

### Investigating Factors Affecting the Gap of Nursing Education and Practice from students and instructors' viewpoints

**Background:** The existence of a gap between theory and practice in nursing is a problem that is rooted in the history of nursing education, which means that there is a difference between what the student at the college and the behavior that appears in the clinic, and this discrepancy is of concern to community health educators. A coherent understanding of the learning and practice gap is a crucial step in dealing with this gap and thus promoting nursing and community health. This study aimed to determine the factors affecting the gap between education and practice from the three viewpoints of nurses in Shohada Medical Center and nursing students and trainers of the Faculty of Nursing and Midwifery of Qaen.

**Methods:** This descriptive-analytic study was carried out at the Faculty of Nursing and Shohada Hospital in Qaen. The instrument was a researcher-made questionnaire, completed by a census sampling method, completed by 107 nurses and 16 instructors and 105 nursing students from the Faculty of Nursing and Midwifery of Qaen, and analyzed.

**Results:** The greatest impact on the gap between training and practice in terms of students, the use of experienced mentors, self-confidence, coaching support, and the greatest impact from the mentors' view, coach's conscience, motivation, weak mentor supervision, the use of experienced coaches, educational perspective Managers and most impact from nurses' perspective: self-esteem, experienced mentors, nurse motivation and nursing shortages. The results also showed that students had more faith in the training and practice gap than instructors and nurses.

**Conclusion:** It seems that, given the gap between education and practice, managers of educational centers should take the necessary measures to reduce this gap in management, decision making and educational planning.

**Keywords:** Clinical instructor, Education and practice gap, Nurses, Nursing students

### بررسی عوامل موثر بر شکاف آموزش و عمل از دیدگاه پرستار، دانشجویان و مربیان پرستاری

**زمینه و هدف:** وجود فاصله بین تئوری و عمل در پرستاری مسئله ایست که ریشه در تاریخچه آموزش پرستاری داشته و بدین مناسبت که بین آنچه دانشجویان در دانشکده می آموزند با رفتاری که در بالین از خود بروز می دهد تفاوت وجود دارد و این ناهمخوانی مایه نگرانی مدرسان است. درک منسجم عوامل شکاف آموزش و عمل یک گام حیاتی در برخورد با این شکاف و در نتیجه ارتقای حرفه پرستاری است. هدف این مطالعه تعیین عوامل موثر بر شکاف آموزش و عمل از سه دیدگاه پرستاران مرکز آموزشی درمانی شهدا و دانشجویان و مربیان پرستاری دانشکده پرستاری و مامایی قاین می باشد.

**روش:** این مطالعه از نوع توصیفی - تحلیلی است، که در دانشکده پرستاری و بیمارستان شهدای قاین انجام شد. ابزار سنجش، پرسشنامه بود که با نمونه گیری به شیوه سرشماری و به وسیله ۱۰۷ پرستار و ۱۶ مربی و ۱۰۵ دانشجوی پرستاری دانشکده قاین، تکمیل گردید و تحلیل شد.

**یافته ها:** بیشترین تاثیر بر شکاف از نگاه دانشجویان، استفاده از مربیان با تجربه، اعتماد به نفس و از نگاه مربیان، وجدان کاری مربی، انگیزه، ضعف نظارت مربی، استفاده از مربیان با تجربه، از نگاه پرستاران: اعتماد به نفس، مربیان با تجربه، انگیزه پرستار و کمبود پرستار، تعیین گردید. همچنین دانشجویان اعتقاد بیشتری به شکاف آموزش و عمل نسبت به مربیان و پرستاران داشتند.

**نتیجه گیری:** به نظر می رسد؛ با توجه به وجود شکاف بین آموزش و عمل، مدیران مراکز آموزشی باید تمهیدات لازم را جهت کاهش این شکاف در تصمیم گیری و برنامه ریزی های آموزشی، به عمل آورند.

