Effect of a Structured Education Program on Nursing Students' Awareness and Attitudes Towards Violence Against Women: A Quasi-Experimental Study

Yapılandırılmış Bir Eğitim Programının Hemşirelik Öğrencilerinin Kadına Yönelik Şiddete İlişkin Farkındalıkları ve Tutumlarına Etkisi: Yarı Deneysel Bir Çalışma

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ÖZ

Amaç: Bu çalışmada yapılandırılmış bir eğitim programının hemşirelik öğrencilerinin kadına yönelik şiddetle ilgili bilgi düzeylerine ve tutumlarına etkisinin değerlendirilmesi amaçlandı.

Yöntem: Deney ve kontrol gruplu, öntest-sontest yarı deneysel desende olan bu araştırma, Türkiye'deki bir devlet üniversitesinin sağlık bilimleri fakültesi hemşirelik öğrencilerinde gerçekleştirildi. Araştırmaya katılmayı kabul eden 65 öğrenciden 32 öğrenci eğitim (E) grubuna, 33 öğrenci ise kontrol grubuna (K) alındı. Araştırma verileri "Tanıtıcı Bilgi Formu", Hemşire ve Ebelerin Kadına Yönelik Şiddet Belirtilerini Tanımalarına İlişkin Ölçek (HEKYŞBTİÖ), İSKEBE Kadına Yönelik Şiddet Tutum Ölçeği (KYŞTÖ) ve Kadına Yönelik Aile İçi Şiddet Bilgi Testi (KYAİŞBT) kullanılarak toplandı. Tüm ölçümlerde bu ölçüm araçlarından üçü her iki gruba da uygulandı.

Bulgular: E grubunun KYAİŞBT sontest (T1) puan ortalamaları, K grubuna göre anlamlı derecede yüksekti. E grubunda KYAİŞBT, HEKYŞBTİÖ ve KYŞTÖ testlerinde öntest (T0) puanlarına göre T1 puanlarındaki artış anlamlı bulundu.

Sonuç: Kadına Yönelik Şiddete İlişkin Farkındalık Eğitimi hemşirelik öğrencilerini kadına yönelik şiddete ilişkin bilgi ve farkındalık düzeylerini artırmıştır. Hemşirelik öğrencilerinin eğitim müfredatlarında kadına yönelik şiddete ilişkin derslerin yer alması ve derslerin zorunlu hale getirilerek tüm öğrenciler tarafından alınması önerilmektedir.

Anahtar sözcükler: Kadın, aile içi şiddet, bilgi, tutum, farkındalık

ABSTRACT

Objective: This study aims to evaluate how "Awareness Education on Violence Against Women" (AEVAW) affects the knowledge levels of nursing students regarding domestic VAW and their attitudes.

Method: This study is in a pretest-posttest quasi-experimental research design with experimental and control groups and was carried out on the nursing students attending the health sciences faculty of a state university in Turkey. Of the 65 students who agreed to participate in the study, 33 were included in the education group and 32 were included in the control group. Study data were collected using a descriptive information form, Scale for Nurses and Midwives to Determine the Symptoms of Violence against Women (SNMDSVAW), ISKEBE Violence Against Women Attitude Scale (ISKEBE VAWAS), and Domestic Violence Against Women Knowledge Test (DVAWKT). In all measurements (pretest and posttest), three of these measurement tools were applied to both groups.

Results: The posttest mean scores were higher for those trained, with significant increases in DVAWKT, SNMDSVAW, and ISKEBE VAWAS compared to pretest scores. AEVAW effectively enhanced nursing students' knowledge and awareness of VAW.

Conclusion: Considering these results, it is recommended to include courses on VAW in the education curriculum of nursing students and to make these courses compulsory.

Keywords: Women, domestic violence, knowledge, attitude, awareness, education

Introduction

Violence is a multidimensional phenomenon associated with the deliberate use of force to cause harm to another living being and is influenced by biological, social, cultural, economic, political, and psychological factors (Yöyen 2017). Violence against women (VAW), especially, is a critical issue worldwide. The majority of women experience violence at least once in their lifetime (Adjah and Agbemafle 2016, Dağlar et al. 2017). As a result of this violence, women can encounter both fatal and non-fatal health problems. Non-fatal health problems primarily include physical and psychological health issues. Women subjected to violence can experience injuries such as wounds, bruises, fractures, brain damage, depression, feelings of inadequacy and incompetence, difficulties in relationships, sleep problems, loss of enjoyment in life, menstrual irregularities, irritability, and other problems (Akkaş and Uyanık 2016, Öztürk et al. 2016, Canlı and Özyurda 2018,).

