Turkish Journal of Clinical Research

Turk J Clin Res. 2026;2(2):111-120
https://doi.org/10.63909/1453051

RESEARCH ARTICLE

Determining midwifery students' ability to recognize signs of violence against women

Ebelik öğrencilerinin kadına yönelik şiddetin belirtilerini tanıma düzeylerinin belirlenmesi

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Abstract

Aim: Violence against women is a significant public health issue that threatens women's physical, mental, and social well-being. Midwives play a critical role in the early recognition of signs of violence, providing safe referrals, and facilitating access to support mechanisms. This study was conducted to determine midwifery students' ability to recognize the physical, emotional, and general signs of violence against women.

Methods: This descriptive, cross-sectional study was conducted at the Department of Midwifery, Karabük University. Participant data collection was undertaken after ethics approval was obtained on June 6, 2024 and was completed in December 2024. The population consisted of 520 students. The minimum sample size was 222, and 284 students were included using stratified random sampling by year of study. Data were collected using a sociodemographic information form and the Nurses' and Midwives' Recognition of Signs of Violence Against Women Scale (NMRVAWS). Data were analyzed using Intellectus Statistics with descriptive statistics, Spearman correlation, Mann–Whitney U, and Kruskal–Wallis H tests. Statistical significance was set at $p<0.05$.

Results: Of the students, 62.3% reported receiving information about violence against women in midwifery courses and 24.6% reported attending training outside regular courses. The mean total NMRVAWS score was 19.69±2.97; the physical signs subscale mean was 8.10±1.61 and the emotional signs subscale mean was 11.59±2.16. Overall, 77.8% of students were classified as partially adequate for physical signs, 82.0% for emotional signs, and 86.6% for the total score. Scores did not differ significantly according to reported education status. Students who believed that addressing violence against women should be included in professional practice had higher total scores ($p=0.004$).

Conclusion: Midwifery students' recognition of signs of violence against women was generally at a partially adequate level. Recognition scores were associated with perceiving violence against women as part of professional practice, whereas no significant differences were observed according to reported education status. These findings support the need for structured, practice-oriented, and skills-based educational approaches in midwifery curricula.

Keywords: Violence against women, midwifery, students, health occupations, education.

Özet

Amaç: Kadına yönelik şiddet, kadınların fiziksel, ruhsal ve sosyal bütünlüğünü tehdit eden önemli bir halk sağlığı sorunudur. Ebeler, şiddet belirtilerini erken tanıma, güvenli yönlendirme yapma ve destek mekanizmalarına erişimi sağlama açısından kritik role sahiptir. Bu araştırma, ebelik öğrencilerinin kadına yönelik şiddetin fiziksel, duygusal ve genel belirtilerini tanıma düzeylerini belirlemek amacıyla yapılmıştır.

Yöntemler: Tanımlayıcı ve kesitsel tipteki çalışma Karabük Üniversitesi Ebelik Bölümü'nde yürütülmüştür. Katılımcılara yönelik veri toplama süreci, 6 Haziran 2024 tarihli etik kurul onayından sonra başlatılmış ve Aralık 2024'te tamamlanmıştır. Evren 520 öğrenciden oluşmuştur. Minimum örneklem büyüklüğü 222 olarak hesaplanmış ve sınıf düzeyine göre tabakalı rastgele örnekleme ile 284 öğrenci çalışmaya dahil edilmiştir. Veriler sosyodemografik bilgi formu ve Hemşire ve Ebelerin Kadına Yönelik Şiddet Belirtilerini Tanıma Ölçeği (NMRVAWS) ile toplanmıştır. Analizlerde tanımlayıcı istatistikler, Spearman korelasyon, Mann–Whitney U ve Kruskal–Wallis H testleri kullanılmış; anlamlılık düzeyi $p<0,05$ kabul edilmiştir.

Bulgular: Öğrencilerin %62,3'ü ebelik derslerinde kadına yönelik şiddet hakkında bilgi aldığını, %24,6'sı ise ders dışı bir eğitime katıldığını bildirmiştir. NMRVAWS toplam puan ortalaması 19,69±2,97; fiziksel belirtiler alt boyutu 8,10±1,61 ve duygusal belirtiler alt boyutu 11,59±2,16'dır. Öğrencilerin %77,8'i fiziksel belirtiler, %82,0'si duygusal belirtiler ve %86,6'sı toplam puan açısından kısmen yeterli düzeyde sınıflandırılmıştır. Bildirilen eğitim alma durumuna göre ölçek puanları anlamlı farklılık göstermemiştir. Kadına yönelik şiddetin mesleki uygulamanın bir parçası olması gerektiğini düşünen öğrencilerin toplam puanları daha yüksektir ($p=0,004$).

