Attitudes, behaviors, and influencing factors of medical and health sciences students towards dating violence

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SUMMARY

Objective: Dating violence is common and important; however, it is preventable public health. Many studies show that both men and women are widely affected. According to studies done in Türkiye, the ratio of being exposed to violence or abuse in a dating relationship changes up to 85.3%. Our objective was to evaluate the prevalence of dating violence and the attitudes and factors affecting it among healthcare university students.

Method: A total of 908 students were included in the analyses. Univarite and multivariate analysis were carried out.

Results: Of the participants, 36.6% had never heard of the concept of dating violence. The prevalence of exposure to dating violence was 33.6%, the prevalence of perpetration was 17.8% in past relationships; the rate of those who are exposed is 10.1% and the rate of those who perpetrated dating violence is 6.7% in their current relationships. Psychological dating violence was the type of dating violence that was committed and exposed the most in both current and past relationships. Women, students at the clinical education level, and students from upper social class had unfavorable attitudes toward dating violence. Those who did not witness dating violence in their close circle of friends had better attitudes toward dating violence. Witnesses of domestic violence had statistically significant favo-rable attitude towards psychological dating violence more than of those who did not. Only one of the 232 people stated that they applied to the official authorities when exposed to dating violence.

Discussion: It is alarming that one in three medical and health sciences students, who should be among the primary people who need to take action against violence in the future, have never heard of dating violence.

Key Words: Violence, intimate partner violence, exposure to violence

INTRODUCTION

Intimate partner violence (IPV) refers to behavior within an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors. This definition covers violence by both current and former spouses and partners (1, 2). Dating violence (DV) is a form of IPV that can be experienced at an early age, is challenging to distinguish, and can have lifelong effects on health and well-being (1). It can escalate into many forms of violence, such as domestic violence, which is another important form of violence in adulthood. (3). Therefore, establishing its detection and awareness enables the prevention of many types of violence that may occur in the future (1,4,5).

About one in four women and one in ten men experienced contact sexual violence, physical violence, and/or stalking by an intimate partner, and repor-ted an IPV-related impact during their lifetime (1). IPV is also shown to be quite common among adolescents and young adults (6,3). The research on violence against women conducted by World Health Organization (WHO) in 161 countries between 2000 and 2018 revealed that one out of every three women (30%) was exposed to sexual or physical violence by a partner or non-partner (3), while a national study conducted in the USA revealed that four out of every ten college students have been subjected to violence or harassment in a dating relationship (7). Similarly, in Türkiye, these rates go up to 85.3% (8,9,10,11,12,13,14). Consequently, DV is very common among adolescents and young adults, but it is also a preventable

DOI: 10.5505/kpd.2025.47600

Cite this article as: Cil E, Erbay Dundar P. Attitudes, behaviors, and influencing factors of medical and health sciences students towards dating violence. Turkish J Clin Psych 2025; 28: 332-341

The arrival date of article: 05.01.2025, **Acceptance date publication:** 12.09.2025

Turkish J Clinical Psychiatry 2025;28: 332-341

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public health problem (1,3,15).

Theories offer different explanations for violent behavior and its use. In social learning theory (SLT), witnessing or being exposed to violence in the family and in feminist theory, the power control mechanism between men and women created by an underlying patriarchal social system considered main determinants of violent behaviour. Moreover, in the theory of social norms, violent behaviour occur as people tend to conform to social norms even if they are harmful, such as violence. (16). Though interventions have little impact on the perpetration and victimization of DV, their success in improving knowledge and attitudes toward DV still warrants further research (17).

In previous studies being an adolescent, gender, low socioeconomic status, living in a rural area, living with extended family, using alcohol and drugs, eating and sleeping disorders, mental health problems such as fear, anxiety, trauma and suicide, social isolation, shame, guilt, anger, aggression, lack of support system of individuals, conflicts in relationships, history of violence among family or close friends, exhibiting asocial behaviors, previous exposure to violence have shown to have effects on DV (10,18,19,20).

Previous studies, in accordance with the SLT, showed those who had been exposed to domestic violence in childhood perpetrated DV more than 4.87 times and those who witnessed it more than 3.84 times (21). The fact that those who have not witnessed intimate partner violence during childhood still constitute a significant part of the perpetrators, necessitates the investigation of other risk and protective factors (5).

Healthcare professionals are key players in reducing gender discrimination and violence, and it is vital that they have a high awareness of them, and they are well-equipped to take the necessary steps when in need (22,23,24) Therefore, we aimed to evaluate the prevalence of DV behaviour and the attitudes toward it and factors affecting it among the students of the Faculty of Health Sciences and Faculty of Medicine at Manisa Celal Bayar University.

