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The 15-Year Consequences of War: Drug Use Tendencies and Reasons Among Adolescent Refugees

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Research Article

Keywords: refugee adolescent, substance use, suicide, migration

Posted Date: March 27th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-8871361/v1

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Additional Declarations: No competing interests reported.

Abstract

Purpose

This study aimed to identify substance use patterns and reasons among adolescent refugees.

Methods

This study employed a research design that utilized descriptive, correlational, and structural modeling approaches. The study participants were selected using a combination of random and convenience sampling methods. The adolescents and their parents were informed about the study's aims, and they were included after obtaining informed consent from the parents and written consent from the children.

Results

The current study has determined that refugee adolescents have a substance use tendency. Adolescents experiencing the loss of a father or mother, smoking cigarettes or hookah, and facing issues such as shelter, heating, health, economic, psychological, and sleep problems following war and migration are influenced by substance use behaviors. In addition, it has been determined that despite the passing of a long time since the war and migration, the experiences of witnessing the destruction of homes, seeing dead bodies, and witnessing death during that period also had an impact on adolescents. Substance use among adolescents has been found to influence suicidal thoughts or suicide attempts.

Conclusions

Refugee adolescents have been found to have a high substance use tendency, and certain variables have been observed to increase their substance use. It has been found that this situation has an impact on suicide attempts.

Introductions

Adolescence is a critical age group for developing individual skills and contributing to economic productivity. Additionally, it is a period of significant changes in health and health-related behaviors such as smoking, substance abuse, and poor nutrition (Salam et al. 2016). Substance use is a factor that contributes to unemployment, poor health, accidents, suicide, and mental illness (Pompili et al. 2010).

Substance use is a factor that contributes to unemployment, poor health, accidents, suicide, and mental illness (UNODC 2024). Substance use affects adolescents profoundly and leaves a lasting impact on them. Regular substance use causes brain development disorders associated with neurotoxic effects (Teichner et al. 2000). Substance use not only alters neurochemical communication and the genetic

expression of neural development, but it has also been observed that it can significantly alter neurodevelopmental trajectories by causing a toxic effect on brain tissue (Jacobus & Tapert, 2014). Additionally, emotional and psychological disorders such as anxiety, depression, impulsivity, and attention deficit are more common among adolescents who use drugs, which impairs both individual and social functioning (Ramírez et al., 2025). Problems such as declining academic performance, deterioration of family relationships, and incompatibility with the social environment are also among the common consequences of substance use (Humphreys & Atkinson, 2025). Substance use at an early age can have lasting effects, even long after it has been stopped (Hanson et al., 2011).

The use of substances continues to increase in many countries, including Turkey, and the average age of use is decreasing by the day. This is associated with many factors, including challenges such as growth, development, and youth culture (Pumariega et al., 2014). Facilitated access to substances, the proliferation of new substances, and technological and cultural changes, along with shifts in individual attitudes, are accelerating this increase (Moss, Chen, and Yi 2014). Risk factors affecting substance use include both individual and family factors, such as pressure from peers, the desire to prove oneself, family attitudes, economic status, and academic failure (El-Guebaly, Carrà, and Galanter, 2014). Especially within the family, having poor communication and dysfunctional family relationships increases the risk of substance use. Addiction risk in individuals who use substances during adolescence reaches even more serious levels in later stages; this situation negatively affects the entire life, both physically and psychologically (Mangerud et al., 2014). Consequently, it is crucial to identify risk groups early on, determine substance use tendencies, and implement the necessary interventions.

The Syrian war remains invisible in its psychological, social, and structural effects on civilians, even as the fighting subsides (Ghumman, McCord, and Chang 2016). According to 2024 data from the United Nations, there are 5.5 million Syrian refugees worldwide, 45% of whom are children (UNO, 2024). According to the UNICEF Humanitarian Situation Report “Syrian Refugees and Other Vulnerable Populations,” there are 2.7 million Syrian refugee children in need in Turkey (UNICEF, 2024).

