

Nurses challenges in health assessment skills in Iran and another country: An integrative review

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Abstract

Health assessment skills lead to enhancement of nurses' self-confidence at work. The aim of the present study is to investigate the challenges that nurses face in conducting health assessments in Iran and another country. This study was conducted in integrated review study based on Russell's method. The inclusion criteria were; related to the objectives of the study, English or Persian writings, published during the past 35 years and access to their full text. The nonscientific articles as well as the articles that lacked a specific name or transparent data were excluded from the study. Health assessment, nurse, history taking, and physical examination were used as keywords. We used Persian and international databases such as SID, Magiran, Iranmedex, Google Scholar, Medline, Scopus, Elsevier, PubMed, and Science Direct. Finally, 20 articles were included in the study. the scattered data were summarized for data analysis and interpretation purposes. All of the data reviewed, obtained, compared, and finally, classified into six groups. The most important challenges in the use of these skills in order are Individual -motivational, professional, environmental, educational, cultural, and communicational factors as well as factors that are related to patients and their culture. The results showed that the challenges that nurses face in performing clinical health assessment skills are mostly shared in Iran and across the world. Although all of the factors have been involved in execution of these skills, the health assessment skills are significantly dependent on the need for them as felt by the nurses themselves.

Keywords: Challenge, Health assessment, Nursing, Physical examination, Taking history

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INTRODUCTION

The health assessment constitutes one of the key components in nursing skills and plays a decisive role in identifying the problems in different patient systems and development of nursing care programs.^[1] Clinical decision-making ability of nurses can affect the caretaking quality more than any other factor, and this ability depends on different skills, including health assessment.

The most successful nurses are those who have high assessment skills, who have high training skills, and who are highly enthusiastic to use technology.^[2] Nurses should act independently to achieve nursing goals and enjoy self-confidence in using health assessment skills.^[3] Nurses are commonly and continuously in complex medical conditions that require advanced examination skills from the needs.^[4] Holistic nursing care requires assessment

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of patients, designs, and presentation of designs based on information obtained from physical examination, interviews, and discussions on patient's history.^[5] Quoting Cicolini *et al.*, Anderson argued that considering the rapid changes in health care system, nurses should have modern and new capabilities for patient assessment.^[6] Lesa and Dixon quoted Shortridge *et al.* and argued that the health assessment skills help to make precise clinical judgments and provide important information that can lead to a proper diagnosis.^[7] Lesa and Dixon quoted Bates and Lynaugh and said that the advanced physical examination of patients leads to a proper diagnosis and is considered a major change for nurses, and in addition, it can help with confirmation of the hypothesis that was developed after interview with nurses, enhance investigations on nursing problems, improve nursing capacity for making right decision about patients, and enable nurses to manage a wider range of health-care problems.^[7] In a study entitled "Health assessment Skills-the need for continuous nursing care," Anderson realized that practical skill is the most important principle for any nurse, such that the most urgent issue at work is the ability to perform health assessment skills that lead to quick reaction, accurate decision-making, and assessment of problems.^[8] Dave believes that learning psychomotor skills is an essential part of clinical skills and requires observation, accuracy, coordination, and habituation of skills.^[9] In a study by Pejmankhah *et al.*, titled "Performance Evaluation of Nurses Working in Hospitals in Tehran," it was stated that most nurses did not perform the examination of various systems (including cardiovascular) correctly.^[10] In a study by Pejmankhah *et al.*, titled "Evaluation of the performance of Nurses Working in Tehran Hospitals," it was stated that most nurses do not properly perform various system examinations (including cardiovascular examinations).^[10] In addition, the results of Mirzaei *et al.*'s studies state that nurses are far from most clinical skills in critical situations requiring high knowledge and experience.^[11] A survey on American nurses showed that of 120 health assessment skills, about one-third of them were used daily or weekly, and a little over one-third of the skills sometimes were used on a monthly basis and about one-third of the skills were never used.^[12] In another study conducted on 1220 Australian nurses, the researcher found that of 120 health assessment skills, 34% were used commonly, 35.5% were used occasionally, and 31% were rarely used.^[13] The results of Haj Baghery and *et al.*, in Isfahan showed that the cardiovascular health assessment skills of nurses and their clinical applications are far away from optimal and nurses generally use the cardiovascular health assessment skills less than they are supposed to use.^[14] In a study conducted by Khoran *et al.*,

