Available online at www.medicinescience.org

ORIGINAL RESEARCH

Medicine Science International Medical Journal

Medicine Science 2019;8(4):957-62

Determining nursing students' evidence-based practice competencies and the effective factors

Hakime Aslan[1], Hatice Pekince[2]

[1]*Inonu University Nursing Faculty, Deparment of Nursing, Malatya, Turkey*
[2]*Firat University Nursing Faculty, Deparment of Nursing, Elazig, Turkey*

Received 08 April 2019; Accepted 19 June 2019
Available online 16.07.2019 with doi:10.5455/medscience.2019.08.9062

Abstract
This research was carried out to determine the evidence-based practice (EBP) competencies of nursing students studying in a university and the effective factors. This study is descriptive and cross-sectional of nursing students studying at Inonu University. In the research, a sample selection was not made, as the research aimed to reach the whole university. In the study, two data collection tools were used. A personal information form was developed by the researcher to determine the socio-demographic and academic achievement status of the students, as was a student evidence-based practice questionnaire (S-EBPQ). The data were collected from 15 September to 1 October 2018 by face-to-face interview technique. The mean score of the students in the S-EBPQ was found to be 83.75±10.02; the mean score obtained from the behavior subscale was found to be 48.87±7.54; the mean score obtained from the skill subscale was 19.70±3.67, and the mean score obtained from the knowledge subscale was 18.63±3.29. As a result of this study evaluating the EBP competencies of nursing students, the students' knowledge, skills, and attitudes subscale, as well as their total average score, were found to be above average.

Keywords: Evidence, evidence-based practice, nursing students

Introduction

Today, as in all disciplines, it has almost become inevitable to support health discipline on scientific grounds [1]. One of the best and easiest ways to establish a scientific foundation is through evidence-based practice (EBP). Although EBP began in the early 2000s, it has started to be used and applied more actively in recent years [2].

EBP is defined as the process of reviewing the literature related to the medical care of patients, evaluating the results of these studies, and then using the best data in the decision-making process [3]. The practice started with medicine in the health care system and continued with nursing, which has a large labor force and potential in the sector. The decision-making process is shaped by combining the patient's preferences and the professionalism of the nurse in evidence-based nursing care [4].

***Coresponding Author:** Hakime Aslan, Inonu University Nursing Faculty, Deparment of Nursing, Malatya, Turkey
E-mail: hakime.aslan@inonu.edu.tr

Tradition-based practices in nursing are thought to be improving with nurses now having high educational levels and providing evidence-based care [5]. However, some problems in evidence-based nursing care negatively affect this progress. These problems primarily include a lack of sufficient knowledge and experience among the nurses about the study, inaccurate approaches, not reading the study results, and not participating in scientific meetings [6,7]. To solve these problems, this study's results obtained through the collaboration between the hospital and nursing schools should be shared; nurses should be encouraged in conducting research, and they should be supported with training programs in subjects in which they are inadequate. In this way, nurses will take an active role in scientific studies and will be able to improve their research and critical thinking skills [8-10].

As it is known, the nursing profession is grounded in the undergraduate program, but there is also a master's degree as well as a doctoral program. In the undergraduate programs where basic education is given, it is important to integrate the EBPs where students combine theoretical information with practice, which is of great importance for the professionalization of nursing [1,6,11]. Future nurses should be taught to ground their profession on

scientific knowledge and practice.

In term of the literature, numerous studies have been conducted on nurses and EBP, but no study has investigated nursing knowledge and competence, which are the basis of the nursing profession [12, 13]. With this study, the competency level of nursing students about EBPs will be evaluated, and the findings will contribute to the nursing literature.

Purpose of the Study
This study was conducted to determine the EBP competencies of nursing students studying in a university and the effective factors.

Material and Methods

Design of the Study

This is a descriptive and cross-sectional study.

Population and Sample of the Study
The population of the study is composed of a second, third, and fourth year nursing students studying at Inonu University. A sample selection was not performed, as the research aimed to reach the whole population studied. However, the students who were absent at the school during the study period, who did not agree to participate in the study and who did not fill in the data collection form were excluded from the study. The study was conducted with 450 students who voluntarily participated in the study. First-year nursing students were excluded from the study because they had not yet received the theoretical and applied education about nursing, and the time of data collection was the beginning of the academic year.

