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Attitudes of Nurses and Nursing Students Towards Evidence-Based Nursing

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ABSTRACT

Purpose: The study is a cross sectional descriptive study to determine the attitudes of nurses and nursing students towards evidence-based nursing.
Method: The universe of the study consisted of nurses working in a state hospital and 3rd and 4th year students of a state university Nursing Department. As a data collection tool in research; "Student and Nurse Information Form" and "Attitude Toward Evidence-Based Nursing Questionnaire (AEBNQ)" were used. **Results:** The nurses participating in the study; The average age was 35.19±7.13 (23-55), 69.4% of them were female, 73.6% of them were undergraduate nursing graduates. The student nurses participating in the research; the average age is 21.95±1.038, 59.1% of them are women and 22.7% of them are health high school graduates. The total mean score of AEBNQ of the nurses was determined as 68.52±5.80, at a high level, and of the nursing students as 47.51±2.07 at a moderate level. A strong and negative correlation was found between the ages of the nurses and the years of working in the profession and the total mean score of the AEBNQ (r=-0.917, p=0.000; r=-0.840, p=0.000, respectively). There was also a significant positive and weak correlation between the ages of the students and the total mean score of AEBNQ (r=0.209, p=0.16).
Conclusion and Suggestions: According to the results of the research; it was determined that the attitudes of nurses towards evidence-based nursing were more positive than students. Creating awareness about evidence-based practices in the nursing education process will contribute to the development of positive attitudes of both students and nurses.

Hemşirelerin ve Hemşirelik Öğrencilerinin Kanıta Dayalı Hemşireliğe Yönelik Tutumları

Makale Bilgileri

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ÖZ

Amaç: Çalışma, hemşirelerin ve hemşirelik öğrencilerinin kanıta dayalı hemşireliğe yönelik tutumlarını belirlemek amacıyla yapılan kesitsel tanımlayıcı bir araştırmadır.
Yöntem: Araştırmanın evrenini, bir devlet hastanesinde çalışan hemşireler ve bir devlet üniversitesi Hemşirelik Bölümü 3.ve 4. sınıf öğrencileri oluşturdu. Araştırmada veri toplama aracı olarak; "Hemşire ve Öğrenci Tanıtıcı Bilgi Formu" ve "Kanıta Dayalı Hemşireliğe Yönelik Tutum Ölçeği (KDHYTÖ)" kullanıldı.
Bulgular: Araştırmaya katılan hemşirelerin; yaş ortalaması 35.19±7.13 (23-55), %69.4'ü kadın, %73.6'sı lisans hemşirelik mezunu olduğu belirlendi. Araştırmaya katılan öğrenci hemşirelerin; yaş ortalaması 21.95±1.03 olup, %59.1'i kadın, %22.7'sinin Sağlık Meslek Lisesi mezunu olduğu tespit edildi. Hemşirelerin KDHYTÖ toplam puan ortalaması 68.52±5.80 ile yüksek düzeyde, hemşirelik öğrencilerinin ise 47.51±2.07 ile orta düzeyde olarak saptandı. Hemşirelerin yaşları ile meslekte çalışma yılları ile KDHYTÖ toplam puan ortalamaları arasında güçlü ve negatif bir ilişki saptanmıştır (sırasıyla r=-0.917, p= 0.000; r=-0.840, p=0.000). Ayrıca öğrencilerin yaşları ile KDHYTÖ toplam puan ortalamaları arasında (r=0.209, p=0.16) anlamlı, pozitif ve zayıf bir ilişki vardı.
Sonuç ve Öneriler: Araştırma sonucuna göre; hemşirelerin kanıta dayalı hemşireliğe yönelik tutumlarının öğrencilere göre daha yüksek düzeyde olumlu olduğu belirlendi. Hemşirelik eğitim sürecinde kanıta dayalı uygulamalar hakkında farkındalığın oluşturulması hem öğrencilerin hem de hemşirelerin olumlu tutumlarının gelişimine katkıda bulunacaktır.