Gender equality is the equal participation of individuals of all genders in every aspect of social life, without facing discrimination based on a person's sex, and involves the roles, responsibilities, and duties assigned to women and men by society (Dağcı and Ören 2019). Achieving gender equality is essential in the prevention of VAW, as the primary cause of VAW stems from gender inequality (Uygur 2016). The United Nations Development Programme's Sustainable Development Goals (SDG) prioritize the principle of human rights for everyone by 2030, shaping a country's development plans and policies to reduce interpersonal inequality, ensure justice, and equitably distribute welfare. Gender equality is the fifth SDG, aiming to promote gender equality and empower all women and girls (Global Goals 2023).

Health professionals, particularly those closely involved in women's health, bear significant responsibilities in reducing the negative effects of violence and preventing its continuation, as well as implementing preventive measures. They play a crucial role in identifying and defining domestic violence and directing individuals exposed to violence to the necessary health and social services. Having knowledge about the causes, risk factors, symptoms, and effects of domestic violence enables health professionals to identify individuals experiencing violence early and provide timely interventions (Ahmad et al. 2017, Ali and McGarry 2020). However, inadequate preparation and awareness among health professionals regarding this global issue can lead them to feel inadequate in identifying and reporting the problem (Sammut et al. 2019).

As health professionals, nurses play an important role in preserving, enhancing, and maintaining the health of individuals, families, and communities. Nursing encompasses various stages of preventing violence and intervening when it occurs. As nurses work with all segments of society, they need to have a high level of knowledge and awareness regarding domestic violence. Nurses have the opportunity to assess individuals within the family environment and provide health education, which is crucial in preventing and reducing violence within families (Ford-Gilboe et al. 2011, Humphreys and Campbell 2011). It is important for nurses to receive education on domestic violence from undergraduate studies to ensure a high level of knowledge and awareness (Humphreys and Campbell 2011). Research has shown that nursing students' intuitive and creative approaches to domestic violence in the first year are replaced by informative and attitude-building approaches in the final year of schooling, suggesting the need to explore this topic in other health fields (Silva et al. 2018). Studies emphasize that lack of knowledge and negative attitudes toward VAW can be eliminated through education (Woodtli 2000, Davila 2005, Freedberg 2008, Tufts et al. 2009, Robinson 2010). It is essential for students to receive sufficient education on VAW during their nursing education to prepare them for their future roles (Davila 2005, Freedberg 2008,).

In recent years, studies have emphasized the effectiveness of pre-graduation education on VAW provided to student nurses. This has been found to be more effective in increasing knowledge, positive attitudes, and skills in identifying signs of violence compared to short postgraduation training sessions, highlighting the necessity for including VAW in nursing curricula (Stinson 2006, Can Gürkan 2019). While studies with nursing students on domestic violence exist in the literature, the number of studies examining the impact of a structured educational program on nursing students' awareness and attitudes toward VAW remains limited. As nurses will constitute the future healthcare teams, it has become increasingly important for nursing students to develop awareness not only in their professional education but also in facing societal issues, such as violence, during their educational period. Therefore, determining the effectiveness of educational interventions in this regard is crucial. Only one study has examined the impact of education on VAW on nursing students' attitudes and reported that the education did not affect nursing students' attitudes toward VAW (Bahadır Yılmaz and Yüksel 2023). Further research is needed to support the literature in this regard. Therefore, this study aimed to evaluate the effect of a structured awareness education on violence against women (AEVAW) on the level of knowledge of nursing in recognizing signs of VAW and their attitudes toward domestic violence. When compared with those in the control group (Group C), nursing students in the education group (Group E) will be assessed in terms of

the following hypotheses. This study hypothesizes that education will significantly enhance nursing students' knowledge and recognition of signs of violence against women (VAW). Specifically, students in Group E are expected to demonstrate increased knowledge and recognition of VAW signs after the education compared to their pre-education levels and to those in Group C. Additionally, it is anticipated that Group E's scores on the ISKEBE Violence Against Women Attitude Scale (ISKEBE VAWAS) will improve after the education, both relative to their pre-education scores and to the scores of students in Group C.

Method

This study evaluated the effectiveness of AEVAW on nursing students' levels of knowledge about domestic VAW, their ability to recognize the signs of violence in women who are victims of domestic violence, and their attitudes toward domestic violence. This pretest-posttest, controlled, and quasi-experimental study assessed the effectiveness of AEVAW for undergraduate nursing students using pretest (T0) and posttest (T1) measurements (Figure 1).

Sample

The study was conducted with 65 nursing students continuing their education in the spring semester of the 2022–2023 academic year at a state university's faculty of health sciences in Turkey. The students were assigned to Group E and Group C on a voluntary basis without randomization. The study inclusion criteria were determined as follows: having no problem with speaking and understanding Turkish and agreeing to participate in the study. The inability to attend at least 70% of the AEVAW sessions was established as an exclusion criterion.
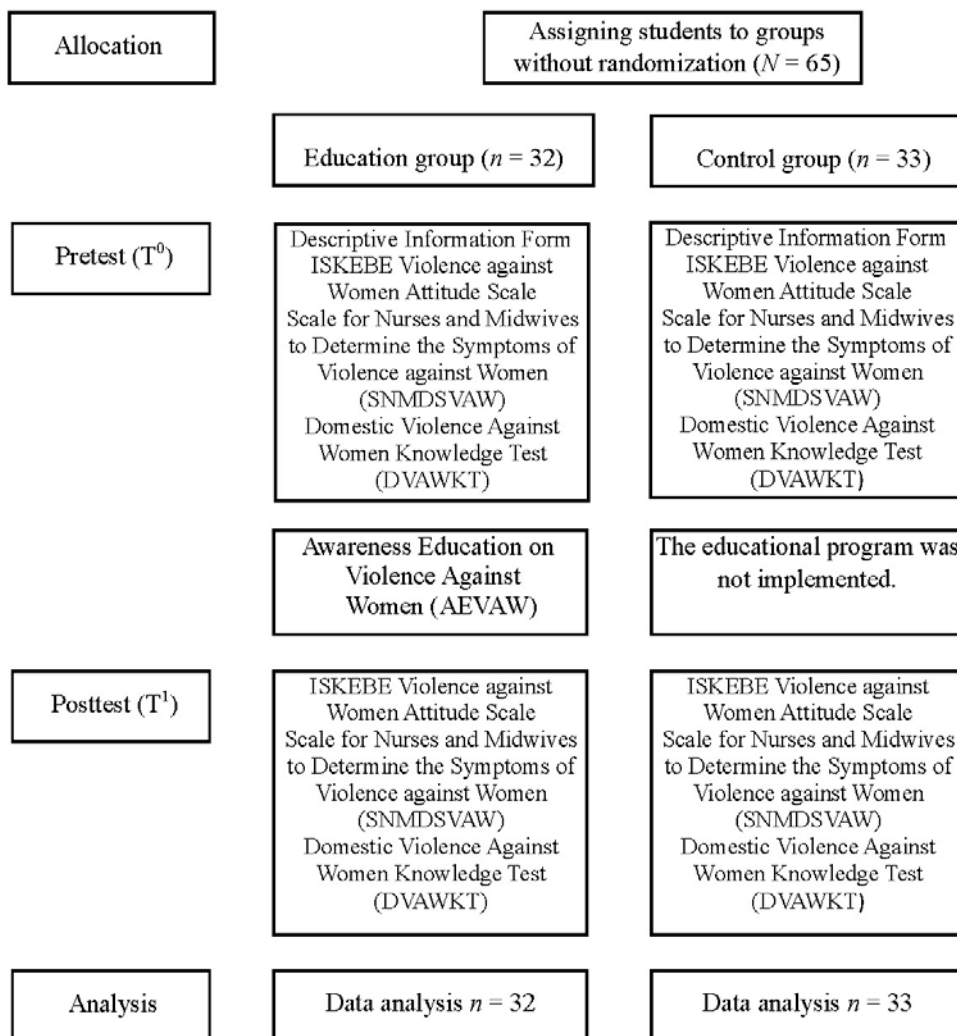

Figure 1. Flowchart of the study

Data Collection Tools

Descriptive Information Form

This form was prepared by the researcher and includes questions about the participants' age, sex, and education level.

