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Exploring the reasons for theory-practice gap in emergency nursing education: A qualitative research

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Abstract:

BACKGROUND: Nursing is a scientific profession, based on theory and art of care. However, the theory-practice gap has become the biggest challenge of this profession and decreases the quality of service both in teaching and practice. Thus, it seems necessary to search for these reasons in situations such as emergency department – which has an effective role in patients' health.

OBJECTIVES: The objectives of this study were to find the perceived reasons for the theory-practice gap in the process of emergency nursing education from the perspective of professors, nurses, and students, as well as doctors, since they cooperate with nurses and students in the training environment.

METHODS: A qualitative study was carried out; this included 18 deep, semi-structured interviews in 7 months with the people involved in the process of emergency department apprenticeship alongside with observing the activities of stakeholders. The data analysis was done in accordance with content analysis method including three steps of preparation, organization, and reporting.

RESULTS: The perceived reasons for theory-practice gap were classified into 13 secondary categories. At the end of data analysis, five main categories of student, instructor, environment, culture, and the organizational process, and finally, two themes of "input" and "process" emerged.

CONCLUSIONS: Nursing students in emergency department face a number of challenges in implementing theory into practice which stems from the faculty as an academic environment and the hospital as an educational environment. These underpinning reasons for the theory-practice gap influence the quality of nursing education and care delivery in emergency department. Hence, decreasing the theory-practice gap lies in the amendment of any of these factors.

Keywords:

Emergency department, nursing education, qualitative research

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Introduction

Nursing is a scientific profession based on research, theory, and numerous known concepts focused on the art of care and its results;[1] but guiding the practice by the theoretical sciences has been the biggest challenge facing nursing as an academic field, so far.[2] The difference between these two is the theory-practice gap,[3] which is known in the field of nursing and midwifery as a universal issue.[4] As Risjord quotes Cody (2006) theory's place in nursing practice has long been obscure and unimportant, and this gap has led to an incomplete, small, and sometimes meaningless interaction.[5] According to researches, nursing students have experienced this gap, which can lead to incompatibility with the clinical setting and becoming disillusioned with nursing practice.[6] The newly graduated nurses would experience transition shock as a

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result of this gap[7] which makes them conclude their education was useless and following the usual traditional routines is a better choice. It leads to incapacity of nurses and the quality of nursing care decreases.[8] Hence, nursing education significantly requires an integration of theory and practice.[9] This combination is more important in emergency education. Because in emergency cases, nursing interventions are based on independent judgment, decision-making skill, and prioritizing.[10]

A number of studies have been conducted to establish the nature of and how to address this problem. For example, Streveler tried to understand what effect the theory-practice gap had on students and how students manage any differences they find.[11] Saifan *et al*. mentioned the reasons for this gap and present suggestions to overcome it.[12] Iranian researchers also have shown that nurses often do not follow their academic training in practice and can neither use their qualifications nor their scientific knowledge in the health system.[13] Some reasons are the shortage of philosophical insight about nursing, unappropriated clinical knowledge of instructors, and poor communication between theoretical and practical units,[14] using memorization system in nursing education[15] and the domination of task-oriented work in clinical settings.[13] However, the importance of training programs in shaping the essential professional skills and abilities of students[16] and the ambiguity and complexity of clinical education and its related issues,[17] especially in emergency departments, have inspired current writers to use their teaching and clinical experience and do further research to recognize and describe the reasons for theory-practice gap in the trainees of nursing in emergency departments.

Methods

Study design and participants

This study shows the results of organization step of an action-research study that looks for recognition and description of factors involving in theory-practice gap in emergency nursing education. Obviously, there are many positive and negative aspects of clinical education which cannot be measured in a quantitative manner and merely with questionnaires; delicacies of this matter need to be revealed in a qualitative method.[18] The qualitative method can help the researchers to understand the human experiences within the health system.[19]

The participants in this study are the theoretical and clinical instructors and nursing students of the Faculty of Nursing and Midwifery, nurses and doctors of the emergency department of a teaching hospital, and the executive managers of both settings. The emergency department has 100 beds and 170 nurses. Nurses with a Baccalaureate of Science in Nursing and at least 1 year of hospital experience with the rotating shifts could participate in this study. The criteria for instructors and physicians were at least 1 year of cooperation as a trainer in critical care board or emergency department. Furthermore, only nursing students of the seventh and eighth semester could participate in this study. Those who did not wish to participate had stopped working in the emergency department or had stopped studying nursing (for students) were excluded from the research project.

