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### Attitudes of Nurses Working in Private Hospitals About Evidence-Based Practices and Affecting Factors

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#### ABSTRACT

**Objective:** The aim of the study was to determine the attitudes of nurses working in private hospitals about evidence-based practice and the affecting factors. **Materials and Methods:** The universe of the study consisted of nurses working in 10 private hospitals in the city center of Manisa, Türkiye (n=460). The data were collected from 214 nurses by visiting hospitals between 20 October 2022 and 20 December 2022 through face-to-face interviews. The nurses' introductory characteristics questionnaire and the Attitude towards Evidence Based Nursing Questionnaire were used in this study. The attitude towards Evidence-Based Nursing Questionnaire consists of 15 items and three sub-dimensions as follows: beliefs and expectations towards evidence-based nursing, the intention of conduct towards evidence-based nursing, and feelings towards evidence-based nursing. **Results:** It was stated that 73.8% of the nurses knew the concept of evidence-based nursing and 68.2% applied evidence-based practices in their clinic. The mean score of the Attitudes towards Evidence-Based Nursing Questionnaire was found to be 61.5±8.8 (min=30 max=75). The total mean score of the Attitudes towards Evidence-Based Nursing Questionnaire was found to be statistically significantly higher in nurses working in service, who followed the current nursing literature, who knew the concept of evidence-based nursing, who applied evidence-based practices in their clinics and who knew the literature review. **Conclusion:** It is very important to determine the factors affecting the knowledge, attitudes and behaviors of nurses towards evidence-based practice and to organize training programs in this direction in terms of professional development and increasing the quality of health care.

**Keywords:** Attitude, Evidence-based Nursing, Evidence-based Practice.

### Özel Hastanelerde Çalışan Hemşirelerin Kanıta Dayalı Uygulamalar Hakkında Tutumları ve Etkileyen Faktörlerin Belirlenmesi

#### ÖZ

**Amaç:** Araştırmanın amacı özel hastanelerde çalışan hemşirelerin kanıta dayalı uygulamaya ilişkin tutumlarını ve etkileyen faktörleri belirlemektir. **Gereç ve Yöntem:** Araştırmanın evrenini Manisa ili merkezinde bulunan 10 özel hastanede çalışan hemşireler (n=460) oluşturmuştur. Veriler 20 Ekim 2022 ile 20 Aralık 2022 tarihleri arasında hastane ziyaretleri yapılarak 214 hemşireden yüz yüze görüşme yoluyla toplanmıştır. Bu çalışmada hemşirelerin tanıtıcı özellikleri anketi ve Kanıta Dayalı Hemşirelik Tutum Anketi kullanılmıştır. Kanıta Dayalı Hemşireliğe Yönelik Tutum Anketi, 15 maddeden ve kanıta dayalı hemşireliğe yönelik inanç ve beklentiler, kanıta dayalı hemşireliğe yönelik davranış niyeti ve kanıta dayalı hemşireliğe yönelik duygular olmak üzere üç alt boyuttan oluşmaktadır. **Bulgular:** Hemşirelerin %73,8'i kanıta dayalı hemşirelik kavramını bilmekte ve %68,2'si kliniğinde kanıta dayalı uygulamaları uygulamaktadır. Kanıta Dayalı Hemşirelik Tutum Ölçeği puan ortalaması 61,5±8,8 (min=30 maks=75) olarak belirlenmiştir. Kanıta Dayalı Hemşirelik Tutum Anketi toplam puan ortalaması serviste çalışan, güncel hemşirelik literatürünü takip eden, kanıta dayalı hemşirelik kavramını bilen, kanıta dayalı hemşirelik uygulamalarını kendi kliniklerinde uygulayan ve literatür taramasını bilen hemşirelerde istatistiksel olarak anlamlı olarak yüksek bulunmuştur. **Sonuç:** Hemşirelerin kanıta dayalı uygulamaya yönelik bilgi, tutum ve davranışlarını etkileyen faktörlerin belirlenmesi ve bu doğrultuda eğitim programlarının düzenlenmesi mesleki gelişim ve sağlık hizmetinin kalitesinin artırılması açısından oldukça önemlidir.

**Anahtar Kelimeler:** Tutum, Kanıta dayalı hemşirelik, Kanıta dayalı uygulama.

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## INTRODUCTION

Evidence-based practice (EBP) is both a goal and an approach that is defined as practices where the best evidence from systematic research is combined with clinical expertise (Baran, Atasoy & Şahin, 2020; Chen, Wu, Zhou, Li, & Zhao, 2020; Shayan, Kiwanuka & Nakaye, 2019). Evidence-based nursing (EBN) is a problem-solving approach that includes seeking the best and up-to-date evidence available, and taking into account the needs and preferences of the patient while evaluating with clinical expertise (Ayhan et al., 2015; Baran et al., 2020; Yılmaz, Düzgün & Dikmen, 2019). The basic principle behind this approach is to give care not traditionally or intuitively, but with high quality, and in line with evidence (Arslan & Çelen, 2018). The purpose of EBP is to manage information, reduce costs, and optimize patient care. In the literature, it has been observed that EBP reduces healthcare costs and length of stay, eliminates unnecessary or ineffective practices, improves patient outcomes with standardized care, and increases the quality of care and nurse satisfaction (Baran et al., 2020; Doğan, Cin, Demirağ & Uçan, 2021; Kavlak, Öz & Özen 2022). The fact that nurses base their care practices on evidence not only provides quality nursing care but also plays an important role in the development of nurses' problem-solving and decision-making skills (Kavlak et al., 2022). The professional practice of nursing is possible with the interpretation of scientific knowledge and its use in practice. It is an important requirement that professional nurses perform their practices according to the best evidence based on research results (Baran et al., 2020). For this reason, it is very important for nurses to gain the habit of using evidence in practice, to have a culture of basing their practices on scientific knowledge, and to develop skills in critically evaluating research. As it is known, EBP is a life-long process and requires continuous research and education. For this reason, it is necessary to increase the knowledge and skills of nurses in this field and to reduce the obstacles experienced in developing EBN practices.