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INTRODUCTION

Evidence-Based Practice (EBP) has become necessary for nursing practice as it has begun to take its place in medical sciences. The International Council of Nurses (ICN) emphasized that nurses should prioritize both their active involvement in nursing research and the use of research to learn about evidence-based practice (ICN, 2008). The EBP has been recognized as the benchmark in the delivery of safe and compassionate healthcare by the healthcare community and regulatory bodies. At the same time, governments have recommended evidence-based practices by developing initiatives to advance the delivery of health care based on the best evidence rather than tradition (Sadeghi Bazargani et al., 2014; Ross & Burrell, 2019; Ruzafa Martinez et al., 2021). Considering these perspectives, evidence-based practice in nursing has gained momentum.

The review of the litrature have been shown that research findings, knowledge from basic sciences, clinical information, expert opinions are all accepted as evidence, however, practices based on research findings are more likely to lead to desired patient outcomes in a variety of settings and geographic locations (Çopur et al., 2015; Kavlak et al., 2022). EBP requires changes in student education, more practice-oriented research, and closer working relationships between clinicians and researchers. The EBP also provides opportunities for nursing care to be more individualized, more effective, modern and dynamic as well as maximizing the effects of clinical judgment (Özer Küçük et al., 2017; Yılmaz et al., 2019; Yıldırım Keskin & Şentürk, 2020).

The Institute of Medicine of the United States, the American Nurses Empowerment Center, and the Joint Commission for the Accreditation of Healthcare Organizations recognize evidence-based practice as a critical step in improving the quality of healthcare. The Institute of Medicine recognizes evidence-based practice as a core competency for healthcare providers in the 21st century (Spector, 2010). The evidence-based approach is an indicator of excellence in nursing care to improve patient outcomes and this result has been shown in many studies. (Joint Commission on Accreditation of Healthcare Organizations, 2008; Taş Arslan & Çelen, 2018; Kilicli et al., 2019; Kavlak et al., 2022).

Strategies to promote evidence-based practice should be evidence-based too. The known barriers or facilitators to adoption of evidence-based practice in nursing must be addressed to successfully put evidence into practice (Duncombe, 2018; Mathieson et al., 2019; Kavlak et al., 2022). In this context, many researchers revealed these barriers as lack of time, routine, lack of authority to change practice, organizational cultures that reward task-based practice, misconceptions about evidence-based practice, lack of administrative support, lack of mentoring, lack of access to resources, insufficient understanding of statistics and critical assessment, uncertain workplace expectations, and inconsistent research on basic knowledge and experience (Sadeghi Bazargani et al., 2014; Duncombe, 2018; Taş Arslan & Çelen, 2018; Ross & Burrell, 2019; Karaahmetoğlu et al., 2022). Factors facilitating the adoption of evidence-based nursing practices were accepted as participatory management, academic degree, education, availability of relevant research, time, positive attitudes and mentoring, and nurses' intention to use the research in practice (Hutchinson & Johnston, 2004; Kajermo et al., 2008; Duncombe, 2018; Mathieson et al., 2019). Both individual and organizational barriers are encountered in the use of evidence-based nursing practices. The most important individual barriers are the inadequacy in the use of technology and the lack of knowledge and attitude towards Evidence-Based Nursing practices (Kavlak et al., 2022). The first step to accelerate the process of evidence-based practice in nursing is to know the attitudes of nurses and nursing students about this subject. So, this research was carried out to examine the attitudes of nurses of a state hospital and nursing students of a state university towards evidence-based nursing.

Research Questions

- What are the attitudes of nurses and nursing students towards evidence-based nursing?
- What are the attitudes of nurses and nursing students towards evidence-based nursing according to their sociodemographic characteristics?
- What is the relationship between the age of nurses and nursing students, the career of nurses and their attitudes towards evidence-based nursing?