Data collection started in October 2016 and continued for 7 months. It included semi-structured interviews, attendance in the nursing emergency classes and center for the clinical skills of the faculty, and observing the activities of staff, instructors, and students in the emergency department. Some of the questions asked according to an interview guide were as follows: What are the differences between your academic training and the service provided by you (as a nurse/instructor/student) in the emergency department? Based on your experience, what principles should be followed in the emergency education in order for the students to implement their theoretical knowledge in practice? To achieve the validity of the researcher's required expertise, a number of test interviews were carried out by the supervising and consulting professors before the study.

Ethical considerations

To respect the employees, teachers, and students' privacy, the researchers verbally asked the head nurse and the trainer the permission, on entry in the department. The interviewers would introduce themselves and explain the aims of the research and took participants' consent for recording their voices. They were given assurance that their participation would have no negative effects on their careers or training and that their names would only appear as codes in all related documents. To improve the quality of service, the results of the study were also sent to the Committee for Quality Improvement and Certification, the Emergency Services Improvement Committee, and the Teaching Council of the Faculty. The Ninth University Ethics Committee and Research Council at Isfahan University of Medical Sciences approved doing this study according to thesis number 394,679.

Data analysis

Eighteen semi-structured interviews with 11 women and 7 men, with an average time of 63 min, were conducted. The purposeful sampling method was carried out and continued until data saturation. Observation time was 30 h. For demographic information refer to Table 1, these information were obtained at the first of interview.

The data were analyzed according to the Elo and Kyngäs' qualitative analysis method, including three steps of preparation, organization, and reporting.[20] First, the recorded interviews were transcribed word by word by the researcher. Then, they were read quickly to comprehend their general idea. They were read again, this time with more scrutiny, and the important sentences were highlighted. An open coding was then done. Similar codes were put in the same groups creating categories. Sorting them led to the formation of categories and themes.

To increase the validity of the data, the researcher run them with experienced colleagues in qualitative study, accurately described the participant, welcomed the suggestions of knowledgeable people, interviewed professors, students, and nurses, and conducted the interviews in a calm environment, away from chief executives. The researcher paid attention to the tone and body language of the participants and anything emphasized by them was recorded manually. At the end of interviews, the summary and notes were shown to the participants for their additional comments. In some cases, another shorter interview was arranged for those who wanted to elaborate further. The researcher also had the retrospective attitude from the data collection phase to the analysis and used the insights of the members of Quality Improvement Committee on the themes.

Results

Data analysis showed that the reasons for the theory-practice gap in the emergency department included 13 secondary categories, five main categories, and two themes of input and process. The perceived reasons for theory-practice gap, from the participants' perspective are summarized in Table 2 and Figure 1.

Input

In this study, the main categories of student, instructor, and environment led to the emergence of the input theme.

Student

The participants believe that students entering the emergency department have different attitudes toward three important factors of the profession, learning, and service providing. The students study nursing without enough information about it; they lack knowledge of the roles and do not have clear job prospects. These would result in false illusions about the profession. Besides, some of them lack interests in the profession, some have an unpleasant feeling about it, and even worse, there are those who just thought about a different job in future. Students also learn by memorizing and jamming during the examination period, they enter the emergency department without enough knowledge, they fear poor grades in the event of providing imperfect service, and in general, they values grades over learning. One of the nurses said: "Nowadays," students have no

Table 1: Characteristics of the study participants

Variable	*n* (%)
Age	
20–30	6 (33)
31–40	7 (39)
41–50	4 (22)
>50	1 (6)
Sex	
Female	11 (61)
Male	7 (39)
Education	
Nursing student	4 (22)
Bachelor degree	4 (22)
Master of science in nursing	5 (28)
PhD	5 (28)
Job experience (year)	
0–5	5 (28)
6–10	4 (22)
11–15	4 (22)
>15	5 (28)
Employment position	
None	4 (22)
Nurse	6 (33)
Head nurse	1 (6)
Nursing supervisor	1 (6)
Medical or nursing faculty member	6 (33)

Table 2: Themes and subthemes

Themes	Subthemes
Input	Student
	Instructor
	Environment
Process	Organizational culture
	Organizational processes

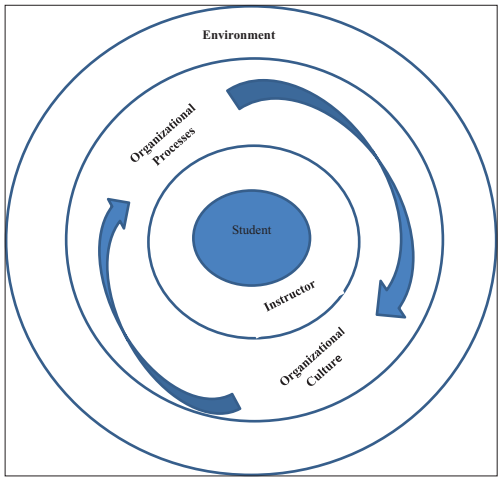

Figure 1: The conceived reasons for theory-practice gap

responsibility. They're just waiting for the days of training to finish. Find the vein, take the blood sample, and that's it. In my opinion, most of them are not after learning" (P 3).

