



ASSESSMENT OF DRUG AWARENESS AMONG SCHOOL STUDENTS IN KABUL, AFGHANISTAN: A CROSS-SECTIONAL STUDY

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Abstract

Background: In the modern world, addiction and substance abuse are increasingly recognized as some of the most destructive social phenomena and health problems, alongside other social deviations, challenges, and health risk factors. This issue annually drives millions of people, particularly the younger generation, who are nations' essential resources and assets, toward destruction. The low level of awareness among individuals, especially youth and adolescents, about drugs, along with other contributing and aggravating factors, plays a significant role in the prevalence of substance abuse and addiction among young people. This study aims to assess the level of awareness regarding drugs among school students.

Methods: This study was conducted as a descriptive cross-sectional survey on a sample of 363 students from two schools during the period from October to November 2024. The data were collected using the proportional quota sampling technique, and data were analyzed using SPSS 27.

Results: Out of 363 distributed questionnaires, 350 were completed. The majority of participants 89.4% were aged 16-20 years. Among students, 57.71% had good awareness, 41.43% had average awareness, and 0.86% had poor awareness about drugs. The majority of students reported that their main sources of information about drugs were friends 50.86% and teachers 20.29%. A total of 14.3% reported having at

least one addicted family member, and 67.4% were able to refuse drug offers. Analysis revealed significant relationships between age, marital status, and place of residence with awareness levels ($p < 0.001$), while economic status and parents' education showed no significant association.

Conclusion: This study identified the 16-20 age group as the most vulnerable yet receptive to drug awareness programs. The majority of the students had an average economic status, and most of them were single. Their main source of information about drugs was their friends, which raises concerns about the possibility of misinformation. While overall awareness was satisfactory, aspects like awareness of drug consumption methods need improvement. Statistical analysis showed significant relationships between awareness levels and factors such as age, marital status, and place of residence. Strengthening the role of families and formal education in providing accurate information and reducing the negative influence of social networks is essential

Keywords: Awareness, Drug, Students, Afghanistan

Introduction

Drugs are chemical compounds that affect the central nervous system, causing changes in the functioning of the body's systems. These changes can manifest as abnormal behaviors, depression, emotional disturbances, and impairments in perception and thinking. According to the World Health Organization (WHO), any substance that, upon entering the body, disrupts its normal functioning is considered a narcotic [1, 2].

Substance abuse is a global issue, with 5.6% of the world's general population aged 15 to 64 having used narcotics at least once a year [3]. Drug use is more prevalent among young people compared to older individuals, and this trend is increasing in many Asian countries, particularly in the nations of Southeast Asia, among youth aged 15 to 30. A 2013 study on the Global Burden of Disease (GBD) revealed that substance abuse places a heavy

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burden on adolescents and young adults [4]. Approximately 14% of the total health burden among youth is due to the use of drugs

and alcohol. Young individuals are especially at risk of death from disorders related to substance use [5].

Cannabis is recognized as the most commonly used substance among users [6]. Adolescents are the group most prone to addiction [7]. The high-risk stage for initiating drug use is during adolescence, with the highest rate of substance use observed among youth aged 18 to 25 [3]. During this stage, adolescents are more inclined to seek new experiences, driven by curiosity, peer pressure, defiance against authority, and, particularly, low self-esteem. These factors make them especially vulnerable to drug use [4].

Studies show that adolescents who use drugs experience higher rates of psychological and physical illnesses, which negatively impact their overall health [8]. The absence of protective factors and the presence of risk factors make adolescents more likely to use narcotics. Some of these risk factors include peer pressure, poverty, insufficient awareness, early mental and behavioral problems, dysfunctional family structures, isolation, weak parental supervision, poor parent-child relationships, and easy access to drugs [2].

According to reports from the United Nations Office on Drugs and Crime (UNODC), Afghanistan is one of the largest producers of narcotics in the world.

Statistics indicate that the production of one of the most significant types of narcotics, opium, in Afghanistan has skyrocketed from 144 tons in 1980 to over 6,400 tons in 2023. Afghanistan, along with Myanmar, supplies more than 93%-94% of the global market's demand for opium [1, 2].

Afghanistan, as one of the world's largest producers of narcotics, faces numerous challenges, including unemployment, poverty, insecurity, and the easy availability of drugs. These factors, combined with a lack of educational and awareness programs, have contributed to the spread of addiction among its youth [9]. Research shows that the low level of awareness and awareness among individuals, particularly young people, about narcotics and their consequences is one of the primary reasons for the spread of this phenomenon. Therefore, raising awareness among youth can play a crucial role in preventing addiction.