METHOD

Research Design

This research is a descriptive cross sectional study that was conducted between March 2019 and May 2019.

Research Sample

The universe consisted of nurses working in a state hospital in the black sea region and 3rd and 4th grade students studying at the nursing department of a state university. Sample selection was not made and it was aimed to reach the entire universe. The universe included 177 students and 116 nurses. During the research, 1 non-voluntary student and 44 nurses were excluded from the study, so it was carried out with the participation of 72 nurses and 176 students. The participation rate is 62% for nurses and 99% for students. Inclusion criteria for the study, (a) studying in the 3rd and 4th grades of the nursing department of the designated state university (b) working as a nurse in the designated state hospital (c) knowing and understanding Turkish (d) having no communication problems, and (e) being volunteer to participate in the research.

Research Instruments and Processes

The data collection tool used in the research consisted of "Student Introductory Information Form", "Nurse Introductory Information Form", and "Attitude Toward Evidence-Based Nursing Questionnaire (AEBNQ)".

Student Introductory Information Form: This form, which was prepared by the researchers through a literature review (Rojjanasrirat & Rice 2017; Belowska et al., 2015; Karaahmetoğlu & Kaçan Softa, 2018; Taş Arslan & Çelen, 2018) consists of 8 questions questioning the participants' age, gender, class, type of high school education, reading professional journals, taking evidence-based nursing courses, participating in scientific meetings about nursing, and conducting research. Filling the form takes approximately 3 minutes.

Nurse Introductory Information Form: This form, which was prepared by the researchers through a literature review (Dikmen et al., 2018; Daştan & Hintistan, 2018; Yılmaz et al., 2018; Yılmaz et al., 2019) consists of a total of 9 questions questioning the participants' age, gender, type of high school education, duration of professional experience, department they work, being a member of any professional association, reading professional journals, participating in scientific meetings about nursing and conducting research. Filling the form takes approximately 3 minutes.

Attitude Toward Evidence-Based Nursing Questionnaire (AEBNQ): This Questionnaire is used to evaluate the attitudes of nurses towards evidence-based nursing, and developed by Ruzafa Martinez López-Iborra and Madrigal-Torres in Spain in 2011. It was adapted into Turkish by Ayhan et al. (2015) The scale consists of 15 items and has three dimensions as following; Beliefs and Expectations towards Evidence-Based Nursing, Intention to Practice towards Evidence-Based Nursing, and Emotions towards Evidence-Based Nursing (Ruzafa-Martínez et al., 2011; Ayhan et

al, 2015). The items contained eight positive and seven negative statements and negative items were coded in reverse. Five-point likert scale (1=strongly disagree, 5=strongly agree) is used to score and 75 is the highest and 15 is the lowest score. A high score on the scale indicated that the attitude towards evidence-based nursing is positive. The reliability coefficient of the original scale was α=0.85. The sub-dimensions reliability coefficients were α=0.86, α=0.63, and α=0.70 for belief, intention to practice, and emotions, respectively. The Cronbach Alpha reliability coefficient was 0.85 in this study.

Data Analysis

The analysis of the data was carried out by the IBM-SPSS 20 package program. In the evaluation of the data, number, percentage, and mean distributions were made for descriptive analyses. The Kolmogorov-Smirnov test was used to determine whether the normal distribution assumption was met in numerical measurements. Student's t-test was used for comparison in independent groups in cases with normal distribution, while Mann-Whitney U and Kruskal Wallis tests were used to compare

numerical measurements in non-parametric independent groups that did not comply with normal distribution. The significance level was accepted as α=0.05. The dependent variable of the study; AEBNQ and belief, intention to practice, and emotions sub-dimension scores. The independent variables are age, gender, educational status, the status of following such studies and participation in research activities of all participants; the class of student nurses, the status of taking courses related to the subject; nurses' other characteristics such as the length of time they work in the profession, the unit they work in, and the level of knowledge about EBP.

