Chapter 4

The Relationship Between Risk Factors and Substance Use Behaviors: North Cyprus Case

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Abstract

This study examined the relationships between substance use, family support, peer support, perceived social pressure, school absenteeism and the duration of social media use among 15-16-year-old high school students in Northern Cyprus. Conducted in the 2024–25 academic year, the study aimed to survey all 3,901 students using the ESPAD scale, and the data were evaluated through quantitative analysis. The findings showed that family support was negatively associated with cigarette and alcohol use. A 1-unit increase in family support was associated with a 0.08% decrease in the frequency of 30-day cigarette use. Peer support only modestly reduced the frequency of getting drunk. Social pressure was identified as one of the strongest risk factors for substance use, with a particularly high β-value of 1.62 observed for alcohol use. School absenteeism explained 8% of the variance in cigarette use and approximately 5% of alcohol use, indicating its significance as a risk factor. The duration of social media use increased cigarette and alcohol use, and a weak negative association was observed with cannabis use. These results suggest that factors relating to the family, peers, school and digital environments should be considered together. This study is one of the first comprehensive quantitative analyses in the context of substance use in adolescents in Northern Cyprus, providing local data for preventive interventions. It is recommended that preventive strategies focus on strengthening family support, increasing school engagement, developing coping skills in the face of peer pressure, and reducing exposure to risky content on social media.

Keywords: Northern Cyprus, adolescence, substance use, social pressure, family support

4.1. Introduction

Substance use is a significant public health problem that begins in adolescence and has serious consequences at both the individual and societal levels (Maggs et al., 2023; Nath et al., 2022). According to a 2024 report from the World Health Organization, 57% of 15-year-old adolescents in Europe and surrounding regions tried alcohol at least once, and approximately 37% consumed alcohol in the past month. Similarly, the lifetime prevalence of cannabis use among 15-year-olds is approximately 12%. These data suggest that alcohol and other substance use is common during adolescence, and that early exposure to substances increases the risk of addiction later in life.

In Northern Cyprus, past studies showed that while illicit substance use among adolescents is lower than in Europe and the US, it tended to increase over the years (Bekiroğulları, 2024; Çakıcı, Karaaziz, et al., 2020). Between 2003 and 2017, the prevalence of illicit substance use among young people in Northern Cyprus ranged from 3% to 11.7%. However, the prevalence of use of legal substances such as tobacco and alcohol is high; for example, in 2019, 35.8% of high school students in Northern Cyprus smoked at least once in their lifetime, and 67.4% consumed alcohol at least once (Cakici, Cakici, et al., 2018; Çakıcı, Karaaziz, et al., 2020). This finding demonstrates that adolescents are at risk for substance use and necessitates examining the factors that influence this risk (Nath et al., 2022).

Adolescence is a critical period characterized by rapid biopsychosocial changes and increased vulnerability to experience and peer influence (Tariq et al., 2024). Several risk and protective factors play a role in the development of substance use behaviors during this period. The literature conceptualizes risk factors that predispose to substance use and protective factors that encourage abstinence (Stone et al., 2012). Family problems, low parental supervision, peer pressure, poor attachment to school, and easy access to substances in the social environment are frequently highlighted among risk factors (Chiang et al., 2022). Conversely, strong parent-child relationships, high levels of family support and monitoring, positive peer norms, and school

attachment are identified as key factors protecting young people from substance use (Avcı, 2025).

Based on existing literature, adolescent substance use involves a multidimensional network of interactions. Individual factors (impulsivity, curiosity, psychological problems, etc.), familial factors (parental attitudes, family structure, supervision), peer and social environment factors (peer group characteristics, social norms, media), and school/societal factors (school climate, access to substances in society) all shape young people's risk behaviors (Moore et al., 2018; Wen, 2017).

Family support and parental supervision are important factors that reduce the risk of adolescent substance use. Emotional support, close monitoring, consistent discipline, and warm family relationships offer a protective effect, while family conflict, indifference, and parental substance use increase the risk (Nawi et al., 2021). Peer influence is one of the strongest determinants in adolescence; having friends who use substances increases the risk, while constructive friendships can play a protective role (Henneberger et al., 2021). School engagement and low absenteeism are also factors that reduce substance use; a sense of belonging and good relationships with teachers limit risky behaviors (Griffiths et al., 2022). Social media can both encourage substance use through motivating content and in some cases, partially mitigate offline risks; however, it is generally considered a powerful social interaction platform that increases the likelihood of initiating or increasing substance use (Avcı, 2025; Shoshani et al., 2024)

The purpose of this study is to examine in detail the relationships between substance use among secondary school students in Northern Cyprus and the key risk/protective factors mentioned above. Recent research in the literature, particularly after 2015, has emphasized the importance of family and peer influences, as well as school and social media factors, on adolescent behaviour (Abiç & Bilgiç, 2024; Gökmenoğlu et al., 2022). However, no comprehensive study addressed these relationships in the Northern Cyprus context. Therefore, this study aims to contribute to the literature by testing

existing theoretical knowledge in a regional sample and to provide local evidence for future preventive interventions based on the findings.