<7% of physical examination skills (respiratory trauma and temperature assessment) were repeatedly practiced in each shift by more than half of the participants. A quarter of nurses did not know the seven skills as part of their task but knew how to do practice these techniques, and almost half of the participants did not know how to perform respiratory auscultation and cardiac auscultation.^[15] In another study entitled "the investigation of patient history taking by nurses," Beig moradi found that 53.4% and 3% of the individuals frequently and rarely took nursing history from patients, respectively.^[16] Research shows that nurses do not perform health assessments completely,^[12-14] neither do they fully study the health assessment components such as pain assessment.^[17-19] Management of pediatric pain that begins with assessment and examination is also part of the health assessment process, which is associated with many challenges.^[20] Considering the failure of nurses to perform complete health assessments services, the present study is conducted to investigate the health assessment challenges that nurses face both at home and abroad.

MATERIALS AND METHODS

To achieve the research objectives, enhance the accuracy of research, and gain a comprehensive understanding of it, the present integrated review study was conducted based on Russell's method. Russell's method consists of five steps: problem formulation, data collection or literature search, evaluation of data, data analysis, and interpretation and presentation of results.^[21] In other words, the research begins with a focus on the definition of the objectives, problem, and research question, and the researcher should ask: "What are the concepts I want to study? Thus, in the first phase, the researcher launches the study with focus on the definition of research objectives, problem, and the main research questions. In the second phase (data collection or literature search), the researcher selects the databases, publication dates, subject headlines, and inclusion criteria. Keywords such as "health assessment," "taking history," "nurse," and "physical examination" were used to search the relevant studies. The accessible relevant studies (both Persian and English) published over the past 35 years were included in the research, and the non academic studies as well as the studies with no specific title or publication date (1982–2017) were excluded from the study. In addition to library studies, reputable international databases such as Magiran, SID, IranMedex, Google Scholar, Medline, Scopus, Elsevier, and PubMed were also used to find relevant studies. The article was searched by two independent browsers and all papers were evaluated by the two researchers. The articles were reviewed by two members of the research team in

terms of title and abstraction, rationality objectives, study design, setting, participants, variables, data sources, and bias. Disagreements between two researchers were resolved through conversation, and in some cases, a third person was used. For reliability and validity, he was also consulted by an expert statistician.

In the first search, 842 full articles with accessible abstracts were extracted. The retrieved articles were evaluated in terms of inclusion criteria in four stages. Seven hundred and fifty-three of the total of 842 articles with relevant keywords were excluded from the study due to their different topics and objectives (being irrelevant to the health assessment challenges that nurses face). Then, 29 other articles were excluded due to being written in languages other than Persian and English. In the next stage, 40 articles were excluded due to their nontransparent and inappropriate content. Eventually, a total of 20 articles were included in the study [Table 1].

In the third stage of the study (evaluation of data), the researcher judges whether the collected data are worthy of remaining in the data set. Therefore, the articles are evaluated based on the Strengthening the Reporting of Observational Studies in Epidemiology checklist criteria and the articles were evaluated and analyzed, and papers with the appropriate validity were selected.^[22] In the fourth stage, the scattered data were summarized by the researcher for data analysis and interpretation purposes. All the domestic and foreign papers were descriptive and review studies, and data extracted from all papers were reviewed over and over again. Then, the data obtained from all the articles were compared over and over again, and finally, they were classified into six groups in terms of maximum similarity and minimum differences.

RESULTS

Nurses' problems in examining health status include multiple dimensions; Educational problems included; lack of knowledge and information,^[3] heterogeneous curriculum,^[6] Inadequate capability,^[23,24] Lack of specialization and expertise,^[25,26] lack of access to a suitable pattern,^[24-26] lack of opportunities for using these skills^[24,27] and lack of support from colleagues,^[24,28] no request on the part of instructors for conduction of health assessment by students,^[29] failure to use trainers with considerable clinical experience^[29] Educational Management included; lack of sufficient time due to high workload,^[3,6,7,13,25,26] Inadequate support from nursing supervisors, ward physicians and hospital managers,^[7,24,29-31] insufficient experience of clinical instructors,^[29,32] ambiguity in