**واژه های کلیدی:** شکاف آموزش و عمل؛ دانشجویان پرستاری؛ مربیان بالینی؛ پرستاران

### دراسة العوامل التي تؤثر على الفجوة بين التعليم والممارسة من وجهة نظر الموظفين والطلاب ومعلمي التمريض

**الخلفية والمعرف:** إن وجود فجوة بين النظرية والتطبيق في التمريض مشكلة تكمن جذورها في تاريخ تعليم التمريض. مما يعني أن هناك فرقا بين ما يتعلمه الطالب في الكلية والسلوك الذي يظهره في الحياة العملية. وهذا التناقض هو مصدر قلق للمدرسين. غير إن الفهم المنسجم لفجوة التعلم والممارسة خطوة حيوية في التعامل مع هذه الفجوة وبالتالي تطوير مهنة التمريض. هدفنا هذه الدراسة إلى تحديد العوامل المؤثرة على الفجوة بين التعليم والممارسة من وجهات نظر ثلاثة هي مرضيات مركز شهادا التمريض العلامي ومعلمي طلاب التمريض في كلية قاین للتمريض والقبالة.

**طريقة البحث:** أجريت هذه الدراسة الوصفية التحليلية في كلية التمريض ومستشفى شهدا. قاین. كان أداة القياس عبارة عن استبيان تم استكماله من خلال طريقة أخذ العينات العنقودية وأكمل من قبل ۱۰۷ ممرضة و ۱۶ مدرب و ۱۰۵ طالب تمريض بكلية قاین.

**النتائج:** التأثير الأكبر على الفجوة من وجهة نظر الطلاب: استخدام المعلمين المربين ذوي الخبرة والثقة بالنفس. وأما من وجهة نظر المعلمين: ضمير المعلم والدافع والإشراف الضعيف للمعلم. واستخدام المعلمين ذوي الخبرة . وأما من وجهة نظر الممرضات: الثقة بالنفس. والمعلمين ذوي الخبرة و وجود العازل لدى الممرضين ونقص الممرضين. كما يعتقد طلاب التمريض بوجود فجوة بين التعليم والممارسة أكثر من المعلمين والممرضين العاملين.

**الخلاصة:** بسبب الفجوة بين التعليم والممارسة. يجب على مديري المراكز التعليمية اتخاذ التدابير اللازمة للحد من هذه الفجوة في صنع القرار والتخطيط التربوي.

**الكلمات الدلالية:** فجوة في التعليم والممارسة. طلاب تمريض. معلومون سريريون. ممرضون.

### نرسنگ کے طلباء اور اساتذہ کی نظر میں کون سے امور تعلیم اور کلینیکل پریکٹیس کا خلا پیدا کرتے ہیں

**بیک گراؤنڈ:** نرسنگ کی تعلیم میں کلینیکل پریکٹیس اور تعلیم میں فاصلہ بڑجاتا ہے اور یہ آج کا مسئلہ نہیں ہے بلکہ بہت زمانے سے چلا آ رہا ہے۔ اس کے یہ معنی ہیں کہ نرسنگ کے طلباء کلاس میں جو تعلیم حاصل کرتے ہیں وہ کلینیکل سطح پر عملی طور پر اپنا نہیں سکتے۔ اس مسئلے سے اساتذہ کو تشویش لاحق ہے۔ تعلیم اور کلینیکل پریکٹیس میں کون سے عوامل خلا پیدا کرتے ہیں انہیں جاننے کی ضرورت ہے، اسی وجہ سے یہ تحقیق انجام دی گئی ہے، یہ تحقیق شہر قاین میں شہدا میڈیکل کالج اور اسپتال کے نرسنگ اور میڈیوٹرفی طلباء نیز اساتذہ نے شرکت کی ہے۔

**روش:** اس تحقیق میں ڈیٹا کے حصول کے لئے شرکاء تحقیق کو سوالنامہ دیا گیا، یہ سوالنامہ ایک سو سات نرسوں، سولہ اساتذہ، اور قاین میڈیکل کالج کے ایک سو پانچ نرسنگ طلباء کو دیا گیا تھا۔

**نتیجے:** طلباء کی نظر میں نرسنگ کی تعلیم اور کلینیکل پریکٹیس میں خلا ڈالنے والے عوامل میں سب سے بڑا عامل یہ ہے کہ نرسنگ کی ٹریننگ کے لئے تجربہ کار اساتذہ کی خدمات حاصل کرنی چاہیں اور طلباء کو خود اعتمادی سے کام لینا چاہیے ورنہ فائدہ نہ ہوگا۔ اساتذہ کی نظر میں نرسنگ کی تعلیم اور کلینیکل پریکٹیس میں آنے والے خلا کا سبب اساتذہ میں تعلیم دینے کا جذبہ نہیں ہے، اساتذہ طلباء کی کارکردگی پر نگرانی نہیں کرتے، تجربہ کار اساتذہ سے کام نہیں لیا جاتا۔ نرسوں کی نگاہ میں خود اعتمادی کی کمی، تجربہ کار اساتذہ کا فقدان، نرسوں کی کمی ایسے عوامل ہیں جو تعلیم اور کلینیکل پریکٹیس میں فاصلہ پیدا کرتے ہیں۔ یہ بات بھی قابل ذکر ہے کہ طلباء کا کہنا ہے کہ اساتذہ اور نرسوں اس فاصلے کا سبب ہیں۔

