



RESEARCH ARTICLE

Investigation of the Views of Health Professionals in the Field of Orthotics Prosthetics on Evidence-Based Orthotics Prosthetics Practices

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Abstract

Purpose: The aim of the study was to find out what the Turkish orthotic prosthetic community thought about the use of evidence-based practices. **Material and methods:** Our study included 134 participants (59 females, 75 males) who have been working in the field of orthotics and prosthetics in hospitals, clinics and academic institutions in Turkey for at least six months. Study data were collected using the Evidence-Based Practice Questionnaire (DI-EBPQ), Health Sciences-Evidence-Based Practice Questionnaire (HS-EBP), and Information Literacy Self-Efficacy Scale (DTILSES) developed by the researcher. Data analysis was done using SPSS 26.0 program. **Results:** The total scores of HS-EBP and DTILSES were significantly higher in those with master's/doctorate degrees ($p<0.001$), those who received evidence-based practice training ($p<0.001$), those who believed positively in evidence-based practice ($p=0.003$), and those with advanced evidence-based practice knowledge ($p<0.001$). In addition, the total DTILSES score was higher in those working in university hospitals ($p<0.001$). A high positive correlation and significant relationship were found between HS-EBP sub-dimensions and DTILSES sub-dimensions ($p<0.05$). **Conclusion:** As a result, it was found that healthcare professionals working in the field of orthotics and prosthetics needed evidence-based practice training and their awareness of evidence-based practices was low.

Keywords

Evidence-Based Practice, Orthosis, Prosthesis, Health Sciences

INTRODUCTION

Evidence-based practice (EBP) refers to the clinical use of up-to-date and accurate evidence published on the subject in the decision-making process regarding practices such as medical care and treatment (Şahin & Acar, 2023; Dinçer et al. 2015). The inclusion of evidence-based practices in health was first based on medical studies in the 1970s, then in the United Kingdom and in the United States in the 1990s. When the definition of clinical practice emerged, it was defined as the observation of the effects of treatments in clinics and the routine use of practices, and it has evolved into its current meaning in the last twenty years (Şenyuva, 2016). Evidence-based practices have also gained importance in interdisciplinary

evaluations in recent years. These sciences are at the forefront of practical evidence-based applications in nursing, physiotherapy and rehabilitation, occupational therapy, social service, dental medicine and medical sciences (Çay & Daşbaşı, 2020; Alcan, 2020; Yılmaz et al. 2019; Çankaya et al. 2018; Çan&Toraman; 2022; Akaltan, 2019). Evidence-based practices are important in the rehabilitation and prevention of limb injuries by health professionals (İlhan & Erbahçeci, 2023). Training should be planned for the use, research and interpretation of evidence-based practices by health professionals, and models appropriate to health professionals should be used to convert these practices into clinical trials (Deliktaş & Kabukcuoğlu, 2017; Oral et al. 2016).

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There is a lack of studies in the current literature investigating the evidence-based practices of healthcare professionals working in the field of orthotic prosthetics in Türkiye. This study aimed to increase awareness of evidence-based practice in this field by investigating the perspective of healthcare professionals working in the field of orthotic prosthetics on evidence-based practice.

MATERIALS AND METHODS

Study Design

This study is a descriptive type research. Ethical approval was obtained from the Non-Interventional Clinical Research Ethics Committee of the affiliated institution with the approval number E-10840098-772.02-7484 dated 23.11.2023. The study was conducted in accordance with the Helsinki Declaration and registered on www.clinicaltrials.gov with the registration number NCT06175364.

Participants

The study was conducted between December 2023 and May 2024 by 134 volunteers (59 females, 75 males) to examine evidence-based orthotic prosthetic practices by health professionals in Türkiye. Volunteer health professionals in the area of orthotic prosthetic were informed about their work and endorsed an "informed consent form".

The criteria for inclusion in the study are; having worked in hospitals, clinics, academic units in Türkiye for at least 6 months, being able to read and write Turkish. Exclusion criteria for the study; employees working outside the orthosis prosthesis sector were not included in the study.

Data Collection Tools

The data collection tools used in the study were delivered for completion through Google Forms and face-to-face interviews were conducted using the questionnaire method. The necessary permissions to use the scale were obtained by e-mail.