task descriptions,^[6,13,28] performance of irrelevant or subsidiary tasks by nurses (secretary and worker tasks),^[29] lack of coordination between education and clinical environment,^[6,29] inattention of managers to the health assessment processes carried out by nurses.^[29] Professional nurses beliefs included; rejection of physical examination as a responsibility,^[3,23,24] using the assessment skills only when the problem arises,^[23] inattention of physicians to the results of health assessments carried out by nurses,^[24] trust in others and technology,^[25,26] low importance to health assessment by nurses,^[29] belief in ineffective role of health assessment in patient care,^[25,26] poor perception of nursing and Professional development.^[33] Lack of facilities included; inappropriate clinical environment,^[24] lack of suitable space for health assessment training in the clinical environments,^[29] the lack of necessary tools for proper health assessment.^[29] Individual-motivational aspect included; lack of self confidence,^[3,23,25,26] fear of making mistake^[7] failure to use the assessment skills regularly,^[7] Inadequate wage and salary,^[29] inadequate motivation,^[29] personal characteristics,^[33] Cultural factors included; assuming to be a source of disturbance to the patient,^[25] lack of cooperation between the patient and students in health assessment processes,^[29] stressful nature of health assessment process for the patient,^[29] another Cultural factors.^[13,25,26]

DISCUSSION

This study aimed to investigate and identify the nurses' challenges in health assessment skills on inside and outside of the country. The data obtained from the frequent review of all the articles and the constant comparison of the results were ultimately classified into six challenge categories: Individual-motivational, occupational, environmental, educational, cultural, and communicational and patient-related factors.

Individual-motivational factors such as personal characteristics of the staff and lack of motivation in nurses are among the challenges that are discussed in the present research. Edmunds *et al.*, figured out that the use and development of health assessment skills are associated with personal characteristics.^[33] Edmunds *et al.* found that the implementation of these skills is influenced by the perception of the roles, permission and collaboration, and role boundaries of nurses.^[33] According to Barrows, the necessary factors for a successful physical examination by nurses include clear definition of the roles and responsibilities of the nurses in assessment and recognition of the benefits of executing such skills by nurses and other the medical staff.^[28] Quoting Zambas *et al.*, Edmunds

