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The relationship between suicidal ideation and eating disorders in the context of violence experiences

Hasan Durmuş[1], Arda Borlu[1], Şehide Arslan[1], Neslihan Öner[2*], Özlem Olguner Eker[3], Beyza Nur Gürbüz[1] and Özlem Çelik[1]

Abstract

Background Suicidal ideation and eating disorders (EDs) are significant mental health concerns that can have devastating consequences and both cases were independently associated with violence experiences. The purpose was to investigate the relationship between suicidal ideation and eating disorders within the context of violence experiences.

Methods This cross-sectional study was conducted with 935 participants aged 18–40. Sociodemographic questionnaire, the Suicide Probability Scale (SPS), the Eating Disorder Evaluation Scale short form (EDE-Q-13) and the Violence Experiences Questionnaire-Revised (VEQ-R) were the data collection instruments.

Results 50.6% of the participants were male, 56.5% were single and the mean age was 29.46 ± 5.96 years. As the educational and economic status of the participants increased, SPS median scores also increased significantly. Higher SPS median scores were found in single, smoking, and substance-using participants. Females, overweight, and obese participants scored significantly higher on the EDE-Q-13. Lower economic status, smoking, and substance use were associated with higher VEQ-R median scores. EDs, suicidal ideation, and experiences of violence showed a significant, albeit weak, positive relationship. In multiple regression analysis, both violence experiences and EDs influenced suicide probability. The median EDE-Q-13 score was higher in participants with divorced parents or a family history of chronic disease. The median VEQ-R score was higher in individuals with divorced parents, a family history of chronic disease, or deceased parents or fathers.

Conclusions Our results suggest that various forms of childhood violence are linked to both EDs and suicidal thoughts. Furthermore, the correlation between EDs and suicidal ideation may exist independently of childhood violence.

Keywords Eating disorders, Suicide, Suicidal ideation, Violence

*Correspondence:
Neslihan Öner
neslihancelik@erciyes.edu.tr
[1]Faculty of Medicine, Department of Public Health, Erciyes University, Kayseri, Türkiye, Turkey
[2]Faculty of Health Sciences, Department of Nutrition and Dietetics, Erciyes University, Kayseri, Türkiye, Turkey
[3]Faculty of Medicine, Department of Psychiatry, Erciyes University, Kayseri, Türkiye, Turkey

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Introduction

Suicide is a major public health problem that is one of the leading causes of death worldwide, particularly among young individuals [1–3]. Suicide includes actions that result in death, attempted suicide includes actions that result in injury even if they do not result in death, and suicidal ideation includes individuals thinking and planning to commit suicide [4]. While suicidal ideation is typically transient, seldom acted upon, and frequently not translated into action, there remains the potential for these thoughts to culminate in behaviour [4]. Considering that the lifetime prevalence of suicidal ideation is 18%, the current risk is quite high [5]. Nearly 90% of individuals experiencing suicidal ideation had sought assistance from primary healthcare services in the year preceding their suicide attempt, disclosing their suicidal ideation to healthcare professionals. Studies to be carried out specifically under this topic may be an important approach to identifying individuals at risk and taking action to protect them in the future [6].

The fact that other mental disorders are behind suicide attempts and suicidal ideations is a subject of constant debate. Although some researchers claim that this rate is as high as 90%, the fact is that this rate is exaggerated and not all cases of suicide can be explained by other mental disorders. Nevertheless, the presence of other mental illnesses in at least half of the suicides is noteworthy [7]. However, an analysis of the three stages leading to suicide shows that the first step is pain and hopelessness, and then the pain becomes more dominant and leads the individual to suicide [8]. In this context, other mental disorders are thought to increase hopelessness and distress, and this distress may be exacerbated by social stigma, leading to suicidal ideations or actions [7, 8].

