

Nursing Student's Competence in Clinical Education

Öğrenci Hemşirelerin Klinik Eğitimdeki Yeterlilikleri

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ABSTRACT

Background & Aim: Assessing nursing students' competence in clinical education provides information about students' learning outcomes. Having a good the academic competence in clinical learning has always been desirable for student nurses. However, there are very few scales and studies examining the academic competence of student nurses. The aim of this study is to assess learning outcomes in Turkish student nurses using the clinical education assessment tool (AssCE).

Methods: A descriptive data form, and the AssCE tool were used to collect data. Intern nursing students' clinical education was evaluated by the clinical nurse instructors using the AssCE tool.

Results: The mean age of the student nurses was 22.3±0.5 years (range: 22-24 years), 90.1 % (n=81) of the students were woman, all of these were fourth-year nursing students. The mean score of AssCE was 3.99±0.71; ranging from 3.43 to 4.19. According to the instructors of the nursing students, they are highly reflecting their competence with their own self knowledge 49.4%, ethical awareness 46.9%, safety awareness 46.97%, scientific awareness 45.7% and their own carries out nursing care measures 34.4%.

Conclusion: According to clinical instructors in the study, student nurses performed at a "good" level. It is recommended that student nurses should be supported to improve their skills and knowledge in order to improve their nursing performance.

Keywords: The Clinical Education Assessment tool (AssCE), student nurse, clinical competence, nursing.

ÖZET

Giriş ve Amaç: Öğrenci hemşirelerin klinik eğitimdeki yeterliliklerinin değerlendirilmesi, öğrenme çıktıları hakkında bilgi sağlar. Klinik öğrenmede iyi bir akademik yeterliliğe sahip olmak, öğrenci hemşireler için her zaman arzu edilen bir durumdur. Ancak öğrenci hemşirelerin akademik yeterliliklerini inceleyen ölçek ve çalışmalar çok azdır. Bu çalışmanın amacı Türk öğrenci hemşirelerde klinik eğitimdeki yeterliliklerini, değerlendirme ölçeği (AssCE) kullanarak öğrenme çıktılarının belirlenmesidir.

Gereç ve Yöntem: Veri toplamada tanımlayıcı özellikleri içeren form ve AssCE ölçeği kullanıldı. Öğrenci hemşireleri, klinik eğitmenler tarafından AssCE ölçeği kullanılarak değerlendirildi.

Bulgular: Öğrenci hemşirelerin yaş ortalaması 22.3 ± 0.5 yıl (aralık: 22-24 yıl), öğrencilerin % 90.1'i (n = 81) kadındı. AssCE puan ortalaması 3.99 ± 0.71; 3.43 ile 4.19 arasında değişmektedir. Klinik eğitmenlere göre öğrenci hemşirelerin % 49,4 etik farkındalık, % 46,9 güvenlik bilinci, % 46,97, bilimsel farkındalık, % 45,7 ile klinik yeterlilik ve %44,4'ü hemşirelik bakımı konusunda yeterliliğe sahip olduğu belirlendi.

Sonuç: Çalışmada klinik eğitmenlere göre, öğrenci hemşireler "iyi" düzeyde yeterliliğe sahip bulundu. Öğrenci hemşirelerin, bilgi ve becerilerinin daha iyi olabilmesi yönünde desteklenmesi önerilmektedir.

Anahtar Kelimeler: Klinik Eğitim Değerlendirme ölçek (AssCE), öğrenci hemşire, klinik yeterlilik, hemşire.

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Introduction

Undergraduate nursing education aims to give students the skills and knowledge needed to offer high-quality care based on the requirements of patients, as well as to prepare them for their position in the future as professional nurses. Clinical nursing education is an important component of the nursing educational process, and regarded as a critical phase in the development of nursing students' professional competencies. In this stage, students develop their values, knowledge, attitudes, and skills by putting what they've learned in theory into practice and grasping the opportunity to learn consciously. Student nurses in clinical education develop the nursing care skills needed to provide high-quality service by using their theoretical knowledge (Krautscheid et al., 2014; Güner, 2015; Wu et al., 2015). There is a need to assessment of clinical education of nursing students for enhancing, maintaining and developing the clinical program's quality. Having a good the academic competence in clinical learning has always been desirable for student nurses however, few studies have examined the academic competence of student nurses (Löfmark & Mårtensson, 2017; Baumgartner et al, 2017; Al-Kandari et al., 2009).

