



Assessing of the learning needs of nurses in medical and surgical and emergency wards: nursing continuing education requirements

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Abstract

Introduction: Continuing education (CE) is increasingly needed for nurses to keep pace with the rapid changes in patient care. A Learning Need Assessment (LNA) is a systematic approach to examining what individuals or groups need to learn. LNAs are often associated primarily with continuing education. Current CE programs are not well designed for showing nurses' learning needs. Few programs are underpinned by needs analysis in some countries.

Design and Method: This cross-sectional study was conducted to assess the learning needs of clinically based nurses within medical, surgical and emergency units in Tehran (capital of Iran) hospitals. Data were collected using a learning needs assessment questionnaire developed based on nursing texts and literatures with calculated CVI equal to 0.91 and Chronbach Alpha equal to 0.87. It includes demographic information and 30 learning need for nurses. Nurses that had adequate experience in clinical nursing conveniently selected and determined their learning need.

Results: Ten educational need priorities were determined with 314 nurses, included: tele-nursing (distance-care) (71.60%), hospital infection control and personal protection (61.80%), new approaches of patient education (58.7%), professional communication (57.4%), safety and risk management (53.4%), wound nursing care and New way dressing (50.6%), Nursing research (49.5%), Nursing Law (48.1%), Nursing management (46.9%), Correct Reporting and documentation (46.3%) were among the top 10 education priorities, and over 45% of nurses needed full education.

Conclusion: Learning need assessment is an important and first step of educational planning for continuing education that can provide useful, effective and cost effective knowledge and skills for nurses.

Keywords: learning need assessment, continuing education, medical and surgical nurses, nursing education

Mohamadi S, Borhani F, Nikravan-Mofrad M, Abbaszadeh A, Monajemi F, Moghaddam HR (2019) Assessing of the learning needs of nurses in medical and surgical and emergency wards: nursing continuing education requirements. *Eurasia J Biosci* 13: 695-700.

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INTRODUCTION

Continuing education and learning is vital for health care professionals to be qualified in performing their jobs (Jest et al. 2011). Nurses, like all professionals, need to update knowledge to ensure that they can provide the best possible care for their patients and communities. The practice of professional nursing requires a commitment to lifelong learning (Tyer-Viola et al. 2013).

Lifelong learning is inevitable necessity for successful professional carrier of everybody. Lifelong

learning is not usual presentment at some formal courses. Lifelong learning is a component of regular daily job that enabled by the ability to learn acquired at University (Mirzianov et al. 2017). Nursing Continuing education (CE) attendance is among the most effective approaches for nursing workforces to preserve and

Received: March 2019

Accepted: May 2019

Printed: July 2019

improve staff competence and update knowledge and skills (Jho and Kang 2016). Continuing education is defined by the Nursing Professional Development: Scope and Standards of Practice (American Nurses Association [ANA] & National Nursing Staff Development Organization [NNSDO], 2010, p. 83) as “systematic professional learning experiences designed to augment the knowledge, skills, and attributes of nurses and therefore enrich the nurses’ contributions to quality health care and their pursuit of professional career goals” (Berman et al. 2016).

Continuing education is increasingly needed for nurses to keep pace with the rapid changes in patient care that occurs due to the advancement of knowledge and technology (Ni et al. 2014) and it is currently the most common method of illustrating professional competence and it helps to eliminate gaps between formal preparation and practice, enhances clinical skills, and promotes the development of knowledge and skills necessary for continued professional competence. In a rapidly changing health care environment, current and relevant continuing education is integral to maintaining a safe health care environment and a highly competent work force (Nalle et al. 2010). An effective way for identifying gaps in knowledge and practice and properly focusing continuing education is consideration via a learning needs assessment (LNA). Application of an LNA is an important part of educational planning to combine changes in practice and political situation (Jest and Tonge 2011).

An LNA is a systematic strategy to evaluate what individuals or groups need to learn. In health care, LNAs are mostly affiliated primarily with continuing education. However, specialists have recommended the requirement to direct an LNA as a prerequisite for any official educational acting (Pilcher 2016). Comprehensive learning need assessment is an important factor in educational program effectiveness and makes progress on professional knowledge, skills, and performance. As the first step in educational planning, a learning needs assessment certifies relation of continuing education programs for the potential attendance and provides the foundation for development of program goals, content, and Purposeful learning activities (Nalle et al. 2010). Continuing education programs should be closely in line with nurses’ learning needs and expectations before developing program to identify and prioritize current educational needs. Learning objectives and implementation strategies based on actual needs of nurses are associated with CE program effectiveness. Furthermore, qualitative research on educational needs assessment of nurses found nurses prefer to learn contemporary knowledge and evidence-based practice, patient care, clinical nursing skills and research procedure (Jho and Kang 2016). An LNA provides information that can be apply to develop and implement educational strategies that meet