Students' attitude toward service was assessed by the degree of their interest in the nursing care, their engagement with the job, and their experiences. The stress of some of the cares, repeating the care without any considerations, and nursing students' attempt to get a higher degree to be rid of the clinical activities are examples of the causes for theory-practice gap. One of the participants commented: "For example, doing the suction is really important for the patients. From what I see, students don't want to do it… they don't like its noise, they try to avoid it" (P 4).

Instructors

In this category, the professional competence of instructors and nurses as influential human resources was considered. This could be effective in the reduction of the gap if they have enough experience in the emergency department and management skills to handle educational or clinical situations. From the participants' perspective, the reasons for the gap are as such: the instructors' inexperience, their lack of competence to work with some equipment, nurses' negligence to the reasons for some of the treatments, mere obedience of nurses toward doctors, little use of clinical judgment, and considering some of the procedures as obsolete. One of the participants, for example, shared her/his experience of inadequate knowledge: "I for one, as an instructor, feel that I lacked knowledge and tried to escape to buy time and find it. I feared of being labeled as someone who does not have a depth and breadth of knowledge, so I did not teach" (P 3).

Environment

The environment was known as equipment and features of the environment. Lack of computers to access health information system, having difficulties to use special equipment, and the shortage of equipment for a standard procedure are some examples. One interviewee remarked: "Sometimes there isn't enough time to ask for and find sterilized gloves for suction. It is not like we don't have them, but for example, in a ward with twenty patients, there are only two gloves in the closet" (P 5).

The environment of the emergency department itself or some of its features was one of the significant reasons for the gap. As the participants put it, the emergency department was crowded and the patients were the priority compared to students' education, and the nature of work in there was described as complex. One of them said: "When there is a very sick patient, I cannot let the student do the job. The patients' life must be saved within minutes; there is no time to teach" (P 5).

The process

Organizational culture and processes are the main categories resulted from the data analysis which led to the theme of "process."

Organizational culture

Role modeling, organizational relationships, and role conflict were secondary factors and were classified under organizational culture. The reasons for the gap were students following substandard care provided by inexperienced staff or instructors and following the hospital's routine. One of the students said: "There were even some among us who said they wouldn't stick to the routine or they won't become like the staff, but I saw them change in the seventh or eighth semester, and they had become just like the staff" (P 1).

Organizational relationships are the other reasons for the gap. The shortage of communication between instructors, unsupportive behavior of staff toward the instructor, lack of mutual respect and poor teamwork between the nurses, and mistreatment of instructors and supervisors toward the students would lead the students not use their educational capabilities in the emergency department. One instructor remarked: "Everything is totally different in the faculty and hospital. We do our own things and they do theirs. There hasn't been a good communication… nurses don't welcome me; I must have a good deal of social skills" (P 6).

The role conflict between instructors, nurses, and students is another reason for the students not acting on the theory. Instructors' focus on research more than teaching, attract nurses' attention to documentation rather than providing care, and students' concentrate on learning more than providing the care are the examples of the role conflict. One of the instructors said: "Here, only one part of our job is teaching, the other part is research and the evaluation of my position as a member of the board depends on research. So I would take care of it more" (P 7).

Organizational processes

Organizational processes, in this study, are all the processes done in both faculty and emergency department, educational programming, care program arrangement, supervision, and evaluation processes. The participants believed that in educational programming, these factors should be considered: necessity-based education, content, resources, time, and teaching methodology. One clinical instructor said: "when I'm teaching, I do it based on my knowledge and my experience in the clinic, but I see instructors who do it based on their emergency

department or training program experience. These are not together" (P 4).

The gap will increase through deficiency in the arrangement of care programs, either by instructors or nurses such as the shortage of policy and procedures in the emergency department, routine-based care instead of a knowledge-based one, as well as deficiency in students' participation in providing care. One instructor commented: "Nurses' work is usually duty-based. They say they're short in numbers, and there is a lot to do. If there was a nurse for each patient, they would still be duty-based. I mean nurses are supposed to see a patient as a unique whole, but they don't" (P 6).

