

ARAŞTIRMA / RESEARCH

Kanıtı Dayalı Hemşireliğe Yönelik Tutumlar: Mezuniyet Öncesi ve Sonrası Durum

Attitudes Toward Evidence-Based Nursing: The Situation of Pre- and Post-Graduation

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Geliş tarihi/Received: 21.11.2020

Kabul tarihi/Accepted: 18.12.2020

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Öz

Amaç: Bu çalışmanın amacı kanıtı dayalı hemşireliğe yönelik mezuniyet öncesinde ve sonrasında katılımcıların tutumlarını, etkileyen faktörleri belirlemek ve karşılaştırmaktır.

Gereç ve Yöntem: Çalışmanın birinci aşamasında veriler, dördüncü sınıfta öğrenim gören (n=171) öğrencilere Birey Tanıtım Formu ve Öğrencilerin Kanıtı Dayalı Hemşirelik Konusundaki Bilgi, Tutum ve Davranışları Ölçeği kullanılarak toplanmıştır. Araştırmanın ikinci aşaması mezunlar (n=103) ile yürütülmüştür. İkinci aşamada veriler Kanıtı Dayalı Hemşireliğe Yönelik Tutum Ölçeği kullanılarak toplanmıştır.

Bulgular: Katılımcıların mezuniyet öncesi ve sonrası kanıtı dayalı hemşirelik konusundaki tutumları arasında pozitif yönde zayıf bir ilişki bulunmuştur. (r=0,236; p=0,016). Ayrıca mezuniyet öncesinde katılımcıların kanıtı dayalı hemşireliğe yönelik tutumu olumlu oldukça, kanıtı dayalı hemşireliğin klinik uygulamada sağladığı yararlar konusundaki duyguları da olumlu olmaktadır (r=0,214; p=0,030). Hemşirelik bakımını planlarken kanıtı dayalı uygulamalardan yararlanmak, mesleki dergileri okumak ve bilimsel toplantılara katılmak hem mezuniyet öncesi hem de mezuniyet sonrası bireyin kanıtı dayalı hemşireliğe yönelik tutumunu etkileyen faktörler arasındadır.

Sonuç: Öğrencilerin lisans eğitimi boyunca öğrencilerin kanıtı dayalı hemşireliğe yönelik bilgileri, tutum ve davranışları ne kadar geliştirilir ise, çalışma hayatlarında kanıtı dayalı hemşireliğin uygulama eğilimi o kadar artacaktır.

Anahtar Kelimeler: Kanıtı dayalı hemşirelik, hemşirelik öğrencileri, eğitim.

Abstract

Objective: The aim of this study is to determine and compare participants' attitudes and influencing factors towards evidence-based nursing before and after graduation.

Material and Method: The data in the first stage of the study were collected by using Individual Identification Form and Knowledge, Attitude and Behaviors of Nursing Students Towards Evidence-Based Nursing Scale to the senior (n = 171) students. The second stage of the research was carried out with graduates (n = 103). In the second stage, data were collected by using Attitude Towards Evidence-Based Nursing Scale.

Results: A weak positive correlation was found between the attitudes of the participants before and after graduation towards evidence-based nursing (r = 0.236; p = 0.016). In addition, before graduation, the more positive the attitude of the participants towards evidence-based nursing is, the more positive they feel about the benefits of evidence-based nursing in clinical practice. (r=0.214; p=0.030). Utilizing evidence-based practices when planning nursing care, reading professional journals, and attending scientific meetings are among factors that affect the attitudes of individual towards evidence-based nursing both before and after graduation.

Conclusion: The more students' knowledge, attitudes, and behaviors towards evidence-based nursing are increased during their undergraduate education, the more they will tend to apply evidence-based nursing in their working area.

Keywords: Evidence-based nursing, nursing students, education.

1. Introduction

Evidence-based nursing (EBN) is defined as a decision-making process using nurses' clinical expertise, patient preferences, and the best evidence available in care settings where resources can be obtained (1). Giving care based on scientific knowledge which is an important element in the professionalization of nursing is important in terms of ensuring safe and effective care in the community in which service is provided (2). Scientific knowledge-based caregiving expectations of nurses in Turkey was defined as 'Nurses plan, implement, evaluate and supervise nursing care based on evidence in the Nursing Regulation (3). Although it is an important process to define the responsibility of nurses to perform evidence-based practice (EBP) in the regulation, there are obstacles to its reflection on practice. When literature was examined, it was understood that there is a clearance between research and practice in nursing. (1,4). Lack of time, lack of access to resources, behavior to hold practical knowledge superior to theoretical knowledge, lack of knowledge, and negative attitude towards evidence-based practices can be considered among factors that lead to differences between nursing research and practice (5,6).

