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RESEARCH ARTICLE

A Multi-Source Evaluation of Undergraduate Nursing Education; A Mixed-Designed Method [*]

Objective: Nursing undergraduate education is being re-evaluated and tried to be improved with the contributions of accreditation processes that have emerged in recent years. However, evaluations are mostly made on quantitative data, and it is not possible to understand some problems in depth and to evaluate the problems from the eyes of those who have experienced the process. The aim of this study is to reveal the views on nursing undergraduate education, the factors affecting undergraduate education, and to what extent the current undergraduate education supports nursing competencies.

Materials and Methods: This is a mixed-designed study. Participants consist of fourth-year students, faculty members and nurses working in the hospital, and nurses working in primary care. A Google survey form was created to obtain demographic characteristics, and qualitative interviews were conducted on the Zoom platform.

Results: Google survey was conducted with 274 participants, and four focus group interviews with 6-8 participants were accomplished. Nursing competencies, educational climate, recommendations for designing education, emotions, problems in on-the-job training, factors supporting nursing professionalism, and differences in nursing identity are the themes that emerged from qualitative data.

Conclusions: There is a need to increase of awareness-raising of the duties, responsibilities, and competencies determined in the national framework, and skills and attitudes development after undergraduate and postgraduate nursing education. Participants believe that the appropriate clinical climate has not been established to acquire them. Participants basically indicated the factors that negatively affect professionalism as heavy workload, forcing to work outside the responsibilities of their job, and hierarchical structure.

Key Words: Undergraduate, nursing education, nursing, competency

Hemşirelik Lisans Eğitiminin Çok Yönlü Bir Değerlendirmesi; Karma Desenli Çalışma Tasarımı

Amaç: Hemşirelik lisans eğitimi son yıllarda ortaya çıkan akreditasyon süreçlerinin de katkılarıyla yeniden değerlendirilmekte ve geliştirilmeye çalışılmaktadır. Ancak, değerlendirmeler daha çok nicel veriler üzerinden yapılmakta olup, bazı sorunları derinlemesine anlamak, süreci deneyimleyen kişilerin gözünden sorunları değerlendirmek pek mümkün olmamaktadır. Bu çalışmanın amacı hemşirelik lisans eğitimine ilişkin görüşleri, lisans eğitimini etkileyen faktörleri ve mevcut lisans eğitiminin hemşirelik yeterliklerini ne ölçüde desteklediğini ortaya koymaktır.

Gereç ve Yöntem: Bu çalışma karma desende tasarlanmıştır. Katılımcılar dördüncü sınıf öğrencileri, öğretim üyeleri, hastanede çalışan hemşireler ve birinci basamakta çalışan hemşirelerden oluşmaktadır. Demografik özellikleri elde etmek için bir Google anket formu oluşturulmuş ve Zoom platformunda kalitatif görüşmeler gerçekleştirilmiştir.

Bulgular: 274 katılımcıya Google anketi uygulandı ve 6-8 katılımcıyla 4 odak grup görüşmesi yapılmıştır. Hemşirelik yeterlikleri, eğitim iklimi, eğitim tasarımına yönelik öneriler, duygular, iş başı eğitimde yaşanan sorunlar, hemşirelik profesyonelliğini destekleyen faktörler ve hemşirelik kimliğinin farklılıkları nitel verilerden ortaya çıkan temalardır.

Sonuç: Hemşirelik lisans ve lisansüstü eğitiminden sonra ulusal çerçevede belirlenen görev, sorumluluk ve yeterlikler ile beceri ve tutum geliştirme konusunda farkındalığın artırılmasına ihtiyaç vardır. Katılımcılar, bunları elde etmek için uygun klinik ortamın oluşturulmadığına inanmaktadır. Katılımcılar profesyonelliği olumsuz etkileyen unsurları temel olarak ağır iş yükü, işinin sorumlulukları dışında çalışmaya zorlama ve hiyerarşik yapı olarak belirtmişlerdir.