Eating disorders (EDs) are characterized by problematic eating behaviours resulting in significant alterations in body weight [9, 10]. The number of studies on EDs has gradually increased in recent years, and these disorders have been defined under four main headings in DSM-5: Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, Avoidant/Restrictive Eating Disorder [11]. A systematic review of numerous studies reported that the lifetime prevalence of EDs was 2.2% in men and 8.4% in women [10]. Considering the risk factors for EDs, it is thought to be associated with several factors, including genetics, microbiota, autoimmune diseases, childhood body weight, family relationships, trauma, comorbidities, and social environment [12]. When the risk of EDs and suicidal ideation was analysed, it was observed that suicidal ideation was 5–6 times higher in individuals with EDs [13]. Although some cross-sectional studies have shown that individuals with EDs have an increased risk of suicide up to 18-fold, a meta-analysis of longitudinal studies reported that suicidal ideation in individuals with EDs has a weak increase and but does not increase the risk of death [14, 15]. Certainly, when assessing risk factors for EDs, it's notable that the same factors contributing to suicidal ideation and suicide in individuals may also be implicated. In such instances, thorough analyses of the shared influences on these mental states are warranted, rather than solely attributing increased suicidal ideation to EDs [16]. It is a recognized fact that trauma, particularly experienced in childhood, increases stress, anxiety and mood disorders in individuals, and these disorders may be risk factors for both EDs and suicidal ideation [17]. Exposure to violence is one of the major childhood traumas. For this reason, it was considered important to scientifically establish the relationship between exposure to violence and mental disorders, and the aim of this study was to examine the relationship between exposure to childhood violence and suicidal ideation in young adults. Based on existing literature, we hypothesized that both childhood violence experiences and eating disorder symptoms would be positively associated with suicidal ideation.

Materials and methods

Study sample

This study was cross-sectional, and the study population consisted of individuals aged between 18 and 40 years old and living in Kayseri city centre. Data collected between February and March 2024. Data were collected from ten family health centers in Kayseri, a province located in Central Anatolia, which were selected using a random sampling method. The study included healthy volunteers who visited these centers for any reason during the data collection period. Participants were required to be between 18 and 40 years old, have no known psychiatric diagnosis, not be under psychiatric treatment at the time of participation, and voluntarily agree to take part in the study. All questionnaires were administered through face-to-face interviews conducted by trained researchers. The sample size was calculated with the G-Power 3.1.9.7 program, and considering the correlation between suicide probability, EDs and violent experiences, the hypothesis was set as $\alpha = 0.05$, low effect size, power 80% and the sample size was calculated as 782 participants. Considering the possibility of incorrect or incompletely completed questionnaires, 20% more than the calculated sample number was determined as the sample number of the study. As a result, this study was conducted with 938 participants. However, since three questionnaires were not included in the statistical analysis due to incomplete completion of three questionnaires, this study was finally conducted with 935 participants.

Data collection instruments

A 22-question questionnaire including questions about demographic characteristics such as age, gender, educational status, marital status, chronic physical or mental disorders in the family and in the individual was used as a data collection tool. In addition, the Suicide Probability Scale (SPS) [18], the Eating Disorder Evaluation Scale short form (EDE-Q-13) [19] and the Violence Experiences Questionnaire-Revised (VEQ-R) [20] were also used as data collection tools.

The Suicide Probability Scale (SPS) is a 36-question self-assessment scale that evaluates behaviours and attitudes related to suicide risk, which was developed by Cull and Gill [18] in 1990 and Turkish validity and reliability studies were conducted by Batıgün and Şahin [21] in 2000. The scale is suitable for inpatients, outpatients, and general population. It is answered on a 4-point Likert scale and scored between 1–4 points. The total score to be obtained from the scale varies between 36 and 144. High scores on the scale indicate a high probability of suicide. Also this scale was slightly modified by Batıgün and Şahin [21] in 2018. For example, the degree to which the answers identify the respondent has been rearranged as '0%', '30%', '70%' and '100%' and some items have been reversed. For example, items 2, 6, 7, 10, 11, 18, 20, 21, 22, 24, 25, 26, 27, 30, 32, 35 and 36 are reversed. The Cronbach alpha reliability coefficient of the scale is 0.87.

The EDE-Q-13 is a scale consisting of 13 questions and 5 factors developed by Fairburn and Beglin [19] in 1994 and Turkish validity and reliability studies conducted by Esin and Ayyıldız [22] in 2022. "Restricted eating", "Shape and weight over-evaluation", "Body dissatisfaction", "Bingeing", "Purging" are the factors of the scale. It is made according to the answers given to the questions covering the last 28 days. The answers are given on a 7-point Likert scale according to the number of days given and scored between 0 and 6. High scores on the scale indicates a higher level of eating related psychopathology. The Cronbach's alpha reliability coefficient of the scale is 0.89 and the Cronbach's alpha reliability coefficients of the sub-dimensions are 0.92, 0.94, 0.93, 0.84 and 0.75 respectively.