Table 1: Reviewed research articles

	Title	Year	Author	Factors
1	Factors affecting ED nurses' performance of physical assessment skills	1985	Barrows J	Lack of support from colleagues, ambiguity in task descriptions
2	Determining the use of physical assessment skills in the clinical setting	1985	Colwell CB, Smith J.	Inadequate capability, rejection of physical examination as a responsibility, lack of self-confidence, using the assessment skills only when the problem arises
3	Changing nursing practice through continuing education in physical assessment ; perceived barriers to implementation	1987	Brown MC, Brown JD, Bayer MM	Inadequate support from nursing supervisors, ward physicians, and hospital managers
4	Baccalaureate nurse graduates' perception of barriers to the use of physical assessment skills in the clinical setting	1992	Sony SD	Inadequate capability, challenges, lack of access to a suitable pattern, rejection of physical examination as a responsibility, lack of opportunities for using these skills, inadequate support from nursing supervisors, ward physicians and hospital managers, inattention of physicians to the results of health assessments carried out by nurses, and lack of support from colleagues
5	Continuing care nurses' perceptions of the need for physical assessment skills	2001	Anderson, M. C, Skillen, D. L., Knight, C. L.	Insufficient resources, excessive workload, insufficient of time, ambiguity in task descriptions
6	Correlation between work experiences and physical assessment in Japan	2001	Yamauchi T	lack of knowledge and information, rejection of physical examination as a responsibility, lack of sufficient time due to high workload, lack of self-confidence
7	Physical assessment: implications for nurse educators and nursing practice	2007	Lesar R, Dixon A	Failure to use the assessment skills regularly, fear of making mistake, inadequate support from nursing supervisors, ward physicians and hospital managers, lack of sufficient time due to high workload
8	Assessing the teaching of nursing physical examination in the context of pediatric semiology	2008	Luizari1 M R F, Ohara CVS, Horta A L M	Teachers role, learning facility, difficulty to approach the patient, motivation
9	The use of advanced physical assessment skills by cardiac nurses	2010	Edmunds L, Ward S, Barnes R	Perception of nursing and professional development, personal characteristics, perception of the roles, permission and collaboration, role boundaries of nurses
10	Factors which influence nurse practitioners ability to carry out physical assessment skills in the clinical area after a degree level module - an electronic Delphi study	2010	Mc Elhinney E	Self-confidence, role clarity, effective educational preparation, and support from other disciplines to the nurse practitioners ability to carry out this new role
11	Taking a patient history: the role of the nurse	2012	Fawcett T, Rhynas S	Lack of opportunities for using these skills
12	The effective and preventive factors of taking patients' history from the viewpoint of the students of Birjand Medical School in 2010-2011	2013	Khazaei Z, Khazaei T, Namayi M. H. Jananeh E	Motivating factors (taking the basis for correct diagnosis and treatment), Restrictive factors (taking only for the elimination of duties)
13	The use of physical assessment skills by registered nurses in Australia: issues for nursing education	2014	Birks M, Cant R, James A, Chung C, Davis J	Lack of sufficient time due to high workload, ambiguity in task descriptions, cultural factors, lack of a clear definition of such skills and their place in nursing, as well as the nonconvenient instruction of these skills by academic staff
14	What factors influence nurses' assessment practices? Development of the barriers to nurses' use of physical assessment scale	2014	Douglas C, Osborne S, Reid C, Batch M, Hollingdrake O, Gardner G	Lack of access to a suitable pattern, trust in others and technology, belief in ineffective role of health assessment in patient care, field of specialization and expertise, cultural factors, lack of self-confidence, lack of sufficient time due to high workload
15	The primacy of vital signs - Acute care nurses' and midwives' use of physical assessment skills: a cross-sectional study	2015	Osborne S, Douglas C, Reid C, Jones L, Gardner G	Trust in others and technology, clinical role, clinical practice domain, low self-confidence
16	Too much knowledge for a nurse? Use of physical assessment by final-semester nursing students. Nursing health science	2015	Douglas C, Windsor C, Lewis P	Lack of access to a suitable pattern, belief in ineffective role of health assessment in patient care, field of specialization and expertise, cultural factors, lack of self-confidence, assuming to be a source of disturbance to the patient, lack of sufficient time due to high workload
17	Physical assessment techniques performed by Italian registered nurses: a quantitative survey	2015	Cicolini G, Tomietto M, Simonetti V, Comparcini D, Flacco ME, Carvello M, Manzoli L	Heterogeneous curriculum, ambiguity in task descriptions, lack of coordination between education and clinical environment, lack of sufficient time due to high workload

Contd...

Table 1: Contd...

	Title	Year	Author	Factors
18	Nurses' problems in physical health assessments of hospitalized pediatrics.	2016	Khoran M, Alhani F, Hajizadeh E	Inadequate support from nursing supervisors, ward physicians and hospital managers, stressful nature of health assessment process for the patient, lack of cooperation between the patient and students in health assessment processes, lack of suitable space for health assessment training in the clinical environments, inadequate motivation, Inadequate wage and salary, Performance of irrelevant or subsidiary tasks by nurses (secretary and worker tasks), attachment of low importance to health assessment by nurses, the lack of necessary tools for proper health assessment, no request on the part of instructors for conduction of health assessment by students, insufficient experience of clinical instructors, failure to use trainers with considerable clinical experience, lack of a specific course on children's health assessment, inattention of managers to the health assessment processes carried out by nurses, lack of coordination between education and clinical environment
19	Perceptions of students on the physical examinations in clinical nursing	2016	Oliveira M L, Neto W B, Silva A R S, Verissimo A V R, Cavalcanti A M T S, Monteiro E M L M	Perception of students on physical examination, facilities for physical examination (acceptance/participation and the desire of the patient), coordination between theoretical and practical workload, psychosocial and cultural aspects
20	The consequences of using advanced physical assessment skills in medical and surgical nursing: A hermeneutic pragmatic study	2016	Zambas S I , Smythe E A, Koziol-Mclain J	Perception of the role, permission, clinical collaboration

