing teachers and educators

were selected through purposive sampling and sampling was done until data saturation. Initially, the participants were informed about the purpose of the research, the interview method, the confidentiality of the information and the right of individuals to participate in the research or refusal to do so, and informed consent was received for interviewing and recording the interview. In order to increase the accuracy of the collected data, with the permission of the participants in the research, a voice recorder was used during the interviews. The interviews were semi-structured and carried out using a framework developed for interviewing. In each section of the interview, as needed, the Probing Method was used to obtain more information and resolve the ambiguity in the information provided. The duration of each interview was between 45-60 minutes. Interview started with the general question “What are the required competencies of the nursing profession?”, and with the advancement of the interview, more detailed questions were asked about these influential factors. The interviews were transcribed precisely and word-by-word and simultaneous with the process of data collection, data were analyzed. After the end of each interview, the recorded information was transcribed word-by-word in the shortest possible time and after two times of listening. This process was conducted in the same way for all 15 interviews. In order to ensure the accuracy of the information, the researcher reviewed all the transcribed information while listening to the recorded tape. This research was conducted in the places proposed by the participants including the hospital division and the faculty. For the analysis of the text of the interviews, explicit and implicit concepts were identified, coded, summarized, and classified, and ultimately the main themes were extracted. The codes were extracted based on semantic units derived from participant descriptions and then classified according to differences or similarities. In order to verify the reliability of the data, the transcriptions review was done using Member Check with participants and Peer Check with colleagues.

## FINDINGS

In this qualitative study, 10 nurses who were in supervisor, head nurse and nurse positions were interviewed with. Four nurses had a master’s degree, and the rest had a bachelor’s degree in nursing; three of them were male nurses and the rest were women. Their age ranged from 25 to 40 years and their work experience ranged from 5 to 20 years. The results of interviews with participants about their view on the generic competency framework of occupational roles represented 100 primary codes, 20 sub themes and 10 main themes (Table 1).

**Table 1: Major competencies extracted based on nursing roles from interviews with participants of the study**

Occupational role, responsibility and accountability
Health assessment and diagnosis
Medical management; and
Health promotion and disease/damage prevention

These themes are based on the competency, which are categorized in advanced nursing care: under the national framework. The core competencies in this framework are categorized into four categories:

### The Second Theme: Health Assessment and Diagnosis

Based on the scope of her knowledge, the nurse, by integrating critical evaluation, obtains the necessary information to identify and diagnose the patient’s needs. Throughout the process, the nurse identifies and reduces health risk factors in collaboration with patients, promotes awareness of health issues and supports health behaviors.

### The Third Theme: Management of Treatment

Nurses collaborate with patients on the priorities of health care delivery in the continuum of health care. Nurses choose appropriate interventions from a range of pharmaceutical and non-pharmaceutical interventions to help the patients to maintain functional, physiological, and psychological stability in order to achieve optimal health.

### The Fourth Theme: Promoting Health and Preventing Disease and Damage

Nurses focus on health improvement in all areas of care. A nurse will lead other members of the health care team, other sectors or the health community or cooperates with them in activities that promote health and decrease the risk of disease and damage to patients individually or in a group of patients or in the whole population (Figure 1).

## CONCLUSION

This research has been done in three phases: in the first phase, a framework of the main competencies of nursing was developed by a review of the literature. In the next phase, its formal and content validity was examined and approved by the experts in Delphi stages. In the third phase, the study examined the degree of transparency and importance and application of determined competencies in nursing education programs. The results of this study showed that the main competencies of nursing based on roles fall into four main themes with 10 sub themes from the viewpoints of nursing educators and nurses. The main objective of developing a competency framework was to promote, guide and lead the nurses’

**1. Theme one: Occupational role, responsibility and accountability**

This category of nursing competency includes core competencies for the other four categories of advanced care in nursing including clinical care, cooperation, counseling and referral, research, and leadership

