Original Article / Araştırma Makalesi

INVESTIGATION OF MIDWIFERY AND NURSING STUDENTS' ATTITUDES TOWARDS EVIDENCE-BASED NURSING

Ebelik ve Hemşirelik Öğrencilerinin Kanıta Dayalı Hemşireliğe Yönelik Tutumlarının İncelenmesi

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ABSTRACT

The objective of this study is to explore the midwifery and nursing students' attitudes towards evidence-based nursing. The sample of this descriptive and cross-sectional study included 626 undergraduate students studying midwifery/nursing at a state university in the Eastern Anatolia Region of Turkey. The data were collected using the "Descriptive Form for Students" and the "Evidence-Based Nursing Attitude Questionnaire (EBNAQ)." The mean total score of the students in EBNAQ was 55.46±9.92, their mean score in the subscale "Beliefs and Expectations About Evidence-Based Nursing" was 27.24±5.87, their mean score in the subscale "Evidence-Based Practice Intention" was 13.83±3.00, and their mean score in the subscale "Sentiments on Evidence-Based Nursing" was 14.38±4.01. A significant relationship was determined between gender, academic year of study, liking the profession, doing research, duration of internet usage and duration of medical information acquisition and the mean total scores in EBNAQ (p<0.05). The results demonstrated that the students had highly positive attitudes toward evidence-based practices. Determination of the attitudes of students regarding evidence-based practices will help development of strategies towards increasing evidence-based midwifery and nursing practices through education.

Keywords: Evidence-based practice, Midwifery, Nursing, Student

ÖZ

Bu araştırmanın amacı, Ebelik/Hemşirelik öğrencilerin kanıta dayalı ebelik ve hemşireliğe yönelik tutumlarının incelenmesidir. Tanımlayıcı ve kesitsel bu araştırmanın örneklemini Doğu Anadolu Bölgesi'nde bulunan bir devlet üniversitesinde ebe/hemşirelik bölümünde okuyan 626 öğrenci oluşturdu. Araştırmanın verileri, "Öğrencilerin Tanıtım Formu" ve "Kanıta Dayalı Hemşireliğe Yönelik Tutum Ölçeği (KDHYTÖ)" kullanılarak toplandı. Öğrencilerin KDHYTÖ toplam puan ortalaması 55.46±9.92, "Kanıta Dayalı Hemşireliğe Yönelik İnanç ve Beklentiler" alt boyut puan ortalaması 27.24±5.87, "Kanıta Dayalı Uygulama Niyeti" alt boyut puan ortalaması 13.83±3.00, "Kanıta Dayalı Hemşirelikle İlgili Duygular" alt boyut puan ortalaması ise 14.38±4.01olarak saptandı. Öğrencilerin cinsiyet, sınıf, mesleği sevme, araştırma yapma, internet kullanım süresi ve tıbbi bilgi edinme süresi ile KDHYTÖ toplam puan ortalamaları arasında anlamlı bir fark bulundu (p<0.05). Sonuçlar öğrencilerin kanıta dayalı uygulamalara yönelik tutumlarının iyi düzeyde olduğunu gösterdi. Öğrencilerin kanıta dayalı uygulama konusunda tutumlarının belirlenmesi eğitim ile kanıta dayalı ebelik ve hemşirelik uygulamalarının arttırılmasına yönelik stratejilerin geliştirilmesine yardımcı olacaktır.