**سفرارش:** چونکہ نرسنگ طلباء کی تعلیم اور ان کی کلینیکل کارکردگی میں خاصہ فاصلہ پایا جاتا ہے لہذا یہ نرسنگ ٹریننگ مراکز کے سرپرستوں کی ذمہ داری بنتی ہے کہ وہ اس فاصلے کو کم کریں اور نرسنگ کی تعلیم اور عملی کارکردگی کے لئے مناسب منصوبہ بندی کریں۔

**کلیدی الفاظ:** تعلیم اور کلینیکل کارکردگی میں فاصلہ، نرسنگ، اساتذہ

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## INTRODUCTION

In Iran, undergraduate nursing education is the basis for professional nurse education. The public nurses should examine and identify the health status, and coordinate the cares in different areas for the individual, family, and society. Nursing is a science and practice-based discipline, and clinical internships play a major role in the development of nursing skills in the psychomotor domain (1).

Clinical learning is an important part of the learning process in many medical sciences, including nursing, in which the students interact with the environment, and apply the learned concepts in practice (2,3).

Training in clinical settings provides students with opportunities to experience nursing in the real world and apply theoretical knowledge in practice (4,5). Any problem in this area will affect the efficiency and effectiveness of nursing education (6).

The gap between education and practice is widespread in the nursing profession (7). In the present era, the separation of theory and practice or the gap between education and clinical services is one of the most fundamental challenges and one of the most important issues related to nursing and the health system. That is, what is taught in the classroom is different from the services offered at the bedside (8).

The separation or gap between theoretical science and clinical care can be defined as a mismatch between what nursing students learn in the classroom and what they experience in a clinical setting (9).

As a practical profession, nursing requires training based on a theoretical framework that allows students to learn the clinical skills that are essential for the care of patients (10).

However, many studies confirm that today the knowledge provided in the classroom is different from the clinical care (11) and there is a relatively deep gap in the educational process of nursing and midwifery and the clinical performance of the students (12). According to Elahi (2014), studies in Iran suggest that theoretical training is not practical (11). Also, Azimi (12) has stated that existing clinical education does not provide the student with the ability to express clinical skills. Nursing leaders claim that there are a large number of nursing graduates who are theoretically competent but lack any clinical skills (11).

Although nursing theories have been studied for many decades and many theories have been developed in this regard, there is still a real gap between theory and clinical education (13).

As Bandal stated for the first time in 1976, "The educators teach people who are skilled on paper, rather than practice and what students learn in theory, is far from what they really do in practice." (9).

Rogers stated in 1986 that knowledge transfer from class to practical application is affected by three factors: teacher, student, and curriculum. Disruption in either of these cases could lead to a gap between theory and practice (14).

Researchers have concluded that methods for preparing nursing students for college-to-hospital transition have been unsuccessful. Also, one of the reasons that students' caregiving at the clinics is different from theoretical training

is the emphasis on the acquisition of theoretical knowledge for postgraduate education. Given the age of the explosion of information, this vacuum is predicted to deepen each day. (8).

Nursing students understand the gap between theory and practice more than other groups. Because they are under the direction of the ideal and scientific training of the coaches.

On the other hand, they are faced with routine practices of clinical nurses that are different from theoretical lessons (15). Current developments in the educational system suggest that higher education while considering the existing financial constraints, should maintain and improve its educational performance (13). The coherent understanding of the components and factors of the gap between teaching and practice is a vital step in dealing with it (7). Since nursing plays an important role in promoting health and standards of health, the gap between theory and practice has also the same impact. Nursing is a discipline that combines knowledge and practice. These two cannot be separated from each other and any change in nursing practice should be started by changing educational programs (16).

The gap between the theory and practice has negative effects on students as well; they are unable to adapt themselves to conditions due to the conflicts between faculty expectations and the realities of the workplace. Therefore, they will be afflicted with mental and physical problems including feeling disability, depression, anxiety, and insecurity due to lack of efficiency in the workplace and ultimately leaving the profession (9).