This study, conducted in Northern Cyprus, is valuable both for testing whether general trends in the literature apply to this context and for providing region-specific data. Northern Cyprus, with its relatively small population and cultural characteristics, is a region with little research on adolescent behavior. This research aims to fill a gap in the literature by revealing the relationship between family and peer influences, school absenteeism, and social media use and substance use among young people in this region. Given the increasing social media penetration and changing cultural dynamics, particularly after 2015, it is important to understand the implications of existing literature findings for the Turkish Cypriot community. Furthermore, the study's findings will provide evidence-based information for designing country-specific prevention and intervention programs. The hypotheses of this study can be briefly stated as follows: "Substance use in adolescents is positively associated with low family support, high perceived social pressure, increased school absenteeism, and long duration of social media use."

4.2. Literature Review

Research on substance use during adolescence reveals that many factors play a role in the emergence of this behavior and that it should be examined with an ecological approach (Barati et al., 2023; Rodríguez-Ruiz et al., 2023).

In summarizing the literature on adolescent substance use, it's important to emphasize a perspective where the risk and protective factor model and ecological systems theory intersect. Pioneering researchers such as Hawkins and Catalano (1992) suggested that whether a young person will use substances is a result of the balance between the number and severity of risk factors they are exposed to and the strength of protective factors. For example, a young person with weak parental control, a large circle of drug-using friends, low academic achievement, and a history of stressful life events is considered in the highest risk group, while a young person with supportive family, anti-

substance friends, and strong school commitment is considered in the lowest risk group (Avcı, 2025; Nawi et al., 2021). Most young people fall between these two extremes and possess varying combinations of risk and protective factors.

In this context, it would be useful to summarize the literature under the main subheadings of family and parental influences, peer and social environment influences, school and academic factors, and digital media effects.

4.2.1. Family Support and Parental Influence

The family is the primary social environment for adolescent attitude and behavior development. High family support, strong parent-child bonds, consistent discipline, and parental supervision reduce adolescents' risk of substance use. Research shows that parents knowing their child's whereabouts and whom they are with is protective, while neglectful, permissive, or oppressive attitudes increase risk (Pinquart & Lauk, 2025). Family unity, harmony, and open communication provide resistance to peer pressure (Shafie et al., 2024). Clear and consistent family rules against substance use contribute to youth avoiding risky behaviors. Family factors are effective not alone, but in conjunction with other factors, such as peer influence. Therefore, family-based prevention programs aim to reduce adolescent substance use by strengthening parental communication, limit-setting skills, and family connectedness. Examples such as the "Strengthening Families" program demonstrate the success of this approach (Ladis et al., 2019).

4.2.2. Peer Support, Social Pressure, and Peer Norms

During adolescence, peer groups are as powerful a source of social reference as family. Peer pressure and perceived peer norms play a decisive role in cigarette, alcohol, and drug use; the desire to gain peer approval is particularly high between the ages of 14 and 16 (MacArthur et al., 2020). Research showed that having friends who use substances increases an

adolescent's risk of substance use, and this effect can be seen in face-to-face interactions and on social media (Watts et al., 2024). Conversely, positive peer support and prosocial groups can protect adolescents from risky behaviors (Walters, 2020). Structured activities and strong social support have a protective effect, particularly for youth experiencing stressful life events. As exemplified by the Icelandic model, encouraging youth to spend time with family and participate in supervised activities such as sports and the arts can significantly reduce substance use rates by moderating peer influence (Halsall et al., 2025).

4.2.3. School Engagement, Achievement, and Absenteeism

School is the most important social and educational environment for adolescents after their families. While school engagement, academic motivation, and school adjustment protect against substance use, they increase the risk of academic failure and absenteeism (Lee & Henry, 2022). Research shows that students who feel a sense of belonging at school are less likely to engage in substance use, even when it's common among their peers (Allen et al., 2025). However, youth who are absent or disengaged from school are more likely to enter risky environments and use substances. This relationship is bidirectional: substance use can lead to absenteeism, and absenteeism can lead to substance use (Gakh et al., 2020). School norms and discipline policies are also important; consistent anti-substance policies and a positive school climate can reduce use rates. Therefore, modern prevention strategies emphasize school-based interventions that increase school engagement and provide students with opportunities for activity.

4.2.4. Social Media, Digital Interaction, and Substance Use

Social media is a powerful new social interaction platform that influences substance use among adolescents. Content shared on platforms like Instagram, TikTok, and Snapchat can convey messages that encourage or normalize substances like alcohol and cigarettes; young people exposed to

such posts are more likely to use substances on the same day (Steers et al., 2025). Social media indirectly reinforces peer pressure, leading young people to overestimate the frequency of their peers' substance use and view these behaviors as more acceptable (Watts et al., 2024). The potential for positive use is limited; while awareness campaigns and healthy lifestyle messages may have some impact, negative effects predominate. Excessive screen time may also be an indirect risk factor through lack of physical activity and psychological problems (depression, anxiety). Further research is needed on the mechanisms that influence social media and screen time on substance use.