Variables of the Study
Dependent Variables: The knowledge, skill, and attitude subscales of the S-EBPQ were the dependent variables of the study.

Independent Variables
Characteristics of the students participating in the study—such as age, gender, class, education level of their parents, students' academic achievement and research activities—were the independent variables of the study.

Data Collection
The data were collected with the S-EBPQ and personal information form prepared by the researcher to determine the socio-demographic characteristics and research activities of the students. The data were collected between 15 September and 1 October 2018 in nursing classrooms at Inonu University through face-to-face interview technique. Students who participated in the study were informed about the study, and their verbal consent to participate in the study was obtained.

Data Collection Tools
Personal Information Form: This form prepared by the researcher is composed of a total of 11 questions: 6 questions assessing the socio-demographic characteristics of the students and five questions evaluating such areas as grade point average, reading current articles, and using them in practices.

The Student Evidence-Based Practice Questionnaire=S-EBPQ: A validity and reliability study of the questionnaire, which was developed by Martinez et al. (2013) [14], was conducted by Yıldız and Güngörmüş (2016) [15]. The scale consists of 25 items and three subscales (knowledge, skill, and attitude) and it is evaluated in five-point Likert type scale (I strongly disagree=1, I agree a little=2, I partially agree=3, I disagree=4 and I strongly disagree=5). The distribution of minimum and maximum scores obtained from the scale varies between 6 and 30 in the knowledge and skill subscales, 13 and 65 in the attitude subscale, and between 25 and 125 in total. Negative items are scored reversely. High scores from the scale show that EBP competencies of the students are also high. The Cronbach's Alpha value of the scale was 0.92 in the study by Martinez et al., whereas the overall Cronbach's Alpha of the scale was 0.96 in the validity and reliability study by Yıldız and Güngörmüş. In this study, the Cronbach's Alpha of the scale was 0.94.

Statistical Evaluation
The data included in the study were evaluated by SPSS (Software Package for the Social Sciences) 23.0 software program. Whether the data show normal distribution or not was analyzed using the Kolmogorov-Smirnov/Shapiro-Wilk test. The descriptive characteristics of the students were expressed as a number, percentage distribution, mean, and standard deviation. Student t-test, One Way ANOVA, and Kruskal Wallis test was used to analyze the data. The significance was accepted as $p < 0.05$.

Ethical Aspect of the Study
Written permission was obtained from The University Health Sciences Scientific Research and Publication Ethics Committee (No=2018/22-25) for the study. Also, written permission was obtained from the Dean's Office of Inonu University Faculty of Nursing. Students were informed about the study, and those who agreed to participate were included in the study.

Results

According to Table 1, the mean age of the students who participated in the study was 21.26±1.17; 40.4% were third-year students; 59.3% had a middle-income level; mothers of 47.6% of the nursing students were primary school graduates, and fathers of 36% of the nursing students were primary school graduates. Moreover, 41.7% of the students did not like clinical practices; 22.7% wanted to participate in a scientific meeting; 39.3% read current articles about nursing, and 61.3% thought that they used current information they learned in care practices.

According to Table 2 and the S-EBPQ results, the mean score of the attitude subscale was 48.87±7.54; the mean score of the skill subscale was 19.70±3.67; the mean score of the knowledge subscale was 18.63±3.29, and the total mean scale score was 83.75±10.02.

There was a statistically significant difference between gender and the S-EBPQ total score and attitude and skill subscales ($p<0.05$). The mean scores of women were significantly higher compared to men. Also, there was no statistically significant difference between the gender and knowledge subscale ($p>0.05$), but the knowledge subscale means scores of the women were higher than those of the men.