et al. stated that nurses to use the assessment skills are related to perception of the role, permission, and clinical collaboration.^[33,34] The results of this research indicated that inadequate ability, knowledge, and skills of nurses are among the main obstacles in the health assessment process. Lack of sufficient ability, knowledge, and skills was quite apparent not only in health assessment skills but also in basic health skills such as communication skills^[35-37] and pain assessment skills.^[38-40] Sony identified lack of knowledge and information as the most difficult obstacle to health assessment process.^[24] Fawcett and Rhynas argued that success in health assessment process depends on the extent of clinical knowledge.^[27] According to Rushforth, education of physical examination skills is of great importance and the instructor must spend enough time on clinical exercises.^[31] In a study conducted by Khazae *et al.* to investigate the effective and deterrent factors in history taking from the perspective of medical students, it was found that "basic history taking for proper diagnosis and treatment of the patient," and "perfunctory history taking" were given the highest scores as the effective and deterrent factors, respectively. As for the deterrent factors, most of the participants believed that history taking is quite pointless and is only carried out perfunctorily, and this indicates inattention of professors to the histories taken by students.^[41] Birks *et al.* argued that temporal stress and task constraints are factors that hinder the health assessment process.^[13]

Professional factors such as personnel shortage and heavy nursing workload and lack of time are among

the obstacles that are discussed in the present research. According to Anderson *et al.* and Sony, factors that affect the implementation of physical examination skills include insufficient resources, excessive workload, insufficient of time, and ambiguity in task descriptions.^[8,24] Considering the shortage of time for nurses, Wheeldon believed that any additional task, such as physical examination, makes nurses who spend their valuable time on tasks other than the main nursing tasks.^[42] According to Birks *et al.*, the frequency of using physical examination skills depends on the clinical environment, clinical nursing schedule, and the nurses' field of expertise.^[13] Shortage of personnel does not merely affect patient care but reduces nurses' motivation, forgetfulness, frustration, fatigue, overwork, task overlapping, excessive and compulsory overtime work, stressfulness during the working shifts, and finally, the turnover of the staff.^[43] Overcrowd, a large number of patients and lack of nursing staff cause nurses' face time shortage for conducting health assessment services. Abbaszadeh and Abdi argued that increasing workload and shortage of staff would make nurses unable to use their full potential to provide patient care and spend more time on basic patient tasks.^[32] Quoting Zarea *et al.*, they stated that the health-care status in a country would become satisfactory when the nurse shortage problem is solved.^[32,44]

Educational factors such as inadequate equipment, lack of the required tools for health assessment education, inappropriate space for education of clinical health assessment, high congestion, and inadequate space for

health assessment in different wards are among the obstacles that are discussed in the present study. The findings of Barrows's research showed that designing and planning a health assessment program with coaches, all nursing experts, specification of the structure and context of health assessment training courses, expansion and enhancement of self-confidence, and courage and continuous education of nurses are among the factors that affect the performance of health assessment skills.^[28] Ebadi *et al.* differentiated the four main dimensions (planning, environmental factors, nursing instructors, and evaluation) in an attempt to describe the barriers to the presentation of health assessment course (educational barriers). According to the participants, in the planning dimension, factors such as lack of sufficient courses and the manner and timing of the material presentation in these courses are among the factors that decline presentation quality. As for environmental dimension, factors such as lack and mismanagement of spaces, old and worn out equipment used in educational environment, the lack of coordination between different centers, the inadequate briefing classes held for health-care ward staff, and the lack of a different presentation program in this course are among the barriers to health assessment education course. In the nursing instructor dimension, factors such as inadequate experience, adequate and effective presence, support, and lack of skill or presence of instructors in this course are among the educational barriers in this course. In the evaluation dimension, nonspecialized assessment, and diagnosis forms, the students' assessment method that fails to encourage the learner and non-applicability of this course in the description of the clinical nurses' tasks after graduation are among the factors that negatively affect the presentation of health assessment course to BA nursing students.^[45] Lack of appropriate health assessment tools is another barrier to conduction of these skills.^[29] According to Birks *et al.*, failures to teach some health assessment skills can be attributed to lack of a clear definition of such skills and their place in nursing, as well as the nonconvenient instruction of these skills by academic staff (genital examination, etc.), and they suggested alternative methods for instruction of these skills and proposed that skills that are not repeatedly used in practice excluded from the curriculum. Birks *et al.* confirmed the findings of secrets which state that the inclusion of a large number of skills in a curriculum can lead to confusion of students.^[13]

Environmental factors are also among the educational barriers discussed in the present study. Edmunds *et al.* stated that the apply of health assessment skills is influenced by the physical environment and human support within these environments; some nurses report that the use of these skills is many associated with personal characteristics.