4.3. Method

4.3.1. Research Model

This study employed a cross-sectional and correlational screening model to examine the relationships between risk factors and substance use among adolescents. The dependent variables in the study were various indicators of adolescent substance use (cigarette use frequency, alcohol use frequency, cannabis use, etc.), and the independent variables were risk and protective factors (family support, peer support, perceived social pressure, level of school absenteeism, and duration of social media use). The research was based on quantitative methods, and data were collected using the ESPAD scale and subjected to numerical analyses.

4.3.2. Participants

The study population consisted of high school students between the ages of 15 and 16 enrolled in public schools in Northern Cyprus during the 2024–2025 academic year. The total number of students in this population was 3,901. No sampling was used; an attempt was made to reach the population. Official permission for participation was obtained from the Ministry of National Education, the selected schools were informed, and 10th-grade students were invited to participate. Participant selection was voluntary;

parental consent and consent were obtained for the survey administered to students aged 15 and 16. Participants were adolescents with an average age of approximately 15.5 years; the gender distribution was 51% female and 49% male (this distribution reflects the gender ratios in the population).

4.3.3. Data Collection Tool

The ESPAD scale used in the study is a multi-section measurement tool that includes students' sociodemographic information, risk factors, and substance use behaviors. The 2023 version of the ESPAD (European School Survey Project on Alcohol and Other Drugs) was used in the preparation of this form. The survey questions consist of the following subheadings:

i. Demographic Questions: Age, gender, grade level, family structure, parental education level, etc.

ii. Questions related with risk and protective factors

- Family Support Questions: These are five questions designed to measure the emotional and social support students perceive from their families (Likert scale 1–5; sample item: "My family listens to me and cares about my problems").
- Peer Support Questions: A four-question subscale to measure the positive support students receive from their friends (Likert scale 1–5; e.g., "My friends are there for me when I'm feeling down").
- Social Pressure (Peer Pressure) Questions: Three statements were asked to assess the pressure or encouragement students receive from their peers to use substances (e.g., "My friends offer me cigarettes or alcohol." – Response options: never, rarely, sometimes, often).
- School Absence: The student was asked to indicate the number of days they were absent without permission in the last 30 days (categorical: 0, 1–2, 3–5, 6–10, 11+ days). A metric conversion such as "% absenteeism" was used for clarity in the analysis (0 days = 0;

1–2 days = ~5%; 3–5 = ~15%; 6–10 = ~30%; 11+ = ~50% and above absenteeism).

- Social Media Usage Time: Students were asked how much time they spent on social media platforms on average during their free time each day (options: 0–1 hour, 1–3 hours, 3–5 hours, 5–7 hours, 7+ hours).

iii. Substance Use Measures: This section includes standard questions taken from the ESPAD survey:

- 30-Day Smoking Frequency: How many days in the last 30 days have you smoked cigarettes (categories include 0, 1–2, 3–5, 6–9, 10–19, 20–29, and every day).
- Lifetime Cannabis Use: Whether you have ever used cannabis (Yes/No), and if yes, how many times in total.
- Past 12-Month Cannabis Use: Whether you have used cannabis in the last 12 months (with answers such as never used / 1–2 times / monthly / weekly / daily).
- Past 30-Day Cannabis Use: How many times you have used cannabis in the last 30 days (0, 1–2, 3–5, 6–9, 10+).
- Time of Last Alcohol Use: When was the last time the individual drank an alcoholic beverage (never / >12 months ago / within the last 12 months / within the last 30 days / within the last 7 days).
- Last Day Alcohol Intake: "Did you have an alcoholic beverage yesterday or past yesterday?" (Yes/No)
- Frequency of Heavy Episodic Drinking: Number of days in the last 30 days when the individual had at least 5 drinks of alcohol in a row. The frequency of this binge drinking behavior was categorized as 0, 1, 2, 3–4, and 5+ days.
- Frequency of Intoxication/Intoxication: "How many times in your life have you been severely intoxicated (to the point of unawareness of your surroundings)?" (never / 1–2 / 3–5 / 6–9 / 10+ times). The number of times you have been intoxicated in the last 30 days was also collected in a separate question.

4.3.4. Procedure

Official permission was obtained from the Ministry of National Education of Northern Cyprus, which granted approval for the study to be implemented in public high schools. The principals of each school were contacted to schedule the implementation dates, and the scales were administered under the supervision of the relevant classroom teachers. The purpose and process of the study were explained to students and parents both verbally and in writing by Dr. Zafer Bekiroğulları, and signed consent forms were collected from parents. On the day of data collection, students were again verbally informed, and those who did not wish to participate were informed that participation was not mandatory. To protect participant confidentiality, no names or personal information were collected in the surveys; each student was randomly assigned a code number. Surveys were collected in sealed envelopes, ensuring that no one other than the researcher could see them. The entire process was conducted in accordance with the ethical guidelines of the ESPAD methodology.