Accordingly, - three research questions were formulated:

Q1. What is the prevalence of perpetration and exposure rate of DV in healthcare students' past and present relationships?

Q2. What are the factors that affect the DV attitudes of healthcare students?

Q3. What are the factors that affect the DV behavior of healthcare students?

METHODS

This cross-sectional study was carried out at Manisa Celal Bayar University, Faculty of Medicine, and Faculty of Health Sciences in 2021-2022 educational period. The population of the study consists of 3794 students, 1320 medical and 2474 health sciences students (including midwifery, nursing, social work, physiotherapy, and rehabilitation departments), studying at Manisa Celal Bayar University in Turkey.

Since the results of the previous prevalence studies that used the same scale indicate a very wide range (2.4-85.3%), a DV prevalence value of 50.0% (unknown prevelance) is adopted. The sample size was calculated as 843 on Epi info 7 software, by taking α value of 0.05, the study confidence level of 99.9%, and a design effect of 1 (25). The number of people who participated in the study was 614 at first, and after 2 reminders, the total number of participants included in the analyses was 908, reaching a response rate of 23.9%.

Data Collection and Tool

Due to the COVID-19 pandemic, participation in theoretical classes was not mandatory. To reach out to the students who choose to attend classes online or who were in an isolation period for any reason, the Google online survey method was used for collecting data. Data collection forms were delivered to the students through WhatsApp groups specific to the year in which all students were a member. A total of 2 reminders were made on the 2nd and 4th

days. The data collection form, which was created by the researchers by reviewing the literature and included the Intimate Partner Violence Attitude - Revised Form-Scale (IPVAS-R), was used.

Dependent Variable

The dependent variable of the study was the attitude toward DV. It was evaluated using the Intimate Partner Violence Attitude Scale-Revised Form (IPVAS-R) scale. The scale developed by Fincham et al. (2008) was designed to measure the attitudes of university students toward psychological and physical aggression experienced in a dating relationship (26). Demirtas et al. completed the adaptation study to Turkish (13). IPVAS-R is a self-assessment scale consisting of 3 dimensions (abuse-8 items, control-5 items, and violence-4 items) and 17 items (13). In the directive used, it was requested from participants to rate how compatible each item was for them, between 1 (Strongly Disagree) and 5 (Strongly Agree). The scale does not have a cut-off score and an increase in the scale scores indicates an increase in the level of acceptance of DV by the participant. Items 2, 4, 5, 8, 12, 13, 14, and 17 of the scale are reverse scored. While the dimension of "violence" was used to measure attitudes toward physical violence, the dimension of "abuse" and "control" were included to measure attitudes toward psychological violence. The minimum and maximum scores that can be taken from each sub-dimension of physical violence and psychological violence were 4–20 and 13-65, respectively. Cronbach's alpha for the full IPVAS-R was .72. The internal consistency coefficients of the scale were calculated as .72, .62, and .65 for violence, control, and abuse dimensions, respectively. In our study, Cronbach alpha value was 0.82 for the total scale.

Independent Variables

In the first section, the sociodemographic and personal characteristics of individuals were questioned. In the second section, which included questions about dating relationships and DV, the first question was whether ever heard of the DV concept before. After this question, a brief explanation of DV (‡) was given, so that the participants could answer the following questions more accurately. Subsequently, whether ever dated before, the age during the first dating relationship, the longest duration of a dating relationship, whether ever committed or been exposed to DV before, what type of DV was being exposed to, and their reaction to it, having a current dating relationship, (if yes) the duration of it, whether commits or exposes to DV in the current dating relationship, if so the type of the DV and the related reaction when exposed to DV in the current relationship, whether shared this situation with her family or anyone besides family and their reactions and witnessing DV among close friends were questioned.

The students studying in the 1st, 2nd, and 3rd years in both faculties were grouped as "pre-clinical", the students studying in the 4th, 5th, and 6th years in the medical faculty, and in the 4th year in the faculty of health sciences were grouped as "clinical" since both health sciences and medical students start their clinical practices in their 4th year of studies. According to the occupation of the parents, the participants were classified as "upper" and "lower" according to the social classification of Boratav, designed for Turkey (27). Eastern Anatolia Region and Southeastern Anatolia Region were grouped as "east", and the rest of the country was grouped as "west" considering the geography and development of the regions (28).

Statistical analysis

The IBM SPSS 24.0 program was used for all the analyses. The numbers and percentages were given in descriptive analysis. In univariate analyses, parametric tests (Student's t-test or ANOVA) were used when the data were normally distributed or $n>30$ in each subgroup (29), and non-parametric tests (Mann Whitney-U or Kruskal Wallis tests) were used when data were not normally distributed or $n<30$ in any subgroup. Post-hoc tests were performed when the number of groups was 3 or more. P-value was considered <0.05 in all analyses.