Some participants took initiative in performing the physical assessment skills.^[33] According to Sony, the implementation of skills by physicians, the inappropriate clinical environment, the lack of access to a proper model, failure to consider the physical examination as a liability for the nurse, and lack of any opportunity to apply these skills are among the obstacles to the use of health assessment skills.^[24]

Another cultural and communicative teamwork factors included; disregard to the results of the physical health assessments as one of the tasks of nurses by physicians', managers' and other medical staff's. According to Sony, lack of support from colleagues is one of the obstacles in use of these skills. According to Edmunds *et al.*, the nurses' perception of their role, organizational perspectives, transparency in job description, and the intraclinical support are among the factors that affect the performance of health assessment.^[33] One of the other obstacles in this field is the lack of cooperation between child and family. The findings of Edmunds *et al.* showed that nurses' perceptions of their role, organizational perspectives, transparency in job description, and intraclinical support are among the factors that affect the health assessment.^[33]

Factors related to patients or their culture include the stressfulness nature of the health assessment process for patient, the resistance of the patients against history taking by nurses, and lack of cooperation between patients and students in the physical health assessment process and between child and family. Osborne *et al.* investigated the barriers to physical assessment by nurses through a 58-item questionnaire with components (dependence on others and technology, insufficient time, hospital ward culture, low self-confidence, not having nursing models, not having the effect on patient care, and the field of expertise). The four effective factors in the range of physical assessment skills included clinical role, clinical practice domain, low self-confidence, dependence on others, and technology.^[46] Quoting Douglas *et al.*, Odell argued that nurses rely on intuitive judgments rather than physiological symptoms and health assessments.^[26] According to Lesa and Dixon, the factors influencing physical examination include lack of ability, self-confidence, fear of making mistakes, and no use of skills on a regular basis. They also argue that lack of clinical models, lack of support from nursing supervisors, emergency ward physicians, and hospital managers are among the barriers to physical health assessment. Lesa and Dixon quoted Skillen *et al.* and argued that factors that influence the implementation of physical assessment skills include lack of resources, high workload, lack of time, and ambiguity in the description of tasks. They

stated that teaching of physical assessment skills within comprehensive health models enables nurses to have better planning and monitoring of health care through more comprehensive health assessment.^[7] According to Douglas *et al.* (2015), the obstacles to physical assessment include impact of the area of expertise, lack of self-confidence, culture, lack of time, and disturbance which received the highest scores, respectively. Significant impediments to the use of assessment skills include poor self-esteem, hesitancy about the effect of health assessment on patient condition, and absence of task-based models.^[26] In a study of Osborne *et al.*, the use of technology was considered a barrier to health assessment.^[46] According to Brown, health assessments lead to enhancement of professional self-confidence, more comfort in interpreting the patient results, better perception of physicians practices, and increased personal satisfaction and positive change in the attitudes of individuals with increased motivation for learning.^[30]

The findings indicated that nurses face many challenges in execution of health assessment, and these challenges exist both inside and outside of the country. Therefore, health assessment programs require some facilitation conditions and elimination of preventive factors. Thus, execution of programs that help to facilitate the conditions and help to overcome obstacles^[47] can be effective in improving the assessment skills both qualitatively and quantitatively.

CONCLUSION

The results of the present study states that the barriers to the use of health assessment skills are numerous and may differ based on nurses' area of practice (health, treatment, education, and management) and could be shared in some cases. The use of health assessment skills is associated with personal characteristics of nurses. Moreover, the use of these skills is influenced by the perception of the role boundaries, the consent and cooperation of the patient, the physical environment, and human support within these environments. Therefore, although the individual-motivational, professional, environmental, educational, cultural, and communicational factors as well as the factors related to patients and their culture are involved in execution of assessment skills, the implementation of health assessment skills is significantly dependent on the need for them as felt by nurses themselves.

Limitations

The limitations of this study include lack of access to full content of some articles and shortage of the required resources in Persian databases.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Authors' contributions

Alhani & Khoran were responsible for the study conception and design, drafting of the manuscript and provided administrative support. Khoran, Alhani and Hajizadeh were analyze made and critical revisions.

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This research was a randomized clinical trial study in 2015-2016 performed following the registration in IRCT with IRCT2016090929761N1 code. This was an MSc thesis in medical sciences faculty of Tarbiat Modarres University approved in the specialized research committee and medical ethics committee numbered 52d.4632 on 04.10.2015. This was done by Mohammad Khoran, under the supervision of Dr. Fatemeh Alhani and advised by Dr. Hajizadeh.