Demographic Information and Evidence-Based Practice Questionnaire (DI-EBPQ)

A evidence-based practice assessment questionnaire, prepared by the researchers, asked participants about their age, gender, educational degree, work experience (year), working hours (week), working center and prosthetic orthosis center ownership. There are also questions that involve questioning for evidence-based practice.

These topics include; receiving training in evidence-based practice, the belief that evidence-driven practice has a positive impact on treatment outcomes, the level of knowledge of evidence-oriented practice, follow-up information on scientific journals, information on the preparation of scientific publications, the implementation of evidence-based practice in the working center, the need for a supervisor (expert) in the profession and where professional knowledge is needed.

Health Sciences-Evidence Based Practice Questionnaire (HS-EBP)

HS-EBP, a scale developed by Fernandez et al., Turkish validity and reliability study was conducted by Şahin et al. It is a 60 item 10 likert scale where participants measure information about health sciences-evidence based practice to examine psychometric properties (Şahin & Acar, 2023; Fernández-Domínguez et al. 2022).

HS-EBP consists of three main sections. These sections are the sections: Beliefs and Attitudes (12 items), Practices (36 items) and Barriers-Facilitators (12 items). High scores indicate a more supportive attitude or behaviour towards the implementation of evidence-based practices in clinical practice.

Developing The Information Literacy Self-Efficacy Scale (DTILSES)

Developed by Kurbanoğlu and Akkoyunlu the scale of 28 substances with 7 sub-dimensions is rated as a likert type with 7 (Kurbanoglu et al. 2006). These sub-dimensions include identifying the need for information, initiating search strategies, finding and accessing resources, evaluating information, synthesizing and utilizing the interpretation of information, information and communication, and process evaluation. As the total score increases, these lower-size skills increase.

Statistical analysis

The number of participants to be included in the study was determined by the G*Power 3.1.9.4 software, with an impact magnitude of 80% statistical strength and a significance of 5% of 134 participants.

The data were analyzed in the IBM SPSS version 26.0 for Windows. Descriptive statistical methods such as count, percentage, mean, and standard deviation were used for data evaluation. The Shapiro-Wilk normality test was used for the conformity of numerical variables to the normal

distribution. "Student's t Test" was used when comparing the two groups and "Mann Whitney-U test" when it did not. When comparing more than two groups, the parametric test provided the preconditions of "Varyance Analysis", when not the "Kruskal Wallis Test" was used. The relationship between the two continuous variables was evaluated with the Spearman Correlation Scale, where the Pearson Correlations Scale and the parametric test did not provide preconditions.

RESULTS

This study was completed with a total of 134 participants (59 females, 75 males). The demographic information and evidence-based practice questionnaire (DI-EBPQ) are shown in Table 1. The average age of the participants in our

study was 32.23 ± 8.32 . 82.8% of participants had at most a bachelor's degree level of education, 41.8% worked in a prosthetic orthosis center and 92.5% did not have an center ownership. Participants of 75.6% didn't evidence-based practice. The participants' evidence-based application knowledge levels were 65.7% basic, 27.6% intermediate, and 6.7% advanced. 98.5% of participants believed that evidence-based practices had a positive impact on treatment outcomes. 59% of participants did not follow scientific journals, 64.9% did not publish related to their profession and 71.6% did not the of evidence-based practice in the working center. 88.8% of respondents found that a consultant was necessary in their profession. When professional information was needed, 40.3% of the places supported were found to be Internet, 37.3% were colleagues, and 14.2% were supervisor.

Table 1. Demografic information and evidence-based practice questionnaire(DI-EBPQ) (n=134)

Age (year)	n (%)
Avg \pm Sd / M (min-max)	32.23 \pm 8,32 / 30 (21-62)
Gender	
Female / Male	59 (44) / 75 (56)
Educational Degree	
High School/Associate/Bachelor/Master's-Ph.D.	16 (11,9)/53 (39,6)/42 (31,3)/23 (17,2)
Work experience (year)	
Avg \pm Sd / M (min-max)	8.40 \pm 8.23 / 6 (1-39)
Working hours (week)	
Avg \pm Sd / M (min-max)	44.72 \pm 8.61 / 45 (10-80)
Working center	
Prosthetic orthosis center	56 (41.8)
Public Hospital	36 (26.9)
University Hospital	21 (15.7)
Prosthetic orthosis center ownership	
Yes	10 (7.5)
No	124 (92.5)
Receiving training in evidence-based practice	
Yes / No	33 (24.6) / 101 (75.4)
The belief that evidence-driven practice has a positive impact on treatment outcomes	
Yes / No	132 (98.5) / 2 (1.5)
The level of knowledge of evidence-oriented practice	
Basic/Intermediate/Advanced	88 (65.7) / 37 (27.6) / 9 (6.7)
Follow-up information on scientific journals	
Yes / No	55 (41) / 79 (59)
Information on the preparation of scientific publications	
Yes / No	47 (35.1) / 87 (64.9)
The implementation of evidence-based practice in the working center	
Yes / No	38 (28.4) / 96 (71.6)
The need for a supervisor (expert) in the profession	
Yes / No	119 (88.8) / 15 (11.2)
Where professional knowledge is needed	
Internet/Colleague/Supervisor	54 (40.3) / 50 (37.3) / 19 (%14.2)