Refugee adolescents are exposed to multiple risk factors such as trauma, psychosocial problems, exclusion, interruptions in education, and economic disadvantage brought about by the forced migration process (Yayan & Düken, 2019). This situation makes them more vulnerable to substance use. The inherent challenges of adolescence, such as identity formation, the search for belonging, and emotional vulnerability, combined with factors such as the uncertainty of refugee status, parental loss, or fractured family structures, increase the vulnerability of refugee youth to pressure from peers and the likelihood that they will develop strategies for escape and coping through substance use (Aleer et al., 2023) (UNHCR 2024).

This study aims to examine the effects of substance use tendencies among adolescent refugees living in Turkey on their future expectations and psychological symptoms related to psychological mistreatment. This study, conducted among adolescents residing in various provinces and regions of

Turkey, aims to gain a deeper understanding of substance use patterns and their underlying causes and to contribute to the existing literature by raising awareness in this area.

Research Questions

1. Which factors influence Substance use tendencies among adolescent refugees?
2. How does Substance use among adolescent refugees affect suicidal thoughts?

Methods

Study Design and Setting

This study was conducted to determine the substance use tendencies and reasons among adolescent refugees. Descriptive, correlational, and structural modeling were used in this study. The research participants were selected using a combination of random and convenience sampling methods.

To collect data from adolescent refugees, an online survey (Google Form) has been prepared. Participation in the study has been confirmed from adolescents using an online survey. To encourage participation in the study, it was promoted through invitations sent to the schools attended by adolescents, personal invitations, and posts on social media platforms (WhatsApp, Instagram, Facebook). In the study, the adolescents were not offered any incentives or rewards. Participation in the study was entirely voluntary.

Study Participants and Sampling

The research's target group consists of adolescent refugees. The research population consists of Turkey's 81 provinces. The data obtained in the study were collected from refugee adolescents in provinces located in southeastern and eastern Turkey.

A haphazard and convenient method was used in the sample of the research. Inclusion criteria for the research: Participants were adolescents aged 15–19 years old, with at least a primary school education level, who volunteered to participate in the study and obtained legal permission from their parents or guardians. The exclusion criteria for the research included Adolescent employees under the age of 15, those over the age of 19, and those for whom consent could not be obtained from their mother, father/or legal guardian. Additionally, participants who discontinued the research were excluded.

The research reached 1,008 refugee adolescents. Among these adolescents, 11 were under the age of 16, 20 were over the age of 19, and 38 dropped out of the study, resulting in 69 adolescents being excluded. The research was conducted with 939 refugee adolescents.

Data Collection

Adolescents and their parents were informed about the study's objectives and were included in the study after obtaining informed consent from both parents and the children. We created an online survey (Google Form) to collect data from refugee adolescents. Participation in the study has been confirmed from adolescents using an online survey. The invitations were sent to adolescents through their schools, via personal invitations, and on social media platforms (WhatsApp, Instagram, Facebook) to encourage participation in the study. Adolescents completed the research questionnaires in a specific order.

Study Measures

Adolescent Information Form

The Adolescent Information Form was developed by researchers through a comprehensive literature review (Düken and Kaplan 2024)(Yayan and Düken 2019). The form includes adolescents' sociodemographic characteristics (age, gender, number of siblings, mother's survival status, and father's survival status) and their experiences related to the war they lived through (nutrition problem, hygiene problem, shelter problem, economic problem, health problem, sleep problem, heating problem, house destruction status, seeing dead bodies, witnessing death, sound sensitivity, and difficulty falling asleep or waking up or sleeping alone) and risks (substance use situation, type of substance use, smoking situation, number of cigarettes smoked, daily sleep duration in hours, and working hours).

Substance Use Tendency Scale

In recent years, substance use has been increasing, especially among young people around the world and in our country. If a tendency toward substance abuse can be identified, help can be provided without harming the individual or society. The scale was developed to determine adolescents' tendency to use substances (Cull and Gill 1998). The scale consists of 36 items, each of which is answered on a two-point Likert scale. It is scored on a scale of 0 to 36. The cutoff point on the scale is 16 points. As the score on the scale increases, the tendency to use substances increases. The Cronbach Alpha of the scale has been determined to be 0.79 (Durak and Hisli Şahin 2018).