Ethical Committee Approval

Approval for the study was obtained from the Ethics Committee of the university (Ref. number:

Table 1: Sociodemographic Characteristics of the Participants (n=908)

Characteristics	n	%
Gender		
Woman	611	67.3
Man	297	32.7
Faculty		
Medicine	583	64.2
Health Sciences	325	35.8
• *Midwifery*	*69*	*7,6*
• *Nursing*	*110*	*12,1*
• *Social Work*	*66*	*7,3*
• *Physiotherapy and Rehabilitation*	*80*	*8,8*
Year of Education		
Pre-clinical	496	54.6
Clinical	412	45.4
Living (with)		
Friends	468	51.5
Parents	230	25.3
Alone	194	21.4
Spouse/Partner	16	1.8
To Have Been Migrated to Manisa		
Yes	775	85.4
No	133	14.6
Place of being brought up (Until 12 years old)		
City center	499	54.9
District of city (rural)	409	45.1
Family Type		
Nuclear family	769	84.6
Large family (with relatives)	84	9.3
Fragmented family	55	6.1
Having sibling(s)		
Yes	821	90.4
No	87	9.6
Having a sibling from opposite sex (n=821)		
Yes	520	63.4
No	301	36.6
Mother		
Alive	893	98.3
Dead	15	1.7
Father		
Alive	882	97.1
Dead	26	2.9
Perceived Family Income		
Income less than expenses	188	20.7
Income equals to expenses	481	53.0
Income more than expenses	239	26.3
Smoking		
Never used	607	66.8
Active user	204	22.5
Quitted	97	10.7
Drinking alcohol		
Never drank	343	37.8
Only tried	118	13.0
Occasionally drinking	397	43.7
Often drinking	50	5.5
Mental Health Problem Diagnosed by a Physician		
No	800	88.1
Yes	108	11.9
Regular Follow-up by a Physician (n=108)		
Yes	38	35.2
Rarely (when I need)	38	35.2
No	32	29.6

20.478.486/1177). In our study, participation was voluntary. Before filling out the questionnaires, we informed the participants about the purpose of the study, that the information they would provide would only be used for scientific purposes, and that the confidentiality of the information would be protected.

RESULTS

Totally 908 students were included in the analyses. The sociodemographic characteristics of the participants and descriptive data of the questions about dating and DV are presented in Tables 1&2. The median age of the participants was 21.0 [-IQR (25-75): 19.0-23.0] and only 4 participants were married.

The type of DV that was committed and was exposed the most was psychological DV in both current and past relationships. The type of action they took when they were exposed to DV, half of them stated that they reconciled, and the other half stated they ended the relationship (Table 3).

Women ($p<0.001$, $p=0.036$, $p<0.001$), students in the clinical education level ($p=0.010$, $p<0.001$, $p=0.031$), and those with a nuclear family ($p=0.007$, $p=0.020$, $p=0.027$) had a statistically significant lower attitude score toward DV in all scale scores. While the place of immigration, having siblings, and doing regular physical activity are variables that affected both the total and psychological subscale score; social class is the variable that affected both the total and physical subscale score (Table 4). It was observed that those who did not witness DV in their close circle of friends had better attitudes in the same scale scores. Witnessing domestic violence, being exposed to domestic violence, and being exposed to DV in past relationships were risk factors for more perpetration of DV in past relationships ($p<0.001$ for all). Exposure to

Table 2: Responses of participants to questions regarding dating violence (n=908)

Variables	n	%
Witnessing Domestic Violence		
No	650	71.6
Yes	258	28.4
Exposure to Domestic Violence		
No	715	78.7
Yes	193	21.3
Hearing the Concept of Dating Violence		
Yes	576	63.4
No	332	36.6
Having a Dating Relationship So Far		
Yes	691	76.1
No	217	23.9
Committing Dating Violence in Past Relationships (n=691)		
No	568	82.2
Yes	123	17.8
Exposure to Dating Violence in Past Relationships (n=691)		
No	459	66.4
Yes	232	33.6
Having a Current Date		
No	563	62.0
Yes	345	38.0
Committing Dating Violence in the Current Dating (n=345)		
No	322	93.3
Yes	23	6.7
Exposure to Dating Violence in Current Dating Relationship (n=345)		
No	310	89.9
Yes	35	10.1
Sharing with Family When Exposed to Dating Violence (n=35)		
No	29	82.9
Yes	6	17.1
Sharing with Someone Beside the Family When Subjected to Dating Violence (n=35)		
Yes	28	80.0
No	7	20.0
Witnessing Dating Violence Among Friends		
Yes	536	59.0
No	372	41.0