The Violence Experiences Questionnaire-Revised (VEQ-R) is a scale consisting of 36 items, 12 indices and 4 factors that measures violence experiences related to parental hostility, sibling hostility, domestic hostility and peer hostility experienced by people aged 5–8 years, 9–12 years, and 13–16 years. The scale was developed by King and Russell [20] in 2017 and Turkish validity and reliability studies were conducted by Türk et al. [23] in 2020. The factors of the scale are "Parent hostility", "Sibling hostility", "Domestic hostility", "Peer hostility". The scale is answered on a 9-point Likert scale. The total score ranges from 0 to 104 and is interpreted as the mean number of days of violence per year. Cronbach's alpha internal consistency coefficients are 0.94 for parental, sibling, and domestic hostility and 0.95 for peer hostility.

Data analysis

Data was analysed using SPSS 25.0 (SPSS Inc., Chicago, IL) package program. The normality test was evaluated with the number of data, coefficient of variation, histogram, Q-Q plot and Skewness, Kurtosis and the results were accepted to be in accordance with the normal distribution. Since the data were not normally distributed, Mann-Whitney U, Kruskal-Wallis and Spearman correlation tests were used in statistical analyses. Dunn-Bonferroni tests was used to determine the group from which the statistical difference originated. $p < 0.05$ was considered significant.

Ethical procedure

The study procedure was performed according to Declaration of Helsinki and STROBE checklist [24]. Ethics committee approval was obtained for this study from Erciyes University the Social and Human Sciences Ethics Committee (Date/Approval No: 27.02.2024/86). The procedures followed were according to the ethical standards of the responsible institutional ethics committee and the Helsinki Declaration. Individuals who volunteered to participate in the study were informed about the purpose of the study, provided verbal informed consent, and enrolled in the study.

Results

Of the individuals who participated in the study, 50.6% were male, 56.5% were single, and the mean age was 29.46 ± 5.96 years. The median scores of the SPS, EDE-Q-13 and VEQ-R according to the sociodemographic characteristics of the participants were shown in Table 1. As the educational level and economic status of the participants increased, the median scores of the SPS increased significantly. The SPS median scores were significantly higher among participants who were single, smoked and had used substance at least once. Females, overweight and obese participants had significantly higher median scores on the EDE-Q-13. Those with low economic status, smokers and those who had used substances at least once had significantly higher VEQ-R median scores ($p < 0.05$) (Table 1).

In Table 2, the median scores of the SPS, EDE-Q-13 and VEQ-R were analysed according to the family characteristics of the participants. The median score of the EDE-Q-13 was found to be higher in participants whose parents were divorced compared to those whose parents were living together and those who had any chronic disease in their family or themselves. Likewise, the median score of VEQ-R was found to be higher in participants

Table 1 The median scores of the SPS, EDE-Q-13 and VEQ-*R* according to the sociodemographic characteristics of the participants

Characteristics	n (%)	SPS		EDE-Q-13		VEQ-R	
		Median 25th -75th	p	Median 25th -75th	p	Median 25th -75th	p
Age (years)							
18–25	307(32.8)	67(58–77)	0.396	2.0(0.4–0.6)[ab]	**0.001**	0.19(0.03–2.18)	0.438
26–30	227(24.4)	68(57–79)		1.8(0.4–4.2)[a]		0.11(0.02–1.23)	
31–35	208(22.2)	65(56–77)		2.8(0.8–5.6)[b]		0.15(0.01–1.52)	
36–40	193(20.6)	66(57–75)		1.2(0.2-4.0)[a]		0.13(0.01–2.05)	
Gender							
Male	473(50.6)	67(58–77)	0.403	1.6(0.2–4.2)	**0.001**	0.17(0.03–2.06)	0.103
Female	462(49.4)	66(57–76)		2.4(0.6–4.8)		0.11(0.02–1.60)	
Marital status							
Married	391(41.8)	66(56–75)[a]	**0.031**	2.4(0.4–4.8)	0.592	0.12(0.01–2.04)	0.266
Single	528(56.5)	67(58-77.5)[b]		1.8(0.4–4.4)		0.16(0.03–1.65)	
Divorced/Widow	16(1.7)	68(60–78)[ab]		2.3(0.1–5.8)		0.10(0.05–0.35)	
Educational status							
< 12 years	179(19.1)	70(59–81)	**0.007**	2.0(0.2-5.0)	0.945	0.15(0.01–2.90)	0.875
> 12 years	756(80.9)	66(57–75)		2.0(0.4–4.6)		0.14(0.02–1.55)	
Economic status							
Good	321(34.3)	61(53–71)[a]	**< 0.001**	1.8(0.2–4.4)	0.535	0.14(0.03–1.13)[a]	**0.009**
Moderate	558(59.7)	68(60–77)[b]		2.2(0.4–4.6)		0.13(0.02–1.63)[a]	
Bad	56(6.0)	76(69-84.5)[c]		2.6(0.6–5.2)		0.85(0.08–8.45)[b]	
Smoking							
Never	552(59.0)	65(56–74)[a]	**< 0.001**	1.8(0.4–4.2)	0.207	0.11(0.01–0.95)[a]	**0.004**
Stopped	112(12.0)	68.5(57–80)[ab]		2.6(0.6–5.2)		0.14(0.05–2.23)[ab]	
Active user	271(29.0)	69(60–80)[b]		2(0.4-5.0)		0.22(0.03–3.73)[b]	
Alcohol using							
Never	722(77.2)	67(57–76)	0.994	2(0.4–4.8)	0.650	0.14(0.02–1.56)	0.315
Active user	213(22.8)	66(58–77)		1.8(0.4–4.2)		0.17(0.03–2.25)	
Substance using							
Never	907(97.0)	66(57–76)	**0.015**	2(0.4–4.6)	0.662	0.13(0.02–1.60)	**0.024**
Used at least one time	28(3.0)	75.5(59.5–91)		2.2(0.2–3.9)		1.75(0.06–5.82)	
Body Mass Index (BMI) classification							
Weak	41(4.4)	68(61–74)	0.319	1(0.4–1.8)[a]	**< 0.001**	0.06(0.03–0.58)	0.359
Normal	508(54.3)	67(58–77)		1.6(0.2-4.0)[a]		0.15(0.02–1.70)	
Overweight	303(32.4)	66(57–77)		2.6(0.6-6.0)[b]		0.14(0.02–2.12)	
Obese	83(8.9)	64(54–74)		3.6(1.4–5.6)[b]		0.11(0.00-0.70	
Total	935(100.0)	66(57–76)		2.0(0.4–4.6)		0.14(0.02–1.71)	