4.3.5. Data Analysis

The collected data were analyzed using SPSS 25.0 software. Descriptive statistics were calculated to report the basic characteristics of the sample and the means/distributions of the variables. Pearson product-moment correlation analysis was used to examine the relationships among risk factors and between risk factors and substance use indicators.

To test the main hypotheses of the study, simple linear regression analyses were conducted to examine the predictive value of each risk factor on the relevant substance use outcome. In each regression, the independent variable was modeled as a single risk factor (e.g., family support score) and the dependent variable was modeled as a single measure of substance use (e.g., number of days smoked in the last 30 days). This allowed us to test the magnitude (regression coefficient b) and significance of the independent variable's effect on the relevant substance use.

For each of these models, model significance was assessed using F tests and regression coefficient significance was assessed using t tests. Furthermore, the percentage of variance explained by each model was reported using R^2 values. This allowed for comparison of the relative effect sizes of risk factors on substance use behaviors.

Regression assumptions (linearity, normality, multicollinearity, etc.) were tested, and tolerance and VIF values were examined to determine that there was no multicollinearity problem (the highest VIF was ~1.3). While Shapiro-Wilk and Q-Q plot analyses indicated that some variables were not perfectly normally distributed (e.g., perception of social pressure clustered at very low values), the error terms in the regression analyses were largely normally distributed. Furthermore, because the data were cross-sectional, inferences of causal relationships were avoided.

The analysis results are presented in tables; Table 4.1 summarizes the correlations among all variables, Tables 4.2–4.6 the effects of family support on different substance use, Tables 4.7–4.10 the effects of social pressure, Tables 4.11–4.16 the effects of school absence, and Tables 4.17–4.20 the effects of social media use.

4.3.6. Ethical Considerations

The study was conducted in accordance with the Declaration of Helsinki and approved by the ethics committee of the Northern Cyprus Prime Minister's Anti-Drug Commission (No. 2024-09-30), which comprises members who are experts in their respective fields. All participants and their legal guardians were thoroughly informed about the study's purpose and procedures, and written consent was obtained from the guardians prior to participation. The data collected for the study were anonymized and processed to safeguard the privacy of participants and prevent the inclusion of any personal information.

4.4. Findings

4.4.1. Correlation Analysis Among the Variables

There is a significant positive relationship between family support and peer support (r=.58, p<.01) and social media (r=.07, p<.05). There is a significant negative relationship between family support and social pressure (r=-.05, p<.05), school absenteeism (r=-.08, p<.01), 30-Day cigarette use frequency (r=-.14, p<.01), last day drank alcohol (r=-.06, p<.05), heavy episodic drinking frequency (r=-.06, p<.05), and drunkenness/intoxication frequency (r=-.08, p<.01). There is a non-significant negative relationship between family support and lifetime cannabis use (r=-.04), cannabis use in the last 12 months (r=-.03), and cannabis use in the last 30 days (r=-.03). There is a significant positive relationship between peer support and time spent on social media (r=.20, p<.01). There is a non-significant positive relationship between peer support and last day drank alcohol (r=.02) and heavy episodic drinking frequency (r=.03). There is a significant negative relationship between peer support and drunkenness/intoxication frequency (r=-.07, p<.01). There is a non-significant negative relationship between peer support and social pressure (r=-.03), school absenteeism (r=-.01), 30-Day cigarette use frequency (r=-.04), lifetime cannabis use (r=-.04), cannabis use in the last 12 months (r=-.04), and cannabis use in the last 30 days (r=-.05).

There is a significant positive correlation between social pressure and school absenteeism (r=.14, p<.01), time spent on social media (r=.10, p<.01), 30-Day cigarette use frequency (r=.15, p<.01), last day drank alcohol (r=.36, p<.01), heavy episodic drinking frequency (r=.30, p<.01), and drunkenness/intoxication frequency (r=.30, p<.01). There is a non-significant positive relationship between social pressure and lifetime cannabis use (r=.05), cannabis use in the last 12 months (r=.04), and cannabis use in the last 30 days (r=.04). There is a significant positive relationship between school absenteeism and time spent on social media (r=.20, p<.01), 30-Day cigarette use frequency (r=.30, p<.01), lifetime cannabis use (r=.12, p<.01), cannabis use in the last 12 months (r=.11, p<.01), last day drank alcohol

(r=.24, p<.01), heavy episodic drinking frequency (r=.20, p<.01), and drunkenness/intoxication frequency (r=.20, p<.01). There is a non-significant positive correlation between school absenteeism and cannabis use in the last 30 days (r=.05). There is a significant positive correlation between social media and 30-Day cigarette use frequency (r=.14, p<.01), last day drank alcohol (r=.20, p<.01) and heavy episodic drinking frequency (r=.10, p<.01). There is a significant negative relationship between time spent on social media and cannabis use in the last 30 days (r=-.06, p<.01). There is a non-significant negative relationship between time spent on social media and lifetime cannabis use (r=-.01), cannabis use in the last 12 months (r=-.03), and drunkenness/intoxication frequency (r=-.01). There is a significant positive relationship between 30-Day cigarette use frequency and lifetime cannabis use (r=.26, p<.01), cannabis use in the last 12 months (r=.25, p<.01), cannabis use in the last 30 days (r=.13, p<.01), last day drank alcohol (r=.34, p<.01), heavy episodic drinking frequency (r=.41, p<.01), and drunkenness/intoxication frequency (r=.27, p<.01).