The most important issue is that the existence of the gap between theoretical education and clinical care can endanger the health of patients. Identifying the factors affecting it and recognizing the weaknesses and strengths in this area can improve the nursing profession (13).

Given the aforementioned reasons, frequent observations of writers and other educators, and the student's own admission to a difference (gap) between what is said in the classes (training) and what is done in the patient's bedside (practice), this study was conducted. It aimed to identify the reasons why the teachings are not applicable and what solutions can be found to reduce this gap.

The aim of this study was to determine the factors affecting the gap between education and practice from three perspectives of nurses in Shohada Medical Research & Training Center and nursing students and educators of the Faculty of Nursing and Midwifery of Qaen in the first semester of 2017.

The data was collected using a researcher-made questionnaire consisting of a demographic section and a specific section related to factors affecting the gap between education and practice based on the Likert scale. Data analysis was done with SPSS version 22.

## METHODS

This is a descriptive-analytic study that investigates the factors affecting the gap between education and practice from the viewpoint of nursing students of faculty and instructors and nursing staff of Shohada Medical Research & Training Center.

Sampling was done by census method and 107 nurses, 105 nursing students and 16 instructors participated in the study. Inclusion criteria:

For students: They must agree to participate in the study. They must be a Nursing student at the Faculty of Nursing and Midwifery of Qaen in the first semester 2017. At least one semester of internship at Shohada Medical Research & Training Center.

For staff: They must agree to participate in the study. They must be a member of the medical staff of Shohada hospital.

For educators: They must agree to participate in the study. They must be selected as trainee instructors.

The data was collected using a researcher-made questionnaire consisting of a demographic section and a specific section related to the factors affecting the gap between education and practice.

A specific section was developed based on the Likert scale. For content validity, questionnaires were presented to ten professors of Qaen Faculty of Nursing, and their views were applied. Furthermore, the validity of the questionnaire was confirmed by exploratory factor analysis after the distribution and gathering and entering of data.

To test the reliability of the tool, the retest method was used and ( $r = 0.85$ ) was determined which was acceptable. Then, for analyzing the data using SPSS version 22, first Kolmogorov-Smirnov test was performed to determine the normality of the whole questions, which was normal and ANOVA and t-test were used. Then, for measuring the relationship between demographic variables and questions, Kolmogorov-Smirnov test was performed for each question. Because it was abnormal, Kruskal-Wallis and Mann-Whitney U tests were used for analysis.

**RESULTS**

The findings showed that all of the students believed there was a significant gap between nursing education and practice and nursing students felt the most gaps. Table 1 shows these results.

Group	Number	Mean (SD)
Students	105	109.46 (10±13)
Nurses	16	146.12 (16±79)
Educators	107	121.75(14±36)

The highest effects on the gap between training and practice as mentioned by students according to table 2 were as follows: self-esteem (88%), coaching support (85%), use of experienced trainers (84%), equipment shortage (82%), And the least impact were the comprehensive theory before internship (66%), imitating the higher-level students (70%), the encouragement and punishment of superiors (71%), and the patient's level of knowledge (72 percent)

Based on the view of nurses, the factors which have the highest greatest impact on the educational gap and practice

Most effective factors	Number (percentage)
Self Confidence	92.4 (88%)
Supporting the coaches	89.25(85%)
Use experienced coaches	88.2 (84%)
Lack of equipment	86.1(82%)

according to table 3 are respectively: confidence (89%), experienced educators (88%), nurse motivation (87%), lack of nurse (86%), interest in Training (85%), head nurse support (84%), untimely non-payments (84%). The least impact was related to accreditation (61%) and health promotion plan (64%).

The factors which have the highest impact on training and practice gap based on educators according to table (4), are respectively: educator's work ethics (91%), Motivation (91%), weakness of coach supervision (87%), lack of use of experienced coaches (86%), educational viewpoints of managers (86%), and the factors which had the least impact was related to health promotion plan (53%) and patient's accreditation (61%).

Additionally, in measuring the relationship between demographic variables and the factors affecting the educational and practical gap, the following items were significant:

The relationship between gender and factors affecting the educational and practice gap in students in the lack of using experienced educators was significant. The relationship between gender and factors affecting nursing education and practice gap was significant in cases such as gap, lack of supervision of the head nurse, lack of distinction between good and bad performance, and lack of educational viewpoints of managers. Also, in examining the relationship between age of nurses and factors affecting educational gap, the role of time, self-confidence, educator's teaching style, staff support by colleagues and weakness of head nursing supervisor were significant.