the general requirement of the organization and it playing an key role in the continuing professional development paradigm (Hudson et al. 2018). In the fields of nursing and teaching, effective learning by practitioners can occur so that is individually meaningful engagement of self-experience and previous knowledge in an interactive process with the related content, logic and present evidence (Kemp and Baker 2013). Further, current CE programs are not well designed for showing nurses’ learning needs and there are a few programs that are based on learning needs assessment in some countries (Jho and Kang 2016). Countries frequently do not involve in continuing professional development. This loss of official knowledge development put nurses at predicament situation in the health care team, limits their scope of practice, and may potentially make offend to clients (Tyer-Viola et al. 2013).

Dyson et al (2009) used An untitled questionnaire to assess learning needs of Registered Nurses and their senior nurses such as clinical nurse managers, specialists and educators in two acute care hospitals placed in urban New Zealand and found 10 highest and lowest learning needs priorities (Dyson et al. 2009). Jest and Tonge (2011) use a learning needs assessment for perioperative nurses at a pediatric hospital in a southeast, large, metropolitan area that distinguished practice concerns related to staff RNs’ management of pediatric patients undergoing sedation procedural (Jest and Tonge 2011).

Nalle (2010) found 5 overall majorities of learning needs with an online needs assessment in Tennessee state professional organizations’ websites and various health care facilities and It was accessible to all registered nurses in the state (Nalle et al. 2010). Hudson et al (2018) use online survey and focus group to establish educational preference in a new clinical workforce in paediatric services in Queensland, Australia (Hudson et al. 2018).

Due to the unprecedented growth of medical science information, the need to education and improve resource nursing in the current situation is a requirement, although its importance and necessity have been considered by many scholars, but educational needs of nursing staff is involved with the issues and problems that need to be addressed in a comprehensive way. The aim of this study was to identify the learning needs of nurses in medical and surgical units at Tehran hospitals in Iran.

MATERIALS AND METHODS

This is a descriptive cross-sectional study in which educational needs of nurses working in internal and surgical and emergency departments were evaluated and prioritized. By obtaining the license of SBMU2.REC.1394.118 from the ethics committee of Shahid Beheshti Medical University (SBMU), sampling

Table 1. Demographic characteristic of nurses in medical, surgical and emergency units in Tehran

Variable	Mean	Standard deviation
Age	32.43	9.11
experience	13.10	5.95

Table 2. Demographic characteristic of nurses in medical, surgical and emergency units

Variable	n	percent
Marriage	Single	125
	married	189
Sex	male	78
	female	236
education	Master science & PHD	41
	bachelor	273
ethnicity	Persian	232
	non-Persian	82
Knowledge about computer	Without knowledge	21
	relative knowledge	190
	with ICDL license	103

was done by convenience method. In this study nurses should have bachelor's degree, at least 2 years' experience and at least 6 months experience in the current situation. Nurses should work in medical, surgical and emergency wards.

To collect data, a 30 items learning needs questionnaire developed based on nursing principles texts and review of research literatures has been used for assessing learning needs. This questionnaire consists of 30 questions in the field of nursing principles, which have three choice (I do not need to be educated, I need additional education, I need full education), and participants were asked to prioritize their learning needs. The reliability and validity of the questionnaire were examined. In order to determine the reliability, the

questionnaires were completed by 30 nurses. The Cronbach's alpha was calculated 0.87. To determine the content and validity of the questionnaire, these tools were provided to 10 nurses and clinical and educational supervisors' hospitals in Tehran and 10 faculty members of Faculty of Nursing and Midwifery of Shaheed Beheshti Medical University. Their judgments about content and face validity, their corrective comments and suggested ideas were collected. Finally, according to these views, their CVI was calculated 0.91.

Data were analyzed using SPSS software version 19 and descriptive statistics.

RESULTS

314 questionnaires were distributed among nurses of Tehran hospitals in medical units (neurology, nephrology, hematology, gastrointestinal tract, kidney and urinary tract, respiratory tract, endocrine, orthopedic, cardiology and emergency services) and surgical units. They were completed by nurses.

Demographic characteristics of the research samples are presented in **Tables 1 and 2**.

Research samples were mostly female (75.15%) and married (60.19%), had a bachelor's degree (86.94%) and Persian ethnic (74%) and had a relative knowledge about computer use (63.21%). The average age was 32.43 (± 9.11) years and the average work experience were 13.10 (± 5.95) years.