Table 1. Socio-Demographic Characteristics of the Participants (N=450)

Socio-demographic characteristics	Number	Percentage
Age mean±sd (min=18 max=26) 21.26±1.17		
Gender		
Woman	294	65.3
Man	156	34.7
Class		
2	158	35.0
3	182	40.4
4	110	24.4
Economic status		
Good	126	28.0
Middle	267	59.3
Poor	57	12.7
Mother education level		
Illiterate	110	24.4
Primary education	214	47.6
High school	72	16.0
University	54	12.0
Father education level		
Illiterate	76	16.8
Primary education	162	36.0
High school	140	31.1
University	72	16.1
Grade point average		
Less than 2.00	61	13.6
Between 2.01 and 2.50	89	19.7
Between 2.51 and 3.00	149	33.2
Between 3.01 and 3.50	102	22.6
Between 3.50 and 4.00	49	10.9
The liking of clinical practice		
Yes	117	26.0
No	188	41.7
Undecided	145	32.3
Status of want to attend a scientific meeting (such as a conference, symposium)		
Yes	102	22.7
No	136	30.4
Undecided	211	46.9
Reading current articles about nursing care		
Yes	177	39.3
No	273	60.7
Utilizing research results in nursing care		
Yes	276	61.3
No	174	38.7

Table 2. Distribution of S-EBPQ Mean Scores of the Nursing Students

	Min-Max Scores Taken	X±SD
Attitude subscale	28-90	48.87±7.54
Skill subscale	12-90	19.70±3.67
Knowledge subscale	8-30	18.63±3.29
S-EBPQ total score	52-123	83.75±10.0

In the study, there was also a statistically significant difference between the class and knowledge subscale mean scores of the students ($p<0.05$); advanced analysis revealed that the difference was caused by the correlation between the second year and fourth year. The knowledge means scores of 4th-year students were the highest. It was determined that there was no statistically significant difference between the class and S-EBPQ total score and the attitude and skill subscales ($p>0.05$).

There was no statistically significant difference between economic level and S-EBPQ total score and attitude, skill and knowledge subscales ($p>0.05$), but the scale means scores of the students with a high-income level were higher. There was no statistically significant difference between the parents' educational level and the S-EBPQ total score and attitude, skill, and knowledge subscales ($p>0.05$), but the students whose parents with a high educational level had higher mean scores from the S-EBPQ scale.

In the study, it was also found that there was a statistically significant difference ($p<0.05$) between the students' grade point average and attitude and skill subscales and the S-EBPQ total score. In the advanced analysis, the difference was caused by the correlation between those with a grade point average less of less than 2.00 and those with a grade point average of between 3.50 and 4.00. The S-EBPQ competencies of those with a grade point average of between 3.50 and 4.00 were the highest. There was no statistically significant difference between the grade point average and knowledge subscale mean score ($p>0.05$).

There was a statistically significant difference between the status of liking clinical practice, the S-EBPQ total score and the attitude subscale ($p<0.05$); the EBP competencies of those who liked clinical practice were better. There was no statistically significant difference between the status of liking clinical practice and the skill and knowledge subscales ($p>0.05$).

Moreover, there was a statistically significant difference between the status of participating in a scientific meeting, the S-EBPQ total score and the attitude, skill and knowledge subscales ($p<0.05$); those who wanted to participate had higher mean scores from the scale. In the advanced analysis, the difference was observed to be caused by the correlation between those who wanted to participate in scientific activity and those who did not. A statistically significant difference ($p<0.001$) was determined between the status of reading current articles, the S-EBPQ total score, and the attitude, skill, and knowledge subscales. Those who read current articles had higher EBP competencies. There was a statistically significant difference between the status of utilizing research results in nursing care and the S-EBPQ total score and the attitude, skill, and knowledge subscales ($p<0.05$). The students who used research results in nursing care had higher EBP competencies.

Table 3. Comparison of Student EBP Questionnaire and Subscale Mean Scores of the Students Participating in the Study in Terms of Their Demographic Characteristics

Socio-demographic characteristics	Attitude subscale		Skill subscale		Knowledge subscale		S-EBPQ total score	
Gender								
Woman	50.50±7.03	t=3.23	20.38±3.71	t=2.75	18.65±3.75	t=0.11	89.55±11.04	t=3.06
Man	45.54±7.55	p=0.002*	18.30±3.19	p=0.007*	18.57±2.13	p=0.90	82.42±10.70	p=0.003*
Class								
2	48.07±7.88	F=0.292	19.37±3.11	F=1.898	17.50±3.07	F=6.721	84.05±10.68	F=0.092
3	48.69±7.53	p=0.747	19.44±3.21	p=0.152	18.91±2.82	p=0.001*	83.46±9.37	p=0.912
4	48.39±7.92		20.23±3.41		19.71±3.21		83.54±9.59	
Economic level								
Good	48.49±6.83	F=0.237	19.73±3.98	F=1.354	19.89±3.29	F=2.584	84.81±11.62	F=0.309
Middle	48.16±7.45	p=0.888	19.71±3.08	p=0.508	18.70±3.00	p=0.275	83.60±9.64	p=0.857
Bad	48.09±7.78		19.33±1.09		18.57±2.48		83.23±10.81	
Mother education level								
Illiterate	47.90±6.27		19.57±3.13		19.15±2.71		83.79±9.23	
Primary education	48.07±8.07	F=0.500	19.48±3.09	F=1.851	18.59±3.07	F=2.394	83.21±10.37	F =1.838
High school	49.71±6.48	p=0.779	21.05±3.88	p=0.396	19.08±3.36	p=0.302	86.82±10.05	p=0.399
University	49.91±6.55		21.13±2.59		20.00±3.42		84.23±9.13	
Father education level								
Illiterate	47.43±6.58		19.18±2.07		18.56±2.70		82.12±9.37	
Primary education	47.77±6.96	F=2.595	19.62±3.35	F=2.871	18.85±2.95	F=2.568	83.38±10.16	F=2.643
High school	49.57±8.84	p=0.458	20.20±3.17	p=0.412	18.72±3.19	p=0.463	85.44±11.03	p=0.450
University	48.05±5.77		19.58±3.33		19.35±3.18		84.67±7.15	
Grade point average								
Less than 2.00	43.76±6.75	F=3.412	18.11±1.93	F=3.509	19.05±2.74	F=0.467	78.41±9.69	F=3.788
Between 2.01-2.50	47.95±7.93	p=0.007*	19.17±2.58	p=0.018	18.52±2.42	p=0.930	82.76±9.77	p=0.008*
Between 2.51-3.00	47.84±6.98		19.59±3.40		18.79±2.76		83.33±9.01	
Between 3.01-3.50	48.55±7.14		20.12±3.43		19.13±3.57		84.77±10.29	
Between 3.50-4.00	52.22±6.76		21.50±3.75		19.31±4.29		89.90±11.94	
The liking of clinical practice								
Yes	49.58±6.66	F=3.319	19.97±3.60	F=1.530	19.11±3.16	F=0.510	85.75±10.48	F=3.412
No	46.74±8.01	p=0.038*	19.15±2.93	p=0.219	18.77±2.80	p=0.601	81.84±9.82	p=0.034*
Undecided	47.84±7.26		19.82±3.09		86.68±3.09		83.34±9.38	
Status of want to attend a scientific meeting (such as a conference, symposium)								
Yes	51.52±7.26	KW=12.90	20.52±4.09	KW=6.12	20.00±2.95	KW=6.87	89.20±11.16	KW=18.19
No	46.94±7.46	p=0.002*	19.14±3.13	p=0.047*	18.39±2.97	p=0.032*	81.62±9.75	p=0.000**
Undecided	48.73±7.00		20.09±3.08		19.15±3.03		84.96±9.44	
Reading current articles about nursing care								
Yes	51.42±6.63	t=4.68	21.13±3.72	t=4.72	20.04±3.14	t=4.01	89.46±10.10	t=6.14
No	46.83±7.24	p=0.000**	19.09±2.84	p=0.000**	18.40±2.86	p=0.000**	81.50±9.06	p=0.000**
Utilizing research results in nursing care								
Yes	49.41±7.15	t=3.59	20.05±3.65	t=2.40	19.22±3.22	t=2.37	85.69±10.49	t=4.02
No	46.11±7.27	p=0.000**	19.07±2.61	p=0.017*	18.31±2.61	p=0.018*	80.69±8.40	p=0.000**