Results of the study showed that the most effective factor in the gap between the training and practice among students and nurses is the self-confidence factor and work ethics in

Most effective factors	Frequency (percentage)
Self Confidence	95.23 (89%)
Using experienced coaches	94.16 (88%)
Nurse motivation	93.09 (87%)
Nurse shortage	92.02 (86%)
Interest in teaching	90.95 (85%)
Support from the head nurse	89.88 (84%)
Lack of timely payments	89.88 (84%)

**Table 4. The most effective factors on training and practice gaps from coaches' point of view**

Most effective factors	Frequency (percentage)
Educator's work ethics	14.56 (91%)
Motivation	14.56 (91%)
Weak supervisor supervision	13.92 (87%)
Lack of experienced coaches	13.76 (86%)
Educational view of managers	13.76 (86%)

educators. These findings were similar to Mehrabian et al's study (13). They considered the role of nurse's self-confidence and his support by the head nurse as factors influencing the adaptation of theoretical knowledge and clinical care. The results were also consistent with the study of Khodayi et al. (9) and Kerman Saravi (16). According to Khodayi et al. (9), the most important strategy to reduce the gap between theory and practice is to use qualified instructors. He defined qualified as having the power to integrate theoretical knowledge and clinical practice. In his qualitative study, Kerman Saravi (16) emphasized the instructor's role in promoting the educational system. He stated that the improper teaching method of educators is one of the most important barriers to theoretical and clinical education.

In order to illustrate the educators' viewpoints, the research results were found consistent with the results of Joe Carlot (17) and Khodayi et al. (9). Joe Carlot (17) stated in his research that all of the interviewees felt that there was a gap between the theory and practice and the lack of clinical facilities, the lack of cooperation between clinical centers and educational institutions, and the role of mentor as factors influencing the gap between theory and practice. However, these results were different from those of Mohammad Ali Hosseini et al. (16) because he concluded in a review study that there should be a gap between theory and practice, because if this gap does not exist then it can no longer be called theory, and it is in fact practice (18).

The results of the present study and similar studies all refer to one essential point which is the gap between theory and practice in nursing. Although the factors affecting this gap from the point of view of students, nurses and nursing educators are different in some cases, they all have a common point, and this is the existence of this gap between theory and practice.

It seems that factors that have a significant and effective role in this educational gap have not been seriously considered in nursing, including the lack of self-confidence that had the highest percentage both from the point of view of students and the personnel. Self-confidence is defined as the individual's confidence in his or her ability and competence, in which case arrangements must be made, and nursing educators should try to update their nursing knowledge first and, on the other hand, by using mixed methods instead of

traditional methods and timely use of educational theories Instructional such as social cognitive theory attempt to increase self-confidence, self-efficacy, and motivation of students. In order to have such effective and useful training, it is necessary to have experienced and knowledgeable trainers who, in addition to having a strong academic resume and complete familiarity with the principles of management, in particular, the control and monitoring aspects, have a proper clinical performance as well. These things should be taken into consideration when hiring instructors.

On the other hand, the results of this study and other studies indicate that the lack of facilities and equipment are also factors that influence this educational gap. The therapeutic techniques are process-oriented. In other words, it is a step-by-step and regular process. It is clear that the absence of a device and equipment will disrupt this process; therefore, there must be a balance between the available facilities and what the student learns at the center of clinical skills in the college. It should be kept in mind that the lack of facilities is not merely equipment, in most cases, the shortage of manpower is an effective factor that results in the gap between education and practice. Failure to observe the standard nurse distribution of the patient in the educational centers and the assigning the written and office work to the nurses, in addition to nursing care, has also led to the increasing deepening of the gap.

## DISCUSSION

It seems that changing the views of health managers is essential and they should strengthen their educational outlook and, by eliminating deficiencies, attracting qualified trainers, increasing monitoring and control, take a step to reduce the gap between education and practice. In order to improve nursing profession and society health, students must be trained to have high knowledge and self-confidence in their future career, and instead of using traditional and non-scientific routines and inappropriate methods in departments, use scientific principles in for taking care of the patients and in this regard, they must be supported by their managers.

It should be noted that the limitations in this study were that it was conducted at a faculty and a training center. Apparently, if it was done simultaneously in several faculties and hospitals, we would have achieved wider results.

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