

# Experiences, Views and Opinions of Senior Nursing Students Regarding Evidence-Based Practices in the Clinical Setting: A Phenomenological Research

## Hemşirelik Son Sınıf Öğrencilerinin Klinik Ortamda Kanıta Dayalı Uygulamalara İlişkin Deneyim, Görüş ve Düşünceleri: Fenomenolojik Bir Araştırma

 Şadiye ÖZCAN<sup>a</sup>,  Nurcan KIRCA<sup>b</sup>

<sup>a</sup>Department of Obstetrics & Gynecological Nursing, Yalova University Faculty of Health Sciences, Yalova, Türkiye

<sup>b</sup>Department of Obstetrics & Gynecological Nursing, Akdeniz University Faculty of Nursing, Antalya, Türkiye

**ABSTRACT Objective:** This study was aimed at evaluating the experiences, views, and opinions of senior nursing students on evidence-based practices for the clinical environment just before graduation. **Material and Methods:** The research was performed in the interpretive paradigm using a hermeneutic phenomenological approach. Data were collected from 15 students who were going to graduate from the nursing department of an eastern Türkiye university from May 2019-July 2019. The data were collected by the first researcher using the individual, face-to-face interview method. The data were collected through detailed individual interviews, using the "Personal Information Form" and the "Semi-Structured Interview Form." The Personal Information Form included questions on the participants' age, year at school, sex, academic achievement, information about evidence-based practices, and reading status. **Results:** The opinions of the nursing undergraduate students on evidence-based practices were analysed, and 8 themes were created in 4 categories. Data analyses yielded the following 3 categories: "scientific product", "vital for the quality of patient care and the professionalization of nurses", "applicability in patient care" and "the power to referral evidence-based practice in patient care." **Conclusion:** It was determined that some of the nursing students did not learn evidence-based practices at all, and the most important reason for this was the students' indifference, and clinical nurses' lack of knowledge and the academic nurses' lack of attention regarding evidence-based learning.

**Keywords:** Evidence-based nursing; education; students; hermeneutic phenomenological approach

**ÖZET Amaç:** Bu çalışma, hemşirelik son sınıf öğrencilerinin mezuniyetten hemen önce klinik ortam için kanıta dayalı uygulamalara ilişkin deneyim, düşünceleri ve görüşlerini değerlendirmeyi amaçlamaktadır. **Gereç ve Yöntemler:** Araştırma, hermeneutik fenomenolojik yaklaşım ile yorumlayıcı paradigmaya kullanılarak yapıldı. Araştırmanın verileri, Mayıs 2019-Temmuz 2019 tarihleri arasında Türkiye'nin doğusundaki bir üniversitenin hemşirelik bölümünden mezun olacak 15 öğrenciden toplandı. Veriler, ilk araştırmacı tarafından bireysel, yüz yüze görüşme yöntemi kullanılarak toplandı. Veriler, "Kişisel Bilgi Formu" ve "Yarı Yapılandırılmış Görüşme Formu" kullanılarak detaylı bireysel görüşmeler yoluyla toplandı. Kişisel Bilgi Formu, katılımcıların yaşı, okuldağı yılı, cinsiyeti, akademik başarısı, kanıta dayalı uygulama hakkındaki bilgileri ve okuma durumu ile ilgili soruları içermektedir. **Bulgular:**

Hemşirelik lisans öğrencilerinin kanıta dayalı uygulamalara ilişkin görüşleri incelendi ve 4 kategoride 8 tema oluşturuldu. Veri analizlerinde belirlenen 3 kategori şöyledir: "bilimsel ürün", "hasta bakıminın kalitesi ve hemşirelerin profesyonelleşmesi için hayatı öneme sahip", "hasta bakımında uygulanabilirlik" ve "hasta bakımında kanıta dayalı uygulamayı yönetme gücü." **Sonuç:** Hemşirelik öğrencilerinin bir kısmının kanıta dayalı uygulamaları hiç öğrenemediği ve bunun en önemli nedenlerinin öğrencilerin ilgisizliği, klinik hemşirelerinin bilgi eksikliği ve akademisyen hemşirelerin kanıta dayalı uygulamalara yeterince özen göstermemesi olduğu belirlendi.