There is a significant positive correlation between lifetime cannabis use and cannabis use in the last 12 months (r=.96, p<.01), cannabis use in the last 30 days (r=.76, p<.01), last day drank alcohol (r=.14, p<.01), heavy episodic drinking frequency (r=.25, p<.01), and heavy episodic drinking frequency (r=.25, p<.01). There is a significant positive correlation between cannabis use in the last 12 months and cannabis use in the last 30 days (r=.87, p<.01), last day drank alcohol (r=.12, p<.01), heavy episodic drinking frequency (r=.27, p<.01) and drunkenness/intoxication frequency (r=.28, p<.01). There is a significant positive correlation between cannabis use in the last 30 days and last day drank alcohol (r=.07, p<.01), heavy episodic drinking frequency (r=.18, p<.01), and drunkenness/intoxication frequency (r=.26, p<.01). There is a significant positive correlation between last day drank alcohol and heavy episodic drinking frequency (r=.57, p<.01) and drunkenness/intoxication frequency (r=.28, p<.01). There is a significant positive correlation between heavy episodic drinking frequency and drunkenness/intoxication frequency (r=.38, p<.01).

Table 4.1. Correlational Analysis Between Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Family Support	1	.58**	-.05*	-.08**	.07*	-.14**	-.04	-.03	-.03	-.06*	-.06*	-.08**
2. Peer Support		1	-.03	-.01	.20**	-.04	-.05	-.04	-.05	.02	.03	-.07**
3. Social Pressure			1	.14**	.10**	.15**	.05	.04	.04	.36**	.30**	.30**
4. School Absenteeism				1	.20**	.30**	.12**	.11**	.05	.24**	.20**	.20**
5. Time Spent on Social Media					1	.14**	-.01	-.03	-.06**	.20**	.10**	-.01
6. 30-Day Cigarette Use Frequency						1	.26**	.25**	.13**	.34**	.41**	.27**
7. Cannabis Use Frequency (In your lifetime)							1	.96**	.76**	.14**	.25**	.25**
8. Cannabis Use Frequency (During last 12 months)								1	.87**	.12**	.27**	.28**
9. Cannabis Use Frequency (During last 30 days)									1	.07**	.18**	.26**
10. Last Day Drank Alcohol (Recency)										1	.57**	.28**
11. Heavy Episodic Drinking Frequency (30-day Binge)											1	.38**
12. Drunkenness/Intoxication Frequency (During last 30 days)												1

** The correlation means $p<.01$.* The correlation means $p<.05$.

4.4.2. Hypothesis Testing

Simple linear regression analyses were conducted for the variables in Chapter 4. Simple linear regression analysis examined the relationship between family support and 30-Day cigarette use frequency. According to simple linear regression analysis, there was a significant relationship between family support and 30-Day cigarette use frequency [F (1, 1367)=28.89, p<.001, R2=.02, R2adjusted=.02]. According to the regression coefficient (b=-.08, 95% CI [-.11, -.05]), 1 unit increase in family support decreases 30-Day cigarette use frequency by .08. The results of the analysis are given in Table 4.2.

Table 4.2. Simple Linear Regression Table for the Effect of Family Support on 30-Day Cigarette Use Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.83	.08	1.67	1.98	23.27	<.001
Family Support	-.08	.02	-.11	-.05	-5.38	<.001
R^2	.02					

Simple linear regression analysis examined the relationship between family support and last day drank alcohol. According to simple linear regression analysis, there was a significant relationship between family support and last day drank alcohol [F (1, 1367)=4.87, p<.05, R2=.004, R2adjusted=.003]. According to the regression coefficient (b=-.05, 95% CI [-.09, -.005]), 1 unit increase in family support decreases last day drank alcohol by .05. The results of the analysis are given in Table 4.3.

Table 4.3. Simple Linear Regression Table for the Effect of Family Support on Last Day Drank Alcohol

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	2.90	.11	2.67	3.11	26.19	<.001
Family Support	-.05	.02	-.09	-.005	-.09	.028
R^2	.004					

Simple linear regression analysis examined the relationship between family support and heavy episodic drinking frequency. According to simple linear regression analysis, there is a significant relationship between family support and heavy episodic drinking frequency [F (1, 1367)=5.68, p<.05, R2=.004, R2adjusted=.003]. According to the regression coefficient (b=-.03, 95% CI [-.05, -.005]), a 1-unit increase in family support decreases heavy episodic drinking frequency by .03. The results of the analysis are given in Table 4.4.