Anahtar Kelimeler: Ebe, Hemşire, Kanıta dayalı uygulama, Öğrenci

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INTRODUCTION

In today's world, Evidence-Based Practice (EBP) has begun to be the gold standard of midwifery/nursing care (Özer Küçük, Çakmak, Kapucu, Koç & Kahveci, 2017). It is highly important that care services provided by healthcare professionals are evidence-based (Cardoso et al., 2017; Hart et al., 2008; Özer Küçük et al., 2017). In this regard, the International Council of Nursing (ICN) delivered an explicit message to all nurses around the world to implement evidence-based practices (Özer Küçük et al., 2017; Senyuva, 2016). Evidence-based practice refers to a clinical problem-solving process involving researching the literature on the topic, assessing the results of this research and making decisions based on these. Evidence-based nursing is defined as; utilizing the preferences of patients, clinical expertise of nurses and the best evidence at hand in care environments and the process of decision-making as a result of this (Özer-Küçük et al., 2017; Ulaş Karaahmetoğlu & Kaçan Softa, 2018; Yılmaz, Düzgün & Dikmen, 2019). EBP creates a safety culture, reduces healthcare costs and duration of hospital stay, eliminates redundant or ineffective practices, improves patients' medical outcomes and raises the quality of healthcare (Murphy et al., 2018; Yılmaz & Gürler, 2017).

Activities of raising awareness and developing competencies for EBP must be started during undergraduate education, because acquisition of the required competencies for EBP (*literature review, evidence evaluation, critical analysis of studies and transfer of clinical study findings into clinical practice)* by students who are future midwives and nurses will be a driving force for them to implement evidence-based practices in their work lives after graduation. In several countries, studies have been conducted to evaluate the awareness and competencies of nursing students in evidence-based practices (Özer Küçük et al., 2017). In Turkey, EBP is generally not included in the undergraduate curricula as "evidence-based midwifery/nursing practices". However, it is addressed in some courses (Karayağız Muslu, Baybek, Tozak Yıldız & Kıvrak, 2015). When graduated midwives/nurses are evaluated, it is observed that they have problems with transferring their theoretical knowledge into clinical practices, and they implement EBP to a limited extent. It is also observed that evidence-based practices that are implemented are usually not transferred into clinical practices and mostly used to gain an academic status (Özer Küçük et al., 2017).

The attitudes and perceptions of healthcare professionals are a significant problem affecting EBP. In two systematic review papers investigating the effects of individual characteristics on doing research, it was revealed that the most significant characteristic impacting the behavior of doing research was "attitude toward research". Therefore, it is

essential to know the attitudes of midwives/nurses toward the subject to develop effective evidence-based practice strategies. It was determined that available surveys/scales used to measure EBP aim to; use research and particularly enable midwives/nurses to access research and improve their critical thinking skills and usage of research results (Ayhan, 2013; Ayhan, Kocaman & Bektaş, 2015).

Improvement of midwifery/nursing, which is a professional occupation, is possible only with interpretation and practical use of scientific knowledge (Öztürk Çopur, Kuru & Canpolat Seyman, 2015; Uysal Toraman, Bayık Temel, Kalkım & Erkin Balyacı, 2015). Inability to assess the attitudes of midwifery and nursing students toward EBP is a significant deficiency in this field. Determination of the attitudes of students regarding evidence-based practices will help development of strategies towards increasing evidence-based midwifery and nursing practices through education (Karadaş & Özdemir, 2015; Uysal Toraman et al., 2015). Thus, it is considered that the first step to take in development of strategies that will accelerate the EBP process is determination of the attitudes of midwifery and nursing students toward the subject.

This study was conducted to determine undergraduate midwifery and nursing students' attitudes towards evidence-based practices.

METHODS

Design and Sample

This study was designed as a descriptive and cross-sectional study. The population of the study included 626 undergraduate students studying midwifery and nursing at a state university in the Eastern Anatolia Region of Turkey and volunteered to participate in the study conducted from March 2018 to May 2018 (Participation rate: 96%). The limitations of this study included its' single-center design and the questions based on nurses' statements in data collection forms.

Data Collection and Data Collection Tools

In data collection, a "Descriptive Form for Students" that consisted of 12 questions regarding the descriptive information of the students (age, gender, marital status, educational level, employment status, liking the profession, knowing how to review the literature, reading nursing journals, attending scientific professional meetings, doing professional research, duration of daily internet use, duration of internet use for medical information acquisition) and the "Evidence-Based Nursing Attitude Questionnaire (EBNAQ)" were used.

Evidence-Based Nursing Attitude Questionnaire (EBNAQ): This questionnaire was developed in 2011 in Spain by Ruzafa-Martinez et al. to measure the attitudes of nurses towards

evidence-based nursing, and its validity and reliability in Turkey were evaluated in 2015 by Ayhan et al. The questionnaire consists of 15 items and three subscales (Ayhan et al., 2015). 8 items are positive (items 1, 2, 5, 7, 9, 11, 13 and 14), 7 items are negative (items 3, 4, 6, 8, 10, 12 and 15), whereas the negative items are inversely scored. The lowest and highest possible scores on this five-point Likert-type (1=strongly disagree, 2=disagree, 3=slightly agree, 4=agree, 5=strongly agree) questionnaire are 15 and 75, respectively. High scores on the questionnaire represent positive attitudes towards evidence-based nursing. The reliability coefficient of the original questionnaire was reported as $\alpha=0.85$. The reliability coefficient was $\alpha=0.86$ for the Belief subscale, $\alpha=0.63$ for the Practice Intention subscale and $\alpha=0.70$ for the Sentiments subscale (Durmuş, Gerçek & Çiftçi, 2017; Yılmaz et al., 2019). In our study, the reliability coefficient was found as $\alpha=0.84$ for the Belief subscale, $\alpha=0.53$ for the Practice Intention subscale, $\alpha=0.78$ for the Sentiments subscale and $\alpha=0.84$ for EBNAQ total.

Subscales of Evidence-Based Nursing Attitude Questionnaire (EBNAQ): The Subscale Beliefs and Expectations About Evidence-Based Nursing consists of items regarding the beliefs and expectations of nurses about the benefits of evidence-based nursing in clinical practices (items 1, 2, 7, 9, 11, 13, 14).

The Subscale Evidence-Based Practice Intention consists of items with regard to participants' behavior or intention of evidence-based practices, perceived obstacles and use of the time allocated for workload and education for evidence-based nursing (items 3, 5, 6, 12).

The Subscale Sentiments on Evidence-Based Nursing consists of items about the level of importance placed on evidence-based nursing, benefits of the use of evidence-based nursing in clinical practices and sentiments of nurses on the subject (items 4, 8, 10, 15) (Ayhan et al., 2015; Durmuş et al., 2017; Yılmaz et al.,).

Data Analysis

The collected data were analyzed with the SPSS (Statistical Package for the Social Sciences) 22.0 package software. In data analysis, frequency, percentage, mean and standard deviation values, as well as Mann-Whitney U Test, Kruskal Wallis Test, t-test, ANOVA, Bonferroni correction and Pearson's correlation test were utilized. Statistical significance was determined as 0.05.

Ethical Considerations

Prior to conducting the study, a written permission was received via e-mail from the author conducting the Turkish validity and reliability evaluation of the questionnaire that was

used. Moreover, a written approval of Munzur University Non-Interventional Ethics Committee (Resolution No: 2018-1/8), a written permission from the institution where the study was conducted and written and verbal consent of the participating students were obtained.

RESULTS

It was determined that the mean age of the students who participated in the study was 20.76±1.83 years, their mean duration of daily internet usage was 140.20±184.66 minutes, their mean duration of internet usage for medical information acquisition was 51.40±52.27, 31.2% were in their 2nd year of study, 77.2% were female, 59.9% had graduated from an Anatolian High-School, 98.1% were single, 96.5% were not employed, 66.5% liked their profession, 83.5% did not know how to review the literature, 77.6% did not read any journals on midwifery/nursing, 74.9% did not attend scientific professional meetings, and 57% did research on their fields (Table 1).

Table 1. Descriptive characteristics of participants

Characteristics		N (626)	%
Age (Mean ±SD) (20.76±1.83 years)			
Daily Internet Usage (Mean ±SD) (140.20±184.66 min)			
Daily Internet Usage for Medical Information Acquisition (Mean ±SD) (51.40±52.27 min)			
Academic Year	1st	172	27.5
	2nd	195	31.2
	3rd	138	22
	4th	121	19.3
Gender	Female	484	77.3
	Male	142	22.7
Education	Medical Vocational High-School	11	1.8
	Anatolian High-School	375	59.9
	Science High-School	15	2.4
	Regular High-School	168	26.8
	Others	57	9.1
Marital Status	Married	12	1.9
	Single	614	98.1
Employment Status	Yes	22	3.5
	No	604	96.5
Liking the Profession	Yes	416	66.5
	No	210	33.5
Literature Review	Yes	103	16.5
	No	523	83.5
Reading Journals	Yes	140	22.4
	No	486	77.6
Attending Scientific Meetings	Yes	157	25.1
	No	469	74.9
Doing Research	Yes	357	57
	No	269	43

The mean total scores in EBNAQ and the mean total scores in the subscales are presented in Table 2. The students' mean total score in EBNAQ was 55.30±9.45, their mean score in the subscale "Beliefs and Expectations About Evidence-Based Nursing" was 27.09±5.15, their mean score in the subscale "Evidence-Based Practice Intention" was 13.82±3.00, and their mean score in the subscale "Sentiments on Evidence-Based Nursing" was 14.38±4.01.

Table 2. Participants' mean scores on "EBNAQ" and its subscales (N = 626)

Scales	Lower and Upper Values	Lower and Upper Values on the Scale	Mean Scores on Each Scale
			Mean ± SD
"Beliefs and Expectations About Evidence-Based Nursing"	7-35	7-35	27.09±5.15
"Evidence-Based Practice Intention"	4-20	4-20	13.82±3.00
"Sentiments on Evidence-Based Nursing"	4-20	4-20	14.38±4.01
EBNAQ Total Scores	15-75	30-75	55.30±9.45

A statistically significant relationship was detected between the genders of the participants and their mean scores in the practice intention, sentiments dimensions and total EBNAQ (p<0.05). There was a statistically significant relationship between the participants' academic year of study and their mean scores in the practice intention, sentiments dimensions and total EBNAQ. As a result of Bonferroni correction, it was found that the difference based on Academic Year in the EBNAQ scores was between the 2nd and 3rd year students and the 3rd and 4th year students (p<0.05). The relationship between the participants' statuses of liking the profession and their mean scores in the subscale beliefs and expectations and total EBNAQ was statistically significant (p<0.05). A statistically significant relationship was found between the participants' statuses of reading journals and their mean scores in the subscale beliefs and expectations (p<0.05). There was also a statistically significant relationship between the participants' statuses of doing research and their mean scores in the subscales of beliefs and expectations, practice intention and sentiments and total EBNAQ (p<0.05) (Table 3).

Table 3. Descriptive characteristics of students and distribution of average scores on EBNAQ subscales (N=626)

	Beliefs and Expectations	Practice Intention	Sentiments	EBNAQ
Academic Year				
1st	27.23±4.77	13.76±3.37	13.56±4.32	54.55±9.37
2nd	27.25±5.03	14.22±2.66	15.18±3.48	56.66±8.80
3rd	26.31±5.59	12.86±2.92	13.31±4.37	52.48±9.40
4th	27.55±5.30	14.39±2.80	15.46±3.36	57.41±9.81
Significance	F= 1.489	F=7.570*	F=11.755*	F=8.063*
	p=0.216	**p=0.000**	**p=0.000**	**p=0.000**