Ethic

The research was carried out in accordance with the Principles of the Declaration of Helsinki. Ethics committee approval was obtained from the The Human Research Ethics Committee of Sinop University (Date: 04.08.2019 and Number: 2019/30). Written permissions from the scale owners, institutional permissions, and consent from the students and nurses who agreed to participate in the study were obtained.

RESULTS

The research was carried out with the participation of 72 nurses and 176 students. The mean age of the nurses was 35.19±7.13 (23-55), 69.4 % were woman, 73.6% of them had bachelor degree, 77.8 % of them worked as service nurses, their working experience were 9.26+8.89 years. Among them, 81.9 % did not attend the scientific meetings, 77.8 % did not read any journal related to their profession, 94.4 % did not conduct any research on nursing, and none of them were the member of any professional association. The mean age of the student nurses was 21.95±1.038, 59.1% were women, 22.7% were the gratuate of the health high school, 51.7% were studying in the 4th grade. Among them 89.2% did not attend scientific meetings, 71.6% did not read a journal related to their profession, 86.9% did not do research on nursing, and 79.5% were not the members of any professional association. The total score of the nurses and students and the scores of their sub-dimensions was shown in Table 1. The mean of AEBNQ total score of the nurses was 68.52±5.80 and the total mean score of AEBNQ of nursing students was 47.51±2.07.

Table 1. *Comparison of the Mean Scores of Nursing Students and Nurses Regarding the Total and Sub-Dimensions of AEBNQ*

AEBNQ		AEBNQ Score Average		Analysis Results	
		Nurse (n=72) Mean±SD	Nursing Students (n=176) Mean±SD	t	p
Sub-dimensions	Beliefs and Expectations in Evidence-Based Nursing Sub-Dimension	32.48±2.52	33.49±2.01	3.313	0.001*
	Practicing Intention Evidence-Based Nursing Sub-Dimension	17.40±2.44	9.12±1.46	32.800	0.001*
	Emotions Towards Evidence-Based Nursing Sub-Dimension	18.63±1.53	4.89±1.20	75.104	0.001*
Total	Evidence-Based Nursing Attitude Questionnaire	68.52±5.20	47.51±2.07	41.998	0.001*

*p<0.05

When the total and sub-dimension mean scores of the AEBNQ of the nurses and nursing students were campared, the difference between the sub-dimensions and the total score was statistically significant (p<0.05). The AEBNQ total score of the nurses and the mean scores of all sub-dimensions, except for the "Beliefs and Expectations" sub-dimension were statistically higher (p=0.001). The students' “Beliefs and Expectations” sub-dimension mean score was statistically significantly higher than the nurses (p=0.001). A significant difference was found between the gender, working style, the status of reading a professional journal with and the beliefs and expectations subdimension of the scale and total mean score of AEBNQ of the nurses. Also a significant difference was found between the gender and education levels and the intention to apply the scale sub-dimension. It was found significant difference between nurses' gender and working style and emotions sub-dimension too (p<0.05) (Table 2).

Table 2. *Comparison of the Mean Scores of Nurses Related to the Sub-Dimensions AEBNQ According to Socio-demographic Characteristics*