Monitoring higher education's quality in terms of instruction and learning has become more important in recent years. Assessment of practitioner students' clinical competence is often complex and an important burden on faculty. The competence indicators show merit for assessing learning outcomes for nursing students in nursing education. Learning objectives for students are measurable and articulated performance and knowledge; in other words, the subjects what students need after they graduate. High nursing competence of student nurses play a crucial role in an organization's success, so university organizations must be aware of the importance of student nurses' nursing competence (Löfmark & Mårtensson, 2017; Baumgartner et al., 2017). The clinical education of nursing students must be evaluated in order to build, preserve, and improve the condition of the clinical program.

Evaluation should be able to determine whether or not the desired outcomes of learning have been achieved. Assessment of students' development during clinical practice helps the instructor to judge about students' performance. The evaluation of a student's competency focuses on their performance with regard to the outcomes of instruction. Assessing nursing students' clinical education gives data on their learning outcomes in order to assess and evaluate their education (Knight, 2006; Ulfvarson & Oxelmark, 2012; Löfmark & Mårtensson, 2017; Baumgartner et al., 2017).

In Turkey, a graduate program of 4 year is applied for nursing education. Students are taught in certain nursing models, for the first three years of the nursing schools in addition to getting clinical experience in hospitals under the clinical instructors' direct supervision. Because educators are overburdened with teaching responsibilities, a major portion of clinical courses are supervised by mentors or trainers who are not instructors of nursing schools. The 4th

year of nursing school is structured as an internship, where students work directly with patients to complete their plans for care with little or no control from a mentor or instructor (Kocaman & Aslan-Yürümezoğlu, 2015). In clinical education, a clinical nurse instructor may have an important role in enabling nursing students' learning in clinical settings, fostering nursing students' clinical learning, and defining standards of nursing practice. Clinical nurse instructor may have a critical role for expand their knowledge and enhance the quality of their practice, develop in their capacity and proficiency in the nursing profession of student nurses. One of the nursing instructor's responsibilities is to assess the clinical experience of the student. Assessment is one of the important activities of clinical nurse instructor in training process in which the clinical nurse instructor measures learners' learning and determines their success in achieving educational aims. Making comments regarding the quality of pupils' performance is part of assessing their improvement levels (Andersson et al., 2013; Engström, Vae KJ & Löfmark, 2017; Skúladóttir & Svavarsdóttir, 2016; Baumgartner et al., 2017; Cascoe et al., 2017; Löfmark & Mårtensson, 2017). The purpose of this research was provide with the assessment of nursing students' competence in clinical education by clinical nurse instructor.

Methods

Study design and setting

This cross-sectional and descriptive study was realized with intern student nurses (fourth-year nursing students) who clinic-trained in different hospitals and were assessment of intern nursing students' development during clinical practice, at a university, in İstanbul, Turkey, in April 2017.

Participants

Sample selection was not made and the entire universe was tried to be reached. Students who could not be reached during the study period due to reasons such as absenteeism or illness and did not want to involve in the study were not included in the study. The study was completed with 81 students. 95.2 % (81/85) of the universe was reached.

Outcome measurement

A questionnaire has been created to collect data about socio-demographical variables, like the student's sex, academic year, age, and the AssCE tool. Since the late 1990s, this tool for nursing programme was used. It has been validated (Löfmark & Mårtensson, 2017), and according to a recent study, AssCE aided students' clinical learning and was mediated by the degree to which the assessment meeting dialogue focused on the students' professional judgment, abilities, and knowledge (Engström et al., 2017). To ensure educational and quality, AssCE was newly developed tools must be exposed to regular reviews. The AssCE tool's objective is to provide support and clarification of learning



outcomes in clinical courses as well as in the assessment of a student's development. The AssCE functions are: 1) Teaching and Communication; 2) Treatments and examinations and; 3)The nursing process; 4) Professional approach and 5) Management and co-operation (Löfmark & Mårtensson., 2017) and tested by Altun et al. (2017) for reliability and validity of a revised version of the scale conducted using 5-point Likert-style responses in a Turkish population (14). The AssCE tool consist of the 21 factors assessed in 5-point Likert scale (scored as 1, 2, 3, 4, 5) (Tables 1), with a potential range of 21 to 105, with higher scores indicating a high perceived development levels of student nurses.