Implementation of evidence-based practices is a very complex and slow process (7). To develop strategies for accelerating and facilitating this process, it is necessary to know the feelings, thoughts, attitudes, and behaviors of nurses about evidence-based practices. Knowledge of nurses' attitudes towards research use and evidence-based nursing plays an important role in eliminating obstacles in practice and making attitudes become behaviors (8,9). In the literature, it was stated that nurses were willing to try new practices but the rate of performing evidence-based practices was low (10,11). To use evidence-based practices more widely in the field of nursing, evidence-based practice processes need to be integrated into nursing education, clinical practice, and academic studies (12). The addition of evidence-based practices to the curriculum of nursing schools contributes to students' knowledge of evidence-based practices and thus to increase the use of these practices in their professional lives (13). Nursing students are also in a position to transfer evidence-based practice information to professional nurses. Especially nursing senior students, bridge clinician nurses, and evidence-based theoretical knowledge thanks to internship practice in most nursing schools. It is necessary and important to formulate strategies to improve knowledge, skills, and behaviors regarding the evidence-based practice of interns who are in the last year of their student life and who will transfer evidence-based knowledge they learned after graduation into practice about evidence-based practice. In order to develop these strategies, it is important to determine students' attitudes towards evidence-based nursing (14). The aim of this study is to determine and compare participants' attitudes and influencing factors towards evidence-based nursing before and after graduation.

2. Material and Method

2.1. Type of Research

The study was descriptive and comparative.

2.2. Sample of the Research

The study was carried out in two stage, before and after graduation, with senior students (N = 260) of the nursing department of a state university in İzmir. In the first stage,

pre-graduation data were collected by using Individual Identification Form, Knowledge, Attitude And Behaviors of Nursing Students Towards Evidence-Based Nursing Scale via face-to-face interview method with senior students who wanted to participate in the research. The second stage was carried out with graduates who attended the first stage and graduated and worked as a nurse for at least six months in a clinic where nursing care was given after graduation. Since 44 of the participants in the first stage did not work, 20 of them could not be reached and four of them worked in other professions other than nursing, the second stage was completed with a total of 103 participants. In the second stage, the data were collected by using Evidence-Based Nursing Attitude Scale via telephone and electronic mail.

2.3. Data Collection Tools

2.3.1. Individual Identification Form

The form consists of 13 questions developed by researchers in line with the literature, which includes students' socio-demographic characteristics and knowledge of evidence-based nursing (8, 10, 11, 15-17).

2.3.2. Knowledge, Attitude and Behaviors of Nursing Students Towards Evidence-Based Nursing Scale

The scale was developed by Johnston et al. (18) to determine the knowledge, attitudes, and behaviors of medical students about evidence-based practice and was adapted to nursing students by Brown et al. (13). The scale, which was prepared validity and reliability in Turkish by Karayagız is a five-point and six-point Likert-type scale consisting of 26 items and four sub-dimensions: Knowledge (5 items), Attitude (6 items), Future Use (9 items) and Practice (6 items). The information sub-dimension evaluates students' theoretical and practical knowledge about evidence-based nursing. Scores that can be obtained from the scale vary between 5 and 30, and the higher score, the higher knowledge of the student. The attitude sub-dimension evaluates students' opinions about the concept of evidence-based nursing and the highest and lowest scores that can be obtained vary between 6 and 36 points. The higher the score, the more positive attitudes towards evidence-based nursing. The future use sub-dimension determines the tendency of students to use this approach in their professional lives and scores that can be obtained vary between 9 and 54 points. The practice sub-dimension evaluates the ability of evidence-based nursing to identify clinical problems, search for the best evidence to solve the problem, critique evidence, integrate evidence, and evaluate effectiveness. The highest and lowest scores that can be obtained vary between 6 to 30 points. Cronbach alpha values of Knowledge, Attitude, Future Use and Practice sub-dimensions were calculated by Brown (13) as 0.84; 0.83; 0.86; 0.75, Karayağız Muslu et al. (14) 0.70; 0.60; 0.80; 0.77 and 0.77 in this study; 0.78; 0.87; 0.84.