Suicide Probability Scale (SPS)

Suicide has become a serious health issue in many countries, including Turkey, due to the alarming increase in suicide rates in recent years. The scale was developed to identify suicidal behavior and risk in adolescents and young adults (MacAndrew 1986). The scale consists of 36 items, each of which is answered on a four-point Likert scale. The scale is scored between 36 and 144 points. The cutoff point for the scale is set at 110 points. Increasing scores on the scale are associated with an increased likelihood of suicide. The Cronbach Alpha of the scale has been determined to be 0.84 (Ceyhun, Oğuztürk, and Ceyhun 2001).

Data Analysis

In the research, the data were analyzed using SPSS 23 to check whether they were normally distributed based on their Skewness and Kurtosis values. The SPSS program was used to perform reliability analysis and multiple linear regression analysis. The reasons for refugee adolescents' substance use tendencies were determined using a linear regression test. A PATH analysis was conducted between substance use patterns and suicide likelihoods. Initially, the mean values of each variable will be calculated, and the percentage, mean, median, standard deviation, minimum, and maximum values will be provided. The model's conformity values have been determined to be acceptable. The model's conformity indices are acceptable. $\chi 2/df = 0.018$, RMSEA = 0.095 CFI = 0.910, NFI = 1.000, GFI = 0.923, IFI:1.000, AGFI = 1.000ve TLI = 1.000 has been determined. Results with a p-value ≤ 0.050 were considered statistically significant.

Study Ethics

Ethical approval

for the research was obtained from the Ethics Committee of Sakarya University Faculty of Social Sciences and Humanities (Date: 28.11.2025, Number:E-61923333-050.99-537508). The research was conducted in compliance with the ethical principles outlined in the 1975 Helsinki Declaration, as well as local laws and regulations. After the consent forms were shared with the adolescents and their parents, the data related to the study were filled out on the first page. The submitted form has provided information about the current work and the participant. Before the research was conducted, participants signed an informed consent form using Google Forms. Adolescents who completed the informed permission form were able to see the research questions. The adolescents were informed that participation in the study was voluntary, that they could withdraw at their discretion, and that the confidentiality of their data would be maintained throughout the process. As mentioned above, the data was collected using Google Forms, a web-based form. This web-based form is designed so that adolescents can leave the survey at any time they wish and can only submit it once all questions have been answered.

Results

Table 1
Demographic Characteristics Distribution and Averages of Adolescent Refugees

Demographic Characteristics		n	%
Gender	Male	297	32
	Female	642	68
Father's Survival Situation	No	69	7
	Yes	870	93
Mother's Survival Situation	No	142	15
	Yes	797	85
Smoking Status	No	311	33
	Yes	628	67
Hookah Smoking Status	No	327	35
	Yes	612	65
Type of Substance	Don't Use Drug	342	36
	Cannabis	262	28
	Chemical	335	36
Drug Use Tendency Scale	16. Points and Blow	296	31.5
	16 Point Above	643	68.5
Suicide Probability Scale	110 Points and Blow	657	70
	110 Points and Above	282	30
	Mean ± SD	Median (Min-Max)	
Age (Year)	15.80 ± 2.82	17(16–19)	
Average Monthly Income (TL)	36.63 ± 19.38	24(14–75)	

The average age of the adolescents participating in the study was 15.80 ± 2.82 years, and the average monthly income of the families of each refugee adolescent was 36.63 ± 19.38 thousand Turkish liras. It was found that 68% of adolescents were female, 7% had lost their fathers, and 15% had lost their mothers. It has been found that 67% of adolescents smoke cigarettes, 65% smoke hookah, 28% of substance users use marijuana, and 36% use chemical substances. According to the 16-point cutoff point determined on the substance use tendency scale, 68.5% of adolescents were found to tend to use substances. Based on the 110-point cutoff point determined by the suicide risk scale, it was found that 30% of refugee adolescents may have suicidal thoughts and behaviors (Table 1).