Scale for Nurses and Midwives to Determine the Signs of Violence against Women (SNMDSVAW)

The SNMDSVAW was developed by Baysan et al. (2006) to determine the knowledge levels of nurses and midwives (individuals) regarding the recognition of signs of VAW. The scale consists of 31 items, which are answered in a "true" or "false" format, comprising two subscales: physical and emotional signs. To evaluate the responses, a scoring system was employed where a "1" is assigned to the "true" option and a "0" to the "false" option for positive statements. Conversely, for negative statements, the scoring was reversed, with a "0" assigned to the "true" option and a "1" to the "false" option, thus converting responses into numerical values. The lowest and highest possible scores are 0 and 31 for the total scale, 0 and 13 for the physical sign subscale, and 0 and 18 for the emotional sign subscale. Higher scores indicate a higher level of knowledge. Participants who correctly answer 80% or more of the items are considered "adequate", those who correctly answer 50–79% of the items are considered "partially adequate", and those who correctly answer 50% or less of the items are considered "inadequate" in recognizing the signs of VAW. The Cronbach's α value of the scale was calculated as 0.76 in its validity and reliability study. In this study, it was found to be 0.83 for the total scale, 0.76 for the physical sign subscale, and 0.78 for the emotional sign subscale.

ISKEBE Violence against Women Attitude Scale (ISKEBE VAWAS)

The ISKEBE VAWAS was developed by Kanbay (2017) and is a 5-point Likert-type scale consisting of 30 items and two subscales: "attitudes toward body" and "attitudes toward identity." Items 5 and 24 of the scale are scored in reverse. The total score of the scale is obtained by summing the scores from the two subscales. The response options for the scale are "1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree." Higher scores indicate an opposition to VAW, while lower scores indicate a lack of opposition to VAW. The lowest and highest possible scores are 16 and 80 for the first subscale, 14 and 70 for the second subscale, and 30 and 150 for the overall scale, respectively. Individuals scoring above 90 points are considered to oppose VAW, while those scoring below 90 points are considered not to oppose VAW. Kanbay (2017) determined Cronbach's α value as 0.80 for the first subscale, 0.83 for the second subscale, and 0.86 for the overall scale. The scale can be applied to individuals aged between 15–65 years with at least a primary school education. In this study, the Cronbach's α value for the overall scale was calculated as 0.83.

Domestic Violence against Women Knowledge Test (DVAWKT)

The DVAWKT was developed by Gürkan (2020) and consists of a total of 10 items assessing participants' knowledge of the types of VAW, characteristics of female victims, services provided to them, approaches to be implemented by healthcare personnel toward those victims, and legal aspects of the issue. The lowest and highest possible score on the scale are 0 and 100, respectively. In the original study, the Cronbach's α value of the scale was found to be 0.76. In this study, Cronbach's α value was calculated as 0.73.

Procedure

An ethical approval was obtained from the Social and Human Sciences Ethics Committee of a state university (2022-SBB-0638, Date: 30.12.2022), and written permission was obtained from the nursing department of the faculty of health sciences where the study was conducted. The study protocol adhered to the principles of the Helsinki Declaration. Participants were informed about the confidentiality of personal data and that the data would only be used for scientific purposes. Written informed consent was obtained from all participants. Permission was obtained via email from the owners of the scales to be used in the study.

The data were obtained from both groups before and after AEVAW using a descriptive information form, the SNMDSVAW, the ISKEBE VAWAS, and the DVAWKT. Data on sociodemographic and other descriptive characteristics that were thought to affect awareness and knowledge levels measured by the scales were collected from all students at the beginning of the study. Since sociodemographic characteristics did not change during the measurements, this form was only administered once. Data were collected through face-to-face interviews and online data collection methods before and after the education. It took approximately 30 minutes for participants to complete the survey and scale forms.