	n	Evidence Beliefs and Expectations Mean±SD	Evidence Based Nursing Practicing Intention Mean±SD	Evidence Based Nursing Emotions Mean±SD	AEBNQ
Gender					
Woman	50	30.73±1.43	30.87±3.14	31.66±3.25	30.07±5.50
Man	22	49.61±2.16	49.30±2.22	47.50±2.19	51.11±4.28
Statistical Evaluation		U=261.50 **p=0.0001***	U=268.50 **p=0.0001***	U=308.00 **p=0.002***	U=228.50 **p=0.001***
Education					
Health vocational	7	35.21±1.29	33.07±4.57	36.71±2.46	33.21±2.44
Undergraduate	12	24.67±2.76	21.42±3.58	26.25±3.79	22.58±2.16
Bachelor degree	53	39.35±2.14	40.37±3.76	38.79±5.28	40.08±3.79
Statistical Evaluation		KW=5.045 p=0.080	KW=8.454 **p=0.015***	KW=3.820 p=0.148	KW=7.088 **p=0.029***
Way of working					
Service Nurse	56	39.63±5.28	38.78±1.94	40.44±3.72	39.82±1.47
Responsible Nurse	16	25.56±3.38	28.53±2.71	22.72±2.89	24.88±4.36
Statistical Evaluation		U=273.00 **p=0.016***	U=320.50 p=0.080	U=227.50 **p=0.0002***	U=262.00 **p=0.011***
Status of reading a professional journal					
Yes	16	45.91±3.58	42.84±4.79	44.16±5.30	45.69±4.23
No	56	33.81±2.74	34.69±3.65	34.31±6.11	33.88±5.97
Statistical Evaluation		U=297.50 **p=0.038***	U=346.50 p=0.164	U=325.50 p=0.084	U=301.00 **p=0.046***
Participation in scientific meetings related to nursing					
Yes	13	41.38±2.28	41.23±4.28	38.54±4.29	40.04±4.88
No	59	35.42±1.39	35.46±3.20	36.05±1.96	35.72±2.34
Statistical Evaluation		U=320.00 p=0.343	U=322.00 p=0.362	U=357.00 p=0.686	U=337.50 p=0.499
State of doing research					
Yes	4	50.75±4.21	54.50±5.66	52.75±3.70	53.75±5.23
No	68	35.66±3.12	35.44±2.11	35.54±2.11	35.49±2.81
Statistical Evaluation		U=79.00 p=0.153	U=64.00 p=0.73	U=71.00 p=0.96	U=67.00 p=0.89

KW= Kruskal Wallis test; U=Mann Whitney U test; *p<0.05

A significant difference was found between the grade levels, the status of reading a professional journal of the nursing students and the beliefs and expectations sub-dimension of the scale of the nursing students. Also there is a significant difference between gender and the sub-dimension of the scale's intention to apply. A significant difference was found between nursing students grade levels, reading a professional journal and the total mean score of AEBNQ (p<0.05) (Table 3).

Table 3. *Comparison of the Mean Scores of Nursing Students Related to the Sub-Dimensions AEBNQ According to Socio-demographic Characteristics*

	n	Evidence Beliefs and Expectations Mean±SD	Evidence Based Nursing Practicing Intention Mean±SD	Evidence Based Nursing Emotions Mean±SD	AEBNQ Mean±SD
Gender					
Woman	104	92.60±8.25	81.10±2.19	87.95±4.67	87.74±1.29
Man	72	82.58±3.37	99.19±6.22	89.29±3.88	89.60±3.44
Statistical Evaluation		U=3318.00 p=0.175	U=2974.00 **p=0.016***	U=3687.00 p=0.853	U=3665.00 p=0.809
High school type					
Health vocational	40	89.08±2.43	88.10±6.47	99.96±1.28	99.26±2.59
Other	136	88.33±5.12	88.62±4.33	85.13±2.77	85.33±3.76
Statistical Evaluation		U=2697.00 p=0.932	U=2704.00 p=0.953	U=2261.50 p=0.08	U=2289.50 p=0.122
Grade					
3rd grade	85	100.59±5.66	88.38±4.81	91.01±3.76	100.32±4.17
4th grade	91	77.21±4.69	88.62±1.29	86.16±4.50	77.46±3.79
Statistical Evaluation		U=2840.00 **p=0.0001***	U=3857.50 p=0.974	U=3654.50 p=0.495	U=2862.50 **p=0.002***
Status of reading a professional journal					
Yes	50	89.64±2.59	86.34±3.28	84.52±1.20	87.98±4.31
No	126	78.05±1.15	89.36±4.69	90.08±4.33	78.71±2.74
Statistical Evaluation		U=2093.00 **p=0.035***	U=3042.00 p=0.713	U=2951.00 p=0.480	U=2124.00 **p=0.039***
Participation in scientific meetings related to nursing					
Yes	19	95.68±6.12	91.34±1.94	77.55±6.30	91.26±2.19
No	157	87.63±4.23	88.16±2.67	89.82±3.41	88.17±3.70
Statistical Evaluation		U=1355.00 p=0.491	U=1437.50 p=0.789	U=1283.50 p=0.283	U=1439.00 p=0.799
State of doing research					
Yes	23	102.70±2.59	85.17±3.86	71.54±2.65	88.52±5.20
No	153	86.37±1.60	89.00±3.91	91.05±7.32	88.50±4.12
Statistical Evaluation		U=1433.00 p=0.130	U=1683.00 p=0.727	U=1369.50 p=0.064	U=1759.0 p=0.998
Status of being a member of any professional association					
Yes	36	89.25±1.66	93.03±2.14	87.65±3.20	93.93±4.87
No	140	88.31±3.13	87.34±4.13	88.72±1.73	87.10±2.79
Statistical Evaluation		U=2493.00 p=0.917	U=2357.00 p=0.535	U=2489.50 p=0.904	U=2324.50 p=0.466