Anahtar Kelimeler: Lisans, hemşirelik eğitimi, hemşirelik, yeterlilik

Introduction

Like other health professionals' education, nursing undergraduate education includes certain complex relationships and factors (1). Complex organization also shapes the health system structure. Therefore, after graduation, nursing students are expected to be professionals who can respond to patients' problems or needs in their service delivery and operate critical thinking and clinical decision-making processes (2). It is suggested that at the end of nursing undergraduate education, it is necessary to focus on what outcomes and competencies students should have and that all activities

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in undergraduate education should be designed in line with the determined outcomes and competencies (3). In other words, an 'outcome-based education' approach is adopted in nursing undergraduate education (4). It is argued that nurses should internalize nursing as an identity, as well as gain outcomes concerning professional knowledge, skills, and attitudes in connection with the determined competencies (5, 6).

To define the outcomes and competencies of nursing education, various organizations like the World Health Organization (WHO), the American Nurses Association (ANA), and the International Council of Nurses (ICN) in different countries engage in certain activities (7-9) . Due to the inadequacy of the number of nurses in our country, the number of nursing schools has been increased, and the nurse shortage has been tried to be eliminated. However, the inadequacy of the number of educators and the clinical practice areas and educational infrastructures of nurses in these school's cause disruptions in education management and therefore result in problems with the quality of the education (10, 11).

With the Nursing National Curriculum Program (NNCP) study, a national framework has been presented to ensure standardization in nursing undergraduate education throughout our country by determining the minimum standards of the nursing education program in line with the criteria identified by the European Union for Nursing Education and the Bologna Harmonization Process (12). In our country, it is aimed to develop and implement a competency-based approach framework of nursing undergraduate education and achieve the targeted outcomes in curriculum design for those who graduate from the nursing undergraduate program (12).

The structuring of theoretical knowledge and clinical practice in nursing education in a way that supports each other provides integrity in the development of students (13). Clinical teaching in nursing undergraduate education provides students with opportunities to observe, practice, and receive feedback in a real-life environment (14).

However, the undergraduate education of health professionals is affected by many factors that support learning such as physical space-infrastructure, institutional policies, culture, interaction, peer support, the presence of educator feedback, etc (15). Therefore, revealing the factors that can influence nursing undergraduate education at regular intervals will contribute to the improvement of the programs.

The aim of this study is to reveal the views on nursing undergraduate education, the factors affecting undergraduate education, and to what extent the current undergraduate education supports nursing competencies.

For this purpose, our research questions were decided as follows:

1- What are the participants' levels of knowledge about nursing duties and responsibilities?

2- What outcomes should be obtained at the end of the nursing undergraduate education?

3- How is the current undergraduate nursing education carried out?

4- How does the current undergraduate nursing education affect the service delivery after graduation?

Materials and Methods

Research and Publication Ethics: Our study was approved by Karadeniz Technical University Faculty of Medicine Clinical Research Ethics Committee. (Approval number: 24237859-146, Date: 10.02.2021)

Study Design: This is a mixed-designed study consisting of descriptive and qualitative research methods.

Participants and Settings: Participants consist of fourth-year students of the Faculty of Health Sciences, Nursing Department of Karadeniz Technical University, faculty academicians, nurses working in the hospital, and nurses working in primary care. After obtaining the institutional permissions, at least 20% of the nursing professionals and students in each institution were reached with the stratified sampling method by using the contact information for the survey applications. For the qualitative focus group interviews, easily accessible nursing professionals and students were included in the study with the stratified purposeful sampling method.

Data Collection: Informed voluntary consent was received verbally from all participants before starting the study. A Google survey form was created to obtain quantitative data. The first part of the survey includes the "Occupational Information Form" containing a total of 8 items about the age, gender, and professional experience of the participants and the second part includes the "Duties and Responsibilities in Nursing Services Questionnaire", which aims to reveal the views of nursing professionals and students about their duties and responsibilities in nursing services.

