Chapter 4

Descriptive ESPAD Core Indicators

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4.1. Overview

This chapter presents descriptive statistics for substance use and behavioral risk indicators among students born in 2010 in Northern Cyprus (n = 1,049), following the mandatory ESPAD core reporting structure. Prevalence estimates are reported as percentages with 95% confidence intervals. Gender differences were examined using Pearson chi-square tests, or Fisher's exact test where cell frequencies were insufficient. Rao-Scott corrections were not applied, as the data were collected without probability-based cluster selection, stratification, or differential weighting; under these conditions, Rao-Scott adjustment is not warranted. Prevalence estimates are reported with 95% Wilson score confidence intervals, which are preferred over Wald intervals at low prevalence levels (Wilson, 1927). No inferential modelling is conducted in this chapter; regression analyses are presented in Chapters 5–9.

4.2. Lifetime / 12-month / 30-day prevalence + 95% CI

Alcohol was the most commonly reported substance, with 59.3% of students reporting lifetime use, 49.7% reporting use in the last 12 months, and 26.9% in the last 30 days. Students (20.2%) described binge drinking in the last 30 days. Intoxication was reported by 18.6% of students over their lifetime, 16.7% in the last 12 months, and 7.2% in the last 30 days.

Tobacco and nicotine product use was also prevalent. Lifetime cigarette use was reported by 18.9% of students, comparable to ever e-cigarette use (18.5%) and water pipe use (17.9%). Dual use of cigarettes and e-cigarettes was identified in 12.7% of the sample. Snus (3.3%) and heat-not-burn tobacco (3.8%) were less commonly reported.

Cannabis and illicit drug use were markedly low across all time frames. Lifetime cannabis use was reported by 1.2% of students, identical to the rate for any illicit drug use. Individual illicit substance prevalence rates were negligible, with all substances -including ecstasy, amphetamines, cocaine, heroin, inhalants, LSD, new psychoactive substances, and synthetic cannabinoids- showing lifetime prevalence rates below 0.8%. Nonmedical painkiller use was the most commonly reported prescription drug misuse behavior (3.1% lifetime). Gambling participation in the last 12 months was reported by 4.6% of students. Table 4.1 presents the prevalence of substance use across all domains assessed in the Northern Cyprus ESPAD 2019 Master Questionnaire.

Table 4.1. Prevalence of substance use by time frame (%, 95% CI)

Substance/Behavior	Period	Total % (n) [95% CI]
Cigarettes	Lifetime	18.9 (198) [16.6–21.4]
E-cigarettes	Last 30 days	8.7 (91) [7.1–10.5]
	Lifetime	18.5 (194) [16.3–21.0]
Water pipe (shisha)	Last 30 days	5.8 (61) [4.6–7.4]
	Lifetime	17.9 (188) [15.7–20.4]

Snus	Last 30 days	1.8 (19) [1.2–2.8]
	Lifetime	3.3 (35) [2.4–4.6]
Heat-not-burn tobacco	Last 30 days	2.5 (26) [1.7–3.6]
	Lifetime	3.8 (40) [2.8–5.2]
Dual use (cigarette + e-cigarette)	Lifetime	12.7 (133) [10.8–14.8]
Alcohol	Last 30 days	26.9 (282) [24.3–29.6]
	Last 12 months	49.7 (521) [46.6–52.7]
	Lifetime	59.3 (622) [56.3–62.2]
Binge drinking	Last 30 days	20.2 (212) [17.9–22.7]
Intoxication	Last 30 days	7.2 (76) [5.8–9.0]
	Last 12 months	16.7 (175) [14.5–19.1]
	Lifetime	18.6 (195) [16.4–21.1]
Cannabis	Last 30 days	1.0 (10) [0.5–1.7]
	Last 12 months	1.0 (10) [0.5–1.7]
	Lifetime	1.2 (13) [0.7–2.1]
Any illicit drug	Last 12 months	0.8 (8) [0.4–1.5]
	Lifetime	1.2 (13) [0.7–2.1]
Ecstasy	Last 12 months	0.2 (2) [0.1–0.7]
	Lifetime	0.5 (5) [0.2–1.1]
Amphetamines	Last 12 months	0.5 (5) [0.2–1.1]
	Lifetime	0.4 (4) [0.1–1.0]
Cocaine	Last 12 months	0.5 (5) [0.2–1.1]
	Lifetime	0.4 (4) [0.1–1.0]
Heroin	Last 12 months	0.3 (3) [0.1–0.8]
	Lifetime	0.3 (3) [0.1–0.8]
Inhalants	Last 12 months	0.5 (5) [0.2–1.1]
	Lifetime	0.5 (5) [0.2–1.1]
LSD/Hallucinogens	Lifetime	0.4 (4) [0.1–1.0]
New psychoactive substances	Last 12 months	0.8 (8) [0.4–1.5]
	Lifetime	0.7 (7) [0.3–1.4]
Synthetic cannabinoids	Lifetime	0.3 (3) [0.1–0.8]
Tranquillizers (nonprescribed)	Lifetime	0.7 (7) [0.3–1.4]
Painkillers (nonmedical)	Lifetime	3.1 (33) [2.2–4.4]
Gambling	Last 12 months	4.6 (48) [3.5–6.0]

Note. Total analytical sample: $N = 1{,}049$. n in parentheses indicates the number of positive cases.

4.3. By Gender (Standard χ^2)

Gender differences were examined using Pearson chi-square tests, or Fisher's exact test where cell frequencies were insufficient. Rao-Scott corrections were not applied as sampling weights were unavailable.

Alcohol was the most prevalent substance, with 59.3% of students reporting lifetime use, 49.7% reporting use in the last 12 months, and 26.9% in the last 30 days. Binge drinking and intoxication in the last 30 days were reported by 20.2% and 7.2% of students, respectively. No statistically significant gender differences were observed for any alcohol use indicator.