Although the concept of EBN is an important issue in the health system, it is still not known enough by many nurses today. Many countries have undertaken different structural arrangements and roles to support EBN, which is the most effective way to bridge the gap between theory and practice in the nursing discipline for preparing students for the realities of the clinical setting (Saifan et al., 2021). It has been determined that, with the increase of the nursing profession to the undergraduate level, with the introduction of EBN as a course in universities, the level of nursing students' literature review and belief in EBN has increased (Şen & Yurt, 2021). It is important for nurses to participate in scientific studies in their professional lives and to improve their research and statistical knowledge (Doğan et al., 2021). Although the nurses' responsibility to perform

EBP is defined in the Nursing Regulation in our country as "Nurses plan, implement, evaluate and supervise nursing care based on evidence", it has been stated that EBN cannot be applied easily and the use of evidence in the clinical decision-making process is insufficient (Arslan & Çeçen, 2018; Ayhan et al., 2015) and that EBN progress in a very complex and slow process insufficient (Ayhan et al., 2015). For this reason, it is emphasized that it is important to determine the thoughts, attitudes, and behaviors of nurses related to EBN to develop strategies for the use of EBN (Ayhan et al., 2015; Baltacı & Deniz, 2019). In recent years, the importance of EBN has increased in studies. The main reasons for this increase are the rate of medical errors in patient care, the increase in patients' information demands, and the decrease in trust in health professionals (Alperen & Şahin, 2022). A systematic review stated that the knowledge, skills, attitudes, and beliefs of health workers about EBP were between medium and high. However, few reviews have emphasized that EBP competencies have an impact on changes in care processes or patient outcomes (Saunders, Gallagher-Ford & Vehviläinen-Julkunen, 2019). A systematic review with 16 articles (n=8,409) to evaluate barriers to EBP among nurses in low- and middle-income countries between 2000 and 2018 stated that barriers related to the institution were insufficient resources, limited access to information, inadequate staff and lack of institutional support; barriers of interdisciplinary were lack of communication between academic and clinical practice environment, inconsistency between nursing education and practice, lack of teamwork and negative image of the society regarding the nursing profession; nurse-related barriers were perceived limitations in the scope of nurses' practice, time, knowledge of EBP and individual-related barriers (Shayan et al., 2019).

Most of the studies evaluating EBP in nurses in our country were conducted on nurses who worked in public, state, and university hospitals. Although there were studies determined that nurses had high attitudes about EBN (Alperen & Şahin, 2022; Aslan & Gürdap, 2021; Kılıç, Öcal & Uslukılıç, 2022), other studies determined that nurses did not have enough information about EBN (Yılmaz et al., 2018) and the attitudes towards EBN were moderate (Baran et al., 2020; Doğan et al., 2021, Menekli & Korkmaz, 2021; Merih, Potur & Esencan, 2017; Yanmış & Özcan, 2022; Yıldırım & Yıldız, 2020). It was emphasized in the studies that the knowledge of nurses increased after the training given about EBN (Baran, Atasoy & Şahin, 2020), developing different training methods to improve their attitudes was important (Yıldırım & Yıldız, 2020), and that EBN should be included in in-service training programs (Şen & Yurt, 2021). In addition, it has been stated in the studies that nurses' competence in creating evidence, doing research to use evidence, and benefiting from research results

was weak (Alperen & Şahin, 2022). In the studies, it was found that female nurses (Alperen & Şahin, 2022), nurses who received undergraduate education (Aygün & Yıldırım, 2021; Chen et al., 2020; Köstekli, Çelik & Karahan, 2020), who spent their lives mostly in urban areas (Aygün & Yıldırım, 2021), who love their profession (Doğan et al., 2019), those who attend scientific meetings with research (Doğan et al., 2019), those who were members of professional associations (Aygün & Yıldırım, 2021), those who followed professional publications (Aygün & Yıldırım, 2021; Doğan et al., 2019), nurses trained in EBP (Yılmaz, Kaya & Akansel, 2020) and who made research (Doğan et al., 2021) were found to have better attitudes towards EBN.

In our country, there was one study on nurses working in public and private hospitals (Aygün & Yıldırım, 2021), and one study conducted only in private hospitals carried out in Istanbul, and it was determined that nurses' attitudes towards EBP were positively high and age, years of employment, education, participation in scientific meetings, hearing the concept of EBP and the presence of a written protocol in the clinic affected the attitude towards EBP (Kavlak et al., 2022). It was thought that the findings of this study are important in terms of determining the attitudes of nurses working in private hospitals and the factors affecting it and contributing to the literature.

## MATERIALS AND METHODS

### Study type

This cross-sectional study aimed to determine the attitudes of Turkish nurses working in private hospitals in a province and the factors affecting it.

### Study group

The universe of the study consisted of nurses working in 10 private hospitals located in the city center of Manisa, in the west of Türkiye (n=460). The minimum sample of the study was determined 209 nurses with a 95% confidence interval and 5% standard deviation using the universe-known formula with the Epi Info program, and 214 nurses were reached at the time of data collection. Nurses who volunteered to participate in the study were included.

### Hypotheses of the study

H1: There is a difference between the descriptive characteristics of nurses and the total and sub-dimension mean scores of the Attitude towards Evidence-Based Nursing Questionnaire.

### Dependent and independent variables

The independent variables of this research were the nurse's age, education status, working year, gender, clinic where nurses work, marital status, having a child, knowledge of foreign language, status of following the current nursing literature, awareness of EBN, status of taking EBN course at the school, receiving EBN education in the institution, participating in scientific meetings on EBN, knowing the literature review, reading research articles,

participation of scientific research and scientific meetings, being a member of a professional association and implementation EBN in the clinic where they work. Total and sub-dimension mean scores of the Attitude towards Evidence-Based Nursing Questionnaire were the dependent variables of the study.

### Data collection tools

In this study, the characteristics of nurses' questionnaire and Attitude toward Evidence Based Nursing Questionnaire were used. The nurses' characteristics questionnaire consists of questions containing the independent variables of the research. Attitude towards Evidence Based Nursing Questionnaire was developed by Ruzafa-Martinez et al. (2011), and its Turkish validity and reliability were made by Ayhan, Kocaman, and Bektaş (Ayhan et al., 2015). This scale consists of 15 items and three sub-dimensions. Eight of the items contain positive (items 1, 2, 5, 7, 9, 11, 13, and 14) and seven items contain negative statements (3, 4, 6, 8, 10, 12, and 15). The scale is in a five-point Likert type (1=I strongly disagree, 2=I do not agree, 3=I somewhat agree, 4=I agree, 5=I completely agree) and items with negative statements are coded by reversing. A minimum score of 15 and a maximum score of 75 are obtained from the scale. There is no cut-off point in the scale, and a high score from the scale indicates a positive attitude towards EBN. The first sub-dimension of the scale is "beliefs and expectations towards EBN" and this dimension includes items related to nurses' beliefs and expectations about the benefits of EBN in clinical studies (1, 2, 7, 9, 11, 13, 14). The "Intention of conduct towards EBN" sub-dimension includes nurses' behaviors or intentions to perform EBN; it includes items on perceived barriers, workload, and using the time allocated for education for EBN (3, 5, 6, 12). The sub-dimension "Feelings towards EBN" includes the importance given to EBN, its benefits in clinical practice, and items related to nurses' feelings about the subject (4, 8, 10, 15). The Cronbach alpha value of this scale in this study was found to be 0.875.