**Clinical care**

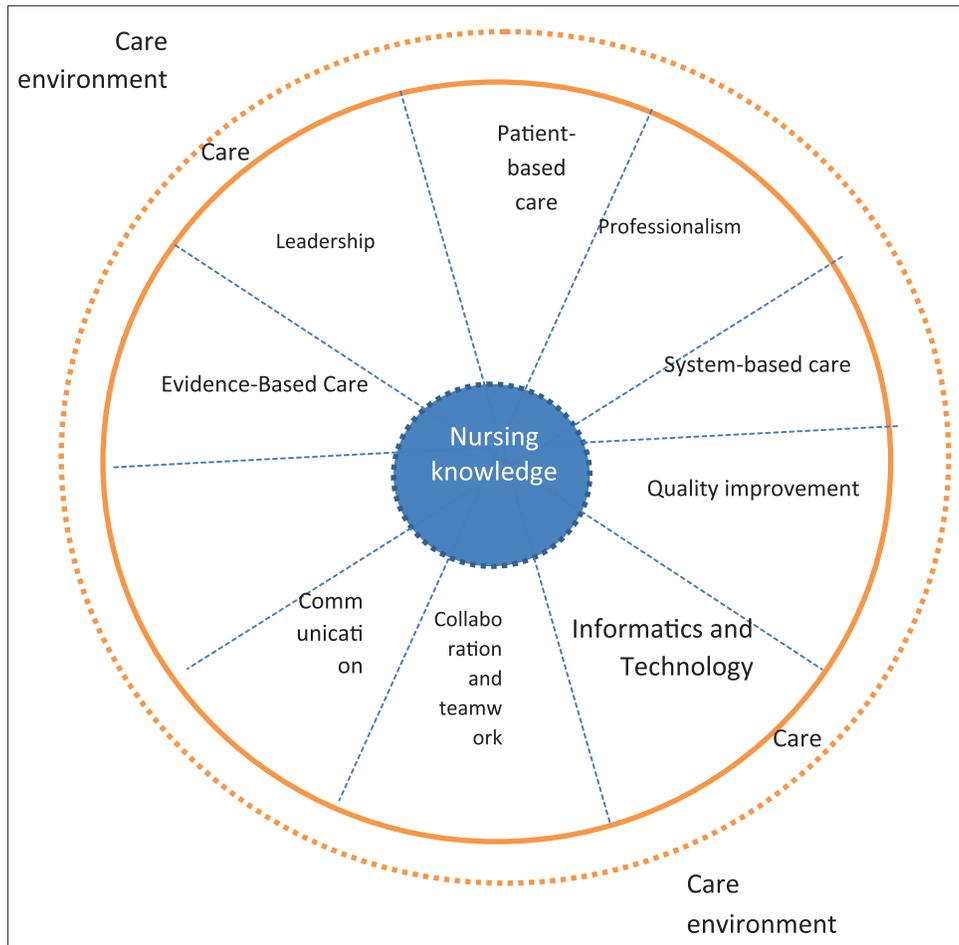
- Works according to professional, ethical and legal standards related to nursing care
- Has an appropriate understanding of the field of activity and changes in the field of work and care and the ways in which these changes affect the responsibilities and obligations
- Patient safety knowledge, safe care and cultural diversity and important health factors in assessing, distinguishing, managing and controlling the treatment of patients and in evaluating the outcomes
- Knowledge of clinical manifestations of normal health incidents, diseases and acute injuries, chronic diseases, complications and emergency health needs, including the etiology effects in the evaluation, diagnosis and management of patients' treatment, and in outcome evaluation

**Cooperation, consultation, referral and research**

- Consults with clients, and refer them to other health care providers at any point in the care continuum if the patient's condition is not within the scope of his or her nursing competency
- Collaborates with members of the health care team to provide patient-focused care at the individual, organizational and system level
- Engages in evidence-based care, as well as the review of evidence and the use of related research and best care guidelines in the provision of health care services

**Leadership**

- Leads the management of patient clinical care and plays the role of a reference, trainer or model
- Establishes, implements, guides, and leads standards, care guidelines, quality assurance activities, and innovative educational and research activities
- Leads the policies which influence health care, health services and public policy



**Figure 1: Generic Model of Nursing Axis Competency Framework extracted**

professional performance. In other words, the goal is to create an appropriate framework to ensure safe nursing care, improve the performance, prevent adverse effects, and anticipate the necessary steps to correct the trends

to provide acceptable levels of nursing care (17, 18). Nurses as professionals are committed to the development and implementation of performance standards (19, 20) through the acquisition of knowledge, learning and

critical application, the assessment of related knowledge, attitudes, skills and judgments (19, 20). Based on the results of this research, a wide range of concepts, dimensions, factors and personal-external conditions was identified as the influential factors on competency. Therefore, the development of tools based on proposed categories can assess the competency of nurses in performing the assigned tasks (21, 22). According to the content of the interview and the findings from the text, the outcome of competency in nursing can be a safe and quality care followed by patient satisfaction, professional development, and reduced health care costs (23, 24, 25). By identifying these factors, nursing managers and nursing educators will be able to rely on their insights, which are based on scientific findings, and design and execute their managerial and educational activities in such a way that provides the requirements for obtaining clinical competency by students and nurses.