No statistically significant gender differences were observed for intoxication across any time frame (lifetime: 17.7% male vs. 19.3% female, $p = .577$; last 12 months: 15.0% vs. 18.1%, $p = .207$; last 30 days: 6.6% vs. 7.7%, $p = .564$).

Tobacco and nicotine product use was also prevalent. Lifetime cigarette use was reported by 18.9% of students, comparable to ever e-cigarette use (18.5%) and water pipe use (17.9%). Dual use of cigarettes and e-cigarettes was identified in 12.7% of the sample. A significant gender difference was observed for water pipe use in the last 30 days, with male students reporting higher rates than female students (7.7% vs. 4.3%, $p < .05$). Nonmedical painkiller use showed a significant gender difference in the opposite direction, with female students reporting higher rates than males (4.3% vs. 1.7%, $p < .05$).

Cannabis and illicit drug use were markedly low across all time frames. Lifetime cannabis use was 1.2%, identical to the rate for any illicit drug use. All other illicit substances showed lifetime prevalence rates below 0.8%, with no statistically significant gender differences observed for any substance. Gambling participation in the last 12 months was reported by 4.6% of students overall, with a highly significant gender difference — male students were more than five times as likely to report gambling participation compared to female students (8.3% vs. 1.5%, $p < .001$). Table 4.2 presents the prevalence of substance use across all domains assessed in the Northern Cyprus ESPAD 2019 Master Questionnaire, stratified by gender.

Table 4.2. Prevalence of substance use by time frame and gender (%, 95% CI)

Substance/Behavior	Period	Total % (n) [95% CI]	Male % (n)	Female % (n)	p	V
Cigarettes	Lifetime	18.9 (198) [16.6–21.4]	17.3 (81)	20.1 (117)	0.278	0.033
E-cigarettes	Last 30 days	8.7 (91) [7.1–10.5]	8.5 (40)	8.8 (51)	0.983	0.001
	Lifetime	18.5 (194) [16.3–21.0]	17.1 (80)	19.6 (114)	0.333	0.030
Water pipe (shisha)	Last 30 days	5.8 (61) [4.6–7.4]	7.7 (36)	4.3 (25)	< .05	0.068
	Lifetime	17.9 (188) [15.7–20.4]	16.7 (78)	18.9 (110)	0.384	0.027
Snus	Last 30 days	1.8 (19) [1.2–2.8]	2.4 (11)	1.4 (8)	0.346	0.029
	Lifetime	3.3 (35) [2.4–4.6]	4.1 (19)	2.8 (16)	0.318	0.031
Heat-not-burn tobacco	Last 30 days	2.5 (26) [1.7–3.6]	3.2 (15)	1.9 (11)	0.247	0.036
	Lifetime	3.8 (40) [2.8–5.2]	4.3 (20)	3.4 (20)	0.592	0.017
Dual use (cigarette + e-cigarette)	Lifetime	12.7 (133) [10.8–14.8]	11.8 (55)	13.4 (78)	0.474	0.022
Alcohol	Last 30 days	26.9 (282) [24.3–29.6]	28.4 (133)	25.6 (149)	0.349	0.029
	Last 12 months	49.7 (521) [46.6–52.7]	47.4 (222)	51.5 (299)	0.217	0.038
	Lifetime	59.3 (622) [56.3–62.2]	58.3 (273)	60.1 (349)	0.613	0.016
Binge drinking	Last 30 days	20.2 (212) [17.9–22.7]	21.4 (100)	19.3 (112)	0.447	0.023
Intoxication	Last 30 days	7.2 (76) [5.8–9.0]	6.6 (31)	7.7 (45)	0.564	0.018
	Last 12 months	16.7 (175) [14.5–19.1]	15.0 (70)	18.1 (105)	0.207	0.039
	Lifetime	18.6 (195) [16.4–21.1]	17.7 (83)	19.3 (112)	0.577	0.017
Cannabis	Last 30 days	1.0 (10) [0.5–1.7]	1.5 (7)	0.5 (3)	0.121	—
	Last 12 months	1.0 (10) [0.5–1.7]	1.5 (7)	0.5 (3)	0.121	—

	Lifetime	1.2 (13) [0.7–2.1]	1.5 (7)	1.0 (6)	0.694	0.012
Any illicit drug	Last 12 months	0.8 (8) [0.4–1.5]	0.9 (4)	0.7 (4)	1.000	—
	Lifetime	1.2 (13) [0.7–2.1]	1.3 (6)	1.2 (7)	1.000	0.000
Ecstasy	Last 12 months	0.2 (2) [0.1–0.7]	0.4 (2)	0.0 (0)	0.199	—
	Lifetime	0.5 (5) [0.2–1.1]	0.6 (3)	0.3 (2)	0.661	—
Amphetamines	Last 12 months	0.5 (5) [0.2–1.1]	0.4 (2)	0.5 (3)	1.000	—
	Lifetime	0.4 (4) [0.1–1.0]	0.6 (3)	0.2 (1)	0.330	—
Cocaine	Last 12 months	0.5 (5) [0.2–1.1]	0.9 (4)	0.2 (1)	0.179	—
	Lifetime	0.4 (4) [0.1–1.0]	0.6 (3)	0.2 (1)	0.330	—
Heroin	Last 12 months	0.3 (3) [0.1–0.8]	0.6 (3)	0.0 (0)	0.088	—
	Lifetime	0.3 (3) [0.1–0.8]	0.6 (3)	0.0 (0)	0.088	—
Inhalants	Last 12 months	0.5 (5) [0.2–1.1]	0.6 (3)	0.3 (2)	0.661	—
	Lifetime	0.5 (5) [0.2–1.1]	0.6 (3)	0.3 (2)	0.661	—
LSD/Hallucinogens	Lifetime	0.4 (4) [0.1–1.0]	0.6 (3)	0.2 (1)	0.330	—
New psychoactive substances	Last 12 months	0.8 (8) [0.4–1.5]	1.1 (5)	0.5 (3)	0.478	—
	Lifetime	0.7 (7) [0.3–1.4]	0.9 (4)	0.5 (3)	0.707	—
Synthetic cannabinoids	Lifetime	0.3 (3) [0.1–0.8]	0.6 (3)	0.0 (0)	0.088	—
Tranquillizers (nonprescribed)	Lifetime	0.7 (7) [0.3–1.4]	0.6 (3)	0.7 (4)	1.000	—
Painkillers (nonmedical)	Lifetime	3.1 (33) [2.2–4.4]	1.7 (8)	4.3 (25)	< .05	0.068
Gambling	Last 12 months	4.6 (48) [3.5–6.0]	8.3 (39)	1.5 (9)	< .001	0.157