Gender				
Female	27.11±5.05	14.07±2.86	14.81±3.77	56.00±9.15
Male	27.00±5.48	13.04±3.26	12.96±4.37	53.01±10.06
Significance	t=0.213	t=3.648*	t=4.949*	t=3.342*
	p=0.832	**p=0.000**	**p=0.000**	**p=0.001**
Employment Status				
Yes	25.09±5.29	13.04±2.73	13.40±3.99	51.54±9.44
No	27.17±5.13	13.85±3.01	14.41±4.01	55.44±9.43
Significance	Z=-2.003*	Z -1.240	Z -1.175	Z -1.851
	p=0.045	p=0.215	p=0.240	p=0.064
Liking the Profession				
Yes	27.48±5.18	13.97±3.09	14.51±4.14	55.97±9.66
No	26.32±5.02	13.54±2.79	14.10±3.73	53.98±8.88
Significance	t=2.670*	t=1.696	t=1.119	t=2.507*
	p=0.008	p=0.090	p=0.231	**p=0.012**
Reading Journals				
Yes	28.10±5.15	13.90±3.38	14.23±4.54	56.24±10.56
No	26.80±5.12	13.80±2.88	14.42±3.85	55.03±9.09
Significance	t=2.638*	t=0.317	t=-0.483	t=1.329
	p=0.009	p=0.751	p=0.629	p=0.184
Doing Research				
Yes	27.93±4.95	14.06±3.19	14.64±4.16	56.64±9.68
No	25.98±5.21	13.52±2.70	14.02±3.77	53.53±8.84
Significance	t=4.757*	t=2.239*	t=1.941	t=4.135*
	p=0.000	**p=0.026**	p=0.053	**p=0.000**

* $p<0.05$

However, no significant correlation was detected between age, duration of internet usage and duration of medical information acquisition and the participants' mean total score in EBNAQ ($r=0.028$, p= 0.492; $r= -0.029$, p= 0.473; $r=0.001$, p= 0.981, respectively).

DISCUSSION

Evidence-based practices are important for creating a safety culture, reducing healthcare costs and duration of hospital stay, eliminating redundant or ineffective practices, improving the quality of care and thus increasing patient satisfaction (Yılmaz & Gürler, 2017; Yılmaz et al.,; Uysal Toraman et al., 2015).

The objective of this study was to investigate 'the midwifery and nursing students' attitudes towards evidence-based practices'. It was found that the participants' mean duration of daily internet usage was 140.20±184.66 minutes, and their mean duration of internet usage for medical information acquisition was 51.40±52.27 minutes. In another study, it was observed that students had (at least 4 hours) longer durations of daily internet usage and internet usage for medical information acquisition (Özer Küçük et al., 2017). In our study, situations such as finding that; the participants' internet usage time for obtaining medical information was low, they did not know how to review the literature (83.5%), and although they liked their profession (66.5%), they did not read a journal on the profession (77.6%), as well as their lack of

participation to vocational scientific meetings (74.9%), may have affected their EBP awareness. Awareness is a concept that requires knowing and turning this knowledge into behavior (Gelen, 2003). Erişen et al. (2019) obtained similar results (Erişen, Yeşildal & Akman Dömbekci, 2019).

The students' mean total score in EBNAQ was 55.30±9.45, their mean score in the subscale "Beliefs and Expectations About Evidence-Based Nursing" was 27.09±5.15, their mean score in the subscale "Evidence-Based Practice Intention" was 13.82±3.00, and their mean score in the subscale "Sentiments on Evidence-Based Nursing" was 14.38±4.01. All of these results may be considered good. The students' good scores on EBNAQ suggested that they developed a positive attitude toward evidence-based practice. It is stated that attitude is addressed as an element that channels an individual's behaviors, is organized through life events and experiences and emerges as a result of a learning process (Ayhan, 2013). However, students' positive attitude of in our study failed to match up with the finding that the majority of them did not read any journals on their fields (77.6%) and did not attend scientific professional meetings (74.9%). It is believed that students have faith in EBP; however, their lack of doing research and access to information which are the practical fundamentals of EBP suggests their tendency to demand or practice with ready-to-use information (Özer Küçük et al., 2017; Öztürk Çopur et al., 2015).

A statistically significant relationship was determined between the participants' genders and their mean scores in the practice intention, sentiments dimensions and total EBNAQ (p<0.05). In their study with nursing students, in parallel to our results, Ulaş Karaahmetoğlu and Koçan Softa (2018) found the belief, practice intention and sentiments subscale and total scale scores of the female participants to be significantly higher than those of the male participants. They interpreted these results as a suggestion that female students are more curious, research-oriented, responsible and willing to learn vocational theory and practices than male students. For evidence-based practices to be implemented at clinics and new evidence to be formed from practices, nursing and midwifery students need to have these characteristics (Ulaş Karaahmetoğlu & Kaçan Softa, 2018).