Note: There is a statistically significant difference between the groups shown with different exponential letters

whose parents were divorced, in individuals whose parents were living together and in participants whose one or both parents deceased, and in those who had any chronic diseases in their family or themselves. Moreover, the median score of VEQ-R was found to be significantly higher in those who had any mental disorders in their family and in those who had suicide attempt in their family ($p < 0.05$).

The mean and median scores of the total and factors of the SPS, EDE-Q-13, and VEQ-R were presented in Table 3. According to the answers to one of the questions on the SPS about current suicidal ideations, 64.4% of the participants did not have about suicidal ideations.

The relationship between the total and factor scores of the participants' EDE-Q-13, SPS and VEQ-R was shown in Table 4. A positive, very weak, statistically significant relationship was found between the median of the SPS and VEQ-R scores and the median of the EDE-Q-13 score. When the factors were analysed, a significant relationship was found between the median of all factor scores except "Restricted eating" and the median of SPS score, and between the median of all factor scores except "Restricted eating" and "Purging" and the median of VEQ-R score.

The relationship between the total and factor scores of the participants' EDE-Q-13, SPS and VEQ-R was shown in Table 5. A positive, very weak, statistically significant

Table 2 The median scores of the SPS, EDE-Q-13 and VEQ-R according to the family characteristics

Family characteristics	*n* (%)	SPS		EDE-Q-13		VEQ-*R*	
		Median 25th -75th	*p*	Median 25th -75th	*p*	Median 25th -75th	*p*
Parents' living situation							
Living together	738(78.9)	66(57–76)	0.068	1.8(0.2–4.4)[a]	**0.012**	0.14(0.02–1.49)[a]	**0.016**
Divorced	44(4.7)	72(61-82.5)		3(1.8–5.2)[b]		1.27(0.08–5.16)[b]	
One or both parents deceased	153(16.4)	66(58–76)		2.4(0.4-5.0)[ab]		0.11(0.01–1.44)[a]	
Mother's education status							
< 12 years	795(85.0)	67(57–77)	0.206	2(0.4–4.6)	0.295	0.13(0.02–1.63)	0.167
> 12 years	140(15.0)	64.5(56–74)		2.2(0.5–5.3)		0.18(0.03–2.77)	
Father's education status							
< 12 years	648(69.3)	67(57.5–77)	0.181	2.2(0.2–4.8)	0.550	0.13(0.02–1.53)	0.097
> 12 years	287(30.7)	66(56–75)		1.8(0.4–4.2)		0.18(0.03–2.26)	
Participant's living situation							
Alone	99(10.6)	65(56–74)	0.508	1.6(0.0-3.8)	0.349	0.13(0.02–0.86)	0.548
Living with a partner	836(89.4)	66(57–77)		2.0(0.4–4.6)		0.15(0.02–1.81)	
Chronic disease status in the participants' family or themselves							
Yes	423(45.2)	68(58–77)	0.081	2.4(0.6–4.8)	**0.002**	0.24(0.02–3.18)	**< 0.001**
No	512(54.8)	66(57-75.5)		1.6(0.2–4.4)		0.11(0.02–0.55)	
Family history of mental disorders							
Yes	65(7.0)	69(58–77)	0.419	2.0(0.6–4.4)	0.669	0.34(0.08–5.44)	**0.004**
No	870(93.0)	66(57–76)		2.0(0.4–4.6)		0.13(0.02–1.51)	
Family history of suicide							
Yes	17(1.8)	81(53–86)	0.059	2.6(1.0-3.2)	0.323	2.12(0.38–9.93)	**0.001**
No	918(98.2)	66(57–76)		2(0.4–4.6)		0.13(0.02–1.60)	
Total	935(100.0)	66(57–76)		2.0(0.4–4.6)		0.14(0.02–1.71)	