2.3.3. Attitude Towards Evidence-Based Nursing Scale

The scale, developed by Ruzafa-Martinez et al., (17) is a five-point Likert-type scale consisting of 15 items and three sub-dimensions. The sub-dimensions are Beliefs and Expectations for Evidence-Based Nursing, Intent to Evidence-Based Practice and Feelings Related to Evidence-Based Nursing. The total score that can be obtained from the scale is minimum 15, maximum 75 and there is no cut-off point. The increase in total score and sub-dimension scores of scale shows that attitude towards evidence-based nursing is positive. The Cronbach's alpha coefficient of the scale was 0.85 by Ruzafa-Martinez et al. (17), 0.90 by Ayhan et al. (15), and 0.78 in this study.

In this study, different scales used to measure knowledge, attitudes and behaviors of participants about evidence-based nursing before and after graduation were limited in terms of comparing and correlating the results.

2.4. Ethical Disclosure

The data were collected from participants by obtaining written and verbal consent after obtaining permission from the Non-Interventional Clinical Research Ethics Committee of the university where the study was conducted and the institution where the study was conducted.

2.5. Data Analysis

SPSS 25.0 (IBM Corp. Released in 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.) statistical package program was used to analyze data obtained in the study. The socio-demographic characteristics of participants were given as number and percentage distributions, nonparametric tests were used for the normal distribution conformity analysis to examine the mean scores of the scale according to socio-demographic characteristics. Correlation analysis was used to examine the relationship between individuals' attitudes before and after graduation. All statistical analyzes were based on $p < 0.05$ significance level.

3. Results

3.1. Socio-demographic Characteristics of Participants

The mean age of the students who participated in the study before graduation was 21.53 ± 0.74 years and 82.5% were women. 49.7% of the participants stated that they received information about EBN and 58.5% stated that they knew how to get information about EBN. The majority of the participants stated that they benefited from EBN practices when planning nursing care (74.9%), 50.3% of them declared that they had difficulty in transferring a new practice related to nursing care to the clinic and 53.8% of them declared that they did not use EBP in clinics. Besides, 17.5% of the participants read scientific journals related to nursing, 52.6% stated that they attended scientific meetings and 62% stated that they did research (Table 1).

The mean age of the participants who participated in the second stage of study after graduation was 24.17 ± 0.89 years, 79.6% were women and 38.8% were working in the emergency-intensive care-operating room. 88.3% of participants stated that they benefited from EBN practices when planning nursing care after graduation, 51.5% stated that they had difficulty in transferring a new practice related to nursing care to the clinic and 64.1% stated that nurses used EBP in clinics. After graduation, 25.2% of participants stated that they read scientific journals related to nursing, 66% of them attended scientific meetings and only 33% stated that they did research (Table 1).

3.2. Participants' Knowledge, Attitude and Behavior on Evidence-Based Nursing Before and After Graduation

The mean score of Knowledge, Attitude and Behavior of Evidence-Based Nursing Scale was 100.05 ± 11.95 before graduation, Knowledge subscale average score was 25.70 ± 3.31 , Attitude subscale average score was 17.16 ± 6.17 , Future Use subscale average score was 42.37 ± 6.15 and Practice subscale average score was 14.80 ± 5.08 . The mean score of Attitude towards Evidence-Based Nursing Scale of participants who worked as nurses in clinics was

52.59 ± 3.37 after graduation, Beliefs, and Expectations subscale mean score was 29.12 ± 2.17 ; Intent subscale mean score was 11.69 ± 1.77 ; Feelings subscale mean score was 11.76 ± 1.28 (Table 2).