Nursing and midwifery education is provided through a 4-year undergraduate level program. The undergraduate curricula of both departments conform to the Bologna process and are based on an education system improving occupational knowledge and skills in each academic term (Şenyuva, 2016). In this study, the difference in the EBNAQ scores of students based on their academic year of study was found to be between the 2nd and 3rd year students and the 3rd and 4th year students (p<0.05). This result could be explained by that; students have

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increased knowledge of the profession, have more clinical experience, do more practice and can evaluate the outcome of the provided care, that is, have improved critical thinking skills when they are in their last year of study (Çelik, Yılmaz, F. Karataş, Al, N. S. Karakaş, 2015; Özer Küçük et al., 2017). Moreover, not paying the necessary importance to issue of evidence-based nursing and problem-solving skills in the nursing curriculum or not using theoretically provided knowledge in areas of practice may have resulted in not meeting the expectation that there would be an increase in the scores on the level of the 3rd year students based on their clinical experience (Ulaş Karaahmetoğlu & Kaçan Softa, 2018).

One of the reasons for the existence of professions, in fact the most important one, is the service provided to the society. Midwives/Nurses are individuals dedicated to providing services that further other people's well-being (a concept also known as altruism-sacrifice) (Korkmaz, 2011). In this study, a statistically significant relationship was determined between the participants' statuses of liking the profession and their mean scores in the subscales of beliefs and expectations and mean total EBNAQ scores (p<0.05). Ulaş Karaahmetoğlu and Koçan Softa (2018) reported similar results (Ulaş Karaahmetoğlu & Kaçan Softa, 2018). When people like their jobs, they take pleasure in what they do and perform the profession's requirements in the best manner (Korkmaz, 2011). This may be interpreted as that the positive sentiments emerging as a result of liking the profession increase students' beliefs and expectations about EBP.

In this study, a statistically significant relationship was found between the participants' statuses of reading journals on midwifery/nursing and their mean scores in the beliefs and expectations subscales (p<0.05). Similarly, in a study by Yılmaz and Gürler (2017), a significant relationship was detected between nurses' tendency to keep up with professional publications and their mean scores in the practice intention subscale and total EBNAQ (p<0.05) (Yılmaz & Gürler, 2017). Midwifery/Nursing journals contribute substantially to the professionalization of midwives and nurses (Yılmaz & Gürler, 2017). Some of the responsibilities of midwives and nurses toward themselves and the proffession are accessing up-to-date information, using this information in practice and also sharing it with their colleagues (Uysal Toraman et al., 2013; Karayağız Muslu et al., 2015; Durmuş et al., 2017). In this sense, it may be stated that reading professional journals positively affected the participants' beliefs and expectations about EBP.

Scientific research enables a systematic approach to events and emergence of new information (Korkmaz, 2011). In this study, there was a statistically significant relationship between the participants' statuses of doing professional research and their mean scores in the

subscales of beliefs and expectations, practice intention and sentiments and total EBNAQ (p<0.05). This result was interpreted as that doing research prompts students to acquire new information, think critically and use the acquired information in practice, and thus, understand the importance of evidence-based practices.

CONCLUSION

The findings of this study showed that the students' attitudes towards evidence-based practices were positive. Furthermore, it was found that the 4th year students had higher scores in the subscales of practice intention and sentiments and total EBNAQ. Moreover, liking the profession, reading midwifery/nursing journals and doing research thereon increased the participants' scores in the subscale of beliefs and expectations and total EBNAQ.

In the literature review, it was observed that studies investigating the attitudes of midwifery and nursing students toward EBP were limited. This study is one of the few studies on this subject. Thus, it is considered to be a positive contribution to the literature. However, more extensive studies are required to demonstrate the importance of attitudes towards EBP and increase positive attitudes.

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