Table 2
Distribution of War-Related Experiences Among Adolescent Refugees

Experiences Related to War		n	%
The Situation of Facing Nutritional Problems After War and Migration	No	366	39
	Yes	573	61
The Situation of Facing Poor Hygiene Problems After War and Migration	No	316	34
	Yes	623	66
The Situation of Facing Shelter Problems After War and Migration	No	292	31
	Yes	647	69
The Situation of Facing Economic Problems After War and Migration	No	415	44
	Yes	524	56
The Situation of Facing Health Problems After War and Migration	No	528	56
	Yes	411	44
The Situation of Facing Psychological Problems After War and Migration	No	342	36
	Yes	597	64
The Situation of Facing Sleep Problems After War and Migration	No	316	34
	Yes	623	66
The Situation of Facing Heating Problems After War and Migration	No	717	76
	Yes	222	24
The Stuation of House Demolition After War and Migration	No	310	33
	Yes	629	67
Sight of Dead Bodies During War and Migration	No	486	52
	Yes	453	48
Witnessing Death During War and Migration	No	475	51
	Yes	464	49
Experiencing Sound Sensitivity After War and Migration	No	299	32
	Yes	640	68
Difficulty Falling Asleep or Waking Up or Sleep Alone After War and Migration	No	292	31
	Yes	647	69

It was found that 61% of refugee adolescents experienced nutritional problems, 66% hygiene problems, 69% housing problems, 44% health problems, and 56% economic problems after war and migration. It has been revealed that 64% of adolescents experience psychological problems and 66% experience sleep problems. It has been revealed that 24% of adolescents experience heating problems, and 67% have had their homes destroyed. 48% of adolescents have seen dead bodies, and 49% have witnessed someone's death. According to the study, 68% of adolescents experienced sound sensitivity after the war and migration, while 69% reported problems falling asleep, waking up, and sleeping alone (Table 2).

Table 3
Multiple Regression Model Explaining Substance Use Tendencies Among Adolescent Refugees

Variable	B(%95)	Beta	t	p	Zero-order	Partial
(Constant)	7,100 (6,506–7,694)		23,458	**p < 0.001**		
The Father's Survival Situation	0,790 (0,414–1,166)	0,043	4,125	**p < 0.001**	-0,211	0,135
The Mother's Survival Situation	1,222 (0,919–1,525)	0,091	7,915	**p < 0.001**	-0,279	0,252
Smoking Situation	0,831 (0,323–1,339)	0,081	3,210	**0,001**	0,884	0,105
Hookah Smoking Situation	-1,783 (-2,556 - -1,01)	-0,176	-4,528	**p < 0.001**	0,909	-0,148
Living Nutrition Problems After War and Migration	0,593 (-0,171–1,356)	0,060	1,523	0,128	0,903	0,050
Living Hygiene Problems After War and Migration	-0,072 (-0,81 – 0,665)	-0,007	-0,193	0,847	0,918	-0,006
Living Shelter Problems After War and Migration	3,383 (2,62 – 4,145)	0,325	8,706	**p < 0.001**	0,908	0,276
Living Economic Problems After War and Migration	0,935 (0,43 – 1,441)	0,096	3,632	**p < 0.001**	0,849	0,119
Living Health Problems After War and Migration	-0,688 (-1,269 - -0,106)	-0,071	-2,322	**0,020**	0,686	-0,076
Living Psychological Problems After War and Migration	2,095 (0,766–3,424)	0,209	3,093	**0,002**	0,930	0,101
Living Sleep Problems After War and Migration	2,881 (2,06 – 3,702)	0,282	6,888	**p < 0.001**	0,932	0,221
Living Heating Problems After War and Migration	0,544 (0,264–0,824)	0,048	3,814	**p < 0.001**	0,437	0,125

B(%95): Unstandardized Coefficients, Beta: Standardized Coefficients, Adj R_2:0.926, F:694.288, P < 0.001, S.E: 1.310

Variable	B(%95)	Beta	t	p	Zero-order	Partial
Living House Demolition Problems After War and Migration	-0,745 (-1,361 - -0,129)	-0,073	-2,374	**0,018**	0,899	-0,078
Seight Dead Bodies During War and Migration	1,811 (1,27 – 2,353)	0,188	6,563	**p < 0.001**	0,764	0,211
Witnessing Death During War and Migration	0,342 (-0,238– 0,923)	0,036	1,157	0,247	0,739	0,038
Experiencing Sound Sensitivity After War and Migration	1,016 (0,573–1,46)	0,098	4,499	**p < 0.001**	0,850	0,147
Difficulty Falling Asleep or Waking Up or Sleep Alone After War and Migration	0,107 (-0,3 – 0,513)	0,010	0,515	0,606	0,817	0,017
B(%95): Unstandardized Coefficients, Beta: Standardized Coefficients, Adj R_2:0.926, F:694.288, P < 0.001, S.E: 1.310						