**Anahtar Kelimeler:** Kanıta dayalı hemşirelik; eğitim; öğrenciler; hermeneutik fenomenolojik yaklaşım

**Correspondence:** Şadiye ÖZCAN

Department of Obstetrics & Gynecological Nursing, Yalova University Faculty of Health Sciences, Yalova, Türkiye

**E-mail:** sadiyeozcan24@gmail.com



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Evidence-based practice (EBP) is a process used to study, analyze and translate the latest scientific evidence.<sup>1</sup> EBP is considered a key component of vocational training for health care professionals.<sup>1,2</sup> EBP skills, such as finding, evaluating, interpreting, and applying knowledge are essential qualifications for the 21st century health care professionals.<sup>3</sup> Several clinical studies have been performed in the field of nursing.<sup>4</sup> However, the application of current findings to clinical practice does not correspond to the rate of research publications.<sup>5</sup> Therefore, there is a clear gap between research and practices. Therefore, there is a clear gap between research and practice. The number of nurses using EBPs needs to be increased.<sup>6</sup> Healthcare professionals should practice based on the best research-based evidence rather than policies and conventional methods because EBPs benefit the patients and nurses.<sup>5,7-9</sup> Evidence based practices lowers health care expenses, improving the quality of nursing care and ensuring job satisfaction for the nurses.<sup>10,11</sup>

Nursing students consider clinical nurses as their role models because clinical nurses contribute to their knowledge and problem-solving skills.<sup>12</sup> Teaching EBP to nursing students will affect the future of the nursing profession and transfer evidence to clinical practices.<sup>13</sup> The American Association of Colleges of Nursing emphasized that EBPs are critical for not only for undergraduate diplomas but also for self-improvement before graduation.<sup>14</sup> Countries in Europe, North America and Asia ensure that nursing students have sufficient knowledge about EBPs before graduation and include a variety of EBPs in their teaching curriculum.<sup>15-17</sup> In Türkiye, nursing schools emphasize teaching research but need to include EBP in their curriculum.<sup>18</sup> Providing high-quality EBP education to undergraduate students might help the implementation of good clinical setting practices.<sup>19</sup> Therefore, the views of undergraduate nursing students regarding EBPs have recently gained importance.<sup>20</sup> Some previous studies are experimental studies that focus on evidence-based practices for better learning of the nursing students.<sup>12,16,17</sup> However, there are not enough studies on how students learn from evidence-based practices and how they transfer what they learn to clinical practice. To the authors'

knowledge, no study as examined the opinions of nursing students on EBPs been evaluated in the clinical setting. Therefore, this study was aimed at evaluating the experience, views, and opinions of undergraduate nursing students on EBPs for the clinical environment just before graduation. These evaluation results provided crucial information on whether we were able to adequately teach students EBP.

## MATERIAL AND METHODS

### STUDY DESIGN

The research was performed in the interpretive paradigm using a hermeneutic phenomenological approach developed by Manen, allowing the researchers to explore the students' interpretation and add their interpretations.<sup>21</sup> Hermeneutics adds the interpretive element to the explicate meanings and assumptions in the text that students may have difficulty in articulating, such as tacit practice knowledge. Communication and language are interrelated, and hermeneutics provides a way of understanding such human experiences captured via language and in context.<sup>22</sup> Hermeneutic phenomenology was used to construct an animation of a robust description of human actions, behaviours and intentions.<sup>23</sup>

### SETTING AND SAMPLE

This study was conducted at a state university in eastern Türkiye. There were 82 senior students in total who met the inclusion criteria. The criteria for inclusion in the research are as follows; being a 4th-year nursing student, being able to communicate in Turkish and agreeing to participate in the research. No student refused to participate in the study. All of these students were divided into success groups. There was an average of 27 students in each group. After the students were divided into groups according to their level of success, from each group, 1 student was selected using the lot method. First, a student was selected from the group including unsuccessful students, then 1 student was selected from the group including students whose success level was moderate and finally, 1 student was selected from group including successful students. The 3 students selected

this way were interviewed immediately, and then 3 more students were selected again using the same method. When the selection performed this way was repeated 5 times, that is, when 15 students were interviewed, the data collection process was terminated because the data started to repeat. In a qualitative study, data collection is terminated when the saturation point is reached, and no new information is obtained. The authors chose the interviewees by dividing the class into groups because the authors wanted to obtain a rich data content with what the student said from each success group. The students were interviewed the week before the end-of-term exams. During enrolment, 15 students were randomly selected by drawing lots that was sorted as per the students' grade point averages (GPA). Those with a weighted grade point average of 3.0-4.0 and 2.0-3.0 were considered good and moderate respectively. Those with grade point average  $\leq 2.0$  were considered to have failed. The researchers believed that students with a good academic GPA would have increased knowledge of and a better understanding of EBP.