Table 3. Type of Dating Violence Committed/Exposed and Distribution of Related Reactions*

	n	%
The type of dating violence committed by those who had a date so far (n=691)		
Psychological (Verbal. emotional)	120	17.4
Digital (Online or social media)	19	2.7
Physically	9	1.3
Sexual	7	1.0
Economic	2	0.3
The type of dating violence that those who had a date so far have been exposed to (n=691)		
Psychological (Verbal. emotional)	224	32.4
Digital (Online or social media)	60	8.7
Sexual	41	5.9
Physically	29	4.2
Economic	11	1.6
Types of reactions when exposed to dating violence (n=232)		
I was hurt but then I made up	118	50.9
I ended the relationship	114	49.1
I was unresponsive	48	20.7
I also committed him/her dating violence	39	16.8
I applied to official institutions for investigation.	1	0.4
Types of dating violence committed by those who are currently in a relationship (n=345)		
Psychological (Verbal. emotional)	23	6.7
Physically	2	0.6
Economic	2	0.6
Digital (Online or social media)	1	0.3
Sexual	0	0.0
The type of dating violence exposed by those who are currently in a relationship (n=345)		
Psychological (Verbal. emotional)	33	9.6
Physically	3	0.9
Economic	3	0.9
Digital (Online or social media)	2	0.6
Sexual	2	0.6

*Multiple choice questions.

domestic violence ($p<0.001$), exposure to DV in past relationships ($p<0.001$), and perpetrating DV in past relationships ($p=0,004$) were identified as risk factors for more perpetration of DV in the current relationships (Table 5&6).

DISCUSSION

The results of our study have salient findings. In their past relationships, 17.8% of the participants stated that they perpetrated DV, and 33.6% were exposed to it. The figures for current relationships were 6.7% and 10.1%, respectively. In one of the studies conducted only on female university students in Türkiye, there are studies that found the prevalence of DV, the majority of which is psychological violence, to be 85.3% (30). The prevalence of DV seems to be lower compared to this and many other studies conducted in Türkiye (8,9,10, 11,12,14). One of the other striking findings in our study that should also be noted is that one out of every three healthcare students has not heard of the concept of DV. In previous studies conducted in Turkey, it was shown that nursing and midwifery students did not have enough knowledge about DV (31). When this is taken into consideration with the high prevalence of domestic violence reported in our study, it is worrying that a public health problem is so little known, albeit as a concept, by future healthcare professionals, who need to act on any type of violence by seeing the signs, preventing it, and being an advocate.

According to multivariate analysis, it was observed statistically that individuals who perpetrated dating violence were older, they were exposed to domestic violence, witnessed violence among friends, and their attitude towards dating violence were worse. In women compared to men, as age increases, in divided families compared to nuclear and extended families, in those diagnosed with mental illness, in those exposed to domestic violence, in those who know the concept of dating violence and in those who witness violence among friends, exposure to dating violence were statistically higher (Table 6). Aligning with previous studeies, those who perpetrated DV in both current and past relationships have been exposed to domestic violence and DV in their past relationships more (10,31,32,33). In addition, those who perpetrated DV in their past relationships have also perpetrated DV more in their current relationships. However, while witnessing domestic violence was found to be-important for perpetrating DV in past relationships, this relationship was not observed in current relationships. Also, the attitudes of those who witnessed domestic violence toward psychological DV were worse. Since no difference was observed in the attitude

Table 4: Univariates Analysis of Dating Violence Attitudes of Participants by Scale Scores