Note: There is a statistically significant difference between the groups shown with different exponential letters

Table 3 The mean and median scores of the total and factors of the SPS, EDE-Q-13, and VEQ-R

Scales	Male		Female		Total	
	Mean ± SD	Median 25th -75th	Mean ± SD	Median 25th -75th	Mean ± SD	Median 25th -75th
SPS	67.9 ± 14.2	67 (58–77)	66.9 ± 13.3	66 (57–76)	67.5 ± 13.8	66 (57–76)
EDE-Q-13	2.6 ± 2.9	1.6 (0.2–4.2)	3.2 ± 3.0	2.4 (0.6–4.8)	2.8 ± 2.9	2.0 (0.4–4.6)
Restricted eating	1.3 ± 1.7	0.3 (0–2)	1.6 ± 1.8	1.0 (0-2.7)	1.4 ± 1.8	1.0 (0-2.3)
Shape and weight over-evaluation	1.3 ± 1.7	0.5 (0–2)	1.8 ± 1.9	1 (0–3)	1.5 ± 1.9	1.0 (0-2.5)
Body dissatisfaction	1.5 ± 1.9	1 (0-2.5)	2.1 ± 2.2	1 (0–4)	1.8 ± 2.1	1.0 (0–3.0)
Bingeing	0.9 ± 1.3	0.3 (0-1.3)	0.8 ± 1.2	0.3 (0–1)	0.9 ± 1.3	0.33 (0-1.3)
Purging	0.3 ± 0.9	0 (0–0)	0.3 ± 0.8	0 (0–0)	0.3 ± 0.8	0 (0–0)
VEQ-R	3.8 ± 10.1	0.2 (0.3–2.1)	3.9 ± 11.5	0.1 (0.2–1.5)	3.9 ± 10.8	0.1 (0.02–1.71)
Parent hostility	13.9 ± 12.5	0.8 (0-0.4)	3.9 ± 13.0	0.8 (0-0.4)	3.9 ± 12.74	0.1 (0-1.71)
Sibling hostility	4.9 ± 10.5	0.1 (0-0.4)	5.2 ± 16.6	0.1 (0-0.4)	5.1 ± 16.3	0.01 (0-0.44)
Domestic hostility	2.6 ± 10.5	0 (0-0.3)	3.5 ± 13.1	0 (0-0.3)	3.0 ± 12.2	0 (0-0.31)
Peer hostility	3.6 ± 13.7	0.1 (0-0.5)	3.1 ± 13.1	0 (0-0.3)	3.4 ± 13.4	0 (0-0.38)

Table 4 The relationship between the total and factor scores of the participants' EDE-Q-13, SPS and VEQ-R

Scale	SPS		VEQ-*R*	
	r	*p*	*r*	*p*
EDE-Q-13	0.159	**< 0.001**	0.097	**0.003**
Restricted eating	0.049	0.134	-0.017	0.612
Shape and weight over-evaluation	0.166	**< 0.001**	0.125	**< 0.001**
Body dissatisfaction	0.121	**< 0.001**	0.129	**< 0.001**
Bingeing	0.208	**< 0.001**	0.083	**0.011**
Purging	0.278	**< 0.001**	0.024	0.466

Note: Linear regression, SPS: 64.6 + VEQ-*R* × 0.244 + EDE-Q-13 × 0.660 (R: 0.252, $p < 0.001$)

Table 5 The relationship between the total and factor scores of the participants' EDE-Q-13, SPS and VEQ-R

Scale	SPS		EDE-Q-13	
	r	*p*	*r*	*p*
VEQ-R	0.193	**< 0.001**	0.097	**0.003**
Parent hostility	0.202	**< 0.001**	0.105	**0.001**
Sibling hostility	0.174	**< 0.001**	0.066	**0.044**
Domestic hostility	0.203	**< 0.001**	0.070	**0.033**
Peer hostility	0.191	**< 0.001**	0.084	**0.010**

relationship was found between SPS and EDE-Q-13 score medians and VEQ-R and factor score medians.