Sonuç: Ebelik öğrencilerinin kadına yönelik şiddet belirtilerini tanıma düzeyleri genel olarak kısmen yeterlidir. Şiddeti mesleki uygulamanın bir parçası olarak görme ile daha yüksek tanıma puanları arasında ilişki bulunurken, bildirilen eğitim alma durumuna göre anlamlı farklılık saptanmamıştır. Bulgular, ebelik eğitiminde yapılandırılmış, uygulama odaklı ve beceri temelli yaklaşımların güçlendirilmesini desteklemektedir.

Anahtar Kelimeler: Kadına yönelik şiddet, ebelik, sağlık meslekleri öğrencileri, eğitim.

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Cite as: Huseyinoglu S, Tabanci AN, Ceylan Z, Aydin Dogan R. Determining midwifery students' ability to recognize signs of violence against women. Turk J Clin Res. 2026;2(2):111-120

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Received: 17 April 2026 | **Accepted:** 7 May 2026 | **Published:** 30 September 2026

Turk J Clin Res. 2026;2(2):111-120
https://doi.org/10.63909/1453051

INTRODUCTION

Violence against women (VAW) continues to be a major public health issue both globally and at the national level. Data from the World Health Organization (WHO) show that violence against women has far-reaching effects, ranging from individual health to social and economic systems, and emphasize that the capacity for early detection and effective intervention is of vital importance in addressing this issue (1–3). Additionally, current global and national reports indicate that violence against women is not limited to physical violence alone; it also encompasses forms of psychological, sexual, economic, and digital violence. These forms of violence have interconnected and devastating consequences for women's reproductive health, pregnancy health, mental health, and social life (1,2,4). The effects of domestic violence on women's health have been linked to an increased risk of complications during pregnancy, limited access to prenatal care, difficulties with postpartum adjustment, and long-term mental health issues. In this context, early detection of domestic violence, safe referrals, and ensuring access to appropriate psychosocial support mechanisms are of critical importance (1,2,5).

Birthing professionals play a significant role in combating violence against women due to their focus on women's health. The need for healthcare professionals—particularly midwives—to recognize the early signs of violence against women, identify risk indicators, and initiate safe referral processes is emphasized in numerous international guidelines and clinical manuals. Because midwives are in direct contact with women throughout various stages of the life cycle, they are in a strategic position to recognize signs of violence and initiate appropriate interventions. Early detection of GBV allows for the reduction of negative impacts on pregnancy, the fetus, and overall women's health, and enables the rapid implementation of necessary protective measures (6–9). In this context, midwives' ability to safely support women, provide safe guidance during crises, and facilitate access to social support mechanisms is particularly critical (1,2,4).

The literature focusing on midwifery students indicates that health sciences students may exhibit knowledge gaps, hesitations, or educational needs regarding the recognition, assessment, and intervention for sexual and reproductive health (SRH) issues. It is essential for students to develop sufficient knowledge and awareness regarding types of sexual and reproductive health issues, risk indicators, signs of trauma, communication skills, reporting processes, and referral mechanisms during their pre-graduation period to ensure professional competence. Recent studies conducted specifically on nursing and midwifery students indicate that while these students are receiving education on issues related to child and youth protection, in some cases only limited improvements have been observed in their knowledge levels and attitudes (4,5,10–12). Within this body of literature, the need for targeted educational programs to improve the ability to recognize signs of violence against women is emphasized; these programs should include training in communication skills related to trauma symptoms, as well as safe reporting and effective referral processes (4,5,10,12).

Although recognition of violence against women has been examined among nurses and other health-professions students, evidence focusing specifically on midwifery students remains limited, and findings regarding the relationship between prior education and recognition levels are not consistent (6,8,12,13). Assessing midwifery students' recognition of physical and emotional signs before graduation may help identify educational needs relevant to safe communication, referral, and professional practice.

Accordingly, this study aimed to determine midwifery students' ability to recognize signs of violence against women and to examine whether recognition scores differed according to selected sociodemographic, educational, and professional-attitude characteristics.