## DATA COLLECTION

Data were collected in a quiet room. A warning was hung on the door so that other students would not interfere with the interview. Data were obtained in May-July 2019 using an personal information form and a semi-structured interview form. The personal information form included questions on the participants' age, year at school, sex, academic achievement, information about EBPs, and reading status.

The semi-structured interview form was developed by the authors consisted of 5 open-ended questions (Table 1). The interviews were conducted by a researcher experienced in qualitative research, using face-to-face and in-depth interview technique. After

**TABLE 1:** Semi-structured interview questions.

|   |
|---|
| What do you think of EBP?   |
| Why is the EBP important?   |
| What do you think about the implementation of EBPs in the clinic?             |
| How are EBPs transferred to clinical practice?                                |
| Do you intend to use EBPs in the care you provide during your nursing period? |

EBP: Evidence-based practice.

obtaining the consent of the participants, audio recordings were taken. The interviews lasted an average of 40-60 minutes.

## DATA ANALYSIS

The interviews were transcribed by both researchers. Themes and categories were created independently by the researchers. Both female researchers are people who have completed their doctorate education in nursing. Data was analysed as per the phenomenological-hermeneutic method developed by Lindseth and Norberg. The following steps were involved; (1) naïve reading, (2) structural analysis and (3) comprehensive understanding, including a discussion.<sup>24</sup> No software was used for the data. Because audio recordings were made during the interviews. A second person took notes during the interviews.

In the naïve reading phase, the interview text was read several times to get an overall impression. In naïve reading, the researcher does not analyse the text but guesses its meaning. In the structural analysis phase, the text was divided into meaningful units, and condensed. The condensed meaningful units were compared for similarities and differences; thereafter, sub-themes and themes were created. These were used to validate the understanding from the naïve understanding. In the comprehensive phase, the text was reviewed as a whole in light of the naïve reading, structured analysis, study aims, and literature.

## ETHICAL APPROVAL FOR THE STUDY

Ethical approval was obtained from the Clinical Research Ethics Committee of the Erzincan Binali Yıldırım University (date: April 09, 2019, no: 33216249-604.01.02-E.18714). Permission was obtained from the dean's office to which the students were affiliated. The research purpose was explained to the students and they provided informed written consent. This study was conducted in accordance with the principles of the Declaration of Helsinki.

## RESULTS

This qualitative study was conducted with 15 students. Eight of the students participating in the research are female, the mean age was  $23.513 \pm 2.17$ .

The sociodemographic data of the students participating in the study are shown in [Table 2](#). In this study, 3 categories and 8 themes were created ([Table 3](#)).

#### CATEGORY I: SCIENTIFIC PRODUCT

In the category of “scientific product”, we examined how students defined EBPs. Under this theme, students stated that EBP was real, rational, and reliable.

##### **Theme 1: Real practice based on reason and logic**

With the theme of “real”, students used statements, such as “evidence”, “proven effectiveness”, and “based on scientific basis”, for EBP. Almost all the students expressed that the EBPs were “proven effectiveness” or “proven.” One student’s opinion on

this topic was as follows: “... ‘Something was discovered or produced, and then it was attempted and proven, and its effectiveness proven... (S1)’.” Some students stated that EBP were based on scientific basis and consensus: ‘A practice based on scientific research...’ (S2, S6).

Some students defined EBPs as a “trial and error” and “product of experimental studies.” The statements of two students are as follows: “...For example, there is something that needs to be done in advance, the person applies it to many people, if he or she has achieved a certain result, then the result is now considered feasible. It’s like trial and error, actually...” (S7). “...Experimental research results in evidence.” (S14).