Note. Total analytical sample: N = 1,049 (Male n = 468, Female n = 581), CI = Wilson score 95% confidence interval. Gender differences examined using Pearson chi-square test or Fisher's exact test where cell frequencies < 5. V = Cramér's V effect size. n in parentheses indicates the number of positive cases.

4.4. By Schooltype Type/Region (if available)

Private school students reported significantly higher rates of alcohol use across all time frames compared to state school students, including lifetime use (69.9% vs. 57.6%, $p < .01$), last 12-month use (65.0% vs. 47.2%, $p < .001$), and last 30-day use (40.6% vs. 24.7%, $p < .001$). Water pipe use was significantly more prevalent among state school students for both lifetime (19.2% vs. 9.8%, $p < .01$) and last 30-day use (6.5% vs. 1.4%, $p < .05$). No significant differences were observed for cigarette use, e-cigarettes, cannabis, illicit drugs, or gambling by school type. Intoxication rates did not differ significantly by school type across any time frame (lifetime: 18.0% state vs. 22.4% private, $p = .255$; last 12 months: 16.0% vs. 21.0%, $p = .173$; last 30 days: 7.1% vs. 8.4%, $p = .692$). It should be noted that chi-square approximation warnings were generated for some low-prevalence cells; Fisher's exact test was applied where appropriate. Table 4.3 presents substance use prevalence by school type.

Table 4.3. Prevalence of substance use by school type (%, 95% CI)

Substance/Behavior	Period	Total % (n) [95% CI]	State % (n)	Private % (n)	p	V
Cigarettes	Lifetime	18.9 (198) [16.6–21.4]	19.9 (180)	12.6 (18)	0.051	0.060
E-cigarettes	Last 30 days	8.7 (91) [7.1–10.5]	8.6 (78)	9.1 (13)	0.976	0.001
	Lifetime	18.5 (194) [16.3–21.0]	18.8 (170)	16.8 (24)	0.652	0.014
Water pipe (shisha)	Last 30 days	5.8 (61) [4.6–7.4]	6.5 (59)	1.4 (2)	< .05	—
	Lifetime	17.9 (188) [15.7–20.4]	19.2 (174)	9.8 (14)	< .01	0.081
Dual use	Lifetime	12.7 (133) [10.8–14.8]	13.0 (118)	10.5 (15)	0.477	0.022
Alcohol	Last 30 days	26.9 (282) [24.3–29.6]	24.7 (224)	40.6 (58)	< .001	0.119
	Last 12 months	49.7 (521) [46.6–52.7]	47.2 (428)	65.0 (93)	< .001	0.119
	Lifetime	59.3 (622) [56.3–62.2]	57.6 (522)	69.9 (100)	< .01	0.083
Binge drinking	Last 30 days	20.2 (212) [17.9–22.7]	19.4 (176)	25.2 (36)	0.139	0.046
Intoxication	Last 30 days	7.2 (76) [5.8–9.0]	7.1 (64)	8.4 (12)	0.692	0.012
	Last 12 months	16.7 (175) [14.5–19.1]	16.0 (145)	21.0 (30)	0.173	0.042
	Lifetime	18.6 (195) [16.4–21.1]	18.0 (163)	22.4 (32)	0.255	0.035
Cannabis	Last 30 days	1.0 (10) [0.5–1.7]	1.1 (10)	0.0 (0)	0.374	—
	Last 12 months	1.0 (10) [0.5–1.7]	1.1 (10)	0.0 (0)	0.374	—
	Lifetime	1.2 (13) [0.7–2.1]	1.2 (11)	1.4 (2)	0.694	—
Any illicit drug	Last 12 months	0.8 (8) [0.4–1.5]	0.8 (7)	0.7 (1)	1.000	—
	Lifetime	1.2 (13) [0.7–2.1]	1.2 (11)	1.4 (2)	0.694	—
Painkillers (nonmedical)	Lifetime	3.1 (33) [2.2–4.4]	3.1 (28)	3.5 (5)	0.999	0.000
Gambling	Last 12 months	4.6 (48) [3.5–6.0]	4.7 (43)	3.5 (5)	0.653	0.014

Note. Total analytical sample: N = 1,049 (State n = 906, Private n = 143). CI = Wilson score 95% confidence interval. School type differences examined using Pearson chi-square test or Fisher's exact test where cell frequencies < 5. V = Cramér's V effect size. n in parentheses indicates the number of positive cases.