METHODS

Research Design, Procedure, and Ethical Approval

This descriptive, cross-sectional study was conducted at the Department of Midwifery, Faculty of Health Sciences, Karabük University. The overall study process extended from June 2023 to December 2024; however, participant data collection was undertaken only after ethical approval had been obtained on June 6, 2024 and was completed in December 2024. The primary research question was:

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"What is the level of midwifery students' recognition of signs of violence against women?"

Ethical approval was obtained from the university's Non-Interventional Clinical Research Ethics Committee on June 6, 2024 (decision no. 2024/1812). Participation was voluntary. Before accessing the questionnaire, students were informed about the study purpose and scope, confidentiality, voluntariness, and their right to withdraw at any stage. Electronic informed consent was obtained before questionnaire completion.

Population and Sample

The study population comprised 520 students enrolled in the Department of Midwifery during the 2023–2024 academic year. The minimum sample size was calculated using the finite-population formula $n = [N \times Z^2 \times p(1-p)] / [d^2 \times (N-1) + Z^2 \times p(1-p)]$, with N=520, Z=1.96 for a 95% confidence level, p=0.50, and d=0.05. The resulting minimum sample size was 222. To improve precision and account for possible incomplete questionnaires, 284 students were included. Stratified random sampling was applied according to year of study. The number of students selected from each stratum was determined according to the class distribution, and students were then randomly selected from class lists. Eligible participants were students enrolled in the department who volunteered and submitted complete questionnaires; students who declined participation or submitted incomplete questionnaires were excluded.

Data Collection Tools and Implementation Process

Research data were collected using the Personal Data Collection Form and the Nurses' and Midwives' Recognition of Signs of Violence Against Women Scale (NMRVAWS). The questionnaire was prepared in Google Forms and the link was provided to students selected from the class-level lists. The first page included study information and the electronic informed-consent statement. Only complete questionnaires were included in the analysis. The available study records did not retain a verifiable denominator for students who received the link but did not submit a questionnaire; therefore, an exact response rate could not be reconstructed retrospectively. Likewise, no respondent-level technical log was available to document the platform's duplicate-response prevention setting; this issue is acknowledged as a study limitation.

Personal Data Collection Form: The form, prepared by researchers in accordance with the literature, consists of a total of 11 questions. It includes 6 questions designed to identify students' sociodemographic characteristics, and 5 questions aimed at assessing their history of education on violence against women, their level of knowledge on the subject, and their experiences with violence in their professional field.

The Nurses' and Midwives' Recognition of Signs of Violence Against Women Scale (NMRVAWS): The scale was developed by Baysan Arabacı and Karadağlı to assess nurses' and midwives' knowledge of signs of violence against women (7). It consists of 31 true/false items and two subscales: physical signs (items 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 25, 27, and 28) and emotional signs (items 3, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 29, 30, and 31). For positively worded items (1, 3, 4, 5, 7, 10, 12, 16, 17, 18, 20, 21, 22, 24, 25, 26, 27, 28, and 29), a correct response is scored 1 and an incorrect response 0. For negatively worded items (2, 6, 8, 9, 11, 13, 14, 15, 19, 23, 30, and 31), reverse scoring is applied. Total scores range from 0 to 31; physical-signs scores range from 0 to 13 and emotional-signs scores from 0 to 18. Higher scores indicate greater recognition of signs of violence. Following the original interpretation, ≥80% correct was classified as adequate, 50–79% as partially adequate, and <50% as inadequate. Cronbach's alpha was 0.76 in the original study and 0.68 in the present study.

Statistical Analyses

Data were analyzed using Intellectus Statistics 360. Quantitative variables are presented as mean ± standard deviation and median (minimum–maximum), and categorical variables as number and percentage. Normality was assessed using the Kolmogorov–Smirnov test; because continuous variables were not normally distributed, Spearman's rank correlation was used for associations with age, the Mann–Whitney U test for two-group comparisons, and the Kruskal–Wallis H test for comparisons of three or more independent groups. Cronbach's alpha was calculated to assess internal consistency. All tests were two-sided, and $p<0.05$ was

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https://doi.org/10.63909/1453051

considered statistically significant; accordingly, p=0.050 was treated as not statistically significant.

RESULTS

The participants' mean age was 20.83±2.55; the age range was 17–41, and the median age was 21. 97.9% of the participants were single, and 2.1% were married. In terms of grade distribution, 27.8% of the participants were in the third grade, 27.1% in the first grade, 23.2% in the fourth grade, and 21.8% in the second grade.

When examining the educational levels of the participants' mothers, 36.3% were elementary school graduates, 20.1% were middle school graduates, 18.0% were college graduates, 17.3% were high school graduates, 4.2% were literate but without a diploma, and 4.2% were illiterate. Regarding the participants' fathers' educational levels, 30.6% are high school graduates, 25.0% are middle school graduates, 22.5% are elementary school graduates, 19.4% are college graduates, 2.1% are literate, and 0.4% are illiterate.

In terms of where participants spent most of their lives, 51.4% lived in city centers, 34.2% in districts, 10.9% in villages, and 3.5% in towns. The percentage of those who stated they received information about violence against women in classes during their education was 62.3%, while the percentage of those who participated in training on this subject outside of class was 24.6%. While 49.3% of participants believed they had sufficient knowledge to address violence against women, 50.7% stated they lacked such knowledge.

When encountering a woman who has experienced violence in their professional practice, 71.6% of participants stated they would provide information about organizations where she could seek legal and institutional assistance, 21.1% said they would take a medical history and refer her to a physician, and 7.4% indicated they might not know what to do. The vast majority of participants (96.1%) believe that addressing violence against women should be an integral part of their professional practice.

These findings reveal that while midwifery students have some gaps in their knowledge and awareness regarding violence against women, there is a strong consensus that this issue should be viewed as an important component of their professional practice (Table 1).

Table 1. Socio-demographic characteristics of midwifery students and their knowledge and attitudes regarding violence against women

Characteristic	Category	Mean±SD	Median (Min–Max)	n	%
Age		20.83±2.55	21 (17–41)		
Year of Study	First year			77	27.1
	Second year			62	21.8
	Third year			79	27.8
	Fourth year			66	23.2
Marital Status	Single			278	97.9
	Married			6	2.1
Mother's Education Level	Primary school			103	36.3
	High school			49	17.3
	Literate without formal schooling			12	4.2
	Illiterate			12	4.2
	Middle school			57	20.1
	University			51	18.0
Father's Education Level	Primary school			64	22.5
	High school			87	30.6
	Literate without formal schooling			6	2.1
	Illiterate			1	0.4
	Middle school			71	25.0

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https://doi.org/10.63909/1453051

Characteristic	Category	Mean±SD	Median (Min–Max)	n	%
	University			55	19.4
Place Where You Have Lived the Longest	City center			146	51.4
	District			97	34.2
	Town			10	3.5
	Village			31	10.9
Received information about violence against women in midwifery courses	Yes			177	62.3
	No			107	37.7
Attended training on violence against women outside regular courses	Yes			70	24.6
	No			214	75.4
Perceived sufficient knowledge to address violence against women	Yes			140	49.3
	No			144	50.7
Intended action when encountering a woman exposed to violence in professional life	I would take her history and refer her to a physician.			60	21.1
	I might not know what to do.			21	7.4
	I would inform her about legal issues and institutions where she could receive support.			203	71.6
Belief that addressing violence against women should be included in professional practice	Yes			273	96.1
	No			11	3.9
Total				284	100.0

The mean physical-signs subscale score was 8.10±1.61, with a median of 8 (range: 4–12). The mean emotional-signs subscale score was 11.59±2.16, with a median of 11 (range: 5–17). The mean total NMRVAWS score was 19.69 2.97, with a median of 19 (range: 11–27) (Table 2). Because the two subscales have different possible score ranges, their raw mean scores were not interpreted as directly comparable measures of relative performance.

Table 2. Mean scores of midwifery students on the NMRVAWS physical signs and emotional signs subscales and total score

Variable	Mean±SD	Median (Min–Max)
Physical signs subscale	8.10±1.61	8 (4–12)
Emotional signs subscale	11.59±2.16	11 (5–17)
Total score	19.69±2.97	19 (11–27)

NMRVAWS = Nurses' and Midwives' Recognition of Signs of Violence Against Women Scale.

Based on the predefined cut-off categories, 77.8% of students were classified as partially adequate for the physical-signs subscale, 7.4% as adequate, and 14.8% as inadequate. For the emotional-signs subscale, 82.0% were partially adequate, 10.6% adequate, and 7.4% inadequate. For the total score, 86.6% were partially

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https://doi.org/10.63909/1453051

adequate, 5.3% adequate, and 8.1% inadequate. Thus, the predominant category across the subscales and total score was partially adequate (Table 3).