This study is the first of its kind in Afghanistan to specifically assess drug awareness among school students. Previous research has largely focused on university students or the general population, leaving a significant gap in understanding how school-aged adolescents perceive and respond to the threat of drug use. By targeting high school students, this study provides valuable insights into a vulnerable yet under-researched group.

The study aims to assess the level of awareness regarding drugs among school students. It is hoped that the findings will contribute to the development of effective preventive and awareness-raising programs, enabling young people to avoid becoming entangled in this destructive problem. The results may also guide educational and public health authorities in designing tailored interventions that address the specific needs and challenges of school-aged youth.

Material and Methods

Study design and setting

This study is a descriptive cross-sectional study conducted using a questionnaire to measure the level of awareness about drugs among high school students of Abdul Rahim Shaheed and Lycée Esteqlal schools. The research was carried out from October to December 2024.

Sample Size and Sampling Method

In 2024, Abdul Rahim Shaheed and Lycée Esteqlal schools had a total of 3,540 high school students (Grades 10, 11, and 12). Students from these three grades were included as the target population for this study. The sample size was determined using Cochran's formula, considering a 95% confidence interval, a success and failure probability of 0.5, and a margin of error of 0.05. Based on these calculations, the sample size was determined to be 346 students. Additionally, accounting for a 5% non-response rate, the final sample size was adjusted to 363 students.

In this study, proportional quota sampling was employed. First, the proportion of each school was determined based on the number of students, and then the corresponding proportion for each grade was allocated accordingly.

Data Source and Measurement

This study was conducted using a standardized questionnaire adapted from previous studies [10, 11] in the field. The questionnaire consisted of three sections: the first section included demographic information (10 questions), and the second section contained (10 questions) related to awareness about drugs, and the third section contained (9 additional questions) that have been arranged to better articulate students' awareness of drugs. Some of these questions were multiple-choice, designed to assess the level of awareness among students. In this study, each correct answer was assigned (3 points), I don't know responses were given (2 points), and incorrect answers were assigned (1 point). The participants' awareness levels were categorized into three groups based on their scores. In this questionnaire, individuals with a score below 15 are classified as having poor awareness, those with a

score between (15-25) as having average awareness, and those with a score above 25 as having good awareness.

Statistical Analysis

The data collected using the SPSS 27 program was entered and analyzed. We employed descriptive statistics (mean, standard deviation, frequency, and percentage) for statistical analysis of the gathered data. When characterizing categorical variables and the demographic traits of the participants, descriptive analytic techniques like frequency and percentage were employed. Cross-tabulation was used to examine variations in participant awareness and demographic traits.

Results

Out of 363 questionnaires, 350 complete questionnaires were returned. Among all participants in this study, 313 students (89.4%) were in the age group of 16-20 years, 31 students (8.9%) in the age group of 21-25 years, and 6 students (1.7%) in the age group of 26-30 years. The majority of participants were in the 16-20 age group, with a mean of 1.12 and a standard deviation of 0.377. Students' sociodemographic characteristics are presented in (Table 1). Our findings showed that the number of students participating in this study was as follows: Grade 10, 120 (34.3%) students; Grade 11, 122 (34.9%) students; and Grade 12, 108 (30.9%) students. The majority of these students were economically in average status 218 (62.3%) students. Furthermore, the majority of them were single 310 (88.6%)

students and most of them lived with their families at home 309 (88.3%) students. The parents of the majority of these students

were illiterate; specifically, 133 (38%) fathers and 198 (56.6%) mothers were illiterate (Table 1).

Characteristics		Number	Percentage
Age Group	16-20	313	89.4%
	21-25	31	8.9%
	26-30	6	1.7%
Grade	10 th	120	34.3%
	11 th	122	34.9%
	12 th	108	30.9%
Economic situation	Poor	62	17.7%
	Average	218	62.3%
	Good	70	20%
Marital status	Single	310	88.6%
	Married	40	11.4%
Place of residence	House	309	88.3%
	Dormitory	41	11.7%
Father's education level	Illiterate	133	38%
	Secondary education	133	38%
	Bachelor's degree	55	15.7%
	Master's degree	29	8.3%
Mother's education level	Illiterate	198	56.6%
	Secondary education	105	30%
	Bachelor's degree	30	8.6%
	Master's degree	17	4.9%

Table 1. Students' sociodemographic characteristics

Note: N (number of students), % (percentage)

The findings revealed that the most significant sources of information about drugs for students were friends 178 (50.86%) and teachers 71 (20.29%). Other sources are illustrated in (Figure 1).