Three regions -Lefke (n = 18), Güzelyurt (n = 73), and İskele (n = 53)- were combined into a single “Other” category due to insufficient sample sizes for reliable standalone comparisons; small cell frequencies in these subgroups rendered chi-square tests unreliable and produced unstable prevalence estimates (see table 4.4). Girne showed notably higher rates of cigarette use (25.2%, $p < .05$), e-cigarette ever use (24.8%, $p < .05$), and cannabis lifetime use (3.2%, $p < .05$) compared to other regions. Alcohol use did not differ significantly across regions for any time frame. Intoxication in the last 12 months showed a significant regional difference (Nicosia: 16.7%, Famagusta: 16.5%, Girne: 20.8%, Other: 9.7%, $p < .05$, $V = .088$), with the Other region showing notably lower rates; lifetime intoxication showed a similar pattern but did not reach statistical significance (17.5%, 19.0%, 22.8%, and 13.2%, respectively, $p = .111$). The “Other” category consistently showed the lowest prevalence rates across most substances. Regional differences for gambling, binge drinking, and illicit drug use were not statistically significant. Findings for low-prevalence substances should be interpreted with caution given the small cell frequencies in several regional subgroups.

Table 4.4. Prevalence of substance use by region (%, 95% CI)

Substance/Behavior	Period	Total % (n) [95% CI]	Nicosia % (n)	Famagusta % (n)	Girne % (n)	Other % (n)	p	V
Cigarettes	Lifetime	18.9 (198) [16.6–21.4]	16.2 (60)	19.0 (54)	25.2 (63)	14.6 (21)	< .05	0.098
E-cigarettes	Last 30 days	8.7 (91) [7.1–10.5]	7.5 (28)	8.1 (23)	12.4 (31)	6.2 (9)	0.104	0.077
	Lifetime	18.5 (194) [16.3–21.0]	16.2 (60)	18.0 (51)	24.8 (62)	14.6 (21)	< .05	0.095
Alcohol	Last 30 days	26.9 (282) [24.3–29.6]	29.1 (108)	22.2 (63)	30.4 (76)	24.3 (35)	0.103	0.077
	Last 12 months	49.7 (521) [46.6–52.7]	52.0 (193)	48.9 (139)	52.4 (131)	40.3 (58)	0.082	0.080
	Lifetime	59.3 (622) [56.3–62.2]	61.2 (227)	58.5 (166)	62.4 (156)	50.7 (73)	0.109	0.076
Binge drinking	Last 30 days	20.2 (212) [17.9–22.7]	22.4 (83)	17.3 (49)	20.8 (52)	19.4 (28)	0.437	0.051
Intoxication	Last 30 days	7.2 (76) [5.8–9.0]	7.8 (29)	6.3 (18)	8.4 (21)	5.6 (8)	0.651	0.039
	Last 12 months	16.7 (175) [14.5–19.1]	16.7 (62)	16.5 (47)	20.8 (52)	9.7 (14)	< .05	0.088
	Lifetime	18.6 (195) [16.4–21.1]	17.5 (65)	19.0 (54)	22.8 (57)	13.2 (19)	0.111	0.076
Cannabis	Last 12 months	1.0 (10) [0.5–1.7]	0.8 (3)	0.4 (1)	2.4 (6)	0.0 (0)	0.073	—
	Lifetime	1.2 (13) [0.7–2.1]	0.8 (3)	0.7 (2)	3.2 (8)	0.0 (0)	< .05	—
Any illicit drug	Last 12 months	0.8 (8) [0.4–1.5]	0.8 (3)	0.4 (1)	1.6 (4)	0.0 (0)	0.337	—
	Lifetime	1.2 (13) [0.7–2.1]	1.3 (5)	0.7 (2)	2.4 (6)	0.0 (0)	0.182	—
Painkillers (nonmedical)	Lifetime	3.1 (33) [2.2–4.4]	3.5 (13)	3.5 (10)	3.6 (9)	0.7 (1)	0.301	—
Gambling	Last 12 months	4.6 (48) [3.5–6.0]	3.8 (14)	4.6 (13)	7.2 (18)	2.1 (3)	0.103	—

Note. Total analytical sample: N = 1,049 (Nicosia n = 371, Famagusta n = 284, Girne n = 250, Other n = 144). CI = Wilson score 95% confidence interval. Regional differences examined using Pearson chi-square test or Fisher's exact test where cell frequencies < 5. V = Cramér's V effect size. Lefke, Güzelyurt, and İskele combined into 'Other' due to small cell sizes. n in parentheses indicates the number of positive cases.

4.5. Age of Initiation Distribution (Median + Categories)

Age of initiation was assessed for cigarettes, e-cigarettes, alcohol use, alcohol intoxication, and cannabis, as these were the only behaviors and substance use indicators with sufficient user numbers to yield meaningful estimates. Age of initiation data for other illicit substances -including amphetamines, cocaine, ecstasy, and inhalants -were not reported due to insufficient user numbers ($n < 10$ for each substance), as the low prevalence of these substances in the Northern Cyprus sample precluded reliable estimation of initiation age distributions.

Among cigarette users ($n = 188$), the median age of initiation was 13 years, with more than half (55.9%) reporting first use at age 13 or younger. Alcohol initiation ($n = 544$) showed a median age of 14 years, with 46.0% reporting first use at age 13 or younger. First intoxication ($n = 182$) occurred somewhat later, with a median age of 14 years and 26.4% reporting first intoxication at age 13 or younger, while the majority (37.9%) first experienced intoxication at age 15 or older. E-cigarette initiation ($n = 187$) also showed a median age of 14 years, with 42.8% of users reporting first use at age 15 or older, suggesting a relatively later onset compared to cigarettes. Cannabis initiation was based on a small number of users ($n = 15$) and should, therefore, be interpreted with caution; the median age of first use was 14 years, with 40.0% reporting initiation at age 13 or younger and an equal proportion (40.0%) at age 15 or older. Table 4.5 presents the age of initiation distribution among students who reported ever using each substance.