*p<0.05**p<0.001 KW: Kruskal Wallis Test, F: One Way ANOVA, t: student t-test

Discussion

This study was conducted to determine the EBP competencies of nursing students and effective demographic factors. The total mean score of the nursing students from the S-EBPQ was 83.75±10.02, and they had a score higher than the mean. In the study conducted by Ateseyan in 2017, the S-EBPQ mean score of the nursing students was determined as 84.7±9.1 [16]. The mean scores were seen to be similar. However, in the study conducted by Yaman et al., with 83 nursing students, the students had a score of 64.24±11.52 based on the S-EBPQ [17]. The fact that the number of the students participating in the study was high and that there was a high number of students who wanted to participate in scientific activities and read scientific articles may have increased the mean score obtained from the scale.

The S-EBPQ attitude subscale means a score of the nursing students was found 48.87±7.54. In the study by Ateseyan, the S-EBPQ scale attitude subscale mean score of the nursing students was 46.9±6.7 [16]. In the study by Yaman et al., students had a score of 30.59±8.21 from the attitude subscale of the S-EBPQ [17]. In this study, not including the first year, nursing students in the study was thought to increase the mean scores. In the study conducted by Yılmaz et al. on nurses, the nurses had a score of 10.55±1.93 points (in the moderate level) from EBP intention subscale of the attitude scale for evidence-based nursing [18]. The EBP intention subscale reflects the attitudes or intentions of the nurses in performing EBPs. Karaahmetoğlu and Softa also found that the nursing students had a score of 14.4±2.6 points from the EBP intention subscale [28]. In this study, the nursing students who liked the clinical practice, who wanted to participate in scientific activities, who read current articles and who utilizing research results in the nursing care had significantly higher scores from the attitude subscale. In the study conducted by Dikmen et al. with nurses, the attitudes of nurses who regularly followed scientific research results and professional journals towards evidence-based nursing were determined to be significantly higher than other nurses [13]. In the study by Arslan and Çelen, the students who read journals about the nursing profession, who attended scientific meetings and who were eager to do scientific research about the nursing profession had higher attitudes towards evidence-based nursing ($p<0.05$) [27].

The mean score of the S-EBPQ skill subscale of the nursing students was 19.70±3.67. The mean score of the S-EBPQ skill subscale of the nursing students was 19.1±2.9 in the study by Ateseyan [16]. The skill means scores of the students were similar. In the present study, the skill subscale means scores of the senior students with high-grade point averages increased. A research methods course taken by third-year students was thought to increase their mean scores. In their study, Leach et al. stated that EBP education programs could improve the use of skill and EBP of nursing students [19]. In the study conducted by Cruz with nursing students, students' awareness about evidence-based nursing was high, and attending a program about evidence-based nursing affected EBN-related attitudes and skills positively [20]. Ryan (2016) stated in his study that nursing undergraduate students generally looked to use research for EBP, but they experienced a lack of support and opportunities for this [29]. In this study, the skill means scores of those who read current articles about nursing, and those who believed to transfer the information they learned into care were found to be significantly high.

Nursing students had a score of 18.63±3.29 points from the knowledge subscale of the S-EBPQ. In the study, the knowledge scores of the students were above average; the knowledge scores of the students increased as the class and grade point average of the students increased. In the study by Brown et al., that knowledge mean scores of the students about EBP increased by academic year [21]. In the study by Ateşeyan, the knowledge mean scores of fourth-year students were higher than the other classes [16]. In the study by Formigoni et al. (2003), it was determined that 64% of the students used the internet to access the most current evidence through literature reviews [30]. Although the knowledge level of the nursing students about EBP was higher than the average, the knowledge level of currently working nurses about scientific research was seen to be insufficient in general [22-24]. In the study by Java et al., 70% of the nurses did not participate in scientific activities, and 95.7% of them were not aware of relevant scientific research [25]. In the study by McCleary and Brown (2003), the research information obtained through either formal nursing education or from post-graduate research courses positively affected attitudes towards the use of research results [26]. Increasing the knowledge levels of students during formal education is important for transferring evidence-based results to the clinical field. Since nursing students are in a position to transfer their knowledge about EBP to professional nurses, their high knowledge score is a good result.