### Data collection method

Data were collected by visiting hospitals between 20 October 2022 and 20 December 2022 using face-to-face interviews. The mean time for data collection from nurses was approximately 30 minutes.

### Statistical analysis

In the research, descriptive features were analyzed using numbers, percentages, and mean. Since the data showed normal distribution as a result of the Kolmogorov-Smirnov test, the relationship between dependent and independent variables was evaluated using parametric tests (t-test and ANOVA).

### Ethical considerations

The use of the Attitude towards Evidence Based Nursing Questionnaire in the study was obtained from Ayhan, who made the validity and reliability of the scale. Ethical approval of the study was received from Manisa Celal Bayar University Faculty of Medicine

Health Sciences Ethics Committee (Date: 12.10.2022 Number: E-20478486-050.04.04-405879). Written permission from private hospitals in Manisa province and written informed consent were obtained from the nurses in the study.

## RESULTS

### Characteristics of nurses

**Table 1. Characteristics of nurses.**

Characteristics of nurses	Number	%
<b>The age group of nurses</b>		
25 years and under	126	58.9
26 years and older	88	41.1
<b>Educational status of nurses</b>		
Health vocational high school	126	58.9
Associate degree	57	26.6
Bachelor's degree	31	14.1
<b>Gender of nurses</b>		
Female	191	89.3
Male	23	10.7
<b>The department where nurses work</b>		
Service	88	41.1
Intensive care	89	41.6
Emergency	18	8.4
Operating room	19	8.9
<b>Working year</b>		
1-5 year	115	53.7
6-10 year	67	31.3
11 years and above	32	15.0
<b>Marital status</b>		
Married	94	43.9
Single	120	56.1
<b>Status of having children</b>		
Yes	55	25.7
No	159	74.3
<b>Total</b>	<b>214</b>	<b>100.0</b>

The mean age of the nurses in the study was  $26.6 \pm 5.5$  (min= 20, max=56). Of the nurses, 58.9% were 25 years old and under, 14.1% were bachelor's degrees, 89.3% were women, 56.1% were single and 25.7% had children. Of the nurses, 41.6% have worked in the intensive care unit and 41.1% in the service. The mean working year of nurses was  $6.3 \pm 5.4$  (min= 1, max= 38), 53.7% of the participants worked for 1-5 years, and 31.3% for 6-10 years (Table 1).

### Awareness of nurses on evidence-based nursing

The rate of nurses who were aware of the concept of EBN was 73.8% and 52.8% of the nurses stated that they took EBN courses at the school they graduated from. Of the participants, 53.7% received EBN training in the institution where they work, about a quarter (26.6%) stated that they attended at least scientific meetings on the subject of EBN and 68.2% applied EBP in their clinic.

When asked about barriers in EBN, the majority of the nurses (70.0%) did not give an answer, 7.0% and

4.7% of the nurses stated that they lack knowledge/ education and 5.6% had long working hours, respectively.

In the study, 50.9% of the participants stated that they had little knowledge of foreign languages, 60.7% of the nurses did not know how to search the literature, 52.3% of them did not follow the current nursing literature, 25.2% of them rarely read research articles, and 18.7% of them did scientific research (Table 2).

Table 2. Nurses' knowledge of evidence-based nursing, research, and literature review.

Characteristics	Sayı	%	Characteristics	Sayı	%
<b>Knowing the concept of EBN</b>			<b>Knowledge of literature search</b>		
Yes	158	73.8	Yes	84	39.3
No	56	26.2	No	130	60.7
<b>Taking the EBN course at the graduate school</b>			<b>Following the current literature on nursing</b>		
Yes	113	52.8	Yes	102	47.7
No	101	47.2	No	112	52.3
<b>Receiving EBN training in the institution</b>			<b>Doing scientific research</b>		
Yes	115	53.7	Yes	40	18.7
No	101	46.3	No	174	81.3
<b>Attending a scientific meeting on the subject of EBN</b>			<b>Status of reading research paper</b>		
Yes	57	26.6	No	54	25.2
No	157	73.4	Rarely	99	46.3
<b>Implementation of EBN in the clinic where worked</b>			Sometimes	55	25.7
Yes	146	68.2	Often	6	2.8
No	68	31.8	<b>Having scientific publication</b>		
<b>Barriers to using EBP in nursing</b>			Yes	10	13.6
Unanswered	154	72.0	No	185	86.4
Lack of information	15	7.0	<b>Attendance at scientific meetings</b>		
Lack of education	10	4.7	Yes	29	13.6
Long working hours	12	5.6	No	185	86.4
The institution does not support EBP	5	2.3	<b>Becoming a member of a professional association</b>		
Insufficient staff	3	1.4	Yes	16	7.5
All	15	7.0	No	198	92.5
<b>Knowledge of the foreign language</b>			<b>Total</b>	214	100.0
No	51	23.8			
Little	109	50.9			
Medium	48	22.4			
Good	6	2.8			

### The relationship between characteristics of nurses and sub-dimensions and total scores of the Attitude towards Evidence-Based Nursing Questionnaire

In the study, the mean score of the Attitudes towards Evidence-Based Nursing Questionnaire was found to be  $61.5 \pm 8.8$  (min=30 max=75). The mean score of the sub-dimensions of the scale was  $28.9 \pm 4.7$  (10-35) for beliefs and expectations towards EBN,  $15.9 \pm 2.7$  for EBP intention, and  $10.7 \pm 3.0$  (4-20) for feelings about EBN (Data not shown in the table). The total mean score of the Attitudes towards Evidence-Based Nursing Questionnaire was found to be statistically significantly higher in nurses working in service compared to those working in intensive care, operating rooms, and emergency departments ( $p=0.045$ ). Evidence-based practice intention sub-dimension mean score was

statistically significantly higher in nurses with bachelor's degrees ( $17.0 \pm 2.3$ ) compared to nurses with associate degrees ( $15.7 \pm 2.6$ ) and health vocational high school ( $15.7 \pm 2.9$ ) ( $p=0.046$ ). The mean EBP intention score of the nurses working in the service was found to be statistically significantly higher than the nurses working in other clinics ( $p=0.028$ ) (Table 3).