Linear regression analysis of the effect of eating disorder and violence experiences on suicide probability showed that both variables had a significant effect. It was determined that the common relationship was low but significant with R:0.252 ($p < 0.001$).

Discussion

Major findings of the study

Upon reviewing the literature, studies evaluating eating disorders and suicidal ideation in conjunction with experiences of violence are apparent [25, 26]. To the best of our knowledge, this is one of the few community-based studies that simultaneously assessed childhood experiences of violence, eating disorders (EDs), and suicidal ideation. In this study, a significant yet weak positive correlation was observed among EDs, suicidal ideation, and exposure to violence. Multiple regression analyses revealed that both exposure to violence and EDs were predictors of suicide probability (Tables 4 and 5).

The study sample, drawn from the general population rather than clinical groups, enhances the relevance of the findings for preventive efforts. This is particularly noteworthy, as many studies in the literature have focused on individuals diagnosed with EDs or those with a history of suicide attempts [15]. Some evidence also suggests a reciprocal relationship between ED symptom severity and suicidal ideation [27]. While this study does not evaluate specific ED subtypes or clinical diagnoses, its population-based approach provides important insights.

One notable finding is the significantly higher prevalence of EDs among children of divorced families, who also report more frequent experiences of violence (Table 2). This may indicate a potential pathway through which familial disruption and violence contribute to disordered eating. However, even in the absence of violence, children of divorced families may be more vulnerable to EDs, as noted in previous research [28]. These patterns suggest the psychological toll of divorce on children, potentially manifesting as anxiety- and mood-related eating problems.

The findings also show that EDs are significantly more prevalent in women, particularly those who are overweight or obese (Table 1). This is consistent with existing literature, which indicates that women are more susceptible to EDs due to genetic, hormonal, and sociocultural factors [12]. Although the female-to-male ratio in ED prevalence has narrowed over time—mainly due to increased binge eating disorder among men—EDs remain more common in women overall [10]. Interestingly, our study found that while overall ED scores were higher in women, binge eating disorder scores were comparable between men and women (Table 3).

Finally, suicide probability was higher among individuals who smoke, use substances, have lower education levels, poor economic status, or are single (Table 1). These factors may reflect emotional distress or maladaptive coping mechanisms [29]. Although suicide rates are relatively low in Türkiye, 35.6% of participants in this study reported past suicidal ideation [30].

When the factors of VEQ-R were analysed, it was observed that the experience of violence was associated with both EDs and suicide probability, regardless of whether the violence was caused by parents, siblings, family members or peers (Table 5). It is expected that childhood traumas leave permanent damage and pain in individuals and cause serious problems in their emotional states. In this context, recent research has emphasized the mediating role of mental pain in the relationship between childhood trauma and suicide risk, highlighting its clinical relevance in suicide prevention strategies [31]. It has been reported that suicide attempt increases 2–4 times in individuals according to the type of trauma [26]. It is observed that children exposed to domestic violence and social isolation have more unhealthy weight control practices and naturally exhibit risky behaviours in the development of EDs [25]. Traumas experienced in childhood affect individuals not only mentally but also in all aspects of health. Individuals who have experienced trauma establish harmful habits, negative friendships, sleep problems, physical disorders, and bring failures in adulthood [32].

Implications of the study results

The findings of this study highlight the need for early identification and intervention strategies targeting individuals exposed to violence, particularly those from divorced families. Psychological support services for children from such backgrounds may help mitigate the risk of developing EDs or suicidal thoughts.

The strong association between violence exposure and mental health issues, such as EDs and suicidal ideation, reinforces the importance of trauma-informed care. Preventive strategies at the community level could play a critical role in reducing long-term psychosocial harm.

The observation that ED symptoms—especially binge eating—are increasingly common among both men and women suggests the need for inclusive awareness campaigns and gender-sensitive interventions. In addition, the link between socio-economic disadvantages and suicidal ideation calls for broader public health approaches addressing social determinants of mental health.