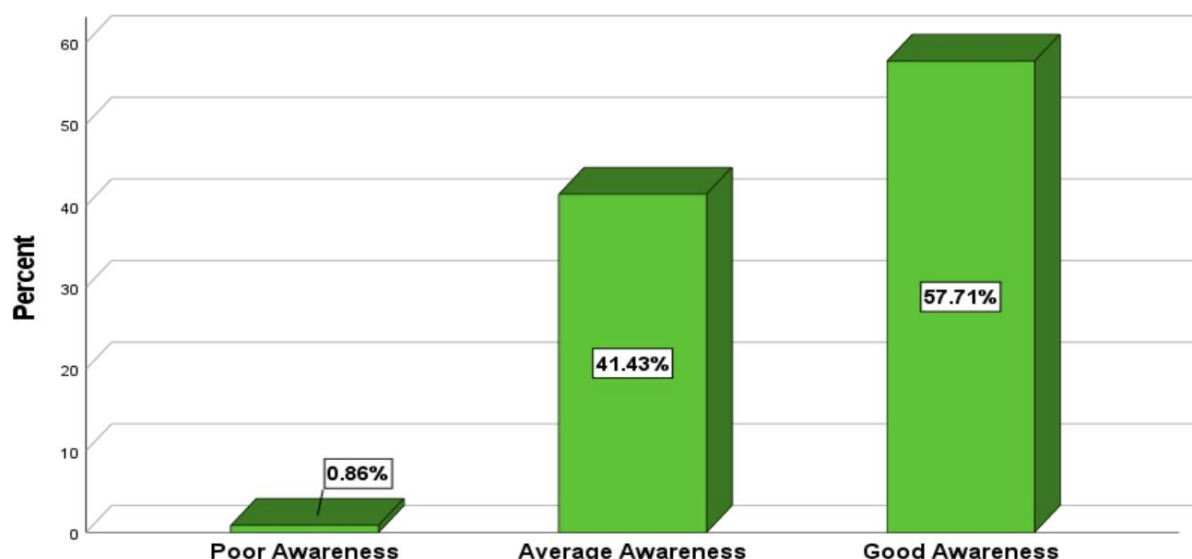


Figure 2: The level of awareness about drugs

Our findings showed that the majority of students who participated in this study had good awareness 202 (57.71%), average awareness 145 (41.43%), and only 3 (0.86%) had poor awareness regarding drugs (Figure 2).

The majority of students, 198 (56.6%), stated that using drugs even once is enough to become addicted. Meanwhile, most students, 179 (51.1%), disagreed with the idea that drugs can be beneficial in stressful and anxious situations (Table 2).

Table 2. Questions related to awareness about drugs

Note: n (number of students), % (percentage)

Variables	Agree, n (%)	Disagree, n (%)	I don't know, n (%)
1. I think using drugs just once is enough to become addicted?	198 (56.6%)	95 (27.1%)	57 (16.3%)
2. I think occasional use of drugs is not really harmful to the body?	90 (25.7%)	203 (58%)	57 (16.3%)
3. I think using drugs in stressful and anxious situations can be helpful?	80 (22.9%)	179 (51.1%)	91 (26%)
4. I think drug use disrupts human mental activities?	241 (68.9%)	52 (14.9%)	57 (16.3%)
5. I think drug use negatively affects the social aspects of people's lives?	216 (61.7%)	57 (16.3%)	77 (22%)
6. I think the presence of an addicted person in a family causes discomfort for other family members?	286 (81.7%)	34 (9.7%)	30 (8.6%)
7. I think long-term use of drugs leads to personal failure?	285 (81.4%)	41 (11.7%)	24 (6.9%)
8. I think drug use negatively affects a person's higher education and quality of life?	271 (77.4%)	40 (11.4%)	39 (11.1%)
9. I think people who use drugs harm themselves, their families, and society?	274 (78.3%)	36 (10.4%)	40 (11.4%)