Table 3. Categorical distribution of midwifery students' NMRVAWS physical signs and emotional signs subscale scores and total scores

NMRVAWS Scale Scores	Partially Adequate		Adequate		Inadequate	
	n	%	n	%	n	%
Physical signs subscale	221	77.8	21	7.4	42	14.8
Emotional signs subscale	233	82.0	30	10.6	21	7.4
Total score	246	86.6	15	5.3	23	8.1

Note. NMRVAWS = Nurses' and Midwives' Recognition of Signs of Violence Against Women Scale.

Table 4 presents the associations and group comparisons for NMRVAWS scores. Age was not significantly associated with the physical-signs subscale (Spearman r=0.01, p=0.90), emotional-signs subscale (r=–0.02, p=0.77), or total score (r=0.01, p=0.92). Scores also did not differ significantly according to year of study (all p>0.05).

There were no statistically significant differences by marital status for the physical-signs subscale (p=0.625), emotional-signs subscale (p=0.052), or total score (p=0.057). Because the prespecified significance threshold was p<0.05, the latter two p-values were interpreted as non-significant.

No statistically significant differences were found according to mother's education level (all p>0.05). The inferential comparison by father's education level was removed because one category contained only one participant, making subgroup estimates unstable and the previously reported median (minimum–maximum) values for that category inappropriate. Place of longest residence was not significantly associated with physical-signs (p=0.050), emotional-signs (p=0.456), or total scores (p=0.093).

NMRVAWS scores did not differ significantly according to receiving information about violence against women in midwifery courses, attending training outside regular courses, or perceiving one's own knowledge as sufficient (all p>0.05). These findings indicate no observed group differences in this cross-sectional sample and should not be interpreted as evidence that education is ineffective.

Students who believed that addressing violence against women should be included in professional practice had higher emotional-signs scores (p<0.001) and total scores (p=0.004), whereas physical-signs scores did not differ (p=0.719). These are cross-sectional associations and do not establish the direction or mechanism of the relationship (Table 4).

Table 4. NMRVAWS physical signs and emotional signs subscale and total scores according to selected variables

Variable	Category / Statistic	Physical Signs Subscale	Emotional Signs Subscale	Total Score
Age	Spearman r (p)	0.01 (0.90)	–0.02 (0.77)	0.01 (0.92)
Year of study	First year	8 (4–11)	12 (8–17)	19 (14–26)
Year of study	Second year	8 (4–11)	11 (6–16)	19 (12–26)
Year of study	Third year	8 (4–12)	12 (5–16)	21 (11–26)
Year of study	Fourth year	8 (5–12)	11 (6–16)	19 (12–27)
Year of study	H (p)	2.334 (0.506)	4.353 (0.226)	5.105 (0.164)
Marital status	Single	8 (4–12)	11 (5–17)	19 (11–27)
Marital status	Married	8 (6–11)	10 (7–12)	18 (16–19)
Marital status	U (p)	739.50 (0.625)	451.50 (0.052)	457.50 (0.057)
Mother's education level	Primary school	8 (4–12)	12 (7–17)	20 (12–27)
Mother's education level	High school	8 (4–12)	11 (7–16)	19 (13–24)
Mother's education level	Literate without formal schooling	8 (4–11)	12 (7–15)	19.5 (11–26)
Mother's education level	Illiterate	7.5 (5–11)	10.5 (7–13)	18.5 (12–24)

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Variable	Category / Statistic	Physical Signs Subscale	Emotional Signs Subscale	Total Score
Mother's education level	Middle school	8 (5–12)	11 (5–16)	20 (12–27)
Mother's education level	University	8 (4–12)	11 (6–15)	19 (13–26)
Mother's education level	H (p)	5.204 (0.392)	7.060 (0.216)	7.932 (0.160)
Place lived longest	City center	8 (4–12)	12 (5–16)	20 (13–27)
Place lived longest	District	8 (4–12)	11 (6–16)	19 (11–27)
Place lived longest	Town	8 (4–10)	11 (10–15)	18.5 (16–24)
Place lived longest	Village	8 (4–11)	11 (7–17)	19 (14–26)
Place lived longest	H (p)	7.805 (0.050)	2.608 (0.456)	6.412 (0.093)
Information in midwifery courses	Yes	8 (4–12)	11 (6–16)	20 (11–27)
Information in midwifery courses	No	8 (4–12)	11 (5–17)	19 (12–27)
Information in midwifery courses	U (p)	8976.0 (0.449)	9133.5 (0.612)	8945.5 (0.431)
Training outside regular courses	Yes	8 (4–12)	11 (7–17)	19 (12–27)
Training outside regular courses	No	8 (4–12)	11 (5–16)	19 (11–27)
Training outside regular courses	U (p)	6678.5 (0.162)	7734.5 (0.678)	7114.0 (0.525)
Perceived sufficient knowledge	Yes	8 (4–12)	11 (6–17)	19 (11–27)
Perceived sufficient knowledge	No	8 (4–12)	11 (5–16)	20 (12–27)
Perceived sufficient knowledge	U (p)	10840.5 (0.258)	10272.5 (0.778)	10708.0 (0.360)
Intended action when encountering violence	Take history and refer to physician	8 (4–11)	11 (6–16)	19.5 (13–26)
Intended action when encountering violence	Might not know what to do	8 (5–10)	12 (7–16)	20 (12–24)
Intended action when encountering violence	Inform about legal/institutional support	8 (4–12)	11 (5–17)	19 (11–27)
Intended action when encountering violence	H (p)	1.940 (0.379)	0.822 (0.663)	0.049 (0.976)
Violence should be included in professional practice	Yes	8 (4–12)	11 (6–17)	19 (11–27)
Violence should be included in professional practice	No	8 (5–10)	9 (5–12)	16 (12–22)
Violence should be included in professional practice	U (p)	1408.0 (0.719)	584.5 (<0.001)	736.5 (0.004)