### The Relationship between Nurses' Knowledge of Evidence-Based Nursing and Sub-Dimensions and Total Scores of the Attitude towards Evidence-Based Nursing Questionnaire

In this study, the total score of the Evidence-Based Attitude Scale towards Nursing Questionnaire was  $64.4 \pm 7.7$  in nurses who followed the current nursing literature and  $59.3 \pm 9.1$  in those who did not, and a statistically significant difference was found

between the mean scores of the two groups ( $p=0.000$ ). The mean score in the three sub-dimensions of the scale was statistically significantly higher in nurses who followed the current nursing literature compared to those who did not.

The total mean score for the Attitude towards Evidence Based Nursing Questionnaire ( $p=0.001$ ), beliefs and expectations towards EBN ( $p=0.003$ ), and EBP intention ( $p=0.002$ ) sub-dimension mean score was found to be statistically significantly higher among the nurses who knew the concept of EBN compared to the nurses who did not. The mean total score of the scale was  $63.4\pm 8.4$  in nurses who stated that they applied EBP in their clinics, and  $58.3\pm 8.8$  in those who did not ( $p=0.000$ ). It was determined that the mean score of the three sub-dimensions of the scale was statistically significantly higher in nurses who applied EBP in their clinic, compared to those who did not (Table 4).

#### **The relationship between nurses' knowledge of research and literature review and sub-dimensions and total scores of the Attitude towards Evidence Based Nursing Questionnaire**

In the study, nurses who knew the literature review ( $63.9\pm 7.8$ ) had a statistically significant higher mean total score on the scale than the nurses who did not know ( $60.4\pm 9.2$ ) ( $p=0.004$ ). The mean score of the three sub-dimensions of the scale was found to be higher in nurses who knew how to search the literature compared to those who did not. The mean score of EBP intention sub-dimensions was statistically significantly higher in nurses who had published scientific papers ( $16.7\pm 2.5$ ) compared to those who did not ( $15.7\pm 2.7$ ) ( $p=0.037$ ), nurses who participated in scientific meetings ( $16.9\pm 2.4$ ) than the nurses who did not participate ( $15.8\pm 2.7$ ) ( $p=0.043$ ) (Table 4).

#### **DISCUSSION**

In this study, the factors affecting the attitudes of nurses working in private hospitals about EBP were examined. In the study, the majority of nurses (89.3%) were female, 14.1% had a bachelor's degree, 41.6% worked in intensive care, and the mean age and working year were 26.6 and 6.3, respectively. Similar to the findings of this study, the majority of the participants in the studies conducted in our country were women, and the rates were 88.9% for Gümüşhane (Doğan et al., 2021), 89.1% for Fethiye (Aygün & Yıldırım, 2021), and 82.6% for Istanbul (Kavlak et al., 2022). The rate of nurses having a bachelor's degree in studies, which was higher than this study, was 53.3% in Istanbul (Kavlak et al., 2022), 38% in Fethiye (Aygün &

Yıldırım, 2021), and 34.3% in Gümüşhane (Doğan et al., 2021).

In the study, it was determined that more than half of the nurses (60.7%) did not know how to search the literature, and one-fourth of the nurses (25.2%) rarely read research articles. Similar to the results of this study, 63.1% of the nurses in Türkiye did not know how to search for literature (Menekli & Korkmaz, 2021), 55.9% did not know how to reach the evidence (Yılmaz et al., 2018) and 4.8% only used Google academy (Baran et al., 2020). In our country, 21.6% of nurses in a university hospital stated that they had read a research article on nursing (Doğan et al., 2021). In a study in Oman, it was determined that 83% of nurses were moderately successful in searching for resources on the Internet, and only 36% had sufficient search skills using databases (Ammouri et al., 2014). As seen from the research findings, it may be beneficial for nurses to obtain information about literature review both during their education periods and in post-graduate in-service training.

In the current study, only 18.7% of the nurses made scientific research and 13.6% scientific publications. In the study, the participation rate of nurses in scientific meetings was low, and the finding was similar to other research results (Baltacı & Deniz, 2019; Doğan et al., 2021; Kuuppelomäki & Tuomi, 2003; Şen & Yurt, 2021). In some studies conducted in our country, it was determined that the rate of participation in scientific meetings was 62.5% (Daştan & Hintistan, 2018) and 70.3% (Aydın, Adıgüzel & Topal, 2015).

As can be seen from the results of the study, further development of nurses' research direction is important in terms of using EBP in care. This difference may be due to the fact that the research was conducted in different regions, and the Covid 19 epidemic and the economic burden of scientific meetings on the budget in recent years may have led to less participation in scientific meetings.

Nurses need to have the knowledge and develop positive attitudes to reflect EBP in their care processes. In this study, nearly three-quarters of the nurses (73.8%) stated that they knew the concept of EBP, approximately half (52.8%) had received EBP training from the institution they graduated from and 53.7% from the institution they worked at, approximately one fourth (26.6%) attended a scientific meeting related to EBP. Less than the findings of this study, 64.4% of nurses (Alperen & Şahin, 2022) and 55.2% of nurses in recent studies in our country stated that they knew the concept of EBP (Kavlak et al., 2022).

**Table 3. The relationship between characteristics of nurses and sub-dimensions and total scores of the Attitude Towards Evidence-Based Nursing Questionnaire.**