The results of the "Nurses' Learning Needs" Questionnaire are presented in **Table 3**. According to findings of 30 educational needs, tele-nursing (distance-

Table 3. Learning needs of nurses in order to priority

Order	Educational domain	I do not need to be educated	,I need additional education,	I need full education
1	tele-nursing (distance-care)	5.7%	22.7%	71.6%
2	hospital infection control and personal protection	4.1%	34.1%	61.8%
3	new approaches of patient education	5.9%	35.3%	58.7%
4	Professional and effective communication	10.7%	31.9%	57.4%
5	safety and risk management	13.8%	32.8%	53.4%
6	wound nursing care and New way dressing	19.7%	29.7%	50.6%
7	Nursing research	1.4%	49.1%	49.5%
8	Nursing Law	11.9%	40.0%	48.1%
9	Nursing management	36.6%	46.9%	46.9%
10	Correct Reporting and documentation	15.8%	37.9%	46.3%
11	Clinical pharmacology and related care	15.4%	39.7%	44.9%
12	Pain control and complementary care	8.5%	73.9%	17.6%
13	Nursing process with emphasis on nursing diagnosis	16.2%	71.3%	12.0%
14	Evidence based nursing	11.1%	65.8%	23.0%
15	Clinical examination	23.5%	64.4%	12.1%
16	Function and use of equipment in nursing care	12.3%	59.5%	28.2%
17	Nursing care of a patient in intensive care units	26.9%	58.1%	15.0%
18	Caring for diagnostic and laboratory procedures	20.8%	57.3%	21.9%
19	Palliative care	42.7%	54.1%	3.2%
20	Nursing specific skills	7.9%	49.0%	43.1%
21	Spiritual care	15.0%	41.5%	43.5%
22	Critical thinking and clinical decision making	26.1%	31.6%	42.3%
23	Stress and irritation control methods	20.0%	38.1%	41.9%
24	Ethic in nursing	14.0%	44.3%	41.7%
25	computers and common health information systems in Iran	19.8%	39.9%	40.3%
26	Patient Diet	26.2%	37.9%	35.9%
27	Cardiopulmonary resuscitation (children and adults)	30.1%	35.7%	34.2%
28	Interpretation and analysis of various diagnostic tests and examinations	41.3%	37.5%	21.2%
29	Basic nursing skills	37.5%	43.8%	18.7%
30	Rehabilitation	51.5%	39.6%	8.9%

care) (71.60%), hospital infection control and personal protection (61.80%), new approaches of patient education (58.7%), professional communication (57.4%), safety and risk management (53.4%), wound nursing care and New way dressing (50.6%), Nursing research (49.5%), Nursing Law (48.1%), Nursing management (46.9%), Correct Reporting and documentation (46.3%) were among the top 10 education priorities, and over 45% of nurses needed full education.

Also based on findings, educational domains including: pain control and complementary care (73.9%), Nursing process with emphasis on nursing diagnosis (71.3%), Evidence based nursing (65.8%), Clinical examination (64.4%) and Function and use of equipment in nursing care (59.5%) were among the five priorities of learning needs in which nurses needed additional education and Almost above 60% of nurses have described them as learning needs.

Furthermore, Interpretation and analysis of various diagnostic tests and examinations (21.2%), Basic nursing skills (18.7%) and Rehabilitation (8.9%) were among the educational areas that were expressed by nurses in the lowest priority for learning.

DISCUSSION

The aim of this study was to identify the learning needs of medical, surgical and emergency units from the perspective of the nurses. The findings from this study indicate a number of educational areas that can assist people involved in the planning and delivery of continuing education for nurses in clinical settings.

The findings show that nurses are more focused on the up-to-date and newly education aspects of nursing and issues such as cardiopulmonary resuscitation or basic nursing care and topics that have been addressed earlier in the university are less focused. In other words, one of the most important goals of nurses to participate in continuing education programs is to update their information about their profession. Recently, the issue of accreditation and standardization of nursing care quality has been emphasized in Tehran hospitals. Therefore, nurses are more interested in empowerment to change for organizations in related subjects, such as patient education, nursing management and more.

In this study, the highest educational priority was for "telenursing". Telenursing is noticed as a subset of telehealth and it emphasizes on the delivery, coordination, and management of care using telecommunications technology in the scope of nursing (Glinkowski et al. 2013), As a result of increasing in the elderly population and suffering from chronic condition, researches has defined that telenursing, as a tool, should be applied in nursing care to support care delivery. Tele nursing can reduce the problems caused by excessive demand and geographical distances and

transportation issues (Souza-Junior et al. 2017). There are about 5 million elderly people in Iran, with statistics showing annual growth of 3.75% of the population (Beladi Musavi 2017). That's why the focus of the health system has increased on the lives and needs of the elderly. Hence, nurses have focused on this issue to facilitate care for the elderly people.