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REFERENCES

- Schroyen B, George N, Hylton J, Scobie N. Encouraging nurses' physical assessment skills. *Nurs N Z* 2005;11:14-5.
- Bruck KM. *Medical Surgical Nursing*, 1st ed. Philadelphia: Lippincott Co.; 2003.
- Yamauchi T. Correlation between work experiences and physical assessment in Japan. *Nurs Health Sci* 2001;3:213-24.
- Baid H, Bartlett C, Gilhooly S, Illingworth A, Winder S. Advanced physical assessment: The role of the district nurse. *Nurs Stand* 2009;23:41-6.
- Birks M, James A, Chung C, Cant R, Davis J. The teaching of physical assessment skills in pre-registration nursing programmes in Australia: Issues for nursing education. *Collegian* 2014;21:245-53.
- Cicolini G, Tomietto M, Simonetti V, Comparcini D, Flacco ME, Carvello M, *et al.* Physical assessment techniques performed by Italian registered nurses: A quantitative survey. *J Clin Nurs* 2015;24:3700-6.
- Lesa R, Dixon A. Physical assessment: Implications for nurse educators and nursing practice. *Int Nurs Rev* 2007;54:166-72.
- Anderson MC, Skillen DL, Knight CL. Continuing care nurses' perceptions of need for physical assessment skills. *J Gerontol Nurs* 2001;27:23-9.
- Bastable S. *Nurse as Educator, Principle of Teaching and Learning for Nursing Practice*. 2nd ed. Burlington, MA: Jones and Bartlett Publishers; 2003. p. 319-47.
- Pejmankhah S, Pejmankhah S, Alavimajd H. The evaluation of the patients' health status by the nurses working in Tehran. *J Gorgan Bouyeh Fac Nurs Midwifery* 2013;10:52-60.
- Mirzaei M, Feizi F, Ebadi A. Assessment of clinical proficiency of nurses of hospitals relevant to one of the Tehran Medical Sciences Universities in critical situations in 2007. *Iran J Crit Care Nurs* 2008;1:5-8.