Table 4.5. Age of initiation distribution among users

Substance	n	Median Age	≤13 years % (n)	14 years % (n)	≥15 years % (n)
Cigarettes	188	13	55.9 (105)	20.2 (38)	23.9 (45)
E-cigarettes	187	14	26.2 (49)	31.0 (58)	42.8 (80)
Alcohol	544	14	46.0 (250)	28.7 (156)	25.4 (138)
Intoxication	182	14	26.4 (48)	35.7 (65)	37.9 (69)
Cannabis	15	14	40.0 (6)	20.0 (3)	40.0 (6)

Note. Total analytical sample: $N = 1{,}049$. n indicates the number of students reporting ever use of each substance or behavior. Values in parentheses for age categories indicate the number of users in each onset-age group.

4.6. Perceived Risk

A notable proportion of students reported uncertainty (“Don’t know”) across all items, ranging from 23.5% to 29.5%, suggesting limited risk awareness among a substantial minority of the sample.

For cigarette use, perceived risk increased markedly with frequency of use. While occasional cigarette smoking was perceived as carrying great risk by only 16.0% of students, daily smoking was perceived as carrying great risk by 48.3%. However, 16.3% perceived no risk from occasional smoking and 10.9% perceived no risk from daily smoking, indicating a concerning minority with low risk awareness for tobacco. Uncertainty was similarly prevalent, with 25.5% reporting “Don’t know” for occasional use and 23.5% for daily use.

For alcohol, the pattern was similarly dose-dependent. Having 4–5 drinks daily and binge drinking weekly were perceived as carrying great risk by 52.8% and 47.7% of students respectively, compared to only 29.7% for having 1–2 drinks daily. Notably, 9.0% of students perceived no risk from heavy daily drinking and weekly binge drinking. “Don’t know” responses ranged from 23.8% to 24.8% across alcohol items.

E-cigarette risk perception was notably diffuse, with the largest proportions reporting either no risk (25.7%), slight risk (25.5%), or uncertainty (25.5%), and only 11.5% perceiving great risk from trying e-cigarettes once or twice. This suggests considerably lower perceived risk for e-cigarettes compared to conventional cigarettes.

Cannabis risk perception was generally higher than for alcohol or e-cigarettes. Regular cannabis use was perceived as carrying great risk by 60.7% of students, the highest rate across all indicators, while even trying cannabis once or twice was perceived as carrying great risk by 39.5%. Nevertheless, approximately 28–30% of students reported uncertainty about cannabis risk across all three cannabis items, representing the highest “Don’t know” rates in the table. Table 4.6 presents the distribution of perceived risk of substance use across nine behavioral indicators.

Table 4.6. Perceived risk of substance use (%)

Substance/Behavior	No risk % (n)	Slight risk % (n)	Moderate risk % (n)	Great risk % (n)	Don't know % (n)
Cigarettes – occasional use	16.3 (171)	19.3 (202)	22.9 (240)	16.0 (168)	25.5 (268)
Cigarettes – daily use	10.9 (114)	3.6 (38)	13.7 (144)	48.3 (507)	23.5 (246)
E-cigarettes – trying once or twice	25.7 (270)	25.5 (268)	11.7 (123)	11.5 (121)	25.5 (267)
Alcohol – 1–2 drinks daily	11.2 (117)	10.6 (111)	23.7 (249)	29.7 (312)	24.8 (260)
Alcohol – 4–5 drinks daily	9.0 (94)	2.8 (29)	11.6 (122)	52.8 (554)	23.8 (250)
Alcohol – binge drinking weekly	9.0 (94)	3.5 (37)	15.4 (162)	47.7 (500)	24.4 (256)
Cannabis – trying once or twice	9.3 (98)	7.9 (83)	13.8 (145)	39.5 (414)	29.5 (309)
Cannabis – occasional use	8.4 (88)	3.8 (40)	14.2 (149)	44.2 (464)	29.4 (308)
Cannabis – regular use	8.1 (85)	0.7 (7)	2.4 (25)	60.7 (637)	28.1 (295)

Note. Total analytical sample: $N = 1{,}049$. n in parentheses indicates the number of respondents in each category.

4.7. Availability Items (Distribution)

Alcohol was the most accessible substance, with beer reported as fairly or very easy to obtain by 41.1% of students, followed by wine (33.2%) and spirits (32.2%). Cigarettes were also perceived as relatively accessible, with 31.1% of students reporting easy access. In contrast, cannabis was perceived as largely inaccessible, with 67.3% reporting it as impossible to obtain and only 5.1% reporting easy access. Illicit substances were similarly perceived as highly inaccessible: ecstasy (easy access: 1.8%), amphetamines (1.9%), and cocaine (3.0%) were rated as impossible to obtain by approximately 70% of students across all three substances.

A notable proportion of students reported uncertainty (“Don’t know”) across all items. Uncertainty was highest for cigarettes (28.5%), followed by ecstasy (22.3%), amphetamines (22.1%), alcohol — spirits (21.0%), beer (20.9%), and wine (23.9%). Cannabis showed a relatively lower “Don’t know” rate (17.7%), possibly reflecting greater awareness of its illegal status. These findings are consistent with the low prevalence of illicit drug use observed in this sample and reflect the restrictive legal and social context of Northern Cyprus. Table 4.7 presents the perceived availability of substances among Northern Cyprus students.