Note: Age is reported as Spearman's r (p). Group data are median (minimum–maximum). H=Kruskal–Wallis H statistic; U=Mann–Whitney U statistic. Father's education was not included in inferential comparisons because the illiterate subgroup contained one participant. Statistical significance was defined as p<0.05; p=0.050 was treated as non-significant.

DISCUSSION

In this study, most midwifery students were classified as partially adequate in recognizing signs of violence against women, while relatively few met the criterion for adequate recognition. This finding indicates an educational need at the pre-graduation level, particularly because midwives may encounter women exposed to violence during reproductive and maternity care. Previous studies have similarly emphasized the importance of structured education that combines recognition of warning signs with communication, referral, and professional-role competencies (14–18).

The physical-signs and emotional-signs subscales have different possible score ranges; therefore, the raw subscale means should not be interpreted as showing that one type of sign was recognized better than the other. The categorical results nevertheless show that most students were only partially adequate in both

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domains. This supports educational approaches that address both observable physical indicators and less explicit emotional or psychological indicators through case discussion, communication practice, and contextual assessment (19–23).

The predominance of partial adequacy suggests that factual knowledge alone may not be sufficient for confident clinical recognition and referral. Training that incorporates scenario-based learning, simulation, case analysis, ethical and legal responsibilities, and multidisciplinary referral pathways may be useful for translating knowledge into practice (15,18,24–26). Because the present study is cross-sectional, these educational implications should be viewed as recommendations for future curriculum development rather than as effects demonstrated by the current data.

Neither receiving information about violence against women in midwifery courses nor attending extracurricular training was associated with NMRVAWS scores in this sample. This finding should not be interpreted as evidence that education does not improve recognition, because exposure, duration, content, teaching method, and timing were not measured in sufficient detail and the design does not permit evaluation of educational effects. The result instead suggests that future studies should assess the quality and intensity of educational exposure and, where possible, use longitudinal or intervention designs (15–17,20,22,23).

Approximately half of the students considered their knowledge insufficient, yet self-perceived knowledge was not significantly associated with measured recognition scores. This may reflect a distinction between subjective confidence and performance on a knowledge-based measure. Future studies that jointly assess knowledge, self-efficacy, communication skills, and observed clinical performance could clarify how these domains relate to one another (18,24).

A large majority of students (96.1%) believed that addressing violence against women should be included in professional practice. Students endorsing this view had higher emotional-signs and total NMRVAWS scores. This association may indicate that professional-role awareness and recognition of violence-related signs are related; however, the cross-sectional design prevents conclusions about directionality or causation, and the very small comparison subgroup requires caution in interpretation (17,19,21).

Most students reported that they would inform a woman exposed to violence about legal or institutional sources of support, whereas 7.4% reported that they might not know what to do. This subgroup is clinically relevant because uncertainty during an encounter may delay safe referral. Educational activities that rehearse referral algorithms, legal and institutional pathways, role-playing, and case-based decision making may help students become more familiar with appropriate next steps (15,17,20).

No statistically significant differences were observed according to age, year of study, or mother's education level. These findings describe the present sample only and should not be interpreted as evidence that progression through the curriculum has no effect on knowledge. Longitudinal studies following the same students across academic years would be better suited to evaluate change over time (14,24,25). Father's education was not included in inferential comparisons because one subgroup contained a single participant.