Characteristics	n	Total Scale Score Mean – SD	Attitude Towards Physical Violence Score Mean – SD	Attitude Towards Psychological Violence Score Mean – SD
Gender				
Woman	611	28.48–8.40	5.21–3.10	23.27–6.54
Man	297	32.84–8.70	5.74–3.82	27.09–6.33
Mean Dif. (%95 CI)			0,53 (0,03-1,04)	3,82 (2,92-4,72)
t test (Cohens d)		7,246 (0,513)	2,104 (0,160)	8,340 (0,590)
p-value		<0.05	0.036	<0.001
Faculty				
Medicine	583	29.55–8.05	5.11–2.94	24.44–6.38
Health Sciences	325	30.53–9.83	5.86–3.97	24.67–7.28
Mean Dif. (%95 CI)		0,97 (-0,21-2,17)	0,75 (0,29-1,20)	0,23 (-0,68-1,14)
t test (Cohens d)		1,160 (0,112)	3,230 (0,224)	0,494 (0,034)
p-value		0.126	0.003	0.634
Year of Education				
Pre-clinical	496	30.58–8.94	13.75–4.19	24.96–6.76
Clinical	412	29.09– 8.41	12.67–3.94	23.99–6.63
Mean Dif. (%95 CI)		1,49 (0,35-2,63)	0,52 (0,09-0,96)	0,97 (0,09-1,84)
t test (Cohens d)		2,569 (0,171)	2,387 (0,157)	2,163 (0,144)
p-value		0.010	<0.001	0.031
Place of Residence				
Others	678	29.86–8.97	5.39–3.39	24.46–6.83
Home	230	30.04–8.01	5.36–3.27	24.68–6.38
Mean Dif. (%95 CI)		1,09 (-0,08-2,26)	0,53 (0,54-1,00)	0,56 (-0,34-1,47)
t test (Cohens d)		1,827 (0,125)	2,189 (0,157)	1,229 (0,084)
p-value		0.072	0.027	0.238
Place of Immigration				
West	702	29.79–8.90	5.38–3.34	24.40–6.82
East	73	32.60–8.11	5.73–3.67	26.86–6.00
Mean Dif. (%95 CI)		2,81 (0,68-4,94)	0,35 (-0,46-1,17)	2,45 (0,82-4,08)
t test (Cohens d)		2,585 (0,318)	0,854 (0,105)	2,954 (0,363)
p-value		0.010	0.393	0.003
Place of being brought up (Until 12 years old)				
City center	499	29.34–8.03	5.18–2.97	24.15–6.40
District of city (rural)	409	30.60–9.49	5.63–3.77	24.97–7.06
Mean Dif. (%95 CI)		1,26 (0,121-2,40)	0,45 (-0,00-0,90)	0,81 (-0,64-1,69)
t test (Cohens d)		2,171 (0,145)	1,657 (0,134)	1,820 (0,121)
p-value		0.030	0.051	0.069
Family Type*				
Nuclear family	511	29.52–8.20 (28,94-30,11)	5.25–3.14 (5,03-5,48)	24.27–6.35 (23,82-24,72)
Large family (with relatives)	32	32.22–10.61 (29,92-34,53)	6.17–4.46 (5,21-7,15)	26.04–8.00 (24,31-27,79)
Fragmented family	40	31.74–11.78 (28,56-34,93)	6.01–4.18 (4,89-7,15)	25.72–8.89 (23,32-28,13)
F test (n^2)		4,951 (0,011)	3,910 (0,009)	3,612 (0,008)
p-value		0.007	0.020	0.027
*According to the post hoc analysis, no significant difference was found between groups.				
Having sibling(s)				
Yes	820	30.12–8.88	5.42–3.41	24.69–6.80
No	88	27.90–6.92	5.00–2.83	22.90–5.56
Mean Dif. (%95 CI)		2,21 (0,28-4,14)	0,43 (-0,32-1,18)	1,79 (0,30-3,27)
t test (Cohens d)		2,252 (0,254)	1,127 (0,127)	2,364 (0,267)
p-value		0.025	0.260	0.018
Number of Siblings				
None	88	28.03–6.98 (26,56-29,51)	5.01–2.81 (4,41-5,61)	23.02–5.63 (21,83-24,22)
One	490	29.77 –8.58 (29,01-30,53)	5.24–3.09 (4,97-5,52)	24.53–6.62 (23,94-25,12)
More than one	330	30.61–9.30 (29,61-31,62)	5.70–3.83 (5,29-6,12)	24.91–7.06 (24,15-25,68)
F test (n^2)		3,178 (0,007)	2,474 (0,005)	2,760 (0,006)
p-value		0.042	0.085	0.064
*According to the post hoc analysis, a significant difference (assessed by Bonferroni correction) was found between no sibling and more than one sibling (p=0,041).				
Social Class				
Upper social class	556	29.37–7.80	5.09–2.92	24.28–6.27
Lower social class	346	30.75–9.99	5.85–3.92	24.90–7.36
Mean Dif. (%95 CI)		1,37 (0,14-2,61)	0,76 (0,28-1,24)	0,61 (-0,32-1,55)
t test (Cohens d)		2,187 (0,158)	3,117 (0,227)	1,296 (0,092)
p-value		0.029	0.002	0.195
Self-evaluation of health				
Very bad/Bad/ Neither bad nor good	209	30.72–10.16	5.96–4.14	24.76–7.44
Good/Very good	699	29.66–8.25	5.21–3.07	24.45–6.48
Mean Dif. (%95 CI)		1,06 (-0,29-2,41)	0,75 (0,14-1,36)	0,31 (-0,81-1,44)
t test (Cohens d)		1,380 (0,122)	2,412 (0,223)	0,594 (0,047)
p-value		0.169	0.016	0.552
Regular Physical Activity				
No	739	29.52–8.60	5.28–3.22	24.76–6.60
Yes	169	31.59–9.16	5.82–3.92	24.24–6.72
Mean Dif. (%95 CI)		2,07 (0,61-3,52)	0,54 (-010-1,18)	1,52 (0,40-2,64)
t test (Cohens d)		2,784 (0,237)	1,676 (0,162)	2,669 (0,228)
p-value		0.005	0.095	0.008
Mental Health Problem Diagnosed by Physician				
No	800	30.06–8.94	5.44–3.49	24.62–6.83
Yes	108	28.74–6.96	4.93–2.07	23.80–5.77
Mean Dif. (%95 CI)		1,33 (-0,14-2,79)	0,51 (0,05-0,97)	0,81 (-0,38-2,01)
t test (Cohens d)		1,790 (0,152)	2,185 (0,152)	1,345 (0,121)
p-value		0.075	0.030	0.181
Witnessing Domestic Violence				
No	650	29.69–8.78	5.45–3.51	24.24–6.62
Yes	258	30.45–8.61	5.22–2.94	25.23–6.89
Mean Dif. (%95 CI)		0,76 (-0,50-2,02)	0,23 (-0,22-0,68)	0,99 (0,02-1,96)
t test (Cohens d)		1,182 (0,087)	1,009 (0,069)	2,008 (0,148)
p-value		0.238	0.350	0.045
Having a Dating Relationship So Far				
Yes	691	30.16–8.79	5.39–3.42	24.77–6.79
No	217	29.08–8.51	5.35–3.18	23.73–6.40
Mean Dif. (%95 CI)		1,08 (-0,25-2,41)	0,04 (-0,47-0,55)	1,04 (0,01-2,06)
t test (Cohens d)		1,590 (0,124)	0,159 (0,012)	1,990 (0,155)
p-value		0.112	0.874	0.047
Committing Dating Violence in the Current Dating Relationship (n=345)				
No	322	29.85–8.28	5.28–3.23	24.57–6.63
Yes	23	37.43–9.32	6.73–4.43	30.69–6.98
Mean Rank -No(Yes)		167,70 (247,22)	170,70 (205,20)	167,55 (249,28)
U statistics (Z score) r		1996,0 (-3,698) 0,199	2962,5 (-2,009) 0,108	1948,5 (-3,801) 0,205
p-value		<0.001	0,045	-<0.001
Exposure to Dating Violence in Current Dating Relationship (n=345)				
No	310	29.87–8.33	5.30–3.28	24.54–6.64
Yes	35	34.65–9.39	6.00–3.81	28.65–7.37
Mean Dif. (%95 CI)		167,67 / 220,19	171,39 / 187,26	167,39 / 222,69
		3773,5 (-2,956) 0,159	4926,0 (-1,118) 0,060	3686,0 (-3,113) 0,168
p-value		0,003	0,263	0.002
Witnessing Dating Violence in the Circle of Friends				
Yes	536	29.36–8.67	5.26–3.19	24.09–6.75
No	372	30.69–8.78	5.56–3.58	25.13–6.61
Mean Dif. (%95 CI)		1,34 (0,18-2,49)	0,30 (-0,14-0,75)	1,04 (0,15-1,92)
t test (Cohens d)		2,272 (0,153)	1,328 (0,090)	2,290 (0,155)
p-value		0.023	0.184	0.022