**TABLE 2:** Sociodemographic data of the students (n=15).

| Student | Age | Sex    | Evidence-based practice reading | Academic achievement |
|---------|-----|--------|---------------------------------|----------------------|
| S1      | 23  | Male   | Read                            | Bad                  |
| S2      | 22  | Female | Read                            | Good                 |
| S3      | 23  | Male   | Not read                        | Middle               |
| S4      | 22  | Female | Read                            | Good                 |
| S5      | 26  | Male   | Not read                        | Bad                  |
| S6      | 23  | Female | Read                            | Good                 |
| S7      | 22  | Female | Read                            | Middle               |
| S8      | 22  | Male   | Not read                        | Bad                  |
| S9      | 27  | Male   | Not read                        | Bad                  |
| S10     | 25  | Female | Read                            | Good                 |
| S11     | 22  | Female | Read                            | Middle               |
| S12     | 23  | Male   | Not read                        | Bad                  |
| S13     | 22  | Male   | Read                            | Good                 |
| S14     | 23  | Female | Not read                        | Middle               |
| S15     | 22  | Female | Not read                        | Middle               |

**TABLE 3:** Categories and themes created as per the students’ opinions about evidence-based practices.

| Categories   | Themes  |
|--|---|
| 1. Scientific product  | a. Real practice based on reason and logic<br>b. Continuously updated practice with variable accuracy |
| 2. Vital for the quality of patient care and professional care by nurses | a. Addition<br>b. Protective shield   |
| 3. Applicability in patient care   | a. Inability to develop nursing as a professional profession<br>b. Facts in clinical practice         |
| 4. The power to referral evidence-based practice in patient care         | a. Enforcement<br>b. Enlightenment  |

### ***Theme 2: Continuously updated practice with variable accuracy***

A few students defined the evidence-based application as “updating” and “its accuracy may vary.” “... I compare it to an update... We do research and find something interesting, but then in another study, a better one could be found.” (S5), “... the EBP may change later. A method that was previously used may not be appropriate now. For example, I will care for pressure sores. I can care with different care products using different techniques. Then, if the product, which is different from the one I have used previously, leads to better improvement in the patient, this would be an evidence-based application. Of course, this should be tried in many people. The improvement observed in one person is not enough” (S10).

### **CATEGORY II: VITAL FOR THE QUALITY OF PATIENT CARE AND THE PROFESSIONALIZATION OF NURSES**

In this category, we examined topics, such as the benefits of EBPs for patients and nurses and how they are necessary for the training. Under this category, students mentioned the benefits of EBPs for health care professionals and patients under the theme “Contribution.” Moreover, some students defined EBP as the recording of any practice related to patients under the “protective shield” theme. Students have defined this theme as “nurses to record their practices.”

#### ***Theme 1: Contribution***

Most students stated that EBPs are useful, and they facilitated professional nursing work and solved problems in the best-possible manner. Some students gave the following opinions: “EBPs provide data on how to make a practice better, for instance, vascular access. It is more useful to the patient. It’s also useful to the nurse...” (S5). “EBPs are absolutely crucial... They are necessary for the professionalization of the nursing profession....” (S2). Approximately 50% of the students stressed that EBPs strengthened the knowledge of nurses on enhanced nursing care: “... Nurses who use EBPs are more competent in patient care.” (S5). “...A better quality service is provided to the patient based on the results of the research...” (S14).

### ***Theme 2: Protective Shield***

According to almost 50% of the students, EBPs are important because they protect nurses and patients. “I intend to use it to protect myself as well as patients...” (S3). “... EBPs are important to ensure our own security.” (S12).

Two students stressed that the recordings of EBPs are important: “...Recording something is an EBP...” (S12). “Nurses record in paper work to show people as evidence. They can prove their practices by maintaining their records. Evidence-based care is also recorded like this as it is the recording of the provided care.” (S3).

### **CATEGORY III. APPLICABILITY IN PATIENT CARE**

The use of EBPs by nurses observed in the clinical setting and the challenges/obstacles experienced in implementing EBPs were examined. The students stated under the theme “Inability to develop nursing as a professional profession” that EBPs were not reflected in the clinical practice, leading to a contradiction in their minds. Under the theme “facts in clinical practice”, the students described challenges in implementing EBP, such as insufficient time, lack of knowledge, over-work, and developing a dislike for the vocation.