HS-EBP total score and DI-EBPQ comparisons are shown in Table 2. The HS-EBP total score compared to DI-EBPQ there was a significant difference between educational degrees, working center, receiving training in evidence-based practice, in the condition of following scientific journals, profession-related publication

(article/compilation), use of evidence-based practice in the study and considering the level of knowledge of evidence-based practice (basic, intermediate, advanced) ($p < 0.001$). There was a significant difference in the belief that evidence-based practices had a positive effect on treatment outcomes ($p = 0.003$).

Table 2. Comparison of the HS-EBP total score with the DI-EBPQ

	HS-EBP total score	Statistics (p)
	Avg \pm Sd	
Gender: Female / Male	6.2 \pm 2.08/5.9 \pm 1.98	t=0.869 p=0.386
Educational Degree: High School/ Associate/ Bachelor / Master's-Ph.D.	5.24 \pm 2.18/4.88 \pm 1.81/6.62 \pm 1.39/ 8.17 \pm 1.08	F=24.996 p<0.001
Working center: Prosthetic orthosis center/Public Hospital/University Hospital	5.43 \pm 2/5.46 \pm 1.75/6.56 \pm 1.77	F=13.14 p<0.001
Prosthetic orthosis center ownership		t=1.748 p=0.083
Yes / No	7.1 \pm 2.68 / 5.95 \pm 1.95	
Receiving training in evidence-based practice		t=6.411
Yes / No	7.75 \pm 1.41 / 5.47 \pm 1.88	p<0.001
The belief that evidence-driven practice has a positive impact on treatment outcomes		t=3.076
Yes / No	6.1 \pm 1.97 / 1.79 \pm 1.12	p=0.003
The level of knowledge of evidence-oriented practice		F=42.524
Basic/Intermediate/Advanced	5.14 \pm 1.7 / 7.53 \pm 1.4 / 8.65 \pm 0.97	p<0.001
Follow-up information on scientific journals		t=9.557
Yes / No	7.58 \pm 1.38 / 4.96 \pm 1.68	p<0.001
Information on the preparation of scientific publications		t=8.009
Yes / No	7.6 \pm 1.25 / 5.18 \pm 1.85	p<0.001
The implementation of evidence-based practice in the working center		t=8.409
Yes / No	7.93 \pm 1.26 / 5.28 \pm 1.77	p<0.001
The need for a supervisor (expert) in the profession		t=0.109 p=0.914
Yes / No	6.04 \pm 1.99 / 5.98 \pm 2.4	
Where professional knowledge is needed		F=1.754
Internet/Colleague/Supervisor	5.94 \pm 2.25/6.39 \pm 1.89/5.19 \pm 1.45	p=0.159

t: Independent Sample t Test; F: ANOVA; n: The number of participants; %: percentage; Avg: average; Sd: standart deviation; HS-EBP: Health Sciences-Evidence Based Practice; $p < 0.05$ was considered to be significant.

DTILSES total score and DI-EBPQ comparisons are shown in Table 3. DTILSES total score compared to demographic information and evidence-based practice questionnaire; there was a significant difference between education degrees, working center, receiving training in evidence-based practice, in the condition of following scientific journals, profession-related publication, the implementation of evidence-based practice in the working center and considering the level of knowledge of evidence-based practice, there was a significant difference between basic, intermediate and advanced ($p < 0.001$). Where was a significant difference in the responses to the question of where you get support when you need professional knowledge (internet, colleagues and supervisor).