The comparison for place of longest residence yielded $p=0.050$ for the physical-signs subscale. Because statistical significance was defined a priori as $p<0.05$, this result was treated as non-significant. It may nevertheless be useful for future, adequately powered studies to examine whether social context, access to services, or community awareness is associated with recognition of violence against women (16,22).

This study has several limitations. It was conducted at a single university, used a cross-sectional design and self-reported questionnaire data, and included only midwifery students; therefore, generalizability is limited and causal inferences cannot be made. Some subgroup sizes were very small. In particular, the father's-education category of illiterate included only one participant and was therefore excluded from inferential comparisons. In addition, the available study records did not retain a verifiable denominator for nonresponders or a respondent-level technical log documenting duplicate-response prevention in Google Forms; consequently, an exact response rate and the platform's duplicate-prevention

setting could not be reconstructed retrospectively. The study nevertheless provides a structured assessment of physical-sign, emotional-sign, and total recognition scores in a relatively large sample of midwifery students.

CONCLUSION

Midwifery students' recognition of signs of violence against women was predominantly at a partially adequate level. Reported prior education was not associated with NMRVAWS scores in this cross-sectional sample, whereas perceiving violence against women as part of professional practice was associated with higher emotional-signs and total scores. These findings do not establish causality but indicate areas that may benefit from further investigation. Midwifery curricula may consider strengthening practice-oriented content on recognition of violence, safe communication, referral pathways, legal responsibilities, and multidisciplinary collaboration, with future longitudinal or intervention studies evaluating the effectiveness of these approaches.

Acknowledgement: We would like to thank the administrators of the institution who gave the necessary permissions to carry out this study and the students who agreed to participate in the study.

Ethical Approval: Ethical approval for the study was obtained from the Non-Interventional Clinical Research Ethics Committee of Karabük University with the decision number 2024/1812 dated 06 June 2024. The study was conducted in accordance with the principles of the Declaration of Helsinki. Before data collection, participants were informed about the aim and scope of the study, and voluntary participation was ensured.

Author Contributions: Idea/Concept: S.H., R.A.D.; Design: S.H., A.N.T., Z.C., R.A.D.; Supervision: S.H., R.A.D.; Resources: S.H., R.A.D.; Materials: S.H., A.N.T., Z.C., R.A.D.; Data Collection and/or Processing: A.N.T., Z.C.; Analysis and/or Interpretation: S.H., R.A.D.; Literature Review: S.H., A.N.T., Z.C.; Written by: S.H., A.N.T., Z.C.; Critical Review: S.H., R.A.D.

Conflict of Interest: The authors declared no conflict of interest.

Financial Disclosure: This study was supported by the TÜBİTAK 2209-A University Students Research Projects Support Program under project number 1919B012309322. The funding institution had no role in the design of the study, data collection, analysis, interpretation of the data, or writing of the manuscript.

REFERENCES

1. Esencan TY, Yıldırım AD. Uluslararası kılavuzlar ve uzman görüşleri ışığında COVID-19 sürecinde antenatal, innatal ve postnatal ebelik bakımı. STED. 2020;29(5):261-372.
2. Pınar ŞE, Özdemir S. Ebelik öğrencilerine verilen eğitimin şiddette mesleki rollerine ilişkin tutum ve şiddet belirtilerini tanıma düzeyleri üzerine etkisi. Lokman Hekim Derg. 2021;11(2):300-9.
3. World Health Organization. Violence against women [Internet]. 2024 [cited 2026 May 26]. Available from: https://www.who.int/news-room/fact-sheets/detail/violence-against-women.
4. Ay R, Kılınçel Ş. Hekimlerin kadına yönelik şiddet ile ilgili bilgi ve tutumlarının değerlendirilmesi. J Contemp Med. 2020;10(4):600-8.
5. Açıl A, Karabacak BG. Determination of nursing students' levels of cultural awareness, intercultural sensitivity, and their perspectives on culturally sensitive nursing care. J Hum Sci. 2024;21(2):108-28.
6. Akin B, Erkal Aksoy Y, Türkmen H. Ebelerin kadına yönelik şiddet belirtilerini tanıma düzeylerinin belirlenmesi. CBU-SBED. 2022;9(2):262-7.
7. Baysan Arabacı L, Karadağlı A. Hemşire ve ebelerin kadına yönelik şiddet belirtilerini tanımalarına ilişkin ölçek geliştirme. Sağlık ve Toplum Dergisi. 2006;16(2):101-12.
8. Doran F, Van De Mortel T. The influence of an educational intervention on nursing students' domestic violence knowledge and attitudes: a pre and post intervention study. BMC Nurs. 2022;21(1):109.
9. Özdemir S, Pınar ŞE. The effect of education given to university students on attitude towards violence against women conflict and awareness levels. Kırşehir Ahi Evran Üniversitesi Sağlık Bilimleri Dergisi. 2024;8(2):130-56.
10. Işık HK. Ebelik bölümü öğrencilerinin cinsellik ve cinsel sağlıkla ilişkili bilgi düzeylerinin değerlendirilmesi. Anatol J Health Res. 2023;4(3):125-31.
11. Kartal YA, Bulut A. Investigation of the levels of knowledge and risk recognition about child abuse and negligence of midwifery students. J Hum Sci. 2022;19(4):613-24.
12. Yılmaz EB, Yüksel A. The effect of violence against women education on nursing students' attitudes towards violence, professional attitudes and recognition of the symptoms of violence: quasi-experimental study. Turkiye Klinikleri J Nurs Sci. 2023;15(2):508-16.
13. 13. El-Etreby RR, Hamed WE, AbdElhay ES, Kamel NA. Nursing students' attitudes toward intimate partner violence and its relationship with self-esteem and self-efficacy. BMC Nurs. 2024;23(1):210.