#### ***Theme 1: Inability to develop nursing as a professional occupation***

The students stated under this theme that nurses did not apply EBPs; nurses used practices learned based on the master-apprentice relationship rather than on professional nursing. A student said: “...They practice nursing the way they learned it long ago... They don’t even know what to use and how to use it. But they don’t research it.... I think we need to read research...” (S10). Some students have stated that they cannot do what they learn in school in their clinical practice, resulting in a dilemma. “...In most clinics, nurses said our practice was wrong. They thought what our teachers taught us was wrong. For example, when we perform a subcutaneous injection, they say you have to pull it back, they wipe it off with alcohol swab...” (S11).

#### ***Theme 2: Facts in clinical practice***

Students described the reasons for not implementing evidence-based practices in this theme. The

statements of 2 students were as follows: "...I think nurses took a dislike to the profession. They don't use the evidence. Why would they use it? They're already tired of it." (S14). "...Evidence-based practices are usually not used as the workload is too much; no one wants to deal with it. When the number of nurses is small and the number of patients is high, people do whatever is needed at a certain moment..." (S9).

#### CATEGORY IV: THE POWER TO REFERRAL EBP IN PATIENT CARE

The practices recommended by students for effective EBP application were examined. Students stated under the "enforcement" theme that nurses needed certain interventions in clinical settings. Moreover, nurses should be continuously educated and informed to enable effective EBP use. Students also stated under the theme "enlightenment" that they should be trained on EBPs in the undergraduate course.

##### ***Theme 1: Enforcement***

Some students stated that pressure/coercion, rewarding, punishment, audits, and evaluations are required for the effective implementation of EBPs. Some students gave the following opinions: "I think nurses need pressure and coercion." (S4). "We must also punish those who does not use evidence-based practice..." (S6). Some students highlighted rewards for practicing EBPs: "Rewarding will be more effective. They might feel stressed if there is punishment, so it might not work." (S5). "We can reward those who use evidence-based practices." (S10). Almost 50% of the students stated that audits and evaluations should be performed. Certain students state the following: "Responsible nurses should supervise nurses on one-on-one basis..." (S6), "Inspections should be performed, and they should be performed without prior notice." (S9), "...We need to perform audits to see if nurses implement evidence." (S13).

##### ***Theme 2: Enlightenment***

Under "Enlightenment", students said that EBP should be explained using continuous in-service trainings, including training during their undergraduate course. Some students shared the following opinions: "...First of all, we can train nurses with in-service trainings, conferences, congresses and seminars. Hospital management should give nurses

opportunity, provide environment, even encourage them and prepare seminars on evidence-based practices." (S4). "...Education changes everything. We have to give regular in-service training. But hospitals avoid it. You know, it's an occupational setback. Nurses have a lot of work. They only provide training at the beginning of a job. That's why in-service training is ineffective..." (S3). "We need to give information and provide in-service training... It is necessary to show it in practice. We can also watch videos on it..." (S6).

## DISCUSSION

This study aimed to evaluate the opinions of senior nursing undergraduate students about their EBPs just before graduation. The opinions of 15 students who were selected by random selection from the list were examined. The analyses showed that 8 themes were created under 4 categories with respect to the students' opinions about EBPs. While some students correctly identified EBP, others misidentified it because the EBP is not taught sufficiently, because it is not included in the curriculum, and because students do not see enough nurses using EBP in the clinic. Although EBP is taught in some courses, enough students cannot comprehend it because it is not supported by clinical applications. In the "scientific product" category, some students defined EBPs as real, rational, and labile. In Brooke et al.'s study, the students described EBPs as real and research-based.<sup>25</sup> In the present study, the students described EBPs as the best practices. The student's thoughts are in agreement with the report by Brooke et al.<sup>25</sup> In the present study, the students defined EBPs as continuous and changeable practices. They stated that a practice could change based on research findings. One student said, "...Should we withdraw or not while performing subcutaneous administration, for example? That's what I can think of. Should we wipe off the injection site with alcohol swab when injecting or not? I remember this is evidence-based practice. This is evidence-based practice; it was different before, it is like this now." (S11).

In the present study, most students stated in the category "vital for the quality of patient care and the professionalization of the nurse" that EBP is crucial,

and that it increases care quality, and contributes to professionalism. In another study, students stated that the EBPs made nurses more conscious and improved the care quality (1). Brooke et al. showed that these practices gave student nurses confidence in performing their duties in the clinical setting and improved the quality of care.<sup>25</sup>

The students defined EBP in the “protective shield” theme as practices that protect nurses in patient practices. The student’s responses were because some students had never heard of EBPs during the previous 4 years. For example, “I would have answered better if I had known exactly what evidence-based practices were, but unfortunately, I don’t know exactly... I have not seen evidence-based practices in any course” (S12). In André et al.’s study, students reported inadequate knowledge about EBPs.<sup>1</sup> Ashktorab et al. determined in their study in Iran that the knowledge and attitudes of senior nursing students regarding EBPs and their intentions to use them in the future were insufficient.<sup>26</sup> The fact that some students had never heard of evidence-based practices before might be due to poor success situations. In addition, these students stated that they did not like nursing, that although they did not want to work in nursing, they would because they had to earn money.

In the present study, all the participating students stated under the category “applicability in patient care” that nurses used not EBPs but practices learned years ago. This causes confusion for students when they learn EBPs and want to apply them. Such a situation can prevent the development of nursing as a professional occupation. The students who participated in the present study stated that nurses had no knowledge about EBPs. In Al-Busaidi et al.’s and AbuRuz et al.’s studies found although nurses’ attitudes towards EBP were positive, their knowledge and implementation of EBP were low.<sup>27,28</sup> In the present study, according to the statements of the students, the attitudes of the nurses towards those they interacted were negative and confusing. The students stated that the nurses had an excessive workload, were not satisfied with their profession, and did not make an effort to learn. In addition, they said that the nurses worked hard and did not even have the time to position patients, let alone to implement EBP. In

Gifford et al.’s study, nurses stated that they faced several challenges when attempting to apply EBPs.<sup>29</sup> According to Gifford et al.’s study, barriers included lack of available evidence, nurses’ lack of understanding of what EBP means, and fear that patients will be angry about receiving care that is perceived as non-traditional.<sup>29</sup> Also, in Ozga et al.’s study, nurses stated that clinical experience was more valuable than research findings for practical decision-making than research findings.<sup>30</sup> In the same study, the nurses stated that they tended to underestimate the critical literature review aspect within the domain, along with its significance for the general professional practice, believing that search for scientific evidence alone does not apply into their professional work.

In the present study, all the participating students stated under the category “the power to referral EBP in patient care”, our study subjects stated that training should be provided for more effective use of EBPs in patient care. “We must absolutely train nurses to transfer evidence-based practice...” (S4), considering that it is very challenging for nurses to use EBPs without knowledge.<sup>2,4,31</sup> Therefore, studies on developing different intervention methods for enhancing the knowledge level of nurses about EBPs have been conducted.<sup>4,31,32</sup> The students in our study emphasized that nurses should be supervised and those who do not use EBPs should be punished. Rewards are expected to increase the motivation level and work commitment of nurses, encouraging them to play a more active role in patient care.

## CONCLUSION

The results of the present study indicated that while some of the nursing students had a great interpretation of EBP, some students had even not heard of EBP. However, the number of the students who defined EBP very well was quite insufficient. This knowledge deficit could be due to lack of EBP curriculum for the nursing students and the nurses’ inadequate application of EBP in the clinic. Also, student’s knowledge regarding EBP should be enhanced throughout undergraduate education. In Türkiye, EBPs should be taught as a part of the mandatory courses in addition to teaching research methods. At the end of each lesson, the relevant evi-

dence-based practices should be reinforced and students should be told how to access and read evidence-based practices in detail.

The results of this research can be directed to both nursing academics and clinical nurses. Clinical nurses and academicians should cooperate as much as possible. Clinical nurses should not call the practices that students learn at school wrong and should not underestimate the evidence-based practice.

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No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Şadiye Özcan, Nurcan Kirca; **Design:** Şadiye Özcan, Nurcan Kirca; **Control/Supervision:** Şadiye Özcan, Nurcan Kirca; **Data Collection and/or Processing:** Şadiye Özcan; **Analysis and/or Interpretation:** Şadiye Özcan, Nurcan Kirca; **Literature Review:** Şadiye Özcan; **Writing the Article:** Şadiye Özcan; **Critical Review:** Şadiye Özcan, Nurcan Kirca; **References and Fundings:** Şadiye Özcan, Nurcan Kirca; **Materials:** Şadiye Özcan, Nurcan Kirca.

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