Table 4.7. Perceived availability of substances (%)

Substance	Impossible % (n)	Very difficult % (n)	Fairly difficult % (n)	Fairly easy % (n)	Very easy % (n)	Don't know % (n)	Easy total % (n)
Cigarettes	25.1 (263)	9.8 (103)	5.5 (58)	16.5 (173)	14.6 (153)	28.5 (299)	31.1 (326)
Cannabis	67.3 (706)	5.9 (62)	3.9 (41)	3.2 (34)	1.9 (20)	17.7 (186)	5.1 (54)
Alcohol – Beer	23.9 (251)	7.2 (76)	6.8 (71)	19.7 (207)	21.4 (225)	20.9 (219)	41.2 (432)
Alcohol – Wine	29.2 (306)	7.1 (74)	6.7 (70)	16.0 (168)	17.2 (180)	23.9 (251)	33.2 (348)
Alcohol – Spirits	30.8 (323)	7.8 (82)	8.3 (87)	15.3 (160)	16.9 (177)	21.0 (220)	32.1 (337)
Ecstasy	70.4 (738)	3.8 (40)	1.7 (18)	1.0 (11)	0.8 (8)	22.3 (234)	1.8 (19)
Amphetamines	69.0 (724)	5.1 (53)	1.9 (20)	1.2 (13)	0.7 (7)	22.1 (232)	1.9 (20)
Cocaine	70.4 (739)	4.8 (50)	2.1 (22)	1.9 (20)	1.1 (12)	19.6 (206)	3.1 (32)

Note. Total analytical sample: $N = 1{,}049$. n in parentheses indicates the number of respondents in each category. Easy total combines “Fairly easy” and “Very easy” responses.

4.8. Truancy and School Attachment Distributions

Illness was the most common reason for school absence, with 53.7% of students reporting at least one day absent due to illness in the last 30 days. A significant gender difference was observed, with female students reporting higher rates of illness-related absence than male students (58.3% vs. 47.9%, $p < .001$). Absence for other reasons was reported by 43.1% of students, with no significant gender difference ($p = .162$).

Truancy -defined as deliberately skipping school- was reported by 32.9% of students, with the majority of truants missing only one or two days (14.5% and 9.8%, respectively). Extreme truancy of five or more days was reported by only 2.2% of students. A statistically significant gender difference was observed for truancy, with female students reporting higher rates than male students (36.1% vs. 28.8%, $p < .05$).

Note. A formal school attachment scale was not included in the Northern Cyprus ESPAD 2025 survey instrument. The ESPAD 2019 master questionnaire does not include a standardized school attachment measure, as this requires a national supplementary addition. As no such items were administered in the current survey, school attachment could not be reported. Table 4.8a/b presents the distribution of school absence across three reasons -illness, truancy (skipping), and other reasons- during the last 30 days. Table 8b presents gender comparisons for any absence by reason.

Table 8a. Absence from school by reason (last 30 days, %)

Reason for Absence	**Days Absent (Last 30 Days)**	**% (n)**
Illness	None	46.3 (486)
	1 day	18.7 (196)
	2 days	17.4 (183)
	3–4 days	13.3 (139)
	5–6 days	3.1 (32)
	7 or more days	1.2 (13)

Reason for Absence	Days Absent (Last 30 Days)	% (n)
Truancy (skipping)	None	67.1 (704)
	1 day	14.5 (152)
	2 days	9.8 (103)
	3–4 days	6.3 (66)
	5–6 days	1.0 (11)
	7 or more days	1.2 (13)
Other reasons	None	56.9 (597)
	1 day	19.5 (205)
	2 days	13.1 (137)
	3–4 days	8.1 (85)
	5–6 days	1.2 (13)
	7 or more days	1.1 (12)

Note. Total analytical sample: N = 1,049. n in parentheses indicates the number of students in each category.

Table 8b. School absence by gender (%, 95% CI)

Indicator	Total % (n) [95% CI]	Male % (n)	Female % (n)	p
Any absence – Illness	53.7 (563) [50.6–56.7]	47.9 (224)	58.3 (339)	< .001
Any absence – Truancy	32.9 (345) [30.1–35.8]	28.8 (135)	36.1 (210)	< .05
Any absence – Other reasons	43.1 (452) [40.1–46.1]	40.6 (190)	45.1 (262)	0.162

Note. Total analytical sample: N = 1,049 (Male n = 468, Female n = 581). n in parentheses indicates the number of positive cases.

4.9. Cross Tables

Truancy. Students who reported any truancy in the last 30 days showed substantially higher prevalence rates across all key outcomes compared to nontruant students. The largest difference was observed for alcohol use in the last 30 days (40.6% vs. 20.2%, V = .214), followed by e-cigarette use (16.2% vs. 5.0%, V = .184), gambling (9.6% vs. 2.1%, V = .162), binge drinking (28.4% vs. 16.2%, V = .140), and cannabis use (2.6% vs. 0.1%, V = .109).

Effect sizes were predominantly small to medium, suggesting that truancy is a meaningful but not dominant correlate of substance use in this sample.

Peer exposure. Peer substance use showed consistently stronger associations with key outcomes than truancy across all domains. The strongest effect was observed for the association between peer alcohol use and personal alcohol use in the last 30 days (53.0% vs. 11.9%, V = .445), representing a large effect. Peer alcohol use was also strongly associated with binge drinking (38.1% vs. 9.9%, V = .336). Peer cannabis use showed a strong association with personal cannabis use (12.9% vs. 0.1%, V = .308), as did peer tobacco use with e-cigarette use (22.2% vs. 3.7%, V = .289). The association between peer ecstasy use and gambling participation was moderate (26.3% vs. 3.8%, V = .189). Across all outcomes, peer exposure consistently produced larger effect sizes than truancy, underscoring the central role of peer influences in adolescent substance use in this sample.

Table 4.9 presents cross-tabulations of key substance use outcomes by truancy and peer exposure, with Cramér's V as the effect size measure. All associations were statistically significant at $p < .001$.