The multiple linear regression model to explain substance use tendencies among adolescent refugees was found to be statistically significant. (F = 694.288; P < 0.001). It has been determined that variables such as adolescents' father's survival status, mother's survival status, smoking status, hookah smoking status, after war and migration: nutrition, hygiene, shelter, economic, health, psychological, sleep, heating, the state of the house being destroyed, seeing dead bodies, witnessing death, experiencing sound sensitivity, difficulty falling asleep, waking up, or sleeping alone explain 92.6% of the variation in substance use tendency scale scores (R2 = 0.926). The most significant variables affecting adolescents' tendency to use substances were found to be experiencing housing problems after war and migration, experiencing psychological problems after war and migration, and experiencing sleep problems after war and migration. (Table 3).

Table 4
Results of Structural Equality Modeling for Adolescent Refugees

Dependent Variables	<--	Independent Variables	β1	β2	Test Statistic	p	R^2
Suicide Probability Scale	<--	Substance Misuse Proclivity Scale	0,898	6,043	62,512	**P < 0.001**	0.806

β_1; Standardized regression coefficents, **β_2**; Unstandardized regression coefficients, *p < 0,05; t test result for the significance of the regression coefficients, **R^2**; Explanatory coefficients

It has been determined that adolescents' substance use tendencies positively predict their suicide risk scores (β_1 = 0.898; p < 0.001). It has been determined that 80.6% of the change in adolescents' suicide

risk scores is explained by their substance use tendency scores (R^2 =0.806).(Table 4)

Discussion

Social, cultural, and economic differences in host countries can hurt the mental health of refugee youth. Trauma experienced before migration and subsequent adaptation problems can also increase the burden on mental health. Numerous factors, such as war, migration, trauma, nutrition, shelter, family problems, losses, and grieving, can push refugee adolescents toward substance use. Additionally, substance use may be a critical risk factor for suicidal tendencies among refugees at the individual risk level. Therefore, this article examines substance use tendencies among adolescent refugees and the reasons for these behaviors. The main results of the study found that substance use is prevalent among this vulnerable population, identified the reasons for this, and determined that substance use contributes to adolescents' likelihood of suicide.

The initial finding of the study was the tendency to use substances identified among adolescent refugees. It was observed that 68.5% of adolescents tended to use substances. It was found that 67% of adolescents smoked cigarettes, 65% smoked hookah, 28% of substance users used marijuana, and 36% used chemicals. A systematic analysis of refugees has indicated that alcohol and drug use are prevalent in camp environments (Horyniak et al. 2016). In a study conducted by Vasic et al. (2021), 53.3% of refugee children and adolescents showed symptoms of PTSD, 50% consumed energy drinks, 28% used tobacco, 13% consumed alcohol, 4.6% used marijuana, 1.7% used LSD, amphetamines, glue, sedatives, and cocaine (Vasic et al. 2021). In a recent study with Palestinian adolescent refugees, self-reported substance use rates were 26.9%, 12.4%, 28.0%, 37.0%, and 60.4% of adolescents reported using cigarettes, e-cigarettes, hookah, coffee, and energy drinks, and alcohol, respectively. In comparison, 3.4% reported using at least one illicit drug (Snoubar et al. 2025). Research in the literature supports our study and shows that refugee youth are prone to substance use. Despite the many years that have passed since the war and migration, it is believed that the stress of migration, the scarcity of resources for coping, vulnerable environments, the streets, and the stress of adaptation increase adolescents' susceptibility to substance use.