Limitations

The data of the study were collected at the beginning of the education period. First-year students were excluded from the study because their theoretical training was insufficient. Foreign students with language problems could not be included in the study because they did not fully understand the questions. Also, students who did not want to participate in the study were not included in the study.

Conclusion

In this study, the EBP competencies of female students were significantly higher than the male students, and fourth-year students had significantly higher EBP knowledge scores. Income level and parents' educational level did not affect EBP competencies, but the mean scores of the students with a high-income level and with parents who had a high educational level were higher. EBP competencies of the students who wanted to participate in scientific activities, read current articles about nursing, and transfer the study results to the care were significantly high.

When considering the results of the study, it can be recommended to support the student groups who do not have adequate knowledge, skills, and attitudes about EBP, especially through research courses about these subjects. It is also important to encourage them about EBPs, to provide consultancy, to support them to take part in scientific research projects, to encourage them to participate in scientific activities and to follow the scientific journals about nursing. And finally, it is important that students follow up on how many of the clinical practices are based on evidence and that they evaluate the barriers they face about the subject.

This research was published as a full-text paper at the First International Fifth National Current Approaches and Problems in Nursing Congress.

Conflict of interest
The authors declare that there are no conflicts of interest.

Financial Disclosure
All authors declare no financial support.

Ethical approval
A written permission was obtained from The University Health Sciences Scientific Research and Publication Ethics Committee (No=2018/22-25) for the study.

Hakime Aslan ORCID: 0000-0003-1495-3614
Hatice Pekince ORCID: 0000-0001-8942-7630