Table 1. Sociodemographic Characteristics of the Participants

Variables	Before Graduation (n=171)	After Graduation (n=103)
	Mean±SD	Mean±SD
Mean age (years)	21.53±0.74	24.17±0.89
	n (%)	n (%)
Gender		
Woman	141 (82.5)	82 (79.6)
Male	30 (17.5)	21 (20.4)
Unit		
Emergency-Intensive Care-Operating Room		40 (38.8)
Surgical Units		25 (24.3)
Internal Units		24 (23.3)
Polyclinics		14 (13.6)
Use of EBN practices when planning nursing care		
Yes	128 (74.9)	91 (88.3)
No	43 (25.1)	12 (11.7)
Difficulty in transferring a new practice about nursing care to the clinic		
Yes	86 (50.3)	53 (51.5)
No	85 (49.7)	50 (48.5)
Use of EBP by nurses in clinics		
Yes	79 (46.2)	66 (64.1)
No	92 (53.8)	37 (35.9)
Reasons why nurses do not use EBP in the clinic (n = 36)		
Traditional perspective (being closed to innovations)	18 (50.0)	10 (27.8)
Lack of information	15 (41.7)	19 (52.8)
Workload redundancy	3 (8.3)	7 (19.4)
Reading Journal		
Yes	30 (17.5)	26 (25.2)
No	141 (82.5)	77 (74.8)
Attend meetings		
Yes	90 (52.6)	68 (66.0)
No	81 (47.4)	35 (34.0)
Doing research		
Yes	106 (62.0)	34 (33.0)
No	65 (38.0)	69 (67.0)

*EBN: Evidence-Based Nursing, EBP: Evidence-Based Practice

There was a weak positive relationship between the total score average of the Knowledge, Attitude and Behaviors Scale on Evidence-Based Nursing of the participants before graduation and the total score of the Evidence-Based Nursing Attitude Scale after graduation ($r=0.236$; $p=0.016$). Also, there was a weak positive correlation between the total mean score of Knowledge Attitude Behaviors Scale on Evidence-Based Nursing and mean score of Feelings subscale and mean score of Future Use subscale ($r=0.214$; $p=0.030$) and the total mean score of Attitude towards Evidence-Based Nursing Scale ($r=0.195$; $p=0.048$) (Table 2).

Table 2. Knowledge, Attitude and Behaviors of Nursing Students Towards Evidence-Based Nursing Scale Mean Score of Participants Before Graduation

Before Graduation	After Graduation			
	Attitude towards Evidence-Based Nursing Scale			
Knowledge, Attitude and Behaviors of Nursing Students Towards Evidence-Based Nursing Scale	Total Scale	Belief and Expectations Sub-Scale	Intention Sub-Scale	Feelings Sub-Scale
	(52.59±3.37)	(29.12±2.17)	(11.69±1.77)	(11.76±1.28)
Total Scale	0.236	0.106	0.165	0.214
(100.14±11.93)	0.016	0.287	0.096	0.030
Knowledge Sub-Scale	0.183	0.134	0.088	0.133
(25.73±3.30)	0.064	0.178	0.375	0.180
Attitude Subscale	0.018	-0.110	0.078	0.125
(17.16±6.19)	0.854	0.271	0.431	0.280
Future Use Sub-Scale	0.195	0.141	0.137	0.085
(42.41±6.15)	0.048	0.155	0.167	0.392
Practice Sub-Scale	0.159	0.119	0.057	0.139
(14.83±5.08)	0.108	0.231	0.569	0.160

3.3. Factors Affecting Knowledge, Attitude and Behavior of Evidence-Based Nursing Before and After Graduation

Attitude and Future Use subscale mean scores of participants who benefited from EBN practices when planning nursing care before graduation were higher than those who did not. Participants who read a journal prior to graduation had higher mean scores in Future Use (U=1590.50; p=0.033) and Practice (U=1572.00; p=0.027) subscale than those who did not and who attend scientific meetings had higher mean

scores Attitude subscale (U=2944.00; p=0.029) and total means score of Knowledge, Attitude and Behaviors Scale on Evidence-Based Nursing (U=2986.00; p=0.041) than those who did not.

After graduation, the total mean score of Attitude towards Evidence-Based Nursing Scale (U=265.00; p=0.004), the mean score of Beliefs and Expectations (U=349.00; p=0.037), and Feelings subscale (U=313.50; p=0.006) was higher among participants who benefited from EBN when planning nursing care than those who did not. Besides, the total means score of Attitude towards Evidence-Based Nursing Scale (U=566.50; p=0.001, U=800.50; p=0.009) and mean score of Beliefs and Expectations (U=632.00; p=0.004, U=810.00; p=0.009) and Intent (U=588.00; p=0.001, U=891.50; p=0.043) subscale were higher than those who did not read a journal and did not do research (Table 3).