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## REFERENCES

1. Frank, J.R., et al. Toward a definition of competency-based education in medicine: a systematic review of published definitions. *Medical Teacher* 2010; 32(8):631-637.
2. Valizadeh S, Mohammadpour Y, Parvan K, Lakdizaji S. The Effect of Outcome-Based Education on Nursing Students' Clinical Competency. *Iranian Journal of Medical Education*. 2009; 9(2):157-65.
3. Epstein RM, Hundert EM. Defining and assessing professional competence. *JAMA* 2002; 287(2): 226-35.
4. Byham M. Competency-based human resource system. *Dev Dimens*. 2002;16(2):1-5.
5. Numminen O, Meretoja R, Isoaho H, Ieino-Kilpi H. Professional competence of practising nurses. *Journal of Clinical Nursing*, 2013. 22, 1411-1423
6. Walsh JL. Educational of Professionals-Is There a Role For a Competency-Based Approach?. School of Dentistry, the University of Queensland. 2009 .
7. Axley, L. (2008). Competency: A concept analysis. *Nursing Forum*, 43(4),214-222. doi:10.1111/j.1744-6198.2008.00115.x
8. Bell HS, Kozokowski SM, Winter RO. Competency-based education in family practice. *Fam Med* 1997;29(10): 701-4.
9. Wray S. Teaching portfolios, community and pre-service teachers' professional development. *Teach Educ*. 2007;23(7):1139-52.
10. Singla P, Rastogi K, Sunita KM. Developing competencybased curriculum for technical programs. India; National Symposium on Engineering Education, 2005.
11. Department of Comparative Studies and Planning Research Institute for Innovation in Higher Education. Introduction to the structure and process of curriculum change in higher education [report project]. Tehran: Research Institute for Innovation in Higher Education; 1998.
12. Alexander M, Runciman P. ICN Framework of Competencies for the Generalist Nurse. ICN – Int Council Nurses, Geneva. 2003; 1-21
13. Khomeiran RT, Yekta ZP, Kiger AM, Ahmadi F. Professional competence: factors described by nurses as influencing their development. *Int Nurs Rev* 2006; 53: 66-72.
14. Balakrishnan s. (2005). Competency Based Education System. India Institute of Science, Bangalore.
15. Kisely SR, Donnan SP. Competencies for part 2 of the examination for membership of the Faculty of Public Health Medicine. *J Public Health Med* 1997; 19:117.
16. Patterson F, Ferguson E, Lane P, Farrell K, Martlew J, Wells A. A competency model for general practice: implications for selection, training, and development. *Br J Gen Pract* 2000; 50:18893.
17. Norman G. The long case versus objective structured examinations. *BMJ* 2002;324:7489.
18. Epstein RM, Hundert EM. Defining and assessing professional competence. *JAMA* 2002; 287(2): 226-35.
19. Byham M. Competency-based human resource system. *Dev Dimens*. 2002;16(2):1-5.
20. Numminen O, Meretoja R, Isoaho H, Ieino-Kilpi H. Professional competence of practising nurses. *Journal of Clinical Nursing*, 2013. 22, 1411-1423
21. Walsh JL. Educational of Professionals-Is There a Role For a Competency-Based Approach?. School of Dentistry, the University of Queensland. 2009 .
22. Axley, L. (2008). Competency: A concept analysis. *Nursing Forum*, 43(4),214-222. doi:10.1111/j.1744-6198.2008.00115.x
23. Bell HS, Kozokowski SM, Winter RO. Competency-based education in family practice. *Fam Med* 1997;29(10): 701-4.
24. Wray S. Teaching portfolios, community and pre-service teachers' professional development. *Teach Educ*. 2007;23(7):1139-52.
25. Industrial Management. Project management training needs assessment report is based on merit. Tehran: Industrial Management Publication; 2003.

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