Table 4.9. Cross-tabulation: key outcomes by truancy and peer exposure (effect sizes)

Outcome	Predictor	Low exposure % (n)	High exposure % (n)	Cramér's V	p
Alcohol – Last 30 days	Truancy	20.2 (142)	40.6 (140)	0.214	< .001
Binge drinking – Last 30 days		16.2 (114)	28.4 (98)	0.140	< .001
E-cigarette – Last 30 days		5.0 (35)	16.2 (56)	0.184	< .001
Cannabis – Last 12 months		0.1 (1)	2.6 (9)	0.109	< .001
Gambling – Last 12 months		2.1 (15)	9.6 (33)	0.162	< .001
Alcohol – Last 30 days	Peer alcohol use	11.9 (79)	53.0 (203)	0.445	< .001
Binge drinking – Last 30 days		9.9 (66)	38.1 (146)	0.336	< .001
E-cigarette – Last 30 days	Peer tobacco use	3.7 (28)	22.2 (63)	0.289	< .001
Cannabis – Last 12 months	Peer cannabis use	0.1 (1)	12.9 (9)	0.308	< .001
Gambling – Last 12 months	Peer ecstasy use	3.8 (38)	26.3 (10)	0.189	< .001

Note. Total analytical sample: N = 1,049. n in parentheses indicates the number of positive cases in each exposure group. Cramér's V interpreted as: small (≥ .10), medium (≥ .30), large (≥ .50) (Cohen, 1988). All associations significant at $P < .001$.

4.10. Socioeconomic Gradients in Substance Use

Tables 4.10 and 4.11 and Figure 1 present socioeconomic gradients in substance use by family wealth group and gender. Three wealth groups were constructed from the family wealth item: low ($n = 427$), medium ($n = 556$), and high ($n = 66$). The high wealth group comprised only 6.3% of the sample; estimates for this group should be interpreted with caution given wide confidence intervals.

No consistent socioeconomic gradient was observed for alcohol use. Thirty-day alcohol prevalence remained stable across wealth groups (Low: 27.4%; Medium: 26.4%; High: 27.3%), with absolute risk differences of -1.0 and -0.1 percentage points for medium and high wealth groups relative to the low wealth reference. A similar pattern was observed for binge drinking, where medium wealth students showed slightly lower prevalence (18.0%) compared to low wealth students (22.2%), but high wealth students showed comparable rates (25.8%), yielding no directional gradient (ARD $= -4.2$ and $+3.6$, respectively).

A positive gradient was apparent for e-cigarette use, with prevalence increasing from 7.3% in the low wealth group to 9.4% in the medium and 12.1% in the high wealth group (ARD $= +2.1$ and $+4.8$). As shown in Figure 2, this gradient was driven primarily by male students, whose e-cigarette prevalence increased markedly from 6.0% (low) to 19.4% (high), while female prevalence remained largely flat across wealth groups. For gambling, no consistent gradient was observed; male students showed higher prevalence than female students across all wealth groups (consistent with the overall gender difference reported in Section 4.3), but wealth group did not systematically modify gambling participation.

Table 11 disaggregates 30-day alcohol use by both wealth group and gender. A notable gender difference was observed in the low wealth group, with male students reporting higher prevalence than female students (32.3% vs. 23.7%, difference $= +8.6$ percentage points). This gender gap attenuated substantially in the medium and high wealth groups, where male and female

prevalence converged (Medium: 25.8% vs. 27.0%, difference = −1.2; High: 26.9% vs. 27.5%, difference = −0.6), suggesting that the overall gender difference in alcohol use may be concentrated among lower socioeconomic status students.

Overall, these findings suggest that family wealth is not a primary driver of substance use prevalence in this sample, consistent with the not significant wealth coefficient observed across all multivariable models in Chapters 5–9 (see Table 4.10.). The exception is e-cigarette use among male students, where a positive wealth gradient warrants further investigation in future waves with larger high-wealth subsamples (see Table 4.11.).

Table 4.10. Socioeconomic gradients in substance use by family wealth group

Outcome	Wealth Group	n	%	ARD vs Low
Alcohol – Last 30 days	Low	427	27.4	0.0
	Medium	556	26.4	-1.0
	High	66	27.3	-0.1
Binge drinking – Last 30 days	Low	427	22.2	0.0
	Medium	556	18.0	-4.2
	High	66	25.8	3.6
E-cigarette – Last 30 days	Low	427	7.3	0.0
	Medium	556	9.4	2.1
	High	66	12.1	4.8
Gambling – Last 12 months	Low	427	6.6	0.0
	Medium	556	2.9	-3.7
	High	66	6.1	-0.5

Note. ARD = Absolute Risk Difference relative to the low wealth group. High wealth group (n = 66) estimates should be interpreted with caution.

Table 4.11. 30-day alcohol use by family wealth group and gender (%)

Wealth Group	Female %	Male %	Gender Difference
Low	23.7	32.3	8.6
Medium	27.0	25.8	-1.2
High	27.5	26.9	-0.6

Note. Gender difference = Male % − Female %. Positive values indicate higher prevalence among males. High wealth group (n = 66) estimates should be interpreted with caution.

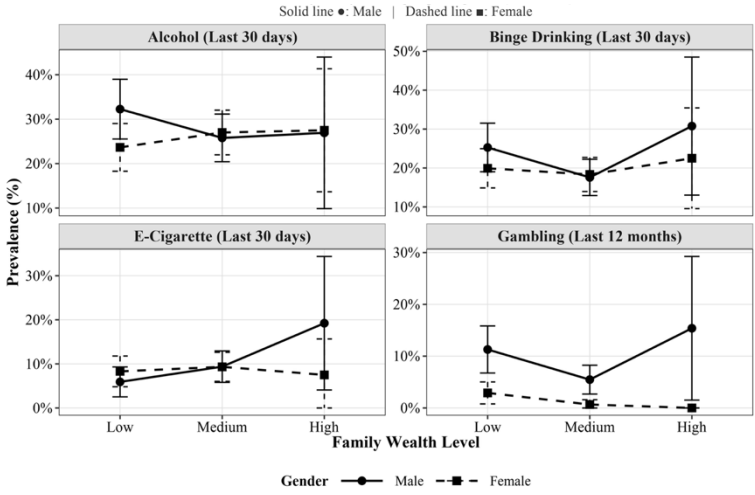

Figure 4.1. Socioeconomic gradients in substance use by gender (prevalence by family wealth group and gender (95% CI)

4.11. Year-on-Year Comparison: 2024 vs 2025

A total of 10 of 23 substance use indicators showed statistically significant differences between the 2024 (n = 1342) and 2025 (n = 936) cohorts of 16-year-old students in Northern Cyprus.