10. I think parents who use drugs encourage their children to follow the same path?	184 (52.6%)	99 (28.3%)	67 (19.1%)
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The results of this study showed that 50 (14.3%) students reported having at least one addicted person in their family, while 281 (80.3%) students stated that there was no such person in their family, and 19 (5.4%) were not sure. Additionally, 186 (53.1%) students believed that all illegal drugs are harmful to health, while 113 (32.3%) did not hold this belief, and 51 (14.6%) were unsure about it. Furthermore, 239 (68.3%) of the students had encountered an addicted person, while 85 (24.3%) had not, and 26 (7.4%) were unsure. Similarly, 219 (62.6%) of the students stated that they had talked to their friends about drugs, while 112 (32%) had not, and 19 (5.4%) were unsure. In addition, 127 (36.3%) of the students stated that their friends had offered them drugs, while 203 (58%) reported that they had not received such offers, and 20 (5.7%) were unsure about it. Among those who had been offered drugs, 236 (67.4%) of the students had the ability to refuse, while 89 (25.4%) were unable to refuse, and 25 (7.1%) were unsure (Table 3).

Table 3. Additional questions related to drugs awareness

Variables	Yes, n (%)	No, n (%)	Not Sure, n (%)
1. Is there at least one addicted person in your family?	50 (14.3%)	281 (80.3%)	19 (5.4%)
2. Do you think all illegal drugs are harmful to health?	186 (53.1%)	113 (32.3%)	51 (14.6%)
3. Have you ever encountered an addicted person?	239 (68.3%)	85 (24.3%)	26 (7.4%)
4. Have you ever talked to your friends about drugs?	219 (62.6%)	112 (32%)	19 (5.4%)
5. Have your friends ever offered you drugs?	127 (36.3%)	203 (58%)	20 (5.7%)
6. If drugs have been offered to you, have you had the ability to say no in response?	236 (67.4%)	89 (25.4%)	25 (7.1%)

Note: n (number of students), % (percentage)

The results of this study showed that the majority of students 261 (74.6%) students had heard about tobacco, while 290 (82.9%) students stated that they had not heard about opium. Additionally, 195 individuals (55.7%) reported having seen tobacco, while 320 (91.4%) students stated that they had never seen opium. Regarding awareness of consumption, the majority of students 269 (76.9%) students stated that they did not know how tobacco is consumed, while 313 (89.4%) students reported that they were unaware of how opium is consumed (Table 4).

Table 4. Additional questions related to drugs awareness

Note: N (number of students), % (percentage)

The results indicated that some variables were significantly associated with awareness levels, while others showed no

examination of place of residence revealed a significant relationship with awareness level ($p < 0.001$). Individuals living

Variables	Category	Yes		No	
		N	%	N	%
Have you ever heard of any of the following substances?	Tobacco	261	74.6%	89	25.4
	Alcohol	209	59.7%	141	40.3%
	Opium	60	17.1	290	82.9%
	Heroin	191	54.6%	159	45.4%
	Methamphetamine (Crystal)	200	57.1%	150	42.9%
	Psychoactive drugs	77	22%	273	78%
	Hashish	88	25.1%	262	74.9
Variables	Category	Yes		No	
		N	%	N	%
Have you ever seen any of the following substances?	Tobacco	195	55.7%	155	44.3%
	Alcohol	101	28.9%	249	71.1%
	Opium	30	8.6%	320	91.4%
	Heroin	50	14.3%	300	85.7%
	Methamphetamine (Crystal)	77	22%	273	78%
	Psychoactive drugs	39	11.1%	311	88.8%
	Hashish	39	11.1%	311	88.8%
Variables	Category	Yes		No	
		N	%	N	%
Do you know how any of the following substances are consumed?	Tobacco	81	23.1%	269	76.9%
	Alcohol	108	30.9%	242	69.1%
	Opium	37	10.6%	313	89.4%
	Heroin	44	12.6%	306	87.4%
	Methamphetamine (Crystal)	67	19.1%	283	80.9%
	Psychoactive drugs	55	15.7%	295	84.3%
	Hashish	47	13.4%	303	96.6%

significant relationship. The analysis revealed a significant relationship between age group and awareness level ($p < 0.001$). The highest level of good awareness was observed in the 16-20 age group, while no good awareness was recorded in the 26-30 age group. Marital status also showed a significant relationship with awareness level ($p < 0.001$). Single individuals had higher awareness levels compared to married individuals. Regarding Grade level, the results showed no significant relationship with awareness level ($p = 0.389$). The distribution of awareness levels across different grades was relatively similar. The analysis of economic status indicated no significant relationship with awareness level ($p = 0.4$). However, individuals with an average economic status had the highest level of good awareness. The

in houses had higher awareness levels compared to those living in dormitories. For the father's education level, the results showed no significant relationship with the awareness level ($p = 0.4$). The highest level of good awareness was observed among individuals whose fathers had secondary education. Similarly, the mother's education level showed no significant relationship with the awareness level ($p = 0.22$). Nevertheless, individuals whose mothers were illiterate had the highest level of good awareness (Table 5).