According to our study, the most important variables affecting adolescents' tendency to use drugs are experiencing shelter problems after war and migration, experiencing psychological problems after war and migration, and experiencing sleep problems after war and migration. Based on a systematic review conducted by Otorkpa et al. (2024), it has been determined that children and youth displaced by conflict experience mental health issues, depression, post-traumatic stress disorder (PTSD), and anxiety. Somatic disorders, sleep disorders, nightmares, fecal incontinence, and substance dependence are among other problems (Otorkpa et al. 2024). Similarly, in the model created for adolescents' substance use tendencies, psychological symptoms such as anxiety, depression, negative self-image, and hostility were found to be effective at a rate of 49.4% (Düken and Kaplan 2024). When examining risk factors leading to substance use among refugee groups, trauma and psychological burden are seen to play a central role. Studies indicate that refugees become vulnerable to substance use due to exposure to

stress and trauma, such as loss of their home and financial resources, symptoms of mental illness, violence, torment, and family separation (Horyniak et al. 2016) (Vasic et al. 2021). This situation is also confirmed in the case of Syrian refugee children and adolescents; it is stated that traumatic life events and psychopathology related to war, combined with cultural adaptation difficulties, play a key role in the emergence of risky behaviors(Arifoğlu and Artan 2024). Additionally, it has been determined that substance use tendencies function as a strategic tool for coping with the adverse effects of trauma, accessing and obtaining substances, socializing with social groups, peer pressure, and survival (Aleer et al. 2023)(Damiri 2020)(Im and George 2022). Research in the literature indicates that factors contributing to substance use tendencies among adolescent refugees are consistent with existing studies. It has been established that substance use tendencies are associated with numerous factors both before and after migration.

The second finding of the study was that adolescents' substance use tendencies positively predicted their suicide risk scores. It has been determined that substance use tendencies account for 80.6% of the change in adolescents' suicide risk scores. Refugee families encounter adverse events and psychosocial inequalities during their migration journey and in the host community. Factors such as trauma, cultural adjustment stress, and intersectionality influence suicide risk among refugees. Collective traumatic events contribute to the mental health burden among refugee youth and may worsen suicide outcomes (Diaz 2024). Our study found that 30% of refugee adolescents may have suicidal thoughts and behaviors. Meta-analysis studies report that refugees show a significant prevalence of suicidal ideation, suicide planning, and suicide attempts (Amiri 2022) (Bevione et al. 2024)(Hanson et al. 2011). Regardless of their origin, child and adolescent refugees are reported to be at increased risk of major depressive disorder and suicidal tendencies compared to the general population they have migrated toward (Jin et al. 2021). Research supports that refugee children and adolescents are vulnerable to suicidal tendencies. The trauma experienced, along with social, cultural, and economic problems, may have further increased the psychosocial burden on adolescents, leading them to contemplate suicide. Likewise, studies conducted on adolescent refugee girls in different countries have also highlighted the relationship between psychological burden and suicide. Depression, suicidal ideation/attempts, and high levels of psychological distress were found to be prevalent among adolescent refugees(Bukuluki et al. 2021) (Otika et al. 2024). According to a study by Dehnel et al. (2024) focusing on Syrian refugee children, a high rate of suicidal ideation was reported, particularly among children who had previously experienced depression or bullying(Dehnel et al. 2024). Our study is consistent with previous research in the literature, and it is thought that the psychological problems and trauma experienced by the adolescents in our study may have led to suicidal thoughts like that described in the literature.

Studies support the existence of a strong relationship between suicide and substance abuse. In a recent study on adolescent lives after immigration to the United States, more stressful life events were associated with suicidal thoughts (Stark et al. 2022). Depressive symptoms are thought to significantly influence the pathway from substance use to suicide risk, leading to both direct effects and much stronger indirect effects. Likewise, Yang's (2024) study highlights that adolescents who use substances are 16 times more likely to exhibit suicidal thoughts or behaviors and that lifetime multiple substance

use is significantly associated with suicidal thoughts and behaviors among adolescents through depressive symptoms (Yang 2024). Additionally, in a cohort study that followed women aged 8 to 19 for 31 years, it was found that those who attempted suicide before the age of 20 had a higher risk of developing substance use disorders later in life compared to those who did not attempt suicide (Auger et al. 2022). Based on this, it is likely that substance use among refugee adolescents, as a vulnerable group, has a stronger tendency to lead to suicidal thoughts. These results also suggest that the relationship between substance use and suicide is bidirectional and that they can have a mutually reinforcing effect on each other.

Adolescents with substance use disorders who attempt or commit suicide may experience emotional disorders, stressful life events, interpersonal problems, weak social support, lonely lives, and feelings of hopelessness. Most studies examining suicide risk in different vulnerable populations highlight common psychosocial risk factors, consistent with the findings of our research. In a study conducted by Bwesige & Snider (2021) among South Sudanese refugees, war stressors (exposure to and witnessing of violent acts), daily stressors, social fragmentation, normalized violence, social isolation, lack of economic opportunity, loss of possessions, and loss of trust and hope were reported to contribute to increased suicidal tendencies. Additionally, nearly all participants among Congolese refugees in Rwanda who experienced suicidal thoughts and/or attempted suicide reported poor mental health, a sense of low belonging/commitment, and a perceived burden level that outweighed their desire to live. Furthermore, family conflicts and a lack of hope for the future were identified among both boys and girls. Psychological burden in substance-dependent adolescents and other psychosocial factors experienced before and after migration may trigger both substance dependence and suicidal ideation, as highlighted by studies similar to ours. The synergistic relationship between substance dependence and suicidal ideation is once again emphasized.

Conclusion

The current study has determined that refugee adolescents tend to use substances. Adolescents' loss of a father, loss of a mother, smoking cigarettes and hookah, and factors such as shelter, heating, health, economic, psychological, and sleep after war and migration have been found to influence their tendency to use substances. It has also been determined that, despite the passage of time since the war and migration, the experiences of witnessing the destruction of their homes, seeing dead bodies, and witnessing death during that period have had a lasting impact on adolescents. It has been established that adolescents' tendency to use substances affects suicidal thoughts or suicide attempts.

Previous studies in the literature have not examined the variables investigated in this study simultaneously. The findings expand on existing research by confirming known relationships and demonstrating how substance use tendencies contribute to suicidal ideation through interrelated cognitive and emotional mechanisms. Therefore, it is important to take measures to minimize substance use, which has been found to have the potential to increase suicidal thoughts among the growing number of adolescent refugees today. For this reason, psychoeducation programs and cognitive

therapies should be developed to prevent substance use. Such programs and therapies are expected to help individuals maintain their mental health. During treatment, follow-up, and monitoring in the healthcare field, it is recommended that pediatric nurses, psychiatric nurses, psychologists, and child development specialists conduct follow-ups.

Limitations and Future Research

Limitations of the current study should be considered when interpreting the findings. The first limitation is that the data were collected using self-report scales. The second limitation is that the study design was cross-sectional. This means that it is not possible to determine any causal relationship between the variables. Therefore, longitudinal or experimental research designs are needed in future studies. In future studies, it is essential to employ longitudinal research designs to track the developmental trajectory of the variables. Additionally, new studies can be designed using experimental methods to establish causal relationships.

Additional limitations include the fact that the sample consisted only of individuals from Turkey and that the sample size was relatively small. Therefore, while future studies may highlight similarities in findings with studies conducted in other countries, it is recommended that they include larger and more representative samples from both the Turkish context and outside Turkey. Future studies comparing different cultural groups may also yield more effective results.

Declarations

Ethics Approval and Consent to Participate:

The present study was conducted with a multi-stage consent and protection protocol due to its high ethical sensitivity in terms of fieldwork with the participants. Ethical approval for this study was obtained from the Sakarya University Social and Human Sciences Ethics Committee (Date: 28.11.2025, Number:E-61923333-050.99-537508). The principles of the Declaration of Helsinki, the Child Protection Law of the Republic of Turkey, and the principles of the UN Convention on the Rights of the Child have been adhered to. Each participant, their parents, and their spouse were informed about the study. After each participant was informed about the study, an informed consent form was obtained from them and their parents. During the data collection process, it was emphasized that participants could withdraw from the study at any time without any obligation or penalty. Participants who reported any distress after the survey were referred to local psychosocial support mechanisms that could provide counselling services.

Consent for publication:

Not Applicable

Competing Interests:

There is no between authors in this research.

Funding:

This study did not receive support from any institution or company.

Author Contribution

N.K.Ö; Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing-original draft, Writing - review and editing, Project administration. M.G; Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing-original draft, Writing - review and editing, Project administration. M.E.D; Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review and editing A.B; Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing-original draft, Writing - review and editing, Project administration.

Acknowledgements:

We would like to thank the child and adolescent psychiatry specialists and obstetricians who support this research.

Data Availability

Availability of data and materials: The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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