The Duties and Responsibilities Questionnaire includes the items from NNCP[2]. This form prepared by researches is a 3-point Likert (yes, I have no idea, no) type and consists of 155 items. The questionnaire form was shared with nursing students and nurses working in different positions in various institutions by using online tools (Email, WhatsApp).

In the second stage, an invitation was sent to the participants who answered the questionnaire for focus group discussions on a volunteer basis. Qualitative interviews were conducted over the Zoom platform, with 6-8 people in each focus group. Focus group interviews were held with each group for approximately 90 minutes, accompanied by semi-structured questions. Semi-structured focus group interview questions were as follows;

1. Under which main headings would you describe your current knowledge of nursing duties and responsibilities?

2. How did you obtain your current knowledge of nursing duties and responsibilities?

3. What kind of activities/approaches would you recommend being adopted in undergraduate education to know and internalize nursing duties and responsibilities (attitude, etc.)?

4. What are the factors that prevent the achievement of duties and responsibilities/make the application difficult in nursing activities?

Data Analysis: The IBM Statistical Package for Social Sciences (IBM SPSS; Armonk, NY, USA) program was used to analyze the quantitative data. The descriptive statistics were done. The process followed in the analysis of qualitative data is illustrated in Figure 1.

Researches analyses contents of reviews by using this process.

Results

Quantitative Data: Of the 274 participants in the study, 90.5 % were women, and 53.3% were in the 24-33 age group. Other socio-demographic data obtained in our study are given in Table 1.

According to the data of the "Duties and Responsibilities in Nursing Services Questionnaire", the participants mostly reported the sub-dimensions of the surgical intervention, education, nursing process, nursing management, and vital signs as the duties and responsibilities of nursing (Table 2).
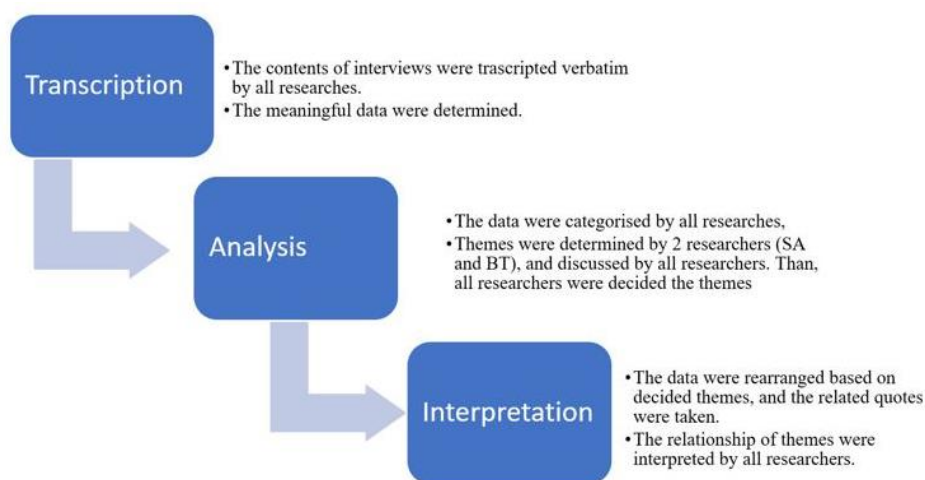

Figure 1. The Process of qualitative analysis

Table 1. Frequency and percentage analysis of the occupational information form (274)

Variable		f	%
Gender	Female	248	90.5
	Male	26	9.5
Age	< 24 years	75	27.4
	24-33 years	71	25.9
	34-42 years	69	25.2
	> 42 years	59	21.5
Your current role in nursing	Student	72	26.3
	Academician	13	4.7
	Nursing	117	42.7
	Family Health Physician	72	26.3
Education level	Undergraduate	237	86.5
	Post graduate	29	10.6
	Ph. D.	8	2.9
Work experience	< 5 years	103	37.6
	6-10 years	38	13.9
	11-15 years	38	13.9
	> 15 years	95	34.7
Health institutions you have worked at so far	Family physician	69	25.2
	Public Hospital	49	17.9
	Training and Research Hospital	42	15.3
	University Hospital	113	41.2
	Private Hospital	52	19.0
	Community Healthcare Center	8	2.9

Table 2. Frequency and percentage analysis of sub-dimensions of roles and responsibilities in nursing services

Sub-dimensions	Yes		I have no idea		No	
	F	%	f	%	f	%
Nutrition	243	88.5	23	8.4	8	3.1
Urination	218	79.5	33	11.9	24	8.6
Surgical Intervention	266	97.1	7	2.6	1	0.4
Antenatal and Postnatal Care	236	86.2	31	11.2	7	2.6
Education	262	95.6	11	4.1	1	0.3
Ensuring and Maintaining a Safe Environment	248	90.5	15	5.5	11	3.9
Movement	229	83.6	33	11.9	12	4.5
Nursing Process	262	95.6	10	3.8	2	0.6
Nursing Management	261	95.2	12	4.3	1	0.5
Drug Administration	261	95.2	10	3.6	3	1.2
First aid	248	90.5	19	6.8	8	2.7
Providing Personal Hygiene and Comfort	235	85.9	21	7.5	18	6.6
Sampling	227	83.0	23	8.2	24	8.8
Health Assessment	215	78.6	35	12.9	23	8.5
Hot Cold Applications	252	91.9	15	5.6	7	2.5
Respiratory	256	93.6	13	4.7	5	1.7
Wound Care	254	92.8	16	5.7	4	1.5
Vital Signs	259	94.5	10	3.5	6	2.1
Newborn Care	250	91.3	17	6.2	7	2.5

Qualitative Data: As a result of the content analysis of the interviews conducted within the scope of the research, seven themes emerged. Themes and related categories are presented with relevant quotations from the texts:

Theme 1: In our study, under the theme of "nursing competencies", which emerged as a result of the analysis of participants' opinions, competencies were defined in eleven sub-categories; having the knowledge required by the profession, being a community/patient advocate, having communication skills, having the ability to manage, having the ability to learn with self-management, having a scientific approach, having ethical values, being a team member, being aware of the duties and responsibilities of nurses, being able to manage the patient and exhibit a holistic approach (bio-psycho-social).

"Let the students graduate knowing the nursing regulations. Unfortunately, it is not adequately addressed in undergraduate education. That is the reason why most conflicts occur in the field. The nurse comes to the practice area, the physician, the senior nurses, the caregiver, and others ask something from her/him or claim that it is the nurse's duty. In such cases, the newly graduated nurse does not know what to do, so graduates need to know the answer to the question "What does my profession require?" Nurse 2

"I can list the most significant duties and responsibilities of the nurse as evaluating the patient holistically and respecting their rights, beliefs, and

values. It is necessary to evaluate not only the pathological condition of the patient but also the physiological condition, social life and psychological aspects of the patient". Student 1

Theme 2: The categories of the theme of "educational climate in nursing" were determined as the inability to create an appropriate educational environment in the clinics, the problems experienced in the educational organization, the inadequacies in the orientation of the students in the clinics, the inadequacies in the practices, the adequacy of the theoretical education, the lack of role models in the practices.

"I really demand a clinical education environment that will enable us to achieve efficiency and touch our patients because nursing means touching." Student 1

"In clinical education, there is a huge gap between the field of practice and education, as students are exposed to practices different from what they learn in theoretical courses" Academician 1

Theme 3: The theme of "recommendations for designing education", which emerged as a result of the analysis of the participants' opinions includes new approaches in undergraduate education in six categories as designing interprofessional training, increasing simulation-based practices, designing the curriculum together with all departments, ensuring integration in education, preventing conflicts in learning groups in clinical practices, and giving feedback from instructors in clinical practices.

"I wish every student could receive training with their teachers in a clinical environment (even before going on the application field) and receive training by seeing and showing through simulation methods." Nurse 1

"Simulation methods, role plays can be used. In addition, interrelated-related courses can be offered together." Academician 1

Theme 4: Under the theme of "emotions", a total of four categories were defined: negative emotions experienced by students during the clinical education process, emotions felt by responsible nurses during practice education, emotions reflected/felt by patients and their relatives, and emotions evoked by the behaviors of educators during education processes.

"The service nurses (so to speak, to whom we were entrusted to be educated) need to be with me in the clinic. They work hard, I understand, but I want them to be with me, especially in invasive procedures and drug applications, to observe me and give feedback. When no one is with me, I get nervous and stressed. Most of the time they say, 'Go on, you can do it yourself'." Student 4

"The teachers bring the students and leave, and then they never come back during the internship. Obviously, the students are not happy with this situation either." Family Health Nurse 1

Theme 5. Under the theme of "problems in on-the-job training", the categories of problems related to the organization of the training, problems related to the design of the training program, obstacles related to the patient and their relatives, inequalities/problems encountered in the training process, lack of role models, lack of structured assessment processes, factors related to service and its to the functioning, the weakness of the organization have emerged.

"We have a lot of difficulties in the organization of pediatric internships due to the low number of pediatric clinics…" Academician 1

"It is very hard to arrange internships in hospitals, to convince the authorities, to get them to accept. Therefore, we do not feel free and comfortable in forming and managing the hospital environment in accordance with educational activities. If we are too intrusive, we fear that internship permits will be canceled." Academician 2

"If we, educators, had a room in the hospital, all our academics, students, and assistants could be there... If we had the opportunity to make visits every day, clinical education would be positively affected..." Academician 3

Theme 6: Within the theme of "factors supporting nursing professionalism", there are categories of motivation of students, working conditions, structuring of student orientations in education, planning of rotations in all stages of health service delivery, structuring of clinical practices, and psychological resilience.

"There is no deficiency in our theoretical training, but our clinical practice time is short, how much of what
we have learned can we put into practice, or how much of what we have applied is correct?"* Student 2

"To ensure orientation towards the most probable situations that may be encountered in practice, training can be delivered to students through scenarios in simulation centers before they go to the field of practice". Nurse 3

Theme 7: Categories of taking responsibility in education, being a role model in education, altruism, and autonomy in nursing practices have emerged in the theme of "differences of nursing identity".

"Physicians give the treatment order, but we also have autonomy in practice, we cannot always apply the order given depending on the current condition of the patient, because we often spend more time with the patient than the physicians, we have autonomy in this regard." Family Health Nurse 4

"Although we are not in a responsible position, we try to do our best to support and care for the well-being of our physicians, patients, and colleagues. So, those who will choose this profession should accept that they should care and think about the health and well-being of others more than their own comfort and priorities when necessary." Family Health Nurse 2

Discussion

Competencies in nursing include the basic roles that a person must fulfill in service delivery as a nurse (3). It is recommended that undergraduate nursing education should be designed in such a way as to ensure that the determined competencies are achieved. National nursing competencies have been defined by NNCP-2014 (12).

Among the competencies that emerged in our study, 'being a team member' and 'having the ability to achieve self-directed learning' turned out to be competencies that were not sufficiently addressed in the definitions that emerged in NNCP-2014 and the literature (12, 16). The results of the survey applied in the study demonstrated that the participants' levels of knowledge about competencies related to the sub-dimensions of "movement", "urination", "assessment", "providing personal hygiene and comfort", and "sampling", which are among the nursing duties and responsibilities determined nationally were lower than other competency sub-dimensions. Based on this, it is concluded that there is a need for planning for continuing professional development activities, awareness-raising of the duties, responsibilities, and competencies determined in the national framework, and skill and attitude development after undergraduate and postgraduate nursing education.

One of the most important components in acquiring nursing competencies is the educational climate in the institution where the education takes place. Clinical education is essential in undergraduate nursing education as it is the environment where theoretical education is transformed into practice. Therefore, the success of clinical education is directly related to the

clinical education environment in a sense (17). In the quantitative analysis, it was revealed that the participants knew the clinical duties and responsibilities in NNCP-14, but in the qualitative analysis, participants expressed that there was a lack of an appropriate environment for learning these practices during training. Among the components that make up the perception of educational climate in nursing are perceptions of teaching, perceptions of educators, perceptions of academic skills, perceptions of learning climate, and social environment (18). Due to the complex nature of the clinical environment, it is emphasized that coping mechanisms and motivations should be kept high so that students do not experience burnout (19). In our study, the inability to create a clinical environment suitable for education, the problems experienced in the organization of education in the clinic, and the existence of students' adaptation problems to the clinical environment suggest that although the theoretical education is sufficient, the practical education is not. Although the participants know the duties and responsibilities specified in NNCP-14, they believe that the appropriate clinical climate has not been established to acquire them.

The climate in which nursing education takes place, interactions, and limitations in educational activities cause reflections of some emotions in learners. The emotions that emerged in our study were generally directed towards the students and were caused by the instructor's not being with the students, the service nurses not being able to allocate enough time for the students, or the patients not allowing the students to make interventions. As a result, the students experienced such emotions as worthlessness, humiliation, uneasiness, and discouragement. Similar studies conducted in our country have determined the presence of emotions like stress, lack of self-confidence, helplessness, and worthlessness in nursing students (20).

Among the training methods used in undergraduate nursing education are trainer presentations, internships based on mentoring, computer-aided training materials enriched with multimedia components, and simulation applications (21, 22). However, according to the participants in our study, especially mentoring and simulation applications were not benefitted enough. The fact that effective mentoring and simulation practices have been highlighted in the study shows that the participants closely follow, and demand current practices related to nursing education. We recommend that the suggestions put forward should be taken into account in the design of undergraduate nursing education.

The identification of nursing competencies and educational activities for the acquisition of the determined competencies, the emotions and interactions arising in this process, the reflections of the institutional climate, and the efforts for individual development constitute the nursing identity. The development process of the professional identity of nurses is shaped by the integration of individual, interpersonal and socio-cultural components (23). Individual components include internalizing knowledge, skills, attitudes, values, and

ethical standards related to nursing and making them a part of behavior. Individual components are influenced by factors such as gender, age, race, religion, nationality, culture, personality traits, socioeconomic status, marital status, personal experiences, and motivation. Interpersonal components of professional identity reinforce nurses' awareness of their roles and responsibilities, their collaboration in teamwork, and effective communication. The social-cultural components of the society in which the meaning of nursing is formed also play a key role in the development of professional identity (24). Therefore, all these components can be thought to ensure that nurses have unique differences in the formation of their professional identities. Emphasis on the differences of the nursing profession in our study included taking responsibility in education, being a role model in education, altruism, and autonomy in nursing practices. The examination of the results shows that the concepts are related to the individual components that are effective in the development of professional identity. Therefore, it is recommended to reveal data on interpersonal and socio-cultural cognitions that contribute to the development of nursing identity through qualitative interviews with relevant stakeholders in further studies.

The professional attitudes and behaviors that nurses gain in their professional identity formation processes increase the quality of health care and patient safety, reduce health care costs, and increase the motivation, professional commitment, and satisfaction levels of nurses (25, 26).

The main recommendations for the improvement of the professionalism of nurses are to support them to gain the ability to manage to change service needs, create an educational environment where students can demonstrate their clinical skills and receive feedback, provide lifelong learning opportunities, and gain minimum skills and attitudes for service delivery (25,27).

Various national studies emphasize that the nursing profession should promote in the areas of autonomy, scientific knowledge, participation in professional organizations, conducting research, competence, and lifelong learning (28-30).

In a study examining the factors affecting professionalism in nursing in our country, the participants basically indicated the factors that negatively affect professionalism as heavy workload, working outside the job description, and hierarchical structure. They also reported at least an undergraduate degree, specialization, and strong professional organization as criteria of professionalism (31).