4. Discussion

In the study, it was determined that knowledge, attitude and behaviors of students about EBN were positive before graduation. In a study conducted by Labrague et al. (19) in Oman to determine the evidence-based knowledge, attitudes and skills of nursing students, the attitudes of the students were found to be moderately positive. Besides, Ruzafa-Martínez et al. (20), Rojjanasrirat and Rice (21), and Ulaş-Karahmetoğlu and Kaçan-Softa (22) also found that students' attitudes towards EBN were positive. Before graduation, the majority of the participants stated that they did not read scientific journals related to nursing but attended scientific meetings and did research, stated that nurses do not use EBP in clinics.

Table 3. Participants' Knowledge, Attitude and Behavior on Evidence-Based Nursing Before and After Graduation According to Some Variables

Variables	Before Graduation					After Graduation			
	Knowledge, Attitude and Behaviors of Nursing Students Towards Evidence-Based Nursing Scale					Attitude towards Evidence-Based Nursing Scale			
	Total Scale	Knowledge Sub-Scale	Attitude Subscale	Future Use Sub-Scale	Practice Sub-Scale	Total Scale	Belief and Expectations Sub-Scale	Intention Sub-Scale	Feelings Sub-Scale
Use of EBN practices when planning nursing care									
Use (n=128)	100.50±11.67	25.78±3.40	18.90±5.69	43.12±5.82	15.01±5.04	52.93±3.32	29.26±2.18	11.81±1.79	11.85±1.25
Not use (n=43)	99.06±12.76	25.55±3.02	16.57±6.26	40.30±6.66	14.30±5.24	50.00±2.62	28.08±1.83	10.83±1.64	11.08±1.37
U	2574.00	2606.00	2176.00	2089.00	2564.00	265.00	349.00	395.50	313.50
p	0.526	0.601	0.040	0.018	0.502	0.004	0.037	0.113	0.006
Reading Journal									
Yes	103.43±11.93	26.66±2.85	15.80±6.75	44.20±7.27	16.76±5.28	54.43±2.95	30.23±1.88	12.69±1.87	11.61±1.26
No	99.44±11.85	25.53±3.37	17.45±6.05	42.03±5.84	14.42±4.96	51.93±3.27	28.75±2.14	11.36±1.62	11.81±1.29
U	1704.00	1713.50	1762.00	1590.50	1572.00	566.50	632.00	588.00	928.50
p	0.095	0.101	0.151	0.033	0.027	0.001	0.004	0.001	0.527
Attend meetings									
Yes	101.87±11.60	26.30±3.03	17.53±6.38	43.36±6.03	15.37±4.90	52.73±3.31	29.14±2.24	11.89±1.79	11.69±1.34
No	98.22±12.07	25.09±3.49	16.83±6.03	41.35±6.14	14.23±5.24	52.31±3.53	29.08±2.04	11.31±1.69	11.91±1.17
U	2986.00	2944.00	3399.00	2878.00	3109.00	1104.50	1162.00	949.00	1161.00
p	0.041	0.029	0.446	0.017	0.097	0.549	0.841	0.086	0.817
Doing research									
Yes	100.68±12.41	25.71±3.39	16.91±6.19	42.79±5.78	15.26±5.12	53.79±3.36	29.85±2.36	12.05±1.93	11.88±1.32
No	99.26±11.14	25.75±3.18	17.56±6.22	41.80±6.70	14.13±4.98	52.00±3.24	28.76±1.99	11.52±1.67	11.71±1.27
U	3290.00	3434.00	3210.50	3134.50	3029.00	800.50	810.00	891.50	1024.50
p	0.622	0.974	0.455	0.322	0.185	0.009	0.009	0.043	0.231

*EBN: Evidence-Based Nursing

In the study conducted by Taş-Arslan and Çelen (23), it was also stated that students do not have a subscription to a professional journal but attend scientific meetings and thought that the results of scientific research were not used in clinical. In this study, it was found that participants, who read a journal before graduation, had a higher level of practices and use EBN in the future compared to non-readers. Participants who attend scientific meetings had a higher level of knowledge attitudes and behaviors about EBN compared to those who did not. Similar to the results of this study, Taş-Arslan and Çelen (23) found that students who read a journal about the nursing profession and attend scientific meetings had higher attitudes towards EBN than students who did not. Similar to the findings of this study, it was found that students' status follow-up journals were a factor that positively affected their knowledge, attitude, and behavior towards EBN in the study conducted by Labrague et al. (19).