Week	Subject	Learning Goals	Time	Activity	Method
Table 1. Content of the Awareness Education on Violence against Women (AEVAW)					
1	Introduction, evaluation of expectations, application of pretest				
	Social gender equality Basic concepts	Explains the concept of gender. Knows gender roles. Explains gender-based inequality and discrimination.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
2	As a Health Problem VAW Domestic Violence	Explains the concept of VAW. Defines domestic violence.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
3	Factors Affecting the Emergence of VAW	Knows the causes of VAW Knows the individual factors that affect the emergence of VAW. Knows the environmental factors that affect the emergence of VAW. Knows the social and cultural factors that affect the emergence of VAW.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
4	Types of VAW	Knows the types of VAW Knows physical VAW and its signs. Knows the types of emotional VAW. Knows sexual VAW and its signs. Knows the concept of economic VAW.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
5	Effects of VAW on Women	Knows the signs and symptoms of VAW and its negative effects on women's health. Explains the physical, psychological, and social effects of VAW on women. Explains battered woman syndrome.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
6	Prevalence of VAW	Knows the situation of VAW in Turkey and across the world.	40 min	- Q&A -Group discussion - Brainstorming - Case examples - Case study	Online
7	International and National Regulations on VAW	Knows national and international documents regarding VAW. Knows the legal regulations regarding VAW. Knows the legal regulations regarding domestic VAW in Turkey.	40 min	- Q&A -Group discussion - Brainstorming	Online
8	The Role of Health Professionals in Preventing VAW	Knows the duties and responsibilities of healthcare professionals regarding VAW. Knows the roles, duties, and responsibilities of nurses regarding VAW.	40 min	-- Q&A -Group discussion - Brainstorming - Case examples	Online
9	Services Provided to Female Victims	Knows the institutions that provide services to female victims of violence and the services they offer.	40 min	- Q&A -Group discussion -Brainstorming - Case examples	Online
10	Implementation of Posttest, Evaluation of Education, and Closing				

Education Intervention

The aim of the education was to provide nursing students with knowledge and attitudes regarding VAW. The educational content was prepared by an academic advisor, who is a faculty member at the university where the project was conducted. The content took into account current literature and utilized similar training programs and guides, which were then reviewed by experts. The training sessions were delivered by the project coordinator

– a nursing student ¬– under the supervision of the project advisor faculty member. The training was conducted for a total of 10 weeks, with sessions lasting 40 minutes each week. The learning objectives, content, and teaching methods of the education are outlined in Table 1. While the initial plan was to deliver the education to all students in a classroom setting, the training sessions were conducted online due to the transition to hybrid education after the 2023 earthquake and the continuation of some students' education remotely.

Statistical Analysis

The data were analyzed using the SPSS (Statistical Package for Social Sciences) for the Windows 22.0 program. Descriptive statistical methods such as frequency, percentage, mean, and standard deviation were used to evaluate the data. Differences in the rates of categorical variables between independent groups were analyzed using the Chi-square and Fisher exact tests. Skewness values for the study variables ranged from -0.745 to 1.013, and kurtosis values ranged from -0.345 to 0.954. According to relevant literature, results within +1.5 to -1.5 for skewness (Tabachnick and Fidell 2013) or +2.0 to -2.0 for kurtosis (George and Mallery 2010) are considered to indicate normal distribution. Additionally, the Kolmogorov-Smirnov test result yielded $p > 0.05$, indicating that the data were normally distributed. The t-test was used to compare quantitative continuous data between two independent groups, and the paired samples t-test was used to compare intra-group measurements.

Results

There was no statistically significant difference between groups E and C in terms of descriptive characteristics, and the two groups were similar in terms of relevant characteristics ($p > 0.05$) (Table 2).

Table 2. Descriptive characteristics of nursing students							
Characteristics		**Group E**		**Group C**		**Total**		**p**
		n	%	n	%	n	%	
Sex	Female	20	%62.5	26	%78.8	46	%70.8	X2=2.084
	Male	12	%37.5	7	%21.2	19	%29.2	p=0.121
Cohabitants	Family	5	%15.6	12	%36.4	17	%26.2	X2=3.789
	Friends at home	9	%28.1	8	%24.2	17	%26.2	p=0.285
	Dormitory	17	%53.1	12	%36.4	29	%44.6	
	Other	1	%3.1	1	%3.0	2	%3.1	
Place of residence	Village	3	%9.4	4	%12.1	7	%10.8	X2=7.278
	County	7	%21.9	12	%36.4	19	%29.2	p=0.064
	City	17	%53.1	7	%21.2	24	%36.9	
	Metropolitan area	5	%15.6	10	%30.3	15	%23.1	
Mother's Educational Status	Illiterate	1	%3.1	0	%0.0	1	%1.5	X2=4.086
	Literate + Primary School	9	%28.1	15	%45.5	24	%36.9	p=0.395
	Secondary school	9	%28.1	6	%18.2	15	%23.1	
	High school	9	%28.1	6	%18.2	15	%23.1	
	University	4	%12.5	6	%18.2	10	%15.4	
Father's Educational Status	Literate + Primary School	2	%6.2	5	%15.2	7	%10.8	X2=3.782 p=0.286
	Secondary school	5	%15.6	7	%21.2	12	%18.5	
	High school	20	%62.5	13	%39.4	33	%50.8	
	University	5	%15.6	8	%24.2	13	%20.0	
		Mean	Sd	Mean	Sd	Mean	Sd	
Age		21.720	0.813	22.120	2.484	21.920	1.857	0.383