U=Mann Whitney U test; *p<0.001

A strong and negative correlation was found between the ages of the nurses and the years of working in the profession and the total mean score of the AEBNQ (r=-0.917, p=0.000; r=-0.840, p=0.000, respectively). There was also a significant positive and weak correlation between the ages of the students and the total mean score of AEBNQ (r=0.209, p=0.016) (Table 4).

Table 4. *Correlation of the Age of Nursing Students, the Age of Nurses, and the Nurses Career Year with the Scale and its Sub-dimensions*

		Beliefs and Expectations		Practicing Intention		Emotions		AEBNQ	
	Mean±SD	r	p	r	p	r	p	r	p
Age of Nurses	35.19±7.13	-0.831	**0.000***	-0.778	**0.000***	-0.786	**0.000***	-0.917	**0.000***
Nurses Career year	9.26±8.89	-0.769	**0.000***	-0.705	**0.000***	-0.792	**0.000***	-0.840	**0.000***
Age of Nursing Students	21.95±1.03	0.261	**0.000***	-0.011	0.887	-0.109	0.149	0.209	0.016

*p<0.001

DISCUSSION

Determining the attitudes of nurses and nursing students towards evidence-based practices is very important in terms of contributing to the development of evidence-based nursing practices. According to AEBNQ scores of this study, nurses had more positive attitude towards evidence-based nursing than nursing students. Similar to our study, the AEBNQ mean scores of the nurses were found to be high (Ayhan et al., 2015; Daştan & Hintistan, 2018; Dikmen et al., 2018; Küçükoğlu et al., 2017). Unlike our study results, many studies revealed that nurses' AEBNQ average was at moderate level (Yılmaz et al., 2019; Şadi Şen & Yurt, 2021; Durmus et al., 2017). This phenomenon may be explained by the differences in in-service training between hospitals, such as content and time allocation. When the studies on nursing students were examined, unlike our study results, AEBNQ were found to be high (Karaahmetoğlu & Kaçan Softa, 2018; Taş Arslan & Çelen, 2018). In our study, the more lower AEBNQ scores of the nursing students than other studies may be explained by conducted with students from different regions and different grade levels of study. However, it is thought that there are differences in the nursing education curriculum, whether there are elective courses for evidence-based nursing, and whether students witness evidence-based practice examples in the fields they practice.

When the comparison of the total and sub-dimension mean scores of the AEBNQ of the nurses and nursing students were examined, the difference between the scale sub-dimensions and the total score averages was statistically significant ($p<0.05$). The mean scores of all sub-dimensions of the nurses, except for the "Beliefs and Expectations" sub-dimension, and the total score of AEBNQ of the nurses were statistically significantly higher ($p=0.001$). However, the mean scores of the “Beliefs and Expectations” sub-dimension of the students were found to be statistically significantly higher than the nurses ($p=0.001$). Newly graduated nurses who are willing to transfer their gains to the field of practice and are open to innovation by following current developments have a higher belief in using scientific-based knowledge. Since they do not have experience in the field of practice yet, they have not faced the fact that the nurse does not adequately perform the research role under difficult working conditions (Şadi Şen & Yurt, 2021).

In this study, the total scores of the nurses' AEBNQ differed significantly according to the gender variable. Men's intention to practice, beliefs and expectations, emotions, and total scores were higher than women's. Studies conducted by Şadi Şen & Yurt (2021), Yılmaz et al. (2018) and Mashiach Eizenberg (2011) showed that the gender factor was found to be ineffective contrary to our results. When the total scores of the students' AEBNQ were examined according to the gender variable, it was found that the male's intention to practice was higher than that of the females. Contrary to our results, other studies conducted with nursing students revealed that female students' mean AEBNQ scores were higher than male students (Karaahmetoğlu & Kaçan Softa, 2018; Taş Arslan & Çelen, 2018; Başdaş & Özbey,

2020). A study of Çelik et al. (2021) showed that the gender factor was found to be ineffective. It is thought that this situation may be due to the method and sample differences of the studies.

In the study, the sub-dimension of the intention to practice and the total mean score of AEBNQ of the nurses with undergraduate education were found to be significantly higher. Similar to our study results, the study conducted by Şadi Şen & Yurt (2021) reported that nurses who had master's and doctorate education had a high mean score of AEBNQ. A study on nurses by Mashiach Eizenberg (2011) showed the practice increased as the EBP education level increased. Unlike our study result, other studies reported that there is no significant difference between the education levels of the nurses and the mean scores of the total score and sub-dimensions of AEBNQ (Ruzafa-Martínez et al., 2011; Ayhan et al., 2015; Dikmen et al., 2018). These differences suggested that the place and time of the studies were important. Because EBP continues to increase both in education and hospitals, and it is more accepted in terms of its benefits and reflection in practice. Thus, the barriers to accessing information and transferring it to practice are reduced and this has a positive effect on AEBNQ.

In our study, the belief sub-dimension and AEBNQ scores of the students studying in the 3rd grades were found to be significantly higher than the students studying in the 4th grades. The study by Çelik et al. (2021) showed that increases in students' grade levels decreased their attitude score averages. This situation suggested that although the students developed a positive attitude towards the use of the evidence-based practice, they did not consider themselves adequate and competent as their grade levels increased and they

spent more time in clinical settings. Unlike our results, Brown et al. (2010) reported that as students' academic levels increase, their attitude score averages increase significantly. Taş Arslan and Çelen (2018) also reported that there is a significant difference between the grade levels of the students and the mean of attitudes towards evidence-based nursing and the students studying in the second grade have the highest attitude score average. Labrague et al. (2019) found that students' grade levels were not effective on evidence-based practice attitude scores. This result suggests that there is a need for a better understanding of the systematic use of evidence-based practice knowledge by students.

Our results showed that there was a strong negative correlation between AEBNQ scores with the duration of work in the profession and the age of the nurses. In other words, as age and seniority increase, the total score of AEBNQ decreases. Similarly, Yılmaz et al. (2019) revealed that nurses aged forty and over had lower AEBNQ, and nurses with a tenure of less than 10 years had a higher mean AEBNQ. Supported our results, other studies showed that the mean of the AEBNQ score decreased as the tenure of the nurses increased (Şadi Şen & Yurt, 2021; Breimaier et al., 2011). This situation shows that newly graduated nurses are more sensitive to the issue as their knowledge about EBP is more up-to-date. It is thought that providing periodic in-service seminars for evidence-based nursing and developing the mentoring system by activating it can remove this obstacle.

When the working status of the nurses participating in the study as service nurse and responsible nurse was examined, it was found that the belief and expectation sub-dimension and the total scores of AEBNQ of the service nurses were found to be significantly higher. This situation may be related to the low level of EBP behavior and consequent intentions resulting from the fact that managers and responsible nurses are more active in managerial work (Yılmaz et al., 2019; Mashiach Eizenberg, 2011). The study found that nurses and students who followed a professional journal had significantly higher belief and AEBNQ total scores. Similarly, in the study by examining 20 nursing journals by Oermann et al. (2007), a positive relationship was found between research and practical knowledge in nursing, and it was stated that the prevalence of nursing journals is important for evidence-based practice. Professional scientific publications are one of the ways in which the results of research, which are constantly renewed and bring dynamism to the content and quality of care, can be delivered to nurses (Aydın et al., 2015). Nurses need up-to-date research in the use of evidence-based practice (Aydın et al.,

2015). In this context, it is thought that supporting nurses and students to follow and publish professional publications will increase the use of evidence-based practice.

This study showed that there were statistically insignificant high scores between the total score averages of AEBNQ with both to do research and to participate in professional scientific meetings of the nurses and students participating in the study. This situation shows that these factors are actually the factors that will make a difference for EBP. Similarly, nurses who attend scientific meetings and are members of professional associations have higher AEBNQ scores (Fiset et al., 2017; Youssef et al., 2018; Reid et al., 2017). Nurses and students need to have a positive attitude towards scientific research in order to implement EBP in the clinical field (Halabi, 2016). Harrigan et al. (2008) stated that most nurses neglect or take into account the experiences and research evidence they have learned during their nursing school years; emphasizes that it forms the basis of nursing care. For this reason, it is expected that the experience of broadcasting during school years will contribute greatly to his professional development after graduation. It will be possible for the nursing profession to reach the desired levels only with scientific applications. Following and participating in scientific activities is thought to be a process that improves nurses' ability to use evidence.

This study reported that statistically insignificant high scores were found between the status of being a member of professional associations of the students and the total score averages of AEBNQ. Another remerkable finding of the study was that none of the nurses participating in the study were members of any professional association. Memberships in professional organizations, scientific researches and meetings play an important role in the professional development of nurses, as well as in increasing the sharing of scientific knowledge among nurses, and thus in bringing the EBP attitude to a positive level (Aydın et al., 2015; Fiset et al., 2017). In addition, nursing associations are working to follow current research results and announce the results (Aydın et al., 2015; Youssef et al., 2018). All these results reveal that nurses and nursing students need to be supported to develop their competencies in scientific research, publication process of research, access to resources and professional autonomy.

CONCLUSION AND SUGGESTIONS

This study showed that nurses had a high mean score on the AEBNQ while the students' average was at a moderate level. In our study, the high mean score of the AEBNQ and beliefs and expectations sub-dimension in students and nurses indicates belief in evidence-based practices. According to our results moderate scoring for the intention to practice sub-dimension of the scale shows that believing in evidence-based practice does not change behavior. So, for the development of evidenced based nursing attitudes of students and nurses, they need autonomy over their practice, training in finding and evaluating evidence, access to evidence, and mentoring to guide them through the implementation process and reinforce didactic teaching. Educational initiatives informed by the assessment of clinical nurses' perceived learning needs will allow organizations to support evidence-based practice.

LIMITATIONS

The research was conducted only with the nursing students of a university and the nurses of a public hospital, and it cannot be generalized to the nurses and nursing students in the whole country. In addition, the collection of data based only on the statements of the participants based on the survey method can be listed as the limitations of the research.

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Conflict of Interest

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Author Contributions

Design: B.B.Ö., Ö.G., Data collection or processing: B.B.Ö., Analysis or interpretation: Ö.G., Literature search: B.B.Ö., Ö.G., Writing: B.B.Ö., Ö.G.

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