Table 4.4. Simple Linear Regression Table for the Effect of Family Support on Heavy Episodic Drinking Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.63	.06	1.50	1.76	25.01	<.001
Family Support	-.03	.01	-.05	-.005	-2.38	.017
R^2	.004					

Simple linear regression analysis examined the relationship between family support and drunkenness/intoxication frequency. According to simple linear regression analysis, there was a significant relationship between family support and drunkenness/intoxication frequency [F (1, 1261)=7.06, p<.05, R2=.006, R2adjusted=.005]. According to the regression coefficient (b=-.02, 95% CI [-.03, -.005]), 1 unit increase in family support decreases drunkenness/intoxication frequency by .02. The results of the analysis are given in Table 4.5.

Table 4.5. Simple Linear Regression Table for the Effect of Family Support on Drunkenness/Intoxication Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.21	.03	1.14	1.27	35.91	<.001
Family Support	-.02	.01	-.03	-.005	-2.65	.008
R^2	.006					

Simple linear regression analysis examined the relationship between peer support and drunkenness/intoxication frequency. According to simple linear regression analysis, there was a significant relationship between peer support and drunkenness/intoxication frequency [F (1, 1279)=6.80, p<.05, R2=.005, R2adjusted=.005]. According to the regression coefficient (b=-.02, 95% CI [-.03, -.004]), 1 unit increase in peer support decreases drunkenness/intoxication frequency .02. The results of the analysis are given in Table 4.6.

Table 4.6. Simple Linear Regression Table for the Effect of Peer Support on Drunkenness/Intoxication Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.21	.03	1.14	1.27	36.27	<.001
Peer Support	-.02	.01	-.03	-.004	-2.61	.009
R^2	.005					

Simple linear regression analysis examined the relationship between social pressure and 30-Day cigarette use frequency. According to simple linear regression analysis, there was a significant relationship between social pressure and 30-Day cigarette use frequency [F (1, 1422)=33.45, p<.001, R2=.02, R2adjusted=.02]. According to the regression coefficient (b=.50, 95% CI [.32, .66]), 1 unit increase in social pressure increases 30-Day cigarette use frequency by .50. The results of the analysis are given in Table 4.7.

Table 4.7. Simple Linear Regression Table for the Effect of Social Pressure on 30-Day Cigarette Use Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.89	.10	.69	1.10	8.65	<.001
Social Pressure	.50	.08	.32	.66	5.78	<.001
R^2	.02					

Simple linear regression analysis examined the relationship between social pressure and last day drank alcohol. According to simple linear regression analysis, there was a significant relationship between social pressure and last day drank alcohol [F (1, 1422)=213.58, p<.001, R2=.13, R2adjusted=.13]. According to the regression coefficient (b=1.62, 95% CI [1.40, 1.84]), 1 unit increase in social pressure increases last day drank alcohol by 1.62. The results of the analysis are given in Table 4.8.

Table 4.8. Simple Linear Regression Table for the Effect of Social Pressure on Last Day Drank Alcohol

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.79	.13	.53	1.06	5.93	<.001
Social Pressure	1.62	.11	1.40	1.84	14.61	<.001
R^2	.13					

Simple linear regression analysis examined the relationship between social pressure and heavy episodic drinking frequency. According to simple linear regression analysis, there was a significant relationship between social pressure and heavy episodic drinking frequency [F (1, 1422)=139.54, p<.001, R2=.10, R2adjusted=.10]. According to the regression coefficient (b=.79, 95% CI [.66, .92]), a 1-unit increase in social pressure increases heavy episodic drinking frequency by .79. The results of the analysis are given in Table 4.9.

Table 4.9. Simple Linear Regression Table for the Effect of Social Pressure on Heavy Episodic Drinking

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.59	.08	.43	.75	7.27	<.001
Social Pressure	.79	.06	.66	.92	11.81	<.001
R^2	.10					

Simple linear regression analysis examined the relationship between social pressure and drunkenness/intoxication frequency. According to simple

linear regression analysis, there was a significant relationship between social pressure and drunkenness/intoxication frequency [F (1, 1323)=92.87, p<.001, R2=.06, R2adjusted=.06]. According to the regression coefficient (b=.35, 95% CI [.28, .42]), 1 unit increase in social pressure increases drunkenness/intoxication frequency by .35. The results of the analysis are given in Table 4.10.

Table 4.10. Simple Linear Regression Table for the Effect of Social Pressure on Drunkenness/Intoxication Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.73	.04	.64	.81	16.52	<.001
Social Pressure	.35	.03	.28	.42	9.63	<.001
R^2	.06					

Simple linear regression analysis examined the relationship between school absenteeism and 30-Day cigarette use frequency. According to simple linear regression analysis, there is a significant relationship between school absenteeism and 30-Day cigarette use frequency [F (1, 1201=108.13, p<.001, R2=.08, R2adjusted=.08]. According to the regression coefficient (b=.46, 95% CI [.37, .54]), 1 unit increase in school absenteeism increases 30-Day cigarette use frequency by .46. The results of the analysis are given in Table 4.11.