References

1. Kocaman G. Hemşirelikte kanıta dayalı uygulama. Hemşirelikte Araştırma Geliştirme Dergisi. 2003;2:61-9.
2. Yurtsever S, Altıok M. Kanıta dayalı uygulamalar ve hemşirelik. F.Ü. Sağlık Bil. Dergisi. 2006;20:159-66.
3. Arslan S, Şener DK, Küçük Ö. Pediatri kliniğinde çalışan hemşirelerin kanıta dayalı uygulamalara ilişkin görüşleri. Yıldırım Beyazıt Üniversitesi Sağlık Bilimleri Fakültesi Hemşirelik E-Dergisi. 2015;3:1-9.
4. Stevens KR. The impact of evidence-based practice in nursing and the next big ideas. OJIN 2013;18:4.
5. Güneş Ü. Hemşirelikte kanıta dayalı uygulama sürecinin adımları. Uluslararası Hakemli Hemşirelik Araştırmaları Dergisi. 2017;9:171-87.
6. Yılmaz M. Hemşirelik bakim hizmetinin kalitesini geliştirme yolu olarak kanita dayali uygulama. Cumhuriyet Üniversitesi Hemşirelik Yüksekokulu Dergisi. 2005;9:41-8.
7. Ayhan Y. Kanıta dayalı hemşireliğe yönelik tutum ölçeğinin Türkçe'ye uyarlanması: Geçerlik ve güvenirlik çalışması. 2013. Yüksek Lisans Tezi. DEÜ Sağlık Bilimleri Enstitüsü.
8. Babadağ K, & Kara M. Kanıta dayalı hemşirelik ve meslekleşme. Atatürk Üniversitesi Hemşirelik Yüksekokulu Dergisi. 2004;7:112-7.
9. Melnyk BM, Fineout-Overholt E. Transforming healthcare from the inside out: advancing evidence based practice in the 21st century. Journal of Professional Nursing. 2005;21:335-44.
10. Şenyuva E. Hemşirelik eğitimi ve kanıta dayalı uygulamalar. Florence Nightingale Hemşirelik Dergisi. 2016;24:59-65.
11. Levi S. Hemşirelikte kanıta dayalı uygulamanın kullanımı. II. Uluslararası & IX. Ulusal Hemşirelik Kongresi Kitabı. İstanbul Üniversitesi Basım ve Yayınevi Müdürlüğü. Antalya. 2003;11-7.
12. Ayhan Y, Kocaman G, Bektaş M. Kanıta Dayalı Hemşireliğe Yönelik Tutum Ölçeği"nin Türkçe'ye Uyarlanması: Geçerlik ve Güvenirlik Çalışması. Hemşirelikte Araştırma Geliştirme Dergisi. 2015;17:21-35.
13. Dikmen Y, Filiz NY, Tanrıkulu F, Yılmaz D, & Kuzgun H. Attitudes of intensive care nurses towards evidence-based nursing. International Journal of Health Sciences and Research.2018;8:138-43.
14. Ruzafa-Martinez M, Lopez-Iborra L, Moreno-Casbas T, et al. Development and validation of the competence in evidence based practice questionnaire Among Nursing Students. BMC Med Educ. 2013;13:19.
15. Yildiz E, & Güngörmüş Z. The validity and reliability study of the Turkish version of the evidence based practice evaluation competence questionnaire. Nurse Educ Today. 2016;45:91-5.
16. Ateşeyan Y, Güngörmüş Z. Hemşirelik öğrencilerinin kanıt Temelli uygulama yetkinlikleri. Gaziantep Üniversitesi Sağlık Bilimleri Enstitüsü. Yüksek Lisans Tezi, 2017.
17. Yaman Ö, Cengiz H, Gül A, ve ark. Hemşirelik öğrencilerinin kanıt temelli uygulama yetkinliklerinin belirlenmesi. 2018. 5. Ulusal 1. Uluslararası Hemşirelikte Güncel Yaklaşımlar Kongresi, Poster Bildiri, Sakarya
18. Yılmaz D, Düzgün F, Dikmen Y. Hemşirelerin kanıta dayalı hemşireliğe yönelik tutumlarının incelenmesi. ACU Sağlık Bilimleri Dergisi. 2018.
19. Leach JM, Hofmeyer A, Bobridge A. The impact of research education on student nurse attitude, skill and uptake of evidence-based practice: a descriptive longitudinal survey. J Clin Nurs. 2015;25:194-203
20. Cruz JP, Colet PC, Alquwez N, et al. Evidence-based practice beliefs and implementation among the Nursing Bridge Program students of a Saudi University. Int J Health Sci (Qassim). 2016;10:405-14.
21. Brown C, Kım S, Stıchler J, et al. Predictors of knowledge, attitudes, use and future use of evidence- based practice among baccalaureate nursing students at two universities. Nurs Educ Today. 2010;30:521-7.
22. Parahoo K, Mccaughan EM. Research utilization among medical and surgical nurses: a comparison of their self reports and perceptions of barriers and facilitators. J Nurs Manag. 2001;9:21-30.
23. Olade RA. Strategic collaborative model for evidence-based nursing practice. Worldviews Evid Based Nurs. 2004;1:60-8.
24. Aydın Y, Adıgüzel A, Topal EA. Ebe ve hemşirelerin bilimsel çalışmalara yönelik tutumlarının belirlenmesi. J Human Rhythm. 2015;1:168-75.
25. Yava A, Tosun N, Çiçek H, Yavan T, Terakye G, Hatipoğlu S. Hemşirelik araştırmalarının sonuçlarını kullanımında engeller ölçeği'nin geçerlilik ve güvenirliliği. Gülhane Tıp Dergisi 2007;49:72-80.
26. McCleary L, Brown GT. Association between nurses' education about research and their research use. Nurs Educ Today 2003;23:556-65.
27. Arslan FT, Çelen R. Determination of the attitudes among nursing students towards evidence-based nursing. STED/Sürekli Tıp Eğitimi Dergisi. 2018;27:99-106.
28. Karaahmetoğlu GU, Softa HK. Hemşirelik öğrencilerinin kanıta dayalı hemşireliğe yönelik tutumlarının incelenmesi. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi. 2018; 21:256-63.
29. Ryan JE. Undergraduate nursing students' attitudes and use of research and evidence-based practice–an integrative literature review. J Clin Nurs 2016;25:1548–56.
30. Formıgonı C, Gualdana İ, Fornasarı D. Nurses' online information use and literature searching skills: a survey in SBBL network. 15th EAHIL Conference; 2016 June 06-11; Seville, Spain.