Turk J Clin Res. 2026;2(2):111-120
https://doi.org/10.63909/1453051

14. İkiz FE, Çınkı ÖS. Kadınlarda şiddeti önleme programları: sistematik gözden geçirme. J Int Educ Sci. 2023;34(34):332-52.
15. İlhan ÇK, Bozkurt G. 8 Mart Dünya Kadınlar Günü'ne ilişkin haberlerin toplumsal cinsiyet bağlamında incelenmesi: BBC Türkçe ve Hürriyet Gazetesi örneği. Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi. 2023;11(1):369-406.
16. Seçgin L, Arslan T, Selçuk KT. Türkiye'de son beş yılda kadına yönelik şiddet: COVID-19 pandemisinin etkisi. Humanistic Perspective. 2022;4(1):28-43.
17. Delibaş L, Polat F, Bilir İ, Ekren A, Çelikli S. Eğitimli gençlerin benlik saygısı ile kadına yönelik şiddete karşı tutumları arasındaki ilişki. Lokman Hekim Derg. 2020;10(2):222-30.
18. Özdemir A, Budak FK. The effect of communication skills between spouses on domestic violence against women. Turkiye Klinikleri J Nurs Sci. 2021;13(2):406-11.
19. Eryalçın M, Demirel S, Duyan V. The adaptation study of the Severity of Violence Against Women Scale to Turkish. Turk J Fam Med Prim Care. 2020;14(1):33-40.
20. Tuna D. Yazarın zihninde bir çeviri edimi: Özde çeviri ürünü olarak kaynak metin ve aslına çevirisi. RumeliDE Dil ve Edebiyat Araştırmaları Dergisi. 2020;(Ö8):882-904.
21. Yıldırım N, Toraman AU. Şiddet mağduru kadının değişim aşamaları ölçeği Türkçe formunun geçerlik ve güvenirliğinin değerlendirilmesi. Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi. 2023;12(2):746-56.
22. Demir T, Nalbant F. Kadına yönelik şiddetle mücadelede kullanılan mobil uygulamaların kamu değeri perspektifinden değerlendirilmesi. Fiscaoeconomia. 2023;7(1):341-64.
23. Karaaziz M. Violence against women in spousal relationships: review. J Soc Sci. 2023;64(64):160-71.
24. Ekrem EC. Aile içi şiddetin cinsellik boyutu. Arşiv Kaynak Tarama Dergisi. 2021;30(1):31-6.
25. Shamsi M, Khoshnood Z, Farokhzadian J. Improving psychiatric nurses' competencies in spiritual care and integration of clients' religion/spirituality into mental healthcare: outcomes of an online spiritual care training program. BMC Psychiatry. 2022;22(1):645.
26. Tektaş P, Yildiz N, Kanbay Y, Işık E, Aslan Ö. Üniversite öğrencilerinde kadına yönelik şiddetle ilgili etmenlerin incelenmesi. Artvin Çoruh Üniversitesi Uluslararası Sosyal Bilimler Dergisi. 2020;6(1):40-9.