Significant increases were observed for: Cigarettes -Lifetime (29.9% vs 35.5%, OR = 1.29, h = 0.119); E-cigarettes -Ever (25.3% vs 33.5%, OR = 1.49, h = 0.180); Binge drinking -Last 30 days (22.3% vs 30.3%, OR = 1.52, h = 0.182); Intoxication -Lifetime (27.7% vs 32.2%, OR = 1.24, h = 0.098).

Significant decreases were observed for: Snus -Ever (12.6% vs 8.4%, OR = 0.64, h = 0.138); Heat-not-burn tobacco -Ever (14.2% vs 11.0%, OR = 0.75, h = 0.097); Intoxication -Last 30 days (16.7% vs 11.4%, OR = 0.64, h = 0.153); Cannabis -Last 12 months (6.6% vs 3.0%, OR = 0.43, h = 0.171); Cannabis -Last 30 days (6.2% vs 1.7%, OR = 0.26, h = 0.242); Inhalants -Last 12 months (3.2% vs 1.1%, OR = 0.33, h = 0.150).

Despite statistical significance, all effect sizes were negligible to small (Cohen's h range: 0.008–0.242), suggesting that the observed differences, while consistent, are of limited practical magnitude. Notably, water pipe use, ecstasy, amphetamines, cocaine, LSD, synthetic cannabinoids, tranquillizers, painkillers, and gambling showed no statistically significant year-on-year change (all p > .05). Table 4.12. presents the comparisons for the years 2024 and 2025.

Table 4.12. Year-on-year comparison of substance use prevalence: 2024 vs 2025 (age 16)

	2024		2025							
Variable	**n**	**%**	**n**	**%**	**Δ pp**	**OR**	**95% CI**	**h**	**Effect size**	**p**
Cigarettes – Lifetime	1,342	29.9	936	35.5	+5.6	1.29	[1.08–1.54]	0.119	negligible	< .01
E-cigarettes – Ever	1,342	25.3	936	33.5	+8.2	1.49	[1.24–1.79]	0.180	negligible	< .001
Water pipe (shisha) – Ever	1,342	37.4	936	37.9	+0.5	1.02	[0.86–1.21]	0.010	negligible	0.835
Snus – Ever	1,342	12.6	936	8.4	-4.2	0.64	[0.48–0.85]	0.138	negligible	< .01
Heat-not-burn tobacco – Ever	1,342	14.2	936	11.0	-3.2	0.75	[0.58–0.96]	0.097	negligible	< .05
Binge drinking – Last 30 days	1,342	22.3	936	30.3	+8.0	1.52	[1.26–1.84]	0.182	negligible	< .001
Intoxication – Lifetime	1,342	27.7	936	32.2	+4.5	1.24	[1.03–1.48]	0.098	negligible	< .05
Intoxication – Last 12 months	1,342	25.3	936	26.2	+0.9	1.04	[0.86–1.26]	0.021	negligible	0.687
Intoxication – Last 30 days	1,342	16.7	936	11.4	-5.3	0.64	[0.50–0.82]	0.153	negligible	< .001
Cannabis – Lifetime	1,342	2.5	936	3.7	+1.2	1.54	[0.95–2.50]	0.070	negligible	0.101
Cannabis – Last 12 months	1,342	6.6	936	3.0	-3.6	0.43	[0.28–0.67]	0.171	negligible	< .001
Cannabis – Last 30 days	1,342	6.2	936	1.7	-4.5	0.26	[0.15–0.45]	0.242	small	< .001

	2024		2025							
Variable	**n**	**%**	**n**	**%**	**Δ pp**	**OR**	**95% CI**	**h**	**Effect size**	**p**
Ecstasy – Lifetime	1,342	1.5	936	1.8	+0.3	1.22	[0.64–2.35]	0.024	negligible	0.662
Amphetamines – Lifetime	1,342	1.6	936	1.5	-0.1	0.91	[0.46–1.79]	0.008	negligible	0.921
Cocaine – Lifetime	1,342	1.9	936	1.6	-0.3	0.86	[0.45–1.64]	0.023	negligible	0.762
Crack – Lifetime	1,342	2.0	936	1.2	-0.8	0.58	[0.29–1.17]	0.064	negligible	0.171
Inhalants – Lifetime	1,342	1.3	936	1.4	+0.1	1.04	[0.51–2.12]	0.009	negligible	1.000
Inhalants – Last 12 months	1,342	3.2	936	1.1	-2.1	0.33	[0.16–0.65]	0.150	negligible	< .01
LSD/Hallucinogens – Lifetime	1,342	1.1	936	1.4	+0.3	1.25	[0.59–2.63]	0.027	negligible	0.701
Synthetic cannabinoids – Lifetime	1,342	0.8	936	1.6	+0.8	1.97	[0.90–4.31]	0.075	negligible	0.126
Tranquillizers (nonprescribed) – Lifetime	1,342	2.4	936	1.6	-0.8	0.67	[0.36–1.24]	0.057	negligible	0.253
Painkillers (nonmedical) – Lifetime	1,342	4.8	936	4.4	-0.4	0.91	[0.61–1.37]	0.019	negligible	0.739
Gambling – Last 12 months	1,342	6.0	936	7.7	+1.7	1.30	[0.93–1.80]	0.067	negligible	0.142

Note. OR = Odds Ratio (2025 vs 2024 reference). Δ pp = percentage point change. h = Cohen's h effect size. Effect size: negligible h < .20, small .20–.50, medium .50–.80, large > .80. Significant p values (< .05) in red. Chi-square or Fisher's exact test applied based on cell frequencies.

References

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