Characteristics of nurses	Sub-dimensions of the scale							
	The total score on the questionnaire		Beliefs and expectations towards EBN		The intention of EBP		The feeling of EBN	
	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test
<b>The age group of nurses</b>								
25 years and under	61.1±9.1	t=-1.392 p=0.165	28.4±4.9	t=-1.791 p=0.075	15.8±2.8	t=-0.770 p=0.442	16.9±3.2	t=-0.587 p=0.558
26 years and older	62.8±8.4		29.6±4.4		16.1±2.5		17.1±2.7	
<b>Educational status of nurses</b>								
Health vocational high school	61.6±8.8	F=1.231 p=0.294	29.0±4.5	F=0.572 p=0.565	15.7±2.9	F=3.129 <b>p=0.046</b>	16.8±3.1	F=0.969 p=0.381
Associate degree	61.1±8.9		28.3±5.2		15.7±2.6		17.0±2.9	
Bachelor's degree	64.0±8.1		29.4±5.0		17.0±2.3		17.6±2.6	
<b>Gender of nurses</b>								
Female	61.9±8.7	t=0.680 p=0.498	28.9±4.7	t=0.280 p=0.780	16.0±2.7	t=1.076 p=0.283	17.0±3.0	t=0.590 p=0.556
Male	60.6±9.6		28.6±4.9		15.4±2.7		16.6±3.2	
<b>The department where nurses work</b>								
Service	63.3±7.9	F=2.721 <b>p=0.045</b>	29.5±4.4	F=1.366 p=0.254	16.3±2.3	F=3.104 <b>p=0.028</b>	17.4±2.4	F=2.264 p=0.082
Intensive care	61.7±8.6		28.7±4.7		16.0±2.9		16.9±3.3	
Emergency	58.6±11.8		27.7±5.5		15.1±3.0		15.7±3.8	
Operating room	58.2±9.7		27.6±5.3		14.5±3.0		16.1±3.1	
<b>Working year</b>								
1-5 year	61.4±9.7	F=0.435 p=0.648	28.3±5.4	F=2.092 p=0.126	16.0±2.8	F=0.342 p=0.711	17.1±3.1	F=0.713 p=0.492
6-10 year	62.6±7.7		29.6±3.7		15.9±2.7		17.0±3.1	
11 years and above	61.4±7.6		29.5±4.1		15.6±2.3		16.4±2.5	
<b>Marital status</b>								
Married	61.7±9.0	t=-0.145 p=0.885	29.1±4.4	t=0.504 p=0.615	15.8±2.8	t=-0.383 p=0.702	16.8±3.0	t=-0.873 p=0.384
Single	61.8±8.7		28.7±5.0		16.0±2.7		17.1±3.0	
<b>Status of having children</b>								
Yes	62.7±8.3	t=0.902 p=0.368	29.6±4.3	t=1.234 p=0.218	16.0±2.5	t=0.137 p=0.891	17.2±2.7	t=0.588 p=0.557
No	61.4±9.0		28.6±4.9		15.9±2.8		16.9±3.1	

**Table 4. The relationship between nurses' knowledge of evidence-based nursing, research and literature review and the sub-dimensions and total scores of the Attitude towards Evidence Based Nursing Questionnaire.**

Characteristics	The total score on the questionnaire		Sub-dimensions of the questionnaire					
			Beliefs and expectations towards EBN		The intention of EBP		The feeling of EBN	
	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test
<b>Knowledge of the foreign language</b>								
No	59.8±9.6	F=1.218 p=0.304	28.1±5.4	F=0.831 p=0.478	15.2±2.8	F=1.448 p=0.230	16.5±3.4	F=1.198 p=0.311
Little	62.7±8.8		29.2±4.8		16.1±2.6		17.3±2.9	
Medium	61.6±7.9		28.7±3.8		16.2±2.9		16.8±2.7	
Good	62.7±8.1		30.3±4.4		16.2±1.7		16.2±3.4	
<b>Following the current literature on nursing</b>								
Yes	64.4±7.7	t=4.375 p=0.000	30.4±3.6	t=4.692 p=0.000	16.6±2.6	t=-3.322 p=0.001	17.5±3.1	t=2.410 p=0.017
No	59.3±9.1		27.5±5.2		15.4±2.7		16.5±2.9	
<b>Knowing the concept of EBN</b>								
Yes	63.0±7.9	t=3.526 p=0.001	29.5±4.3	t=3.045 p=0.003	16.2±2.6	t=2.598 p=0.010	17.3±2.9	t=3.153 p=0.002
No	58.3±10.3		27.3±5.5		15.1±2.8		15.9±3.2	
<b>Taking the EBN course at the graduate school</b>								
Yes	62.4±8.5	t=1.079 p=0.282	29.2±4.6	t=0.980 p=0.328	16.0±2.8	t=0.657 p=0.512	17.2±3.1	t=1.038 p=0.301
No	61.1±9.2		28.5±4.8		15.8±2.6		16.7±2.9	
<b>Receiving EBN training in the institution</b>								
Yes	62.6±8.4	t=1.591 p=0.113	29.4±4.5	t=1.635 p=0.104	16.0±2.8	t=0.513 p=0.608	17.3±3.0	t=1.643 p=0.102
No	60.7±9.2		28.3±4.9		15.8±2.6		16.6±3.0	
<b>Attending a scientific meeting on the subject of EBN</b>								
Yes	62.1±9.4	t=0.357 p=0.722	29.0±5.4	t=0.211 p=0.833	16.2±3.0	t=0.773 p=0.440	17.0±3.3	t=0.020 p=0.984
No	61.6±8.6		28.8±4.5		15.8±2.6		17.0±2.9	
<b>Implementation of EBN in the clinic where worked</b>								
Yes	63.4±8.4	t=4.010 p=0.000	29.6±4.4	t=3.583 p=0.000	16.3±2.7	t=3.080 p=0.002	17.4±2.9	t=3.256 p=0.001
No	58.3±8.8		27.2±4.9		15.1±2.6		16.0±3.1	



**Table 4. (Continued) The relationship between nurses' knowledge of evidence-based nursing, research and literature review and the sub-dimensions and total scores of the Attitude towards Evidence Based Nursing Questionnaire.**

Characteristics	Total score on the questionnaire		Sub-dimensions of the questionnaire					
			Beliefs and expectations towards EBN		The intention of EBP		The feeling of EBN	
	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test	Mean±sd	Test
<b>Knowledge of literature search</b>								
Yes	63.9±7.8	t=2.909	29.8±4.1	t=2.215	16.6±2.5	t=3.045	17.6±2.9	t=2.285
No	60.4±9.2	<b>p=0.004</b>	28.3±5.0	<b>p=0.028</b>	15.5±2.8	<b>p=0.003</b>	16.6±3.0	<b>p=0.023</b>
<b>Status of reading research paper</b>								
No	59.1±8.8	F=2.450	27.6±5.0	F=1.885	15.3±2.6	F=1.965	16.2±2.9	F=2.685
Rarely	62.4±8.3	p=0.065	29.4±4.2	p=0.133	15.9±2.7	p=0.120	17.1±3.1	<b>p=0.048</b>
Sometimes	63.2±9.1		29.1±5.1		16.6±2.7		17.6±2.7	
Often	61.2±11.8		29.3±4.9		16.3±3.3		15.6±4.3	
<b>Doing scientific research</b>								
Yes	62.4±8.5	t=0.498	28.5±5.1	t=-0.511	16.7±2.5	t=2.105	17.1±2.7	t=0.389
No	61.6±8.9	p=0.619	29.0±4.6	p=0.610	15.7±2.7	<b>p=0.037</b>	16.9±3.1	p=0.697
<b>Having scientific publication</b>								
Yes	60.9±10.3	t=-0.311	27.9±6.9	t=-0.664	16.6±2.7	t=0.814	16.4±3.0	t=-0.601
No	61.8±8.8	p=0.756	28.9±4.6	p=0.507	15.9±2.7	p=0.417	17.0±3.0	p=0.549
<b>Attendance at scientific meetings</b>								
Yes	64.0±7.4	t=1.460	29.9±3.6	t=1.263	16.9±2.4	t=2.033	17.2±2.5	t=0.479
No	61.4±9.0	p=0.146	28.7±4.9	p=0.208	15.8±2.7	<b>p=0.043</b>	16.9±3.1	p=0.632
<b>Becoming a member of a professional association</b>								
Yes	64.8±7.8	t=1.448	31.0±3.4	t=1.889	16.8±2.5	t=1.375	17.0±2.8	t=0.058
No	61.5±8.9	p=0.149	28.7±4.8	p=0.060	15.9±2.7	p=0.170	17.0±3.0	p=0.954

t=Independent sample-test F=One-way ANOVA

In studies, the rate of nurses receiving training on EBP was found to be 57.1% (Doğan et al., 2021), and 38.0% (Şen & Yurt, 2021). In previous studies, the participation rate of nurses in scientific meetings varied between 20.9% and 81.5%, and these studies emphasized the importance of including EBP in in-service training programs (Doğan et al., 2021; Menekli & Korkmaz, 2021; Şen & Yurt, 2021; Yılmaz et al., 2018).

Nurses need to have the knowledge and develop positive attitudes to reflect EBP in their care processes. In this study, nearly three-quarters of the nurses (73.8%) stated that they knew the concept of EBP, approximately half (52.8%) had received EBP training from the institution they graduated from and 53.7% from the institution they worked at, approximately one fourth (26.6%) attended a scientific meeting related to EBP. Less than the findings of this study, 64.4% of nurses (Alperen & Şahin, 2022) and 55.2% of nurses in recent studies in our country stated that they knew the concept of EBP (Kavlak et al., 2022). In studies, the rate of nurses receiving training on EBP was found to be 57.1% (Doğan et al., 2021), and 38.0% (Şen & Yurt, 2021). In previous studies, the participation rate of nurses in scientific meetings varied between 20.9% and 81.5%, and these studies emphasized the importance of including EBP in in-service training programs (Doğan et al., 2021; Menekli & Korkmaz, 2021; Şen & Yurt, 2021; Yılmaz et al., 2018).

In this study, nearly half of the nurses (50.9%) stated that they had low knowledge of foreign languages and did not follow the current nursing literature (52.3%). Consistent with the findings of this study, 50.5% of the nurses in our country stated that their knowledge of foreign languages was low (Baran et al., 2020) and 52.2% did not follow the current nursing literature (Aygün & Yıldırım, 2021). As it is known, foreign language knowledge is extremely important in obtaining information about EBN by following the current literature, especially in the field of health, and it is necessary for institutions providing nursing education to present this awareness and information to their students.

In the study, 68.2% of the participants stated that they provided evidence-based care in the clinic they worked at. Similarly, the rate of providing care with EBP in the clinic where nurses work in our country was 71.4% (Doğan et al., 2021) and 73.7% (Yanmış & Özcan, 2022).

In the present study, the total mean score of the scale was found 61.5, and similar to the findings of this study, it was found to be 61.5 for nurses working in a public hospital (Doğan et al., 2021), and 65.0 for nurses working at a private hospital in our country (Kavlak et al., 2022). Lower than the findings of this study, in some studies in our country the mean score of the scale was 58.2±7.9 in Ankara (Baran et al., 2020), 57.7±7.9 in Ağrı (Yıldırım & Yıldız, 2020), 43.5±3.1 in Şanlıurfa (Menekli & Korkmaz, 2021)

and 58.2±8.8 in Yozgat (Kılıç et al., 2022). In a study, it was determined that midwives and nurses working in postpartum care clinics training and research hospital used EBP at a moderate level (Merih et al., 2017). Different from our study, it was found a study that nurses' EBP attitudes were negative (Breimaier, Halfens & Lohrmann, 2011).

As it is known, it is important for professional development to determine the factors that affect nurses' knowledge, attitudes, and behaviors toward EBP (Baltacı & Deniz, 2019). Most of the studies evaluating EBP in nurses in Türkiye were conducted with nurses working in public, state, and university hospitals. Similar to the previous study (Daştan & Hintistan, 2018), in this study, it was determined that the gender, marital status and age groups of the nurses did not affect their attitudes toward EBP, and the mean score of the EBP intention sub-dimension was found to be statistically significantly higher in nurses with undergraduate degrees and working in the service. Unlike the results of this study, it was stated in a study that female nurses had a statistically significantly more positive attitude toward EBP than male nurses (Alperen & Şahin, 2022). In a study conducted in a training and research hospital in our country, no statistically significant difference was found between the education level, department, and nurses' EBP attitudes, and this finding differs from our study (Alperen & Şahin, 2022). When international studies were reviewed, in a study conducted with nurses (n=472) working in university hospitals in Japan, EBP proficiency was found to be higher in those who had research experience, received training on this subject, had advanced practice certificate (specialist nurses/certified nurses), and had more working experience (Tomotaki, Fukahori & Sakai, 2020). As can be seen from the research findings, the increase in the education level of nurses also increases the EBP intention. For this reason, it was thought that it is important to provide training to nurses on EBP.

In this study, nurses' attitudes toward EBP were found to be positive. Those who received training on EBP and stated that they have used EBP in their clinical practice have a more positive attitude towards EBP. The findings were similar to the results of other studies (Breimaier et al., 2011; Kuuppelomäki & Tuomi, 2003). This finding can be explained by the increase in the knowledge and awareness of nurses who received training on EBP and actively use EBP as a result of the training they received.

In the current study, the mean score of the total and three sub-dimensions of the scale was found to be statistically significantly higher in nurses who knew the concept of EBP, worked in the clinic, stated that they applied EBP in their clinic, knew the literature review, and followed the current nursing literature. In a study in our country, it was stated that the attitudes of those who received training on EBP and who used

EBP in their clinical practice were more positive attitude (Doğan et al., 2021).

In the study, the mean score of the EBP intention sub-dimension was found to be statistically significantly higher in nurses who graduated with a bachelor's degree, worked in the service, made scientific publications, and participated in scientific meetings compared to other groups. In a study conducted with nurses working in a university hospital, it was found that there was a significant relationship between nurses' love of their profession, attending scientific meetings with papers, following professional publications, and doing research, and their attitudes towards EBP (Doğan et al., 2021). It has been determined that nurses with undergraduate education who worked in a research and application center and the surgical units of a state hospital in the Western Black Sea Region in our country gave more correct answers to the subject of EBP related to patient transfer to the operating room (Köstekli, Çelik & Karahan, 2020). In Fethiye, Turkey, it was found that among nurses working in public and private hospitals, those with undergraduate degrees, those who have spent their lives in urban areas, those who read professional publications, and those who were members of professional associations had higher attitudes towards EBP (Aygün & Yıldırım, 2021).

In the current study, perceived barriers to using EBP in nursing were also examined, and nurses stated long working hours (5.6%), lack of knowledge (7.0%), and education (4.7%) as barriers. In a systematic review, barriers with EBP were classified as institutional, interdisciplinary, and nurse-related barriers (Shayan et al., 2019). In a study with knowledge of Chinese nurse managers about EBP and the influencing factors, it has been determined that the educational status of nurses, their professional title, EBP training status, and the institutional culture of EBP were the factors affecting it (Chen et al., 2020). In a training and research hospital in Ankara, Turkey, lack of staff (60.0%), insufficient environment and materials (33.3%), lack of time (58.1%), workload (87.6%), lack of information (60.0%), lack of institutional support (48.6%), lack of access to research (20.0%), lack of knowledge about scientific research methods (50.5%), foreign language deficiency (61.0%), and not being a decision maker in the clinic (43.8%) were identified as barriers to EBP (Baran et al., 2020). In the literature, it has been stated that the biggest barriers to EBP were the lack of time (Alperen & Şahin, 2022; Dalheim, Harthug, Nilsen, & Nortvedt, 2012; Yılmaz et al., 2018) and the inability to find and manage research evidence at a sufficient level in nurses (Dalheim et al., 2012). Other barriers such as language barriers, inability to access, interpret and use research findings, and lack of knowledge about EBP have also been reported (Ammouri et al., 2014). It was emphasized that nurses have four individual barriers in EBP. These barriers were lack of knowledge, lack of skills, awareness, and

professionalism regarding the use of EBP, lack of behavior and experience in using EBP, and language barrier (Alatawi et al., 2020). As it is known, EBN practices are important in improving the quality of patient care. It is important for nursing education institutions to include more EBN in their course curricula and to create this awareness in students and to encourage employees by developing strategies to reduce the barriers experienced by institution managers in contributing to the improvement of patient care quality.

#### **Limitation of the study**

Since this research was conducted in private hospitals located in a province in Turkey, the findings cannot be generalized to Turkey.

#### **CONCLUSION**

In the study, nurses who worked in service, who followed the current nursing literature, who knew the concept of EBN, who applied EBP in their clinics, and who knew the literature review had more positive attitudes toward EBN. It is very important to determine the factors affecting the knowledge, attitudes, and behaviors of nurses towards EBP and to organize training programs in this direction in terms of professional development and increasing the quality of health care.

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#### **Conflict of Interest**

The authors declare no conflict interest.

#### **Author Contributions**

**Plan and design:** EY, İŞ; **Material, methods and data collection:** İŞ; **Data analysis and comments:** EY, İŞ; **Drafting of the article;** EY, İŞ; **Writing and corrections:** EY.

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#### **Ethical considerations**

The use of the Attitude towards Evidence Based Nursing Questionnaire in the study was obtained from Ayhan, who made the validity and reliability of the scale. Ethical approval of the study was received from Manisa Celal Bayar University Faculty of Medicine Health Sciences Ethics Committee (Date: 12.10.2022 Number: E-20478486-050.04.04-405879). Written permission from private hospitals in Manisa province and written informed consent were obtained from the nurses in the study.

#### **REFERENCES**

Alatawi, M., Aljuhani, E., Alsufiany, F., Aleid, K., Rawah, R., Aljanabi, S., & Banakhar, M. (2020). Barriers to implementing evidence-based practice in the