Table 4.11. Simple Linear Regression Table for the Effect of School Absenteeism on 30-Day Cigarette Use Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.63	.08	.46	.81	7.12	<.001
School Absenteeism	.45	.04	.37	.54	10.40	<.001
R^2	.08					

Simple linear regression analysis examined the relationship between school absenteeism and lifetime cannabis use. According to simple linear regression analysis, there is a significant relationship between school

absenteeism and lifetime cannabis use [F (1, 1195)=17.13, p<.001, R2=.01, R2adjusted=.01]. According to the regression coefficient (b=.07, 95% CI [.04, .10]), 1 unit increase in school absenteeism increases lifetime cannabis use by .07. The results of the analysis are given in Table 4.12.

Table 4.12. Simple Linear Regression Table for the Effect of School Absenteeism on Lifetime Cannabis Use

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.93	.03	.87	1.00	28.64	<.001
School Absenteeism	.07	.02	.04	.10	4.13	<.001
R^2	.01					

Simple linear regression analysis examined the relationship between school absenteeism and cannabis use in the last 12 months. According to simple linear regression analysis, there was a significant relationship between school absenteeism and cannabis use in the last 12 months [F (1, 1162)=13.04, p<.001, R2=.01, R2adjusted=.01]. According to the regression coefficient (b=.05, 95% CI [.02, .08]), a 1-unit increase in school absenteeism increases cannabis use in the last 12 months by .05. The results of the analysis are given in Table 4.13.

Table 4.13. Simple Linear Regression Table for the Effect of School Absenteeism on 12 Months Cannabis Use

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.95	.03	.89	1.01	33.26	<.001
School Absenteeism	.05	.01	.02	.08	3.61	<.001
R^2	.01					

Simple linear regression analysis examined the relationship between school absenteeism and last day drank alcohol. According to simple linear regression analysis, there was a significant relationship between school absenteeism and last day drank alcohol [F (1, 1201)=73.68, p<.001, R2=.05, R2adjusted=.05]. According to the regression coefficient (b=.52, 95% CI

[.40, .63]), 1 unit increase in school absenteeism increases last day drank alcohol by .52. The results of the analysis are given in Table 4.14.

Table 4.14. Simple Linear Regression Table for the Effect of School Absenteeism on Last Day Drank Alcohol

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.71	.12	1.47	1.95	13.89	<.001
School Absenteeism	.52	.06	.40	.63	8.58	<.001
R^2	.05					

Simple linear regression analysis examined the relationship between school absenteeism and heavy episodic drinking frequency. According to the simple linear regression analysis, there was a significant relationship between school absenteeism and heavy episodic drinking frequency [F (1, 1201)=48.67, p<.001, R2=.04, R2adjusted=.04]. According to the regression coefficient (b=.25, 95% CI [.17, .31]), a 1-unit increase in school absenteeism increases heavy episodic drinking frequency by .25. The results of the analysis are given in Table 4.15.

Table 4.15. Simple Linear Regression Table for the Effect of School Absenteeism on Heavy Episodic Drinking Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.02	.07	.88	1.16	14.23	<.001
School Absenteeism	.25	.03	.17	.31	6.97	<.001
R^2	.04					

Simple linear regression analysis examined the relationship between school absenteeism and drunkenness/intoxication frequency. According to simple linear regression analysis, there was a significant relationship between school absenteeism and drunkenness/intoxication frequency [F (1, 1127)=33.34, p<.001, R2=.03, R2adjusted=.03]. According to the regression coefficient (b=.11, 95% CI [.07, .14]), 1 unit increase in

absenteeism increases drunkenness/intoxication frequency by .11. The results of the analysis are given in Table 4.16.

Table 4.16. Simple Linear Regression Table for the Effect of School Absenteeism on Drunkenness/Intoxication Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.94	.04	.86	1.01	25.45	<.001
School Absenteeism	.11	.02	.07	.14	5.77	<.001
R^2	.03					

Simple linear regression analysis examined the relationship between time spent on social media and 30-Day cigarette use frequency. According to simple linear regression analysis, there was a significant relationship between time spent on social media and 30-Day cigarette use frequency [F (1, 1368)=25.67, p<.001, R2=.02, R2adjusted=.02]. According to the regression coefficient (b=.12, 95% CI [.07, .16]), 1 unit increase in time spent on social media increases 30-Day cigarette use frequency by .12. The results of the analysis are given in Table 4.17.

Table 4.17. Simple Linear Regression Table for the Effect of Time Spent on Social Media on 30-Day Cigarette Use Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	.94	.09	.85	1.22	10.96	<.001
Time Spent on Social Media	.12	.02	.07	.16	5.06	<.001
R^2	.02					

Simple linear regression analysis examined the relationship between time spent on social media and cannabis use in the last 30 days. According to simple linear regression analysis, there was a significant relationship between time spent on social media and cannabis use in the last 30 days [F (1, 1307)=5.14, p<.001, R2=.004, R2adjusted=.003]. According to the regression coefficient (b=-.01, 95% CI [-.02, -.002]), a 1-unit increase in time

spent on social media decreases cannabis use in the last 30 days by .01. The results of the analysis are given in Table 4.18.