*Assessed with Mann-Whitney U test.

With whom lived, migration status to Manisa, having a sibling of the opposite gender, whether the father is alive or not, perceived family income, health insurance status, smoking and alcohol use, healthy and balanced diet, BMI, perceived assessment of physical appearance, and exposure to domestic violence were statistically not significant. The age of first dating relationship, the duration time of the longest dating relationship, committing dating violence in past relationships, exposure to dating violence in past relationships, having a date presently, and the duration of the current dating relationship were statistically not significant.

for the physical violence subscale, it might be indicating that individuals who have witnessed domestic violence can be one of the target populations for therapy and interventions, as a starting point for behavioral correction of DV.

Like in many studies the most common type of violence exposed was psychological DV (11,12,33) and the fact that only one of the 232 people who answered the relevant question has applied to official authorities most likely indicating that people do not know what to do or have a low belief that they can get the help they need when they seek help. This emphasizes that official and non-governmental organizations should increase their effectiveness in society.

As in many studies, it was determined that men's attitudes toward DV were more accepting than women's (11, 18, 34). It can be said that men have more accepting attitudes towards DV in line with the traditional structure of Turkish society and feminist theory, where the patriarchal order determines gender roles. Recent studies in Turkey also show that gender norms still influence Turkish society and those who accept traditional gender norm roles are more likely to accept DV (34). The necessity for women to have equal roles with men in all areas of social life and eliminating discrimination based on gender stand out as important steps in reducing DV (36,37).