The second priority of the nurses' educational need was "infection control and personal protection". Whereas nurses, as a member of the health care team, have a unique role in preventing and controlling hospital infections, they should have the correct and adequate scientific information in this regard and raising knowledge and acceptance of standard precautions against occupational infections are essential (Shahidi Far et al. 2015). So they consider this as their important learning needs. Hospital acquired infection is defined as an infection that happen in a patient during hospitalization or caring process or other healthcare services that was not present or incubating at the time of admission (Iliyasu et al. 2016). In worldwide, the most important reason of morbidity and mortality among hospitalized patients are healthcare acquired infections (Souza et al. 2015).

In this study, Nurses also have focused on "patient education". Patient education is one of the essential needs of patients. Health professionals believe that knowledge in educational science is serious for patient education. Inactivity in reading literature relevant to patient education and deficits in knowledge development in those areas has been reported, even though developing focus on evidence-based practice is important for patient education (Svavarsdóttir et al. 2014) and it has been confirmed that the need for continuing education for patient educators is essential (Friberg et al. 2012). Rostami and colleagues (2010) reported that 70 percent of nurses mentioned lack of knowledge about the principles of patient education as one of the obstacles to patient education (Rostami et al. 2010). The findings of Mahdipour Rabri et al. (2011) showed that despite the need for patient patients education are not seriously enforced in hospitals, According to this study, one of the reasons for not doing this task properly is the lack of awareness of the nurses, because at the first of the study, the average of nurses' knowledge score was 2.6 ± 12 out of 12 points, this indicates a lack of awareness about the importance of patient education (Mehdi-pur Raberi et al. 2011).

In addition to the above, "professional communication", "safety and risk management", "wound nursing care and dressing", "Nursing research", "Nursing Law", "Nursing management" and "reporting and documentation" were also found to be educational priorities that needed full education. Also based on findings, "pain control and complementary care", "nursing process with emphasis on nursing diagnosis",

“evidence based nursing”, “Clinical examination” and “use of equipment in nursing care” need additional education in continuing education.

Data from Nalle and colleagues (2010) showed that leadership and management, evidence-based practice, Professional issues, advanced practice and acute medical-surgical nursing were expressed as learning priorities of 672 nurses of Tennessee State in US for continuing education (Nalle et al. 2010). These findings are consistent with the findings of the present study, which emphasizes the importance of these educational needs and the necessity of planning for these needs in the continuing education program.

Another study by Dyson et al. (2009) was designed to determine the educational needs of nurses in intensive care units in New Zealand and included 10 educational priorities, which include: interpreting information from diagnostic tests, coordinating an emergency situation, managing people with challenging behaviors, applying pharmacology in practice, Pathophysiology of disease, managing clients / family receiving “bad” news, using evidence to support their practice, managing the conflict in the nursing team, assessing the underlying causes for client’s problems, leading a case review in the multidisciplinary team, were expressed. Some learning need such as pharmacology, evidence based practice are similar to our study but in some cases they are different. They found coordinating an emergency situation, managing people with challenging behaviors, Pathophysiology of disease, managing clients / family receiving “bad” news. It seems that these results are due to the differences in the investigated nursing wards in the researches, and these educational needs are seem to be necessary among nurses working in acute care units, while our research, in addition to emergency services, was done in various internal and surgical nursing units. In addition, the learning needs such as “managing the conflict in the nursing team”, “leading a case review in the multidisciplinary team”, in their study can be attributed to the difference in the nursing management system in the two countries (Dyson et al. 2009).

The priority continuing learning needs determined in this study may demonstrate the requirement of the

current work setting and participants’ work situations and roles. Other studies maybe suggest a preference for continuing education that directly relates to competence in the areas of practice. In this study, nursing learning needs were identified based on a questionnaire whose items were developed based on available nursing texts and literature. Further research can examine nurses’ educational needs based on the activities and duties of nurses in their work environment.

However, a more purposeful approach may display different learning needs among nurses in special areas of practice.

CONCLUSION

Continuing education is a necessary and valuable for nurses. A learning needs assessment which is based on current work role activities and basic knowledge is first and useful step in educational planning for continuing education and it can provide useful, effective and cost effective knowledge and skills for nurses.

The findings of this research can use in educational planning for nurses continuing education and to inform policymakers of continuing education about the educational needs of nurses working in the internal and surgical and emergency units in order to make sure that these nurses learning needs are properly planned and will be eliminated.

ACKNOWLEDGEMENTS

The researcher wants to thank the research samples for participating this study and fill out the questionnaires and the entire faculty who helped us.

ETHICAL ISSUES

The license of SBMU2.REC.1394.118 from the ethics committee of Shahid Beheshti Medical University (SBMU) was obtained. Informed consent forms were completed by samples and they were assured by the arbitrariness of participating in this study and confidentiality of information obtained by them.

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