Table 4.18. Simple Linear Regression Table for the Effect of Time Spent on Social Media on Cannabis Use in Last 30 Days

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.10	.02	1.02	1.10	51.31	<.001
Time Spent on Social Media	-.01	.005	-.02	-.002	-2.26	<.001
R^2	.004					

Simple linear regression analysis examined the relationship between time spent on social media and last day drank alcohol. According to simple linear regression analysis, there was a significant relationship between time spent on social media and last day drank alcohol [F (1, 1368)=43.63, p<.001, R2=.03, R2adjusted=.03]. According to the regression coefficient (b=.21, 95% CI [.14, .26]), 1 unit increase in time spent on social media increases last day drank alcohol by .21. The results of the analysis are given in Table 4.19.

Table 4.19. Simple Linear Regression Table for the Effect of Time Spent on Social Media on Last Day Drank Alcohol

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.95	.13	1.69	2.20	51.31	<.001
Time Spent on Social Media	.21	.03	.14	.26	-2.26	<.001
R^2	.03					

Simple linear regression analysis examined the relationship between time spent on social media and heavy episodic drinking frequency. According to the simple linear regression analysis, there was a significant relationship between time spent on social media and heavy episodic drinking frequency [F (1, 1368)=11.31, p<.05, R2=.01, R2adjusted=.01]. According to the regression coefficient (b=.06, 95% CI [.03, .10]), 1 unit increase in time spent on social media increases heavy episodic drinking frequency by .06. The results of the analysis are given in Table 4.20.

Table 4.20. Simple Linear Regression Table for the Effect of Time Spent on Social Media on Heavy Episodic Drinking Frequency

Variable	b	*SE*	%95 CI		*t*	*p*
			LL	*UL*		
(Constant)	1.27	.08	1.12	1.42	16.38	<.001
Time Spent on Social Media	.06	.02	.03	.10	3.36	<.001
R^2	.01					

4.5. Conclusion and Recommendations

This study examined the relationships between substance use and familial, social, and digital factors among adolescents aged 15-16 years in Northern Cyprus. Findings showed that youth with high levels of family and peer support had lower rates of smoking and alcohol use; conversely, those with high perceived social pressure, high school absenteeism, and extensive time spent on social media had higher rates of substance experimentation and use. While a strong relationship was found between peer pressure and substance use, family support alone had a limited protective effect. The need to consider risk and protective factors together was emphasized.

Adolescent substance use is shaped by the interaction of social environment, family dynamics, and digital interactions, so multifaceted solution strategies are crucial. The combination of lack of parental supervision, negative peer influence, low school engagement, and inaccurate norms on social media exacerbates risk factors. Family warmth, an inclusive school environment, healthy peer relationships, and safe digital use mitigate risks.

Families: Parents should maintain continuous and open communication with adolescents, provide emotional support, and implement appropriate levels of supervision. Training programs to increase family interaction, family-based prevention programs (family skills training, parent-peer workshops), and informative seminars should be organized. It should be remembered that parents' own substance use behaviors can serve as models for children. Activities such as sports days and family camps should be supported, and family therapy approaches should be implemented for families of at-risk youth.

Schools: To reduce absenteeism in schools, early warning systems should be established, and guidance sessions should be held with at-risk students. Clubs, sports, and arts activities should be expanded to increase school engagement, and topics such as combating substance abuse, coping with peer pressure, saying "no," building self-esteem, and managing stress should be added to the curriculum. It is recommended that positive behavior be rewarded, and disciplinary processes should adopt educational rather than punitive methods.

Youth: Young people should be guided toward healthy pursuits aligned with their interests and abilities. Sports, arts, volunteering, and youth center activities can reduce leisure-related risks. Digital literacy skills should be developed to enable critical evaluation of social media content. Positive peer leadership programs should encourage young people who do not use substances and are interested in sports to become "youth ambassadors." Activities that strengthen social bonds, as seen in Iceland, can reduce substance use.

Digital Media Literacy: Curriculum and family training should include topics on safe social media use, content verification, privacy protection, and coping with cyberbullying. Awareness should be raised about the indirect marketing methods of alcohol and tobacco companies, and algorithmic measures should be implemented to limit the spread of harmful content targeting young people. Young people should be encouraged to share positive content through social media campaigns promoting healthy living.

Policymakers: The lack of national data on adolescent substance use in the North Cyprus should be addressed, and trends should be monitored through regular research. Preventive regulations should be developed to address the increased use of e-cigarettes and new threats after 2020. Controls should be tightened to prevent the sale of tobacco and alcohol to those under the age of 18, protective zones should be established around schools, and regulations such as flavoured e-cigarette bans should be implemented. All measures should be implemented in coordination with families, schools, civil

society, and healthcare institutions within the framework of a national Youth and Addiction Strategy.

Future Research: Longitudinal studies should examine the effects of risk factors over time. In addition to family, peer, and school variables, individual factors such as impulsivity, curiosity, depression, and self-esteem should also be assessed. The short- and long-term effects of COVID-19 and the impact of post-pandemic social interactions on substance use should be investigated. The effectiveness of intervention programs should be scientifically tested.

Consequently, coordinated, multidimensional strategies should be developed at the family, school, youth, digital media, and policy levels to prevent substance use in adolescents.

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