HS-EBP with the DTILSES linear regression analysis are shown in Table 4. Linear regression analysis model was statistically significant ($F=222.833$; $p < 0.001$). According to the model, an increase of one unit in the HS-EBP scores increased the DTILSES by 0.660 unit.

A linear regression analysis between DTILSES and the sub-dimensions of the HS-EBP are shown in Table 5. Linear regression analysis model was statistically significant ($F=96.622$; $p < 0.001$). According to the model, the application sub-size, with 0.360 units, has the strongest impact on information literacy. Beliefs and attitudes have a negative effect of 0.139 units, which reduces the literacy of information. Reducing barriers or

increasing facilitators also has a positive effect on information literacy

Table 3. Comparison of the total scores of the DTILSES with the DI-EBPQ

	DTILSES Avg ± Sd	Statistics (p)
Gender: Woman / Man	4.67 ± 1.85/4.78 ± 1.55	t=-0.357 p=0.722
Educational Degree: High School/ Associate/ Bachelor/ Master's-Ph.D.	3.73± 2.08/ 3.89± 1.52/ 5.43± 0.97 /6.11 ± 1.3	F=19.565 p<0.001
Working center: Prosthetic orthosis center/Public Hospital/University Hospital	4.25 ± 1.8/4.43 ± 1.56/4.99 ± 1.2	F=9.822 p<0.001
Prosthetic orthosis center ownership		
Yes / No	5.61 ± 1.91 / 4.66 ± 1.66	t=1.715 p=0.089
Receiving training in evidence-based practice		
Yes / No	6.05 ± 0.75 / 4.3 ± 1.69	t=5.741 p<0.001
The belief that evidence-driven practice has a positive impact on treatment outcomes		
Yes / No	4.76 ± 1.67 / 2.79 ± 2.53	t=1.656 p=0.100
The level of knowledge of evidence- oriented practice		
Basic/Intermediate/Advanced	4 ± 1.55/6.01 ± 0.87/6.62 ± 0.52	F=37.956 p<0.001
Follow-up information on scientific journals		
Yes / No	5.81 ± 1.1 / 3.98 ± 1.62	t=7.295 p<0.001
Information on the preparation of scientific publications		
Yes / No	6.03 ± 0.8 / 4.03 ± 1.63	t=7,92 p<0,001
The implementation of evidence-based practice in the working center		
Yes / No	6.16 ± 0.76 / 4.17 ± 1.62	t=7,263 p<0,001
The need for a supervisor (expert) in the profession		
Yes / No	4.66 ± 1.71 / 5.29 ± 1.47	t=-1,362 p=0,176
Where professional knowledge is needed (Internet/Colleague/Supervisor)	4.41 ± 2.01/5.05 ± 1.4/4.18 ± 1.2	F=3.801 p=0.012

t: Independent Sample t Test; F: ANOVA; n: The number of participants; %: percentage; Avg: average; Sd: standart deviation; p < 0.05 was considered to be significant

Table 4. HS-EBP with the DTILSES linear regression analysis

	β	se	$z\beta$	t	p	for β %95 Confidence Interval	
						Lower	Upper
Model: DTILSES							
Still	0.752	0.281		2.673	0.008	0.196	1.308
HS-EBP	0.660	0.044	0.792	14.928	0.000	0.573	0.747
Model Significance: F=222.833; p<0.001; R²=0.628							

β : Regression coefficient; se: Standard error; $z\beta$: Standardized regression coefficient; F: ANOVA; R²: Coefficient of Determination; t: Independent Sample t Test; %: percentage; p < 0.05 was considered to be significant

Table 5. Analysis of the Linear Regression Between the DTILSES and the Sub-Dimensions of the HS-EBP

	β	se	$z\beta$	t	p	β için %95 Güven Aralığı Alt	Üst
Model: DTILSES							
Still	2.576	0.468		5.501	0.000	1.649	3.502
HS-EBP Beliefs and Attitudes	-0.139	0.062	-0.117	-2.251	0.026	-0.261	-0.017
HS-EBP Practice	0.360	0.056	0.525	6.407	0.000	0.249	0.471
HS-EBP Barriers - Facilitators	0.243	0.050	0.381	4.819	0.000	0.143	0.343
Model Significance: $F=96.622$; $p<0.001$; $R^2=0.690$							

β : Regression coefficient; se: Standard error; $z\beta$: Standardized regression coefficient; F: ANOVA; t: Independent Sample t Test; %: percentage; $p < 0.05$ was considered to be significant

DISCUSSION

The study examined evidence based orthotic prosthetic practices by health professionals in Turkey, their knowledge and attitudes about EBP, and the obstacles they encountered in reflecting on the EBP clinic. While the study investigates the knowledge, attitudes and barriers of health professionals to EBP, it is one of the first studies in the field of evidence-based orthotic prosthetic in Türkiye.

A study of 68 nurses with at least one year of work experience, conducted by Xie et al. (2017), showed higher EBP performance in high-education nursing in the EBP knowledge assessment test (Xie et al. 2017). Chen et al. (2020), studied with 1166 executive nurses in 54 hospitals in China, and found that postgraduates had higher EBP knowledge scores (Chen et al. 2020). The study conducted by Nilsagard & Lohse, (2010) with 2160 physiotherapists found that health professionals at the postgraduate had higher levels of EBP knowledge (Nilsagard & Lohse, 2010). The study conducted by Küçüköğlü et al. (2017) with 104 nurses working in the hospital emergency unit, it was observed that the average EBP knowledge and attitude scores of higher education degrees (master's/doctoral degree) were higher. When the knowledge levels of orthotic prosthetic professionals who participated in our study were examined regarding EBP, it was found that the EBP knowledge level of master's/doctoral graduates had a higher score than other education degrees (Küçüköğlü et al. 2017). The EBP knowledge levels of the participants in our study were 65.7% basic level, 27.6% intermediate level, 6.7% advanced level. The level of EBP knowledge in those with higher education degrees was significantly higher

than those with other education degrees, which was similar to our study. Our study is compatible with the literature.

When studies on EBP of health professionals regarding their work experience, years of experience and working hours are examined, the study conducted by Durmuş et al. (2017) with 150 nurses at Muş State Hospital, nurses' problem-solving abilities and evidence-based practice attitudes were investigated. The study, the high duration of experience positively affected the attitude towards evidence-based practices (Durmuş et al. 2017). The study conducted by Şen & Yurt (2021), with 92 nurses working at a foundation university hospital in Istanbul, found that nurses' high degree of education, long tenure, and receiving EBP training positively affected evidence-based practice (Şen & Yurt, 2021). Our study, the average professional experience period (years) was 8.40 ± 8.23 . Weekly working hours were 44.72 ± 8.61 . The mean age was 32.23 ± 8.32 years. In our study, it was observed that the level of EBP increased as age, working time and experience increased. Our study was similar to the literature.

When studies investigating the effect of health professionals receiving training on EBP on EBP skills are examined, the study conducted by Nilsagard & Lohse, (2022) with 2160 physiotherapists, 21% of the physiotherapists received EBP training, and in the study conducted by Jette et al. (2003) with American Physical Therapy Association member physiotherapists ($n=488$), 37% of them received EBP training (Nilsagard & Lohse, 2022; Jette et al. 2003). Our study, it was determined that 24.6% of 134 professionals working in the field of orthotic prosthetic science received EBP training. It was observed that the total score and all subparameters

scores of the HS-EBP questionnaire were higher in those who received EBP training than in those who did not receive EBP training. The average EBP education qualification of the participants in our study is similar to the literature.

When the studies investigating the obstacles to EBP are examined, in another study conducted by Ammouri et al. (2014) with 414 nurses in Oman, they stated that the biggest obstacles to developing EBP were insufficient time for research and insufficient resources to change practices. They reported that nurses with more experience used EBP more, had more positive attitudes towards EBP, and had fewer obstacles to research (Ammouri et al. 2014). In the study conducted by Upton et al. (2012) in England with 6 different professions including orthopedist, physiotherapist, dietitian, speech and language therapist, psychologist and podiatrist, they stated that health professionals have the skills to access research databases, but time and financial loss concerns hinder EBP (Upton et al. 2012). In our study, it was observed that 75.4% of the 134 health professionals working in the field of orthotic prosthetic did not receive EBP training, and 88.8% thought that a consultant was necessary in their profession. When looking at the obstacles to the implementation of EBP in clinical studies, studies in the literature support our study results.