Supervision and evaluation processes are among the influential emergency department processes. Scarce supervision on nurses' work, a part-time presence of clinical instructors, little use of nurses and mentorships to evaluate the students, instructors' negligence toward evaluation, and methods for providing feedback are the reasons for theory-practice gap. One instructor said: "Nurses don't practice their knowledge. Why? Because there is no evaluation. Evaluation is an important factor, and it must be carried out by head nurse" (P 7).

Discussion

This was a study on the underpinning reasons for the theory-practice gap in emergency nursing education. During the interviews, participants tried to look for the reasons in the other people's mistakes, but they all agreed that there are many factors involved; student, instructor, clinical learning environment, and issues that can be perused in the faculty and clinical settings.

The results showed that the students' attitude toward the profession, learning, and care was influential in the gap. The influential factors here were the professional awareness and interests, the engaging nature of theoretical learning, the existence of a learning atmosphere in the clinical environment, having a positive outlook for the professional future, personal concern for learning, and having the motivation to be of service. The facilitating factors of clinical education on the students' side, according to Bagheri and Bazghaleh, were motivation, personal aptitudes, and confidence, while the hindering factors were lack of motivation, anxiety, and fear of hurting the patients.[17] In a study by Henderson *et al*., although students' sense of acceptance and attachment to the learning environment was important, they were just included in the work and could not easily discuss the activities.[21] The experience of these circumstances would lead to a sense of dissociation from the profession, fear, and anxiety.[22]

Due to the authoritative figure of instructors for students, it is expected from them to realize students' needs, implement the clinical teaching methodology, have a proper interaction with others, and be aware of the rules and correct execution of the procedures. Most of the emergency department instructors, in this study, were young and inexperienced and expected the clinical teaching methodology from the more experienced instructors. The facilitating factors for instructors, in other studies, were implementing the theory in clinics, enough communicative skills, and management experiences, while the debilitating factors were professional incompetence, the obscurity of evaluation criteria, lack of cooperation from the health system, and ineffective communication.[17] Kube also asserted the influence of educational behaviors on students' learning. Instructors' more use of clinical educational behaviors, Kube believed, would lead to more positive clinical experiences in the students.[23] Wang *et al*. also believed that one of the most important determinants of an effective clinical teaching is the performance of the instructors. They are the bridge between theory and practice, providing the effective communication.[24] Besides the internal characteristics of instructors, the external and organizational factors such as features of the learning environment, students' characteristics, and efficiency of education management in the institute are influential on their competence.[25]

Furthermore, it should be considered that the clinical setting is very important. The emergency department with its shortage of educational equipment and care, complexity, and priority of service over education was another reason for the gap. In addition, other researchers have summed up the facilitating factors in terms of environment as enough equipment, clinical chiefs' cooperation, and facilities for rest. The debilitating factors were the shortage of department's educational equipment and surplus of students for departments.[17] The students, however, need to accept the reality of the emergency department with all its positive and negative features and try to gain experience in this environment.

The results showed that students would be less willing to use their theoretical knowledge when their clinical instructors and nurses have little awareness about the reasons of the treatments or less experience to use the equipment, lack clinical knowledge and judgment, pay less attention to the importance of emergency cares in the right time, have a small role in the decision-makings about the patients, or just follow the doctors' orders. Bahreini *et al*. described the clinical competence of nurses and the frequency of using the skills in different departments and hospitals as "good," but the "worrying" issues are that 24% of the skills, especially in "education and guidance" and "quality assurance," are not being used.[26]

In fact, instructors and nurses, being role models for students, act as both encouraging and discouraging forces. Students' tendency to follow the routines or "dissolve in the system" was one of the reasons for the gap. Instructors and nurses' condemning and commanding behaviors, poor communication between instructors, nurses' paying little attention to clinical instructors, and mistreatment of students or young nurses by experienced ones were also other factors. Rowe Neal believed that a clear communication and effective interaction with students would help create a positive learning environment. Nurses also need to have the support of the instructors, co-workers, and hospital directors to play their educational role.[27] This means that organizational culture, mental and sociological elements, and factors related to education and learning alongside with the physical environment are the influential factors on the students' learning experience.[28] Participants felt that they were in a place where learning theories for students, researching and publishing a paper for instructors, and recording and documenting the care for nurses were a priority more important than providing a qualified care. It seems that the obscurity of evaluation processes for instructors, nurses, and students has an influence forming these priorities. In a study on the students' clinical education environment, Yousefy *et al*. realized that obscurity of role in nursing care, routine-based nursing care, and noncritical and dependent thinking atmosphere were the most important parts of nursing.[29] Finally, students' presence in clinical setting is an opportunity to observe the nurses, listen, feel, and act, so that they can become an independent nurse.[30]