The coefficient alpha in this study was 0.97 for the AssCE tool (Altun, Sunal, & Sahin, 2017). In the Sweden study (Löfmark & Mårtensson, 2017), the new AssCE instrument appears to have accomplished its goal of becoming a validated assessment tool for clinical nursing education. In the Turkish study (Altun, Sunal, & Sahin, 2017), the mean factors score for the AssCE was ranged from 3.4 to 4.1. Findings indicate that the AssCE is a reliable and valid tool for assessment of clinical education in both Sweden and Turkish nursing students (Löfmark & Mårtensson, 2017; Altun, Sunal, & Sahin, 2017).

Data analysis

The SPSS (Windows Package for Social Sciences) 17.0 program was used to analyze the data statistically.

Percentages and numbers are used to give categorical variables, whereas mean and standard deviation are used to give the continuous variables. The analysis of continuous variables matching the normal distribution is performed by the "Student t-test". The $0.05 > p$ significance level and the 95 percent confidence interval are considered to assess the results.

Ethical considerations

The Istanbul Medipol University of Ethics Committee (Decision No: 2017/09) provided the necessary legal clearances before the study. In accordance with the Declaration of Helsinki, the researcher presented the Volunteer Information Form by explaining the research to the patients (WMA, 2017).

Results

The mean age of the 81 student nurses was 22.31 ± 0.51 years (range: 22-24 years), 90.1 % (n=71) of the students were woman, of whom 100% were fourth-year nursing students. The mean age of the 14 clinical nurse instructor was 35.85 ± 6.58 years, the mean experience as nurse 14.81 ± 7.28 (years), of whom % 35.7 were Master's degree education level. Responses were collected and collated for all the twenty one factors in the AssCE tool (Tables-1). The frequencies of each nursing learning outcomes and the median were shown in Table 1.

Table 1. The Median score for learning outcomes in clinical education (n=81)

Variable factor		Score 'not at all' (1) N(%)	Score 'a little' (2) N(%)	Score 'moderately' (3) N(%)	Score 'very much' (4) N(%)	Score 'extremely' (5) N(%)	Median	Range
V1	“Communication and interaction with patients”	0(0)	3(3.7)	14(17.3)	34(42.0)	30(37.0)	4	3
V2	“Communication and encounter with family and friends”	0(0)	3(3.7)	13(16.0)	36(44.4)	29(35.8)	4	3
V3	“Co-operation with various authorities within nursing and health care”	1(1.2)	3(3.7)	17(21.0)	29(35.8)	31(38.3)	4	4
V4	“Informs and teaches patients and family/friends”	0(0)	5(6.2)	15(18.5)	30(37.0)	31(38.3)	4	3
V5	“Informs and teaches colleagues and students”	0(0)	7(8.6)	17(21.0)	29(35.8)	28(34.6)	4	3
V6	“Describes patients' nursing care needs”	1(1.2)	5(6.2)	19(23.5)	32(39.5)	24(29.6)	4	4
V7	“Plans and prioritizes nursing care measures”	1(1.2)	8(9.9)	18(22.2)	29(35.8)	25(30.9)	4	4
V8	“Carries out nursing care measures”	0(0)	6(7.4)	16(19.8)	36(44.4)	23(28.4)	4	3
V9	“Follows up needs/problems and nursing care measures	1(1.2)	6(7.4)	18(22.2)	35(43.2)	21(25.9)	4	4
V10	“Reports, documents and keeps records”	0(0)	4(4.9)	17(21.0)	33(40.7)	27(33.3)	4	3
V11	“Participates in and carries out examinations and treatment”	0(0)	6(7.4)	14(17.3)	29(35.8)	32(39.5)	4	3
V12	“Administers medications”	0(0)	9(11.1)	21(25.9)	30(37.0)	21(25.9)	4	3
V13	“Plans, organizes and allocates work assignments”	3(3.7)	6(7.4)	38(46.9)	21(25.9)	13(16.0)	3	4
V14	“Co-operates”	2(2.5)	1(1.2)	14(17.3)	32(39.5)	32(39.5)	4	4
V15	“Readiness to act”	3(3.7)	4(4.9)	10(12.3)	31(38.3)	33(40.7)	4	4
V16	“Safety awareness”	2(2.5)	2(2.5)	11(13.6)	38(46.9)	28(34.6)	4	4
V17	“Scientific awareness”	2(2.5)	5(6.2)	15(18.5)	37(45.7)	22(27.2)	4	4
V18	“Ethical awareness”	0(0)	5(6.2)	14(17.3)	38(46.9)	24(29.6)	4	3
V19	“Self-knowledge”	0(0)	1(1.2)	11(13.6)	40(49.4)	29(35.8)	4	3
V20	“Thoroughness, reliability and judgment”	0(0)	2(2.5)	16(19.8)	34(42.0)	29(35.8)	4	3
V21	“Independence”	0(0)	2(2.5)	14(17.3)	34(42.0)	31(38.3)	4	3

Discussion

The evaluation of 81 nursing students by 14 clinical nurse instructors according to the success of nursing students in clinical learning outcomes in the final week of their different clinical placements which was investigated in this research. Clinical nursing teachers at a university hospital in Istanbul, Turkey, used the AssCE tool to conduct the evaluation.

The AssCE assessing nursing students' competence in clinical education related to twenty one learning outcomes for students. The nursing competence in clinical education comprise an evaluation on the students' professional

judgement, skills and knowledge. The accuracy and expertise of the groups of clinical nurse educators will determine the outcome of this evaluation. The educators can be considered specialists in their field (Löfmark & Mårtensson, 2017).

The AssCE mean score for the sample was 3.99 ± 0.71 ; ranging from 3.43 to 4.19. The mean factor score for the AssCE was 3.99 ± 0.71 , which indicates that the level of students' learning outcomes with the assessment of clinical education was near ideal. The level of the student's competence decides the grade of the student for the lecture



in consideration. Medium overall perception of achievement of students with their the clinical learning outcomes has been reported in several studies (Al-Kandari, 2009).

In this research, higher scores were associated with characteristics regarding readiness to act, co-operates, and participates in and carries out examinations and treatment. Higher levels of AssCE reflect the optimal accomplishment of clinical learning outcomes for nursing students. In addition, accumulating evidence suggests that AssCE of persons is related with a slew of good consequences. For instance, higher levels can lead to achievement in relation to learning outcomes (Al-Kandari et al., 2009).

It is notable that the range were, in each case, extremely similar. In terms of assessment of nursing students' performance, perception profiles of the student nurses groups by clinical nurse instructors, factors 3,6,7,9,13,14,15,16,17 recorded a median of 4 (range ≤ 4), which was significantly good than factors 1,2,4, 5,8,10,11,12,18,19,20,21 which recorded a median of 4 (range ≤ 3). 13th factors were recorded a median of 3 (range ≤ 4). In our research, range for plans and median scores, organize and allocate work assignments were low. To improve nursing competence of student nurses, attention should be focused on those with low nursing performance. The clinical nurse instructors could influence their clinical practice by developing nursing students' competence that effectively resolve the learning outcomes of nursing students'. The research's findings point to the necessity for more research on Turkish student nurses despite the small sample size. The other flaw is that we employed a brand-new instrument that had been tested only once before.

Conclusions

It is aimed to measure the status of students' learning outcomes from the perspective of clinical nursing educators, for educational assessment and improvement in the current research. Using the AssCE tool in a Turkish sample, nursing students' competency could be evaluated, and the learning outcomes of nursing students could be assessed. Furthermore, it should also be utilized as a teaching tool to improve students' competencies in order to ensure high-quality patient care in hospitals.

The weakest competence of students is in the one item of "plans, organizes and allocates work assignments" according to the instructors. In the study population, the nursing competence of nursing students' was worse than ideal, which indicates the requirement for a better education. An educational goal might be to move to the "excellent" range on the study scale from the "good". To avoid difficulties and enhance patient safety, it is critical to assess that students have obtained acceptable levels of knowledge and abilities in these procedures at various levels of nursing education. The study also looked at the teachers' point of view and focused on students' competence. The retroactive aspect of the evaluation may thus introduce biases into the outcomes of the study. After each clinical rotation, it is

advised that the students' perspectives on the same topic be assessed immediately, as well as their individual strengths and limitations. After this, to address the issues, more accurate in-service training programs could be developed. The teachers of clinical nursing should keep working to ensure that nursing students gain the skills they need to work in a clinical setting which is highly dynamic.

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