Chi-Square Analysis; Independent Samples *t*-Test

The knowledge and attitude levels of both groups regarding VAW were similar before education ($p > 0.05$; Table 3). However, the DVAWKT T1 mean scores of nursing students showed a significant difference between the groups ($p = 0.001$), where those in Group E ($\bar{x} = 95.310$) had a higher T1 mean score than those in Group C ($\bar{x} = 82.120$). In Group E, there was a statistically significant increase in the DVAWKT T1 mean score ($\bar{x} = 95.310$) compared to the T0 mean score ($\bar{x} = 59.060$) ($p = 0.000$). In Group C, the increase in the DVAWKT T1 total mean score ($\bar{x} = 82.120$) compared to the T0 mean score ($\bar{x} = 49.390$) was not statistically significant ($p = 0.521$) (Table 3). In addition, the SNMDSVAW T0 mean scores of nursing students differed significantly from their T1 mean scores between the groups ($p < 0.05$). In Group E, there was a statistically significant increase in the SNMDSVAW T1 mean score ($\bar{x} = 21.875$) compared to the T0 mean score ($\bar{x} = 22.750$) ($p = 0.000$). In Group C, the increase in

the SNMDSVAW T1 mean score ($\bar{x}$ = 23.758) compared to the T0 mean score ($\bar{x}$ = 23.152) was not statistically significant (p > 0.05) (Table 3).

Considering the SNMDSVAW subscales, the physical sign T0 mean scores of nursing students did not differ significantly from their T1 mean scores between the groups (p > 0.05). In Group E, there was a statistically significant increase in the physical sign T1 mean score ($\bar{x}$ = 9.844) compared to the T0 mean score ($\bar{x}$ = 9.219) (p = 0.008). In Group C, the decrease in the physical sign T1 mean score ($\bar{x}$ = 9.667) compared to the T0 mean score ($\bar{x}$ = 10.152) subscale was not statistically significant (p > 0.05).

The emotional sign T0 mean scores of nursing students did not differ significantly between the groups (p > 0.05). In Group E, there was no statistically significant increase in the emotional sign T1 mean score ($\bar{x}$ = 12.656) compared to the T0 mean score ($\bar{x}$ = 12.906) (p > 0.05). In Group C, the decrease in the emotional sign T1 mean score ($\bar{x}$ = 13.485) compared to the T0 mean score ($\bar{x}$ = 13.606) subscale was not statistically significant (p > 0.05) (Table 3). In addition, the ISKEBE VAWAS T0 mean scores of nursing students did not differ significantly from their T1 mean scores between the groups (p < 0.05). In Group E, there was a statistically significant increase in the ISKEBE VAWAS T1 mean score ($\bar{x}$ = 141.813) compared to the T0 mean score ($\bar{x}$ = 126.844) (p = 0.018). In Group C, the increase in the ISKEBE VAWAS T1 mean score ($\bar{x}$ = 134.758) compared to the T0 mean score ($\bar{x}$ = 125.182) was not statistically significant (p > 0.05) (Table 3).