In our study, the students studying at the clinical level had statistically significant lower attitude scores than the students studying at the preclinical levels in all scale scores. These findings cannot be explained by the fact that the students studying at

Table 5. Univariate Analysis of Variables Related to Perpetration of Dating Violence and Exposure to Dating Violence

Variables	No perpetration of dating violence		Perpetration of dating violence		*p-value*	Non-exposure to dating violence		Exposure to dating violence		*p-value*
	n	%	n	%		n	%	n	%	
Age					<0,001					<0,001
Younger than 21 years old	340	85.9	56	14.1		289	73.0	107	27.0	
22 years old or more	222	75.3	73	24.7		166	56.3	129	43.7	
x^2 - cOR (%95 CI)	12,521 - 2,00 (1,36-2,94)					20,987 - 2,10 (1,52-2,89)				
Gender					0,010					<0,001
Female	354	78.5	97	21.5		273	60.5	178	39.5	
Male	208	86.7	32	13.3		182	75.8	58	24.2	
x^2 - cOR (%95 CI)	6,894 - 1,78 (1,15-2,75)					16,308 - 2,05 (1,44-2,90)				
School Type					0,024					0,003
Medical School	359	78.9	96	21.1		282	62.0	173	38.0	
School of Health Sciences	203	86.0	33	14.0		173	73.3	63	26.7	
x^2 - cOR (%95 CI)	5,182 - 1,64 (1,07-2,53)					8,866 - 1,69 (1,19-2,38)				
School Year (Phase)					<0,001					<0,001
Preclinical	306	86.4	48	13.6		261	73.7	93	26.3	
Clinical	256	76.0	81	24.0		194	57.6	143	42.4	
x^2 - cOR (%95 CI)	12,480 - 2,02(1,36-2,99)					20,053 - 2,07 (1,50-2,85)				
Family Structure					0,009					0,009
Nuclear	473	81.3	109	18.7		386	66.3	196	33.7	
Extended	56	91.8	5	8.2		46	75.4	15	24.6	
Fragmented	33	68.8	15	31.3		23	47.9	25	52.1	
x^2	9,411					9,401				
Smoking					<0,001					0,004
Non-user	354	85.9	58	14.1		289	70.1	123	29.9	
Active or previous user	208	74.6	71	25.4		166	59.5	113	40.5	
x^2 - cOR (%95 CI)	14,165 - 2,08(1,41-3,07)					8,386 - 1,60 (1,16-2,20)				
Consuming Alcohol					0,013					<0,001
Irregular/non consumer	241	85.8	40	14.2		207	73.7	74	26.3	
Regular consumer	321	78.3	89	21.7		248	60.5	162	39.5	
x^2 - cOR (%95 CI)	6,132 - 1,67(1,11-2,51)					12,874 - 1,83 (1,31-2,54)				
Adequate and Balanced Nutrition					0,040					
No	281	78.3	78	21.7						
Yes	281	84.6	51	15.4						
x^2 - cOR (%95 CI)	4,603 - 1,53 (1,03-2,26)									
Mental Illness Diagnosis					0,002					<0,001
No	501	83.2	101	16.8		418	69.4	184	30.6	
Yes	61	68.5	28	31.5		37	41.6	52	58.4	
x^2 - cOR (%95 CI)	11,010 - 2,28 (1,39-3,74)					26,765 - 3,19 (2,02-5,04)				
Witnessing Domestic Violence					<0,001					<0,001
No	424	87.8	59	12.2		356	73.7	127	26.3	
Yes	138	66.3	70	33.7		99	47.6	109	52.4	
x^2 - cOR (%95 CI)	44,010 - 3,64 (2,45-5,42)					44,073 - 3,09 (2,20-4,33)				
Experiencing Domestic Violence					<0,001					<0,001
No	457	86.1	74	13.9		384	72.3	147	27.7	
Yes	105	65.6	55	34.4		71	44.4	89	55.6	
x^2 - cOR (%95 CI)	33,829 - 3,23(2,15-4,87)					42,684 - 3,28 (2,27-4,72)				
Knowledge of Dating Violence Concept					<0,001					<0,001
No	211	89.4	25	10.6		192	81.4	44	18.6	
Yes	351	77.1	104	22.9		263	57.8	192	42.2	
x^2 - cOR (%95 CI)	15,393 - 2,50 (1,56-4,00)					38,335 - 3,20 (2,20-4,64)				
Witnessing Dating Violence Among Friends					<0,001					<0,001
No	226	95.0	12	5.0		208	87.4	30	12.6	
Yes	336	74.2	117	25.8		247	54.5	206	45.5	
x^2 - cOR (%95 CI)	44,398 - 6,59 (6,54-12,16)					74,958 - 5,78 (3,78-8,85)				

Table 6. Multivariate Analysis of Affecting Factors of the Perpetration of Dating Violence and Exposure to Dating Violence