12. Secrest JA, Norwood BR, duMont PM. Physical assessment skills: A descriptive study of what is taught and what is practiced. *J Prof Nurs* 2005;21:114-8.
13. Birks M, Cant R, James A, Chung C, Davis J. The use of physical assessment skills by registered nurses in Australia: Issues for nursing education. *Collegian* 2013;20:27-33.
14. Haj Bagheri MA, Safa A, Fazel Darbandi A. Nurses' self-assessment of skills in the cardio vascular physical examination. *Med Surg Nurs J* 2013;2:19-25.
15. Khoran M, Alhani F, Hajizadeh E. Nurses' self-assessment for pediatric physical examination skills. *JPEN* 2016;3:1-9.
16. Beig Moradi A, et al. History of caring for patients medical surgical wards. *J Nurs Midwifery Hamedan* 2004;11:24-9.
17. Plaisance L, Logan C. Nursing students' knowledge and attitudes regarding pain. *Pain Manag Nurs* 2006;7:167-75.
18. Parvizi F, Alhani F. Studying the rate of knowledge and using of pain assessment tools in children and complaining the importance of education about it. *Iran J Pediatr* 2005;15:190.
19. McDonald DD, Laporta M, Meadows-Oliver M. Nurses' response to pain communication from patients: A post-test experimental study. *Int J Nurs Stud* 2007;44:29-35.
20. Aziz Nejad Roshan P, Alhani F, Mohammadi E. Challenges and practical solutions for pain management nursing in pediatric wards. *J Babol Univ Med Sci* 2015;17:57-64.
21. Russell CL. An overview of the integrative research review. *Prog Transplant* 2005;15:8-13.
22. Von Elm E. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting observational studies. *Bull WHO* 2007;85:867-72.
23. Colwell CB, Smith J. Determining the use of physical assessment skills in the clinical setting. *J Nurs Educ* 1985;24:333-9.
24. Sony SD. Baccalaureate nurse graduates' perception of barriers to the use of physical assessment skills in the clinical setting. *J Contin Educ Nurs* 1992;23:83-7.
25. Douglas C, Windsor C, Lewis P. Too much knowledge for a nurse? Use of physical assessment by final-semester nursing students. *Nurs Health Sci* 2015;17:492-9.
26. Douglas C, Osborne S, Reid C, Batch M, Hollingdrake O, Gardner G, *et al.* What factors influence nurses' assessment practices? Development of the barriers to nurses' use of physical assessment scale. *J Adv Nurs* 2014;70:2683-94.
27. Fawcett T, Rhynas S. Taking a patient history: The role of the nurse. *Nurs Stand* 2012;26:41-6.
28. Barrows J. Factors affecting ED nurses' performance of physical assessment skills. *J Emerg Nurs* 1985;11:80-4.
29. Khoran M, Alhani F, Hajizadeh E. Nurses' problems in physical health assessments of hospitalized pediatrics. *JHPM* 2016;6:9-18.
30. Brown MC, Brown JD, Bayer MM. Changing nursing practice through continuing education in physical assessment: Perceived barriers to implementation. *J Contin Educ Nurs* 1987;18:111-5.
31. Schare BL, Gilman B, Adams G, Albright JC. Health assessment skill utilization by sophomore nursing students. *West J Nurs Res* 1988;10:55-65.
32. Abbaszadeh A, Abdi A. Nursing shortage challenge: Serious threat for health system. *Community Health J* 2014;9:37-47.
33. Edmunds L, Ward S, Barnes R. The use of advanced physical assessment skills by cardiac nurses. *Br J Nurs* 2010;19:282-7.
34. Zambas SI, Smythe EA, Koziol-Mclain J. The consequences of using advanced physical assessment skills in medical and surgical nursing: A hermeneutic pragmatic study. *Int J Qual Stud Health Well-being* 2016;11:32090.
35. Rostami H, Golchin M, Mirzaei A. Evaluation of communication skills of nurses from hospitalized patients' perspective. *J Urmia Nurs Midwifery Fac* 2012;10:27-34.
36. Cheraghi F, Sanahmadi A, Soltanian A, Sadeghi A. The survey of nurses' communication skills with mothers and hospitalized children during nursing cares in children wards. *Sci J Hamadan Nurs Midwifery Fac* 2016;24:193-200.
37. Aein F, Alhani F, Mohammadi E, Kazemnejad A. Marginating the interpersonal relationship: Nurses and parent's experiences of communication in paediatric wards. *Iran J Nurs Res* 2008;3:71-83.
38. Varvani Farahani P, Alhani F, Mohammadi E. Assessing the effects of establishing a nursing commission of pain management on empowering nurses within pain assessment process. *Iran J Nurs Res* 2009;4:49-58.
39. Aziznejadroshan P, Alhani F, Mohammadi E. Challenges and practical solutions for pain management nursing in paediatric wards. *JBUMS* 2015;17:57-64.
40. Knowledge, attitude and performance of nurses regarding pain assessment and measurement, Bandar Abbas, Iran. *HMJ* 2012;16:403-13.
41. Khazaei Z, Khazaei T, Namayi MH, Jananeh E. The effective and preventive factors of taking patients' history from the view point of the students of BIRJ and Medical School in 2010-2011. *J Med Educ Dev* 2013;8:14-21.
42. Wheeldon A. Exploring nursing roles: Using physical assessment in the respiratory unit. *Br J Nurs* 2005;14:571-4.
43. Dehghan Nayeri N, Nazari A, Salsali M, Ahmadi F. To assess role of staffing in nursing productivity: A qualitative research. *Hayat* 2006;12:5-15.
44. Zarea K, Negarandeh R, Dehghan-Nayeri N, Rezaei-Adaryani M. Nursing staff shortages and job satisfaction in Iran: Issues and challenges. *Nurs Health Sci* 2009;11:326-31.
45. Ebadi A, Noosheh MA, Alhani F, Farsi Z, Najafi-Kalyani M. Pathology of health assessment course in Bachelor of Science nursing program. *Iran J Nurs* 2010;23:33-41.
46. Osborne S, Douglas C, Reid C, Jones L, Gardner G; RBWH Patient Assessment Research Council, *et al.* The primacy of vital signs – Acute care nurses' and midwives' use of physical assessment skills: A cross sectional study. *Int J Nurs Stud* 2015;52:951-62.
47. Khoran M, Alhani F, Hajizadeh E. The impact of programs designed to empower nurses with skills for physical health assessment. *Iran J Nurs Res* 2017;11:61-9.