Table 3. Comparison of the scale mean scores of the study groups						
Group	Group E (n=32)		Group C (n=33)		t^a	p
	Mean	Sd	Mean	Sd		
DVAWKT Total T^0	59.060	22.911	49.390	23.310	1.686	0.097
DVAWKT Total T^1	95.310	7.613	52.120	20.426	3.429	0.001
t^b	-9.465		0.657			
p	0.000		0.521			
SNMDSVAW Total T^0	21.875	2.927	23.758	5.455	-1.726	0,088
SNMDSVAW Total T^1	22.750	1.646	23.152	1.302	-1.093	0.279
t^b	-2.117		0.649			
p	0.042		0.521			
Physical Signs T^0	9.219	1.581	10.152	2.320	-1.888	0.064
Physical Signs T^1	9.844	1.167	9.667	0.990	0.661	0.511
t^b	-2.856		1.269			
p	0.008		0.214			
Emotional Signs T^0	12.656	1.677	13.606	3.631	-1.347	0.180
Emotional Signs T^1	12.906	0.818	13.485	0.972	-2.593	0.012
t^b	-0.880		0.190			
p	0.385		0.850			
ISKEBE VAWAS Total T^0	126.844	35.000	125.182	21.986	0.230	0.820
ISKEBE VAWAS Total T^1	141.813	2.923	134.758	24.046	1.648	0.104
t^b	-2.489		-1.533			
p	0.018		0.135			
Attitudes Toward Body T^0	68.500	20.353	69.455	13.438	-0.224	0.824
Attitudes Toward Body T^1	79.781	0.751	73.546	13.648	2.580	0.013
t^b	-3.203		-1.141			
p	0.003		0.263			
Attitudes Toward Identity T^0	58.344	14.786	55.727	9.200	0.859	0.397
Attitudes Toward Identity T^1	62.031	2.508	61.212	10.556	0.427	0.667
t^b	-1.452		-2.004			
p	0.157		0.054			

[a]Independent Samples *t*-Test; [b]Dependent Samples T-Test, T^0: pretest, T^1: posttest; DVAWKT: Domestic Violence Against Women Knowledge Test, SNMDSVAW: The Scale for Nurses and Midwives to Determine the Symptoms of Violence against Women

The attitudes toward body subscale T1 mean scores of nursing students showed a significant difference between the groups (p = 0.013<0.05), where those in Group E ($\bar{x}$ = 79.781) had higher T1 mean scores than those in Group C ($\bar{x}$ = 73.546). The attitudes toward body subscale T0 mean scores of nursing students did not show a significant difference between the groups (p > 0.05). In Group E, there was a statistically significant increase in attitudes toward the body subscale T1 mean score ($\bar{x}$ = 79.781) compared to the T0 mean score ($\bar{x}$ = 68.500) (p = 0.003).

In Group C, the increase in attitudes toward the body subscale T1 mean score ($\bar{x}$ = 73.546) compared to the T0 mean score ($\bar{x}$ = 69.455) was not statistically significant (p > 0.05) (Table 3).

The attitudes toward identity subscale T0 mean scores of nursing students did not differ significantly from their T1 mean scores between the groups (p > 0.05). In Group E, there was no statistically significant increase in attitudes toward identity in the subscale T1 mean score ($\bar{x}$ = 62.031) compared to the T0 mean score ($\bar{x}$ = 58.344) (p > 0.05). In Group C, the increase in attitudes toward the identity subscale T1 mean score ($\bar{x}$ = 61.212) compared to the T0 mean score ($\bar{x}$ = 55.727) subscale was not statistically significant (p > 0.05) (Table 3).

Discussion

This study examined the effect of a structured education program on nursing students' knowledge levels and attitudes toward VAW and found that the education positively influenced the students' attitudes toward VAW and their ability to recognize signs of VAW. Additionally, it was determined that the students' knowledge levels and attitudes toward VAW scores did not differ according to sociodemographic variables.

Numerous studies have examined the influence of sociodemographic variables on attitudes toward VAW and the recognition of signs of VAW among healthcare professionals and nursing students (Sabancıoğulları et al. 2016, Dağlar et al. 2017, Güven and Altay 2020, Ozan et al. 2020, Zeren and Köşgeroğlu 2020, Koca 2021, Bulut et al. 2023, Kilci et al. 2023). Some studies have reported that sociodemographic characteristics such as class, sex, family type, place of residence, parental education level, and income level influence attitudes toward VAW (Sabancıoğulları et al. 2016, Dağlar et al. 2017, Singh et al. 2017, Kavuran 2018). However, there are also studies contradicting these results (Bulut et al. 2023, Güven and Altay 2023). For example, Güven and Altay (2023) reported in their study conducted with midwifery students that attitudes toward VAW did not differ based on sociodemographic variables. The results of the present study support those from previous similar studies.