This study also underscores the value of community-based research in identifying at-risk individuals who may not present in clinical settings. Such findings may guide policymakers in developing comprehensive mental health programs aimed at vulnerable youth. A key strength of this study is that individuals with psychiatric diagnoses or those using psychiatric medications were excluded, allowing for a clearer assessment of subclinical symptom relationships in a non-clinical population.

Strengths and limitations of the study

A major strength of this study is its community-based design, which allowed for the examination of psychosocial factors such as violence exposure and disordered eating in a general population sample. Furthermore, it is one of the few studies that assesses these variables in combination, providing a more holistic understanding of risk factors related to suicidal ideation. However, the study also has limitations. Its cross-sectional design precludes conclusions about causality. Data were based on self-report instruments, which may be subject to recall or social desirability bias. Additionally, although standardized measurement tools were used, the study did not include clinical diagnoses of EDs or psychiatric disorders. Finally, the sample was limited to a specific geographical region, which may affect generalizability.

Conclusions

There are few studies in the literature on suicidal ideation, EDs and exposure to violence among young adults in Türkiye. According to the results of this study, it can be said that all types of violence experienced in childhood are associated with EDs and suicidality in individuals. Similarly, the relationship between EDs and suicidal ideation may be independent of childhood violence. The strength of this study is that it provides important findings for Türkiye, as it was conducted in the general population and in young adults, and in this context suicidal ideation, EDs and exposure to violence were assessed together. However, a limitation of this study is that the participants were selected from only one region and the assessment was done only by using the scale and not by a clinician. Future studies should be designed by taking these limitations into consideration.

Abbreviations

EDs	Eating disorders
SPS	Suicide probability scale
EDE-Q-13	Eating disorder evaluation scale short form
VEQ-R	Violence experiences questionnaire-revised

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Author contributions

HD: contributed to the study design and data analyses, write the manuscript; AB: contributed to the study design and data analyses, write the manuscript; ŞA: data collection, data analyses, write the manuscript; NÖ: contributed to the study design and write the manuscript; carried out the corresponding authorship process; ÖOE: contributed to the study design, data collection and write the manuscript; BNG: data collection, data analyses, write the manuscript; ÖÇ: data collection, data analyses, write the manuscript.

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Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author on responsible request.

Declarations

Ethics approval and consent to participate

Ethics committee approval was obtained for this study from Erciyes University the Social and Human Sciences Ethics Committee (Date/Approval No: 27.02.2024/86). The procedures followed were according to the ethical standards of the responsible institutional ethics committee and the Helsinki Declaration. Participants were informed about the purpose of the study, provided verbal informed consent.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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References

1. Lovero KL, Dos Santos PF, Come AX, Wainberg ML, Oquendo MA. Suicide in global mental health. Curr Psychiatry Rep. 2023;25(6):255–62.
2. Elbogen EB, Graziano RC, LaRue G, Cohen AJ, Hooshyar D, Wagner HR, Tsai J. Food insecurity and suicidal ideation: results from a National longitudinal study of military veterans. Archives Suicide Res. 2024;28(2):644–59.
3. Jobes DA, Mandel AA, Kleiman EM, Bryan CJ, Johnson SL, Joiner TE. Facets of suicidal ideation. Archives Suicide Res 2024;1–16.
4. Klonsky ED, May AM, Saffer BY. Suicide, suicide attempts, and suicidal ideation. Ann Rev Clin Psychol. 2016;12(1):307–30.