When the studies investigating the attitudes of health professionals towards EBP are examined, in their study with 125 nurses, Lunden et al. (2021) found that nurses' attitudes towards EBP were positive (Lunden et al. 2021). Another study conducted by Alkhatib et al. (2020) with 262 nurses in Saudi Arabia, nurses attitudes towards EBP and their education level were investigated, and it was observed that there was no difference between their education degrees (Alkhatib et al. 2020). The study conducted by Aslan & Gürdap, (2021) with 193 nurses at a university hospital in Eastern Anatolia of Türkiye, it was seen that the nurses' attitudes towards evidence-based practices were positive (Aslan & Gürdap, 2021). Our study, when the attitudes and beliefs towards EBP among health professionals working in the field of orthotic prosthetic science were examined, it was observed that the belief and attitude scores of the participants were higher in those who obtained information from academicians, those who believed that EBP positively affected treatment outcomes, those with a postgraduate education, those who followed professional journals/publications, those who

published about their profession, those who used EBP in the institution where they worked, and those who thought that counseling was necessary. Our study is similar to the literature in this respect.

When the current professional journal/publication follow-up studies on EBP of health professionals are examined, the study conducted by Yılmaz et al. (2019) with 200 nurses working in the internal and surgical clinics of a university hospital in the Marmara Region of Türkiye, it was found that following current developments, attending expert meetings and monitoring research ensured the continuous development of nurses and increased their professional knowledge and skills (Yılmaz et al. 2019). The study conducted by Şen & Yurt, (2021) with 92 nurses working in a foundation university hospital in Istanbul, it was stated that the majority of nurses did not follow professional publications and did not participate in research (Şen & Yurt, 2021). It was observed that 59% of the health professionals who participated in our study did not follow professional journals or publications, and 64.9% did not publish anything related to their profession. When compared according to demographic characteristics, it was seen that the scores in the belief-attitude, practice and barriers-facilitator sub-parameters of the HS-EBP questionnaire were higher in those who followed professional journals/publications. When compared according to demographic characteristics, it was seen that the information literacy self-efficacy scale total score was higher in those who followed professional journals/publications. In this context, clinical applications, it was seen that it is important to follow current journals or publications in basing scientific data.

Conclusion

The level of EBP knowledge was found to be high in health professionals in the field of orthotic prosthetic with higher age and experience. Only 24.6% of health professionals working in the field of orthotic prosthetic science have received EBP training, 98.5% believe that EBP positively affects treatment outcomes, 88.8% need consultancy while performing clinical practices and they cannot access the EBP information source. EBP was determined that the lowest was professional associations with 8.4%. 59% of the participants do not follow professional journals or publications, 64.9% did not publish anything related to their profession, it was observed that 71.6% did not use evidence-based

practices in the institution they worked for. The total score of the HS-EBP questionnaire was significantly higher in master's/doctoral graduates. Master's/PhD graduates constitute 30.8% of the total participants. HS-EBP questionnaire total score, EBP knowledge was significantly higher in those with an advanced level and in those who believed that EBP positively affected treatment outcomes.

In the total score of the HS-EBP questionnaire, no difference was found between participants who worked in a prosthetic orthosis center, a university hospital, a state hospital, or those who owned an institution. Additionally, there was no significant difference between the places where support was received when professional knowledge was needed. The information literacy self-efficacy scale total score, it was significantly higher in participants who worked at a university hospital, received EBP training, published professionally, and followed professional journals/publications. In the information literacy self-efficacy scale total score, no significant difference was found in participants who owned an institution, believed that EBP positively affected treatment outcomes, and stated that they needed counseling. There was also no significant difference between genders.

With the linear regression analysis performed between the total scores of the HS-EBP questionnaire and the total scores of the information literacy self-efficacy scale, it was found that the relationship between the two scales was linear.

In conclusion, we recommend scientific meetings in order to increase the awareness of evidence-based practice among healthcare professionals in the field of orthosis and prosthesis. Considering that awareness increases as the level of education increases, raising awareness by adding evidence-based practices to the associate and bachelor's degree syllabus within the scope of the course another recommendation.

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Conflict of interest

The authors declare that they have no conflict of interest.

Clinical Trial Number

Ethical approval was obtained from the Non-Interventional Clinical Research Ethics Committee of the affiliated institution with the approval number E-10840098-772.02-7484 dated 23.11.2023.

Author Contribution

Study design, AA and GBE; Data collection, GBE and EA; Statistical analysis, GBE and EA; Data interpretation, AA, GBE and EA; Literature search AA, GBE and EA. All authors have read and approved the published version of the manuscript.

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