The knowledge level of health professionals on the subject has a critical role in preventing VAW. In this context, as another important result of the present study, the students' attitudes toward VAW and their ability to recognize the signs of VAW changed positively after education. It is noteworthy that the students' scale mean scores before education were quite low, while their posttest mean scores were significantly higher. This is an important indicator of the effectiveness of this education program. Although limited, there are studies supporting this research result. For instance, a study conducted with midwifery and nursing students reported that the provided training was effective in influencing the students' attitudes toward VAW (Sis Çelik and Aydın 2019). Davas Aksan et al. (2011) conducted a study with second-year medical students and reported that adding a course on VAW to the curriculum led to positive changes in professional attitudes toward VAW. In contrast to this study result, another study reported that training on VAW did not play a role in changing the attitudes of nursing students toward VAW, while the provided training impacted their knowledge levels regarding VAW. The authors suggested that changing attitudes was more difficult than changing knowledge levels. They also found that training on VAW increased the scores of nursing students in recognizing the signs of VAW (Bahadır Yılmaz and Yüksel 2023). This study's results support those of the present study. In this study, the nursing students gained more knowledge about the physical and emotional signs of VAW, and their knowledge levels regarding the signs of VAW increased. Similarly, in a study conducted with nursing and midwifery students, the training on VAW positively affected the students' scores on recognizing the signs of VAW (Sis Çelik and Aydın 2019). Another study conducted with midwifery students found that even short-term training positively affected the students' levels in recognizing the signs of VAW (Ertekin Pınar and Özdemir 2021). In this regard, the education provided in the present study is considered beneficial for nursing students in recognizing the signs of VAW and positively influences their attitudes toward VAW.

The existing literature clearly indicates a close relationship between attitudes toward VAW and the dimensions of VAW (Güven and Altay 2020, Karaçay Yıkar et al. 2020, McClure et al. 2020, Koca 2021,). Among the obligations imposed on state parties by the Council of Europe Convention on preventing and combating VAW and domestic violence is the provision of gender education to society and professionals in general, including nursing students (Bakırcı 2015, Acob 2020, Ozan et al. 2020). It is important for nursing students to receive adequate education on VAW during their nursing education process to prepare them for their future roles (Davila 2005, Freedberg 2008). Specifically, providing education at the university level has been noted to contribute to the development of awareness in individuals through contemporary perspectives, the acquisition of knowledge and skills, and the development of a positive personality (Ozan et al. 2020). Unfortunately, both in Turkey and globally, nursing students graduate without receiving sufficient education on gender roles and VAW and are unable to develop positive attitudes toward VAW during their undergraduate education (Yılmaz et al. 2016, Doran and Hutchinson 2017). Even though VAW and intimate partner violence are significant public health

problems, and despite nurses having vital responsibilities in the identification, prevention, and provision of appropriate healthcare to female victims of violence, many nurses are reluctant to intervene in cases of VAW due to misconceptions and inaccurate attitudes toward VAW (Crombie et al. 2017). These misconceptions can only be eliminated through education. Additionally, it is necessary to compare the effectiveness of education provided through different methods (Bahadır Yılmaz and Yüksel 2023). It is important for nurses to receive adequate education and training on gender roles and VAW during their undergraduate education in order to raise competent healthcare professionals (Reyes et al. 2016, Gürkan 2020, Honda et al. 2020, Bahadır Yılmaz and Yüksel 2023).

Although there are studies in the literature that address the knowledge levels of recognizing signs of VAW and attitudes toward such violence, the number of experimental studies examining education and awareness programs remains limited. There is still a need for more research on this topic.

This study has some limitations. It was conducted at a single center and the sample consisted only of nursing students from a single state university. Therefore, there are limitations regarding the generalizability of this study. Further research is needed to include a more representative sample, including students from other universities and young individuals not enrolled in university. Future studies could also broaden the scope by including different groups. As another significant limitation of this study, the data were collected using self-report scales. Therefore, the research results may contain errors inherent to self-report scales such as "SNMDSVAW" and "ISKEBE VAWAS."

Conclusion

This study revealed that the AEVAW provided to nursing students was effective in changing their attitudes toward VAW and their abilities to recognize the signs of VAW. In this regard, it is recommended that courses on VAW be integrated into the curriculum of nursing students and made mandatory for all students. Additionally, nursing educational content should be supported not only by theoretical knowledge but also by videos and case examples. Furthermore, it is advised to develop social responsibility projects for preventing VAW and assign active responsibilities to nursing students in these projects.

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