5. Lim K-S, Wong CH, McIntyre RS, Wang J, Zhang Z, Tran BX, Tan W, Ho CS, Ho RC. Global lifetime and 12-Month prevalence of suicidal behavior, deliberate Self-Harm and Non-Suicidal Self-Injury in children and adolescents between 1989 and 2018: A Meta-Analysis. Int J Environ Res Public Health. 2019;16(22):4581.
6. Harmer B, Lee S, Duong TVH, Saadabadi A. Suicidal ideation. In: StatPearls. edn. 2024.
7. Klonsky ED, Dixon-Luinenburg T. Mental disorders and beyond in the quest to understand suicide: A reply to joiner and Robison. Archives Suicide Res. 2023;27(2):397–400.
8. Klonsky ED, Pachkowski MC, Shahnaz A, May AM. The three-step theory of suicide: description, evidence, and some useful points of clarification. Prev Med. 2021;152:106549.
9. Brown KL, LaRose JG, Mezuk B. The relationship between body mass index, binge eating disorder and suicidality. BMC Psychiatry. 2018;18:1–9.
10. Galmiche M, Déchelotte P, Lambert G, Tavolacci MP. Prevalence of eating disorders over the 2000–2018 period: a systematic literature review. Am J Clin Nutr. 2019;109(5):1402–13.
11. Hay P. Current approach to eating disorders: a clinical update. Intern Med J. 2020;50(1):24–9.
12. Barakat S, McLean SA, Bryant E, Le A, Marks P, Aouad P, Barakat S, Boakes R, Brennan L, Bryant E, et al. Risk factors for eating disorders: findings from a rapid review. J Eat Disorders. 2023;11(1):8.
13. Udo T, Bitley S, Grilo CM. Suicide attempts in US adults with lifetime DSM-5 eating disorders. BMC Med. 2019;17(1):120.
14. Smith AR, Velkoff EA, Ribeiro JD, Franklin J. Are eating disorders and related symptoms risk factors for suicidal thoughts and behaviors?? A Meta-analysis. Suicide Life-Threatening Behav. 2019;49(1):221–39.
15. Smith AR, Zuromski KL, Dodd DR. Eating disorders and suicidality: what we know, what we don't know, and suggestions for future research. Curr Opin Psychol. 2018;22:63–7.
16. Smith AR, Ortiz SN, Forrest LN, Velkoff EA, Dodd DR. Which comes first?? An examination of associations and shared risk factors for eating disorders and suicidality. Curr Psychiatry Rep. 2018;20(9):77.
17. King AR. Childhood adversity links to self-reported mood, anxiety, and stress-related disorders. J Affect Disord. 2021;292:623–32.
18. Cull JG, Gill WS. Suicide probability scale. Journal of Consulting and Clinical Psychology. 1988.
19. Fairburn CG, Beglin SJ. Assessment of eating disorders: interview or self-report questionnaire? Int J Eat Disord. 1994;16(4):363–70.
20. King AR, Russell TD. Psychometric properties of the violent experiences questionnaire. Child Abuse Negl. 2017;67:64–75.
21. Batugün AD, Şahin NH. İntihar Olasılığı ölçeği: Gözden geçirme, Geçerlik ve Güvenirlik Çalışması. Klinik Psikoloji Dergisi. 2018;2(2):52–64.
22. Esin K, Ayyıldız F. Validity and reliability of the Turkish version of the eating disorder examination questionnaire (EDE-Q-13): short-form of EDE-Q. J Eat Disorders. 2022;10(1):102.
23. Türk T, Kocatürk M, Koç S. Şiddet Yaşantıları Ölçeği - Gözden geçirilmiş formunun Türkçeye Uyarlanması: Geçerlik ve Güvenirlik Çalışması. Trakya Eğitim Dergisi. 2020;10(2):505–18.
24. Von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies. Lancet. 2007;370(9596):1453–7.
25. Okada LM, Miranda RR, Pena GG, Levy RB, Azeredo CM. Association between exposure to interpersonal violence and social isolation, and the adoption of unhealthy weight control practices. Appetite. 2019;142:104384.
26. Fuller-Thomson E, Baird SL, Dhrodia R, Brennenstuhl S. The association between adverse childhood experiences (ACEs) and suicide attempts in a population-based study. Child Care Health Dev. 2016;42(5):725–34.
27. Ortiz SN, Smith A. A longitudinal examination of the relationship between eating disorder symptoms and suicidal ideation. Int J Eat Disord. 2020;53(1):69–78.
28. Grogan K, MacGarry D, Bramham J, Scriven M, Maher C, Fitzgerald A. Family-related non-abuse adverse life experiences occurring for adults diagnosed with eating disorders: a systematic review. J Eat Disorders. 2020;8(1):36.
29. Conner KR, Bridge JA, Davidson DJ, Pilcher C, Brent DA. Metaanalysis of mood and substance use disorders in proximal risk for suicide deaths. Suicide Life-Threatening Behav. 2019;49(1):278–92.
30. Turecki G, Brent DA, Gunnell D, O'Connor RC, Oquendo MA, Pirkis J, Stanley BH. Suicide and suicide risk. Nat Reviews Disease Primers. 2019;5(1):74.
31. Orsolini L, Pompili M, Salvi V, Volpe U, Vellante F, Lamis DA, Serafini G. The relationship between mental pain, suicide risk, and childhood traumatic experiences: results from a multicenter study. J Clin Psychiatry. 2022;83(4):21m14194. https://doi.org/10.4088/JCP.21m14194
32. Counts CJ, John-Henderson NA. Childhood trauma and college student health: a review of the literature. J Am Coll Health 2022;1–15.

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