Variables	Perpetration of Dating Violence§* [R^2: 0,25]		Exposure to Dating Violence§** [R^2: 0,31]	
	aOR (%95 CI)	p value	aOR (%95 CI)	p value
Age	1,19 (1,07-1,32)	0,001	1,68 (1,16-2,43)	0,006
Smoking *(Ref: Never-users)*	1,64 (1,07-2,52)	0,023	-	-
Gender *(Ref: Female)*	-	-	0,65 (0,43-0,97)	0,037
Family Structure *(Ref: Nuclear family)*	-	-		0,068
Extended family	-	-	1,10 (0,56-2,14)	0,789
Fragmented family	-	-	2,22 (1,13-4,37)	0,021
Mental Illness Diagnosis *(Ref: No)*	-	-	2,58 (1,53-4,35)	<0,001
Witnessing Domestic Violence *(Ref: No)*	2,92 (1,92-4,45)	<0,001	2,84 (1,89-4,26)	<0,001
Knowledge of Dating Violence Concept *(Ref: No)*	-	-	2,13 (1,39-3,26)	0,001
Witnessing Dating Violence Among Friends *(Ref: No)*	4,71 (2,46-9,03)	<0,001	4,27 (2,70-6,75)	<0,001
Total scale score	1,03 (1,00-1,05)	0,021	-	-

§ Logistic Regression Model with Backward Wald Elimination
** The model has been adjusted for: gender, family structure, school type, consuming alcohol, having a mental health problem diagnosed by a doctor, being exposed to domestic violence, having heard the concept of dating violence before, school year, and having an adequate and balanced diet.*
Overall significance and Likelihood Ratio (LR x†): x2(8) = 113,019, p < 0.001.
*** The model has been adjusted for: school type, smoking and consuming alcohol, witnessing domestic violence, total scale score, and school year.*
Overall significance and Likelihood Ratio (LR x†): x2(8) = 171,371, p < 0.001.

the clinical level were older than the students studying at the preclinical level. However, it can be interpreted that clinical students' levels of responsibility and awareness of the concept of violence are higher as a result of more frequent encounters in the clinic.

Turkey's economic situation and socioeconomic differences have a high impact on cultural norms such as gender norms. Socio-economic and cultural differences in Turkey are known in the east-west axis and come to the fore in many research and indexes (28, 38) The west of Türkiye is the developed and migration-receving region of the country. In our study, students who grew up in the rural areas, who have large families, and who statistically have more siblings are in the lower social class. Therefore, all these variables are secondary indicators of inequalities in health. Attitudes accepting DV seem to be more common among the mentioned people. These findings correlate with previous study results (10, 35, 39, 40). According to the results of previous studies, accepting attitudes towards domestic violence are more common among those who grew up in villages, those who live with an extended family, and those who have more siblings. There is a complex relationship between inequality and violence and socioeconomic structures play important roles in the formation of social relations in which violence takes place (41). As all these factors underline that inequalities in health are still valid and effective, we can overcome all types of violence by improving the related factors one by one (42).

The findings are concerning, and it is objectionable that future doctors and healthcare professionals have not heard of a public health problem. As lack of knowledge will prevent them from having the right attitude, all types of violence should be given wider coverage in psychology courses in the preclinical period for them to be aware in clinical practice. Their self-confidence should be increased by organizing problem-based training. In addition, prioritizing protective measures will be important to protect our future. Assuming that the prevalence of the problem in the community is higher than in health students, community-based screenings should be carried out to provide both social and medical support to the detected victims, and interventions aimed at children at earlier education levels should be implemented in schools to protect future generations. In addition, the correlational relationship between domestic violence and both perpetrating and being exposed to dating violence reveals that programs to prevent domestic violence or dating violence must be implemented with full determination and continuity.

Strengths and Limitations

Our study has limitations. The lack of random sample selection is one of the important limitations of the study. On the other hand, since the survey was delivered to the participants as an online form on a sensitive issue such as violence, more honest participation may have been obtained. Perceiving the questions as private may have prevented the correct answers. Recall bias can be talked about the questions including past experiences. In addition, since one-third of the participants have not heard of the concept of dating violence, prevalence values should be evaluated carefully.

The fact that the sample of the study was selected with a 99.9% confidence interval increases the power of the study. Additionally, awareness has been created in people who have heard the concept of dating violence for the first time.

While the attitudes of the participants who use or are exposed to dating violence in their current relationships are more in favor of approval, those who witness dating violence in their friends' circle have rejectionist attitudes toward dating violence. Since the rate of students who have never heard of dating violence is high, more awareness should be raised on this issue. Men who grew up in rural areas with multiple siblings in large families can be a target group for interventions. Consistent with previous studies, since those who witness domestic violence are more accepting of psychological dating violence, the attitudes of future generations toward dating violence can be improved by preventing domestic violence.

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