Based on the results of the study, three processes, which govern the emergency department: education, care, and supervision and evaluation, were undoubtedly influential in the theory-practice gap. Students preferred to learn about the course of treatment from admission to discharge, the reasons for the nursing cares, and the interprofessional cooperation, and (to) experience them all in the emergency department. Besides, shortage of experienced clinical instructors, full schedule of instructors and the high number of students in one training course, holding a theory class at an inappropriate time with lecturing method, and less cooperation of nurses in students' education would cause the gap. According to the results of the previous research in Isfahan University, the nursing education system's efficiency level in Isfahan University's School of Nursing and Midwifery was medium and acquiring the educational goals was not satisfactory for the students.[31] The examination of Nepalese nursing students' perceptions regarding the clinical learning environment and supervision showed that the most influential factor explaining satisfaction was pedagogical atmosphere. The researchers asserted on spontaneous supervision, role of the nurse instructor, and leadership style of the ward manager.[32]

Glynn and Silva showed that new graduates' expectations of emergency department internship program were the ability to prioritize patients and interventions, becoming more proficient, assistance with role transition and need for increased confidence.[33] Facilitating factors in an educational program, according to Bagheri and Bazghaleh, were necessity-based program and timing of presenting the courses, while the debilitating factors were similarity and repetition of training courses, their aimlessness, and their discord from the department's expectations.[17] Although in Hickey's study, the clinical experiences of graduates were positive, there was a meaningful difference between what they deemed important for clinical preparation and reality. The clinical educational activities and clinical educational experiences were crucial factors for students' preparations.[34]

Based on this study, shortage of guidelines, nurses' putting less focus on standard nursing care, and routine-based performance would discourage nursing students to implement their theoretical knowledge in the emergency department. In a review article, "routine-oriented style of delivering nursing care" was also an important challenge faced by Iranian nurses which should be replaced with decisions based on their professional knowledge and skills.[35] Three themes also emerged from the study of Yousefy *et al*. including ambiguity in the nursing care role, routine-based nursing care, and noncritical and dependent thinking climate as important component of nursing.[29] Al Awaisi *et al*. showed that newly graduated nurses experienced the shock of reality, which was mostly because of the theory-practice gap. New nurses experienced a lot of competitive priorities in the workplace which led them to become duty centric and negligent to patients' care.[36]

Other reasons for less application of theory in the emergency department by students were less use of supervision checklists for nursing care, deficiency in students and nurses' evaluation methods, and less use of nurses and educational colleagues' views in students' evaluation. Klimkewicz showed that objectivity and impartiality in the evaluation, showing real interest in patients' care and giving constructive comments in students' evaluation without blaming them, were instructors' most important educational behaviors from students' perspective. On the other hand, instructors preferred impartiality, objectivity, confidentiality, and showing interest in patients' care.[37] In another study, for most of the students, the controversial factors in the clinical environment were fear of using wrong methods, being supervised by

instructors, and being evaluated by the instructor.[38] The clinical competence evaluation criteria, however, in some Persian researchers' view include evaluation of context/conditions, content, evaluation of process, grading method, and evaluation of outcome.[39]

Conclusions

The results showed that nursing students face different challenges in the emergency department to implement the theory in practice. These challenges stem in the faculty as an academic environment and the hospital as a clinical educational environment; reform in any of these would help nursing profession become more capable and competent. To focus on primary factors in the theory-practice gap; students, faculty, and hospital's human resources, equipment, and organizational culture and processes, could help improve the main goals of nursing education: to implement learned theory in practice by students and to improve their decision-making capabilities in real, intensive conditions. Thus, it is imperative to use all involving factors for an efficient education to transfer theoretical knowledge into practical skills for patients' care.

This study was intended to reflect the multiprofessional team point of view, but the stakeholders were only selected from one hospital. Thus, the researchers suggest a simultaneous study to be conducted in different hospitals. The participants also knew the interviewer as a part of the research team as well as a coworker; this might have prevented them from expressing all of reasons. This challenge may have overcome if the interviews were done by different researchers.

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Conflicts of interest

There are no conflicts of interest.

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