- nursing profession: A literature review. *American Journal of Nursing Science*, 9(1), 35-42. <https://doi.org/10.11648/j.ajns.20200901.16>
- Alperen, A., & Şahin O. A. (2022). Investigation of nurses' knowledge and attitudes about evidence-based nursing: a descriptive and cross-sectional study. *Türkiye Klinikleri Journal of Nursing Sciences*, 14(1), 149-159. <https://doi.org/10.5336/nurses.2021-82436>
- Ammouri, A. A., Raddaha, A. A., Dsouza, P., Geethakrishnan, R., Noronha, J. A., Obeidat, A. A., & Shakman, L. (2014). Evidence-based practice: knowledge, attitudes, practice and perceived barriers among nurses in Oman. *Sultan Qaboos University Medical Journal*, 14(4), e537-545.
- Arslan, F. T., & Çelen, R. (2018). Determination of the attitudes among nursing students towards evidence-based nursing. *Journal of Continuing Medical Education*, 27(2), 99-106.
- Aslan, H. & Gürdap, Z. (2021). Nurses' attitudes towards evidence-based nursing and their knowledge levels to prevent infection associated with the peripheral venous catheter. *The Journal of Turkish Family Physician*, 12(2), 84-98. <https://doi.org/10.15511/tjtfp.21.00284>
- Aydın, Y., Adıgüzel, A., & Topal, E. A. (2015). Ebe ve hemşirelerin bilimsel çalışmalara yönelik tutumlarının belirlenmesi (Determining the attitudes of midwives and nurses towards scientific studies). *Journal of Human Rhythm*, 1(4), 168-175.
- Aygün, Ö., & Yıldırım, M. (2021). Determining the attitudes of nurses towards evidence-based practices. *Izmir Democracy University Health Sciences Journal*, 4(3), 327-338. <https://doi.org/10.52538/duhes.1033115>
- Ayhan, Y., Kocaman, G., & Bektaş, M. (2015). The validity and reliability of attitude towards evidence based nursing questionnaire for Turkish. *Hemşirelikte Araştırma Geliştirme Dergisi*, 17(2/3), 21-35.
- Baltacı, N., & Deniz, H. T. (2019). Evaluation of students' research anxiety and use of information technologies and attitudes towards evidence-based nursing. *Journal of Samsun Health Sciences*, 4(2), 60-68.
- Baran, G. K., Atasoy, S., & Şahin, S. (2020). Evaluation of awareness and attitudes of nurses towards evidence-based nursing practices. *Manisa Celal Bayar University Journal of Institute of Health Science*, 7(3), 352-359. <https://doi.org/10.34087/cbusbed.699410>
- Breimaier, H. E., Halfens, R. J., & Lohrmann, C. (2011). Nurses' wishes, knowledge, attitudes and perceived barriers on implementing research findings into practice among graduate nurses in Austria. *Journal of Clinical Nursing*, 20 (11-12), 1744-1756. <https://doi.org/10.1111/j.1365-2702.2010.03491.x>
- Chen, L., Wu, Y., Zhou, C., Li, X., & Zhao, H. (2020). Value, knowledge and implementation on evidence-based practice among nurse managers in China: a regional cross-sectional survey. *Journal of Nursing Management*, 28,139-147. <https://doi.org/10.1111/jonm.12907>
- Dalheim, A., Harthug, S., Nilsen, R. M., & Nortvedt, M. W. (2012). Factors influencing the development of evidence-based practice among nurses: a self-report survey. *BMC Health Services Research*, 12, 367. <https://doi.org/10.1186/1472-6963-12-367>
- Daştan, B., & Hintistan, S. (2018). Determination of the attitudes of nurses working in internal clinics for evidence-based nursing: rural region example. *Ordu University Journal of Nursing Studies*, 1(1), 1-9.
- Doğan, E. S., Cin A., Demirağ H., & Uçan, M. F. (2021). Investigation of nurses' attitudes toward evidence-based nursing practices. *International Anatolian Social Sciences Journal*, 5(2), 612-622. <https://doi.org/10.47525/ulasbid.879094>
- Kavlak, T., Öz, S., & Özen, N. (2022). Analysing of nurses' attitudes towards evidence-based practices and affecting factors: a descriptive study. *Türkiye Klinikleri Journal of Nursing Sciences*, 14(2), 279-287. <https://doi.org/10.5336/nurses.2021-84508>
- Kılıç, M., Öcal N. Ü., & Uslukılıç, G. (2022). The effect of nursing professional satisfaction and teamwork attitude on evidence-based nursing attitude: a multivariate analysis. *Türkiye Klinikleri Journal of Nursing Sciences*, 14(2), 434-444. <https://doi.org/10.5336/nurses.2021-84661>
- Köstekli, S., Çelik, S., & Karahan, E. (2020). Cerrahi birimlerde çalışan hemşirelerin ameliyathaneye hasta transferi konusundaki kanıta dayalı bilgi düzeyleri (Evidence based knowledge levels of nurses working in surgical units on patient transfer of the operating room). *Health Academy Kastamonu*, 5(1), 52-64. <https://doi.org/10.25279/sak.580761>
- Kuuppelomäki, M., & Tuomi, J. (2003). Finnish nurses' views on their research activities. *Journal of Clinical Nursing*, 12(4), 589-600. <https://doi.org/10.1046/j.1365-2702.2003.00756.x>
- Menekli, T., & Korkmaz, M. (2021). Dâhiliye hemşirelerinin kanıta dayalı hemşireliğe yönelik tutumları (Internal medicine nurses' attitudes towards evidence-based nursing). *E-Journal of Dokuz Eylül University Nursing Faculty*, 14(1), 38-47. <https://doi.org/10.46483/deuhfed.782131>
- Merih, Y. D., Potur, D. Ç. & Esencan, T. Y. (2017). Doğum sonu kliniklerinde çalışan ebe ve hemşireler kanıta dayalı uygulamaların neresinde? (Where can we find postpartum clinic midwives and nurses in the context of evidence based practice?). *Journal of Health and Nursing Management*, 1(4), 8-14. <https://doi.org/10.5222/SHYD.2017.008>
- Shayan, S. J., Kiwanuka, F., & Nakaye, Z. (2019). Barriers associated with evidence-based practice among nurses in low-and middle-income countries: A systematic review. *Worldviews on Evidence-Based Nursing*, 16(1), 12-20. <https://doi.org/10.1111/wvn.12337>
- Saunders, H., Gallagher-Ford, L. & Vehviläinen-Julkunen, K. (2019). Practicing health care professionals' evidence-based practice competencies: an overview of systematic reviews. *Worldviews on Evidence-Based Nursing*, 16(3), 176-185. <https://doi.org/10.1111/wvn.12363>
- Saifan, A., Devadas, B., Daradkeh, F., Abdel-Fattah, H., Aljabery, M., & Michael, L. M. (2021). Solutions to bridge the theory-practice gap in nursing education in the UAE: a qualitative study. *BMC Medical Education*, 21, 490. <https://doi.org/10.1186/s12909-021-02919-x>
- Şen, E. Ş., & Yurt, S. (2021). Hemşirelerin kanıta dayalı uygulamalara yönelik tutumlarının belirlenmesi (Determining the attitudes of nurses towards

- evidence-based practices). *E-Journal of Dokuz Eylul University Nursing Faculty*, 14(2), 102-107. <https://doi.org/10.46483/deuhfed.737729>
- Tomotaki, A. İ., Fukahori, H., & Sakai, I. (2020). Exploring sociodemographic factors related to practice, attitude, knowledge, and skills concerning evidence-based practice in clinical nursing. *Japan Journal of Nursing Science*, 17(1), e12260. <https://doi.org/10.1111/jjns.12260>
- Yanmış, S., & Özcan, Ş. (2022). Dahiliye kliniklerindeki hemşirelerin yenilikçi özelliklerinin ve kanıt temelli hemşireliğe ilişkin tutumlarının belirlenmesi (Determination of innovative characteristics and attitudes towards evidence-based nursing in internal medicine clinics). *Hacettepe Journal of Health Administration*, 25(2), 319-334.
- Yıldırım, M. S., & Yıldız, E. (2020). Hemşirelerin kanıt dayalı hemşireliğe yönelik tutumlarının belirlenmesi (The determination of attitude towards evidence based nursing of nurses). *Journal of Nursing Science*, 3(2), 24-29.
- Yılmaz, D., Düzgün, F., & Dikmen, Y. (2019). Hemşirelerin kanıt dayalı hemşireliğe yönelik tutumlarının incelenmesi (An investigation into nurses' attitudes towards evidence-based nursing). *Acıbadem University Health Sciences Journal*, 10(4), 713-719.
- Yılmaz, İ., Kaya, E. G., & Akansel, N. (2020). Ameliyathane hemşirelerinin kanıt dayalı uygulamalar hakkındaki bilgileri (Operating room nurses' knowledge on evidence-based practices). *Journal of Health Sciences of Adıyaman University*, 6(1), 84-92. <https://doi.org/10.30569.adiyamansaglik.662217>
- Yılmaz, E., Çeçen, D., Aslan, A., Kara, H., Toğaç, H. K., & Mutlu, S. (2018). Cerrahi kliniklerde çalışan hemşirelerin kanıt dayalı hemşireliğe yönelik tutumları ve araştırma kullanımında algıladıkları engeller (Attitudes towards evidence-based nursing and perceptions of obstacles in using research of nurses working in surgical clinics). *Journal of Education and Research in Nursing*, 15(4), 235-241. <https://doi.org/10.5222/HEAD.2018.235>