Few studies focusing on undergraduate nursing education argue that there is a lack of theoretical and practical knowledge (32, 33). However, the fact that the on-the-job feedback in nursing undergraduate education is not applied through structured evaluation forms causes problems such as lack of standardization in evaluation and students' inability to adequately demonstrate their performance (34). In undergraduate nursing education, theoretical course trainers and clinical

trainers (mentors) acting in cooperation within the framework of the program reinforce the acquisition of the expected competencies (32). Our research shows that there are problems related to the execution and organization of on-the-job training. Among the suggestions for solutions to the relevant problems are as follows; academicians should be present in on-the-job training, students should reach the targeted outcomes with structured on-the-job training, and evaluations should be made accordingly.

Limitations: The number of items in the survey of "Duties and Responsibilities in Nursing Services Questionnaire" is too much, so it might affect the volunteering of targeted samples to be a participant. However, we need to ask those items to reveal the views of nursing professionals and students about their duties and responsibilities in nursing services.

Conclusion and Recommendations: There is a need for planning for continuing professional development activities, awareness-raising of the duties, responsibilities, and competencies determined in the national framework, and skill and attitude development after undergraduate and postgraduate nursing education.

Participants believe that the appropriate clinical climate has not been established to acquire them. The emotions that emerged in our study were generally directed towards the students and were caused by the instructor's not being with the student, the service nurses not being able to allocate enough time for the student, or the patients not allowing the students to make interventions. As a result, the students experienced such emotions as worthlessness, humiliation, uneasiness, and discouragement. The participants stated that mentoring, role modelling and simulation applications were not benefitted enough. In addition, the participants basically indicated the factors that negatively affect professionalism as heavy workload, working outside the job description, and hierarchical structure.

The suggestions on the problems related to the execution and organization of on-the-job training are as follows; academicians should be present in on-the-job training, students should reach the targeted outcomes with structured on-the-job training, and evaluations should be made accordingly.

References

1. Sturmberg JP, Martin CM. Handbook of systems and complexity in health. 1nd Edition, New York: Springer 2013; 1-17.

2. Yue M, Zhang M, Zhang C, Jin C. The effectiveness of concept mapping on development of critical thinking in nursing education: A systematic review and meta-analysis. Nurs Educ Today 2017; 52: 87-94.

3. Fukada M. Nursing competency: Definition, structure, and development. Yonago Acta Med 2018; 61: 1-7.

4. Er HM, Nadarajah VD, Sui Chen Y, et al. Twelve tips for institutional approach to outcome-based education in health professions programs. Med Teach 2021; 43: 12-17.

5. Takase M, Teraoka S. Development of the holistic nursing competence scale. Wiley Online Library 2011; 13: 396-403.

6. Karahan A, Kav S. Professional competency in nursing. JoHUFoN 2018; 5: 160-168.

7. American Nurses Association. "Competency model 2018". https://www.nursingworld.org/~4a0a2e/globalassets/docs/ce/177626-ana-leadership-booklet-new-final.pdf 29.05.2021.

8. International Council of Nurses. "ICN framework of competencies for the nurse specialist 2009". https://www.icn.ch/news/international-council-nurses-welcomes-whos-new-competency-framework-world-health-worker-week 29.05.2021.

9. World Health Organization. "Global standards for the initial education of professional nurses and midwives Human Resources for Health Standards for nursing and midwifery initial education 2009". https://iris.who.int/handle/10665/44100?locale-attribute=pt&show=full 29.05.2021.

10. Tuna R. Distribution of nursing students and teaching staff in nursing higher educational institutions in Turkey. J Health Nurs Manag 2015; 2: 94-99.

11. Özsaban A, Bayram A. Factors affecting the clinical experience of nursing students in Turkey: A systematic review. JAHS 2020; 9: 124-145.

12. Kaya H, Erdil F, Başer M, Özer N, Duygulu S, Orgun F. "Nursing National Curriculum Program 2014". http://hemed.org.tr/dosyalar/pdf/hucep-2014.pdf / 29.05.2021.

13. Sançar B, Çelik A, Işık M. The relationship of the interaction between theoretical education and professional practice in nursing with the self-efficiency level of students. Journal of Samsun Health Sciences 2021; 6: 401-418.

14. Merriam S, Spataro B, Hamm M, McNeil MA, DiNardo DJ. Video observation with guided reflection: A method for continuing teaching education. JGME 2018; 10: 416-422.

15. Genn JM. AMEE medical education Guide No. 23 (Part 2): Curriculum, environment, climate, quality, and change in medical education – a unifying perspective. Med Teach 2012; 23: 445-454.

16. Gibbs V. An investigation into the challenges facing the future provision of continuing professional development for allied health professionals in a changing healthcare environment. Radiography 2011; 17: 152-157.

17. Abuosi AA., Kwadan AN, Anaba EA, Daniels AA, Dzansi G. Number of students in clinical placement and the quality of the clinical learning environment: A cross-sectional study of nursing and midwifery students. Nurs Educ Today 2022; 108: 105168.

18. Sezer B, Teker GT, Sezer TA, Elçin M. The Dundee Ready Education Environment Measure (DREEM): Turkish adaptation study. WMJ 2019; 18: 16-29.

19. Henry D, West DC. The clinical learning environment and workplace-based assessment: Frameworks, strategies, and implementation. Pedıatr Clin N Am 2019; 66: 839-854.

20. Yanıkkerem E, Şelçuk AK, Çetinkaya A. A qualitative study about the ideal nursing education from the perspective of

nursing students: Gaps and Shocks in Reality. BAUN Sağ Bil Derg 2021; 10: 1-12.

21. Akhter Z, Malik G, Plummer V. Nurse educator knowledge, attitude and skills towards using high-fidelity simulation: A study in the vocational education sector. Nurse Educ Pract 2021; 53: 103048.

22. Aydınlı A, Biçer S. Current approaches in nursing education. Journal of Health Sciences 2019; 28: 38-42.

23. Güner Y, Turhal E, Üçüncüoğlu M, et al. The formation of professional identity in nursing. TJOB 2021; 8: 82-89.

24. Shahr HSA, Yazdani S, Afshar L. Professional socialization: An analytical definition. J Med Ethics Hist Med 2019; 12: 1-14.

25. Eslamian J, Moeini M, Soleimani M. Hemşirelik sürekli eğitimindeki zorluklar: Nitel bir çalışma. İran hemşirelik ve ebelik araştırmaları dergisi 2015; 20 : 378-386.

26. Hariyati RTS, Safril,S. The relationship between nurses' job satisfaction and continuing professional development. Enfermeria Clinica 2018; 28: 144-148.

27. Çelik S, Hisar F. The influence of the professionalism behaviour of nurses working in health institutions on job satisfaction. Int J Nurse Pract 2012; 18: 180-187.

28. Temel AB, Uysal A, Ardahan Ozkahraman S. Barriers to research utilization scale: Psychometric properties of the Turkish version. Wiley Online Library 2010; 66: 456-464.

29. Hisar F, Karadağ A, Kan A. Development of an instrument to measure professional attitudes in nursing students in Turkey. Nurs Educ Today 2010; 30: 726-730.

30. Karagözoğlu Ş. Nursing students' level of autonomy: A study from Turkey. Nurs Educ Today 2009; 29: 176-187.

31. Mccutcheon K, Lohan M, Traynor M, Martin D, Rgn BE. A systematic review evaluating the impact of online or blended learning vs. face-to-face learning of clinical skills in undergraduate nurse education. Wiley Online Library 2014; 71: 255-270.

32. Açıkgöz S, Uzun Ş, Arslan F. Assessment of relationship between nursing students' self-efficacy and levels of their anxiety and stress about clinical practice. Gulhane Med J 2016; 58: 129-135.

33. Almalkawi I, Jester R, Terry L. Developing a consensus-based scoring rubric to enhance practice-based assessment of student nurses' clinical competence: A Delphi study. Nurs Educ Today 2021; 100: 104859.

34. Amod H, Mkhize SW, Muraraneza C. Analyzing evidence on interventions to strengthen the clinical support for midwifery students in clinical placements: Protocol for a systematic scoping review. JMIR Res Protoc 2021; 10: 29707