While the total mean score of Attitude towards Evidence-Based Nursing Scale of participants who worked as a nurse after graduation was found to be positive, similar findings were obtained in the literature (15, 23-27). According to these results, it can be said that the beliefs and expectations of participants about the EBN and their intentions or behaviors to practice EBN were positive. Also, it can be interpreted that participants' feelings about the benefits of EBN in practice were moderately positive. After graduation, while the majority of the participants attend scientific meetings, they do not conduct scientific research and read journals, and state that nurses do not use EBP in clinical. In studies, the majority of nurses stated that although they believe that EBP should be used in the clinic, they do not (16, 28). In the study conducted by Melnyk et al. (29) in USA to evaluate the perceptions of nurses in the United States, the majority of nurses (65.5%) stated that they did not use EBP continuously. In this study, attitudes, beliefs, and practice intentions towards EBN of participants who read journals and conduct research after graduation were higher than those who did not read or did research. Similarly, in the study conducted by Dikmen et al. (24) to determine attitudes of intensive care nurses towards evidence-based nursing, it was determined that nurses following scientific researches, professional journals, and evidence-based practices had higher attitudes towards EBN. In the study conducted by Yılmaz et al. (27), it was found that nurses who regularly follow publications had higher attitudes towards EBN, and their intention to practice EBP was higher than those who did not. Likewise, in the study conducted by Snow et al. (30) in the USA to evaluate knowledge, attitudes and uses of health professionals towards EBP, it was emphasized that follow-up studies and journals were important factors in the development of EBP. As a result, it can be said that students/nurses need more support in researching, following up on scientific information, subscribing to professional journals, attending scientific meetings, and being involved in research before and after graduation. Because reading journals related to the profession, attending scientific meetings, and conducting research will improve both knowledge of EBP and the ability to use practices. For this reason, Pre-graduation students and nurses after graduation should be encouraged to subscribe to professional journals, conduct research, and participate in scientific congresses.

In this study, it was found that positive knowledge, attitudes, and behaviors towards EBN before graduation were related to the development of positive attitudes towards EBN after graduation. Students who know EBN before graduation, who research, try to use, intend to use EBP in their professional life, and who love their profession, will endeavor to transfer and use EBP to the clinic after graduation. In this study, the attitude of students considering the use of evidence-based nursing in their professional life towards EBN was found to be more positive when they started their professional life. The students who are aware of EBN during their undergraduate education and who adopt this awareness will do their job with love and satisfaction. The professional values of the students who do the nursing profession willingly are more positive (31). The attitudes of students with high professional values towards evidence-based nursing and their use in professional life are more positive.

5. Conclusion

As a result of this study, it was found that attitudes of the participants towards EBN before and after graduation were positive and that attending scientific meetings, following professional journals had a positive effect on attitudes of students/nurses towards EBN. Nursing students serve as a bridge between nurses and evidence-based theoretical knowledge in clinics. Therefore, the more students' knowledge, attitudes and behaviors are supported during undergraduate education, the higher rates of practices of EBN in working life will increase. Supporting participation of students or nurses in scientific meetings and subscribing to professional journals will be effective in raising awareness of EBN.

6. Contribution to the Field

With this study, it was revealed that the knowledge, attitude, and behaviors of students and clinical nurses towards evidence-based nursing should be supported. The results of the study are thought to guide both clinicians and academic health professionals in creating evidence-based nursing awareness.

Ethical Disclosure

The data were collected from participants by obtaining written and verbal consent after obtaining permission from the Non-Interventional Clinical Research Ethics Committee of the university (Non-Interventional Clinical Research Ethics Committee of Izmir Katip Çelebi University, 02.11.2016, decision number: 280) where the study was conducted and the institution where the study was conducted.

Conflict of Interest

This article did not receive any financial fund. There is no conflict of interest regarding any person and / or institution.

Authorship Contribution

Concept: NEC, YT, GI; **Design:** NEC, YT, GI; **Supervision:** NEC, YT, EDTÖ, GI, SÇA; **Funding:** Yok; **Materials:** Yok; **Data Collection/Processing:** EDTÖ, GI, SÇA; **Analysis / Interpretation:** NEC, YT, GI, SÇA; **Literature Review:** NEC, YT, GI, SÇA; **Manuscript Writing:** NEC, YT, GI, SÇA; **Critical Review:** NEC, YT, EDTÖ, GI, SÇA.

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