Table 5. Differences in awareness levels according to students' characteristics

variables	Awareness level			p-value
	Good	Average	Poor	
Age Group				
16-20	195 (55.7%)	116 (33.1%)	2 (0.6%)	<0.001
21-25	7 (2.0%)	23 (6.6%)	1 (0.3%)	
26-30	0	6 (1.7%)	0	
Grade				
10 th	62 (17.7%)	57 (16.3%)	1 (0.3%)	0.389
11 th	70 (20.0%)	51 (14.6%)	1 (0.3%)	

12 th	70 (20.0%)	37 (10.6%)	1 (0.3%)	
Economic situation				
Poor	30 (48.4%)	31 (50%)	1 (1.6%)	0.4
Average	132 (60.6%)	84 (38.5%)	2 (0.9%)	
Good	40 (57.1%)	30 (42.9%)	0	
Marital status				
Single	197 (63.5%)	111 (35.8%)	2 (0.6%)	<0.001
Married	5 (12.5%)	34 (85%)	1 (2.5%)	
Place of residence				
House	194 (62.8%)	112 (36.2%)	3 (1%)	<0.001
Dormitory	8 (19.5%)	33 (80.5%)	0	
Father's education level				
Illiterate	83 (23.7%)	48 (13.7%)	2 (0.6%)	0.4
Secondary education	77 (22.0%)	56 (16.0%)	0	
Bachelor's degree	28 (8.0%)	26 (7.4%)	1 (0.3%)	
Master's degree	14 (4.0%)	15 (4.3%)	0	
Mother's education level				
Illiterate	124 (35.4%)	72 (20.6%)	2 (0.6%)	0.22
Secondary education	58 (16.6%)	46 (13.1%)	1 (0.3%)	
Bachelor's degree	14 (4.0%)	16 (4.6%)	0	
Master's degree	6 (1.7%)	11 (3.1%)	0	

Note: All analyses were by chi-square-test and cross-tabulation, *Significance level was set at p-value < 0.05, n (number of students), % (percentage)

Discussion

This study aims to assess the level of awareness regarding drugs among school students. Our findings revealed that the majority of the parents of these students were illiterate, with 38% of fathers and 56.6% of mothers being uneducated. This finding closely aligns with a study conducted in Kabul, Afghanistan, which also showed that most mothers were illiterate [12]. This similarity could be attributed to comparable socio-economic and cultural conditions in Afghanistan, where illiteracy among women, especially mothers, is more prevalent than among men. Additionally, women's historically limited access to educational opportunities may have contributed to this trend.

Our findings indicated that the primary sources of information for students about drugs were, in order: friends (50.86%), teachers (20.29%), family (11.43%), and media (17.43%). These findings are consistent with previous studies [13-15]. This similarity might be due to the significant role of social networks and educational environments in conveying information to students. Friends and teachers, due to their direct and frequent interactions with students, are likely to be the main sources of information and awareness about drugs. Moreover, the limited impact of media in this context may be due to insufficient or inappropriate content regarding drug awareness.

Our findings showed that at least 14.3% of students had a drug-addicted individual in their household. This percentage is lower than that reported in that study [16]. This difference might be explained by variations in the study populations or geographical locations. Additionally, cultural and social factors, such as the acceptance or resistance to addiction within families, could play a significant role in this disparity.

Our findings revealed that students had good awareness about different types of drugs. This finding contradicts another study in this field [17]. This contradiction could be due to differences in educational methods, access to informational resources, or awareness programs implemented in schools. However, our findings are consistent with studies conducted in Iran and South

Sudan [18]. This similarity might reflect comparable educational policies or awareness-raising efforts in these regions, which have led to improved awareness among students about drugs.

Conclusion

This study offers a comprehensive understanding of students' awareness and attitudes toward drugs. The majority of participants were in the 16-20 age group, an age range that is both vulnerable and open to awareness campaigns. Most students had an average economic status, were single, and lived with their families, providing insight into key socioeconomic factors influencing their awareness.

While overall awareness was good, there is room for improvement in areas such as awareness of drug consumption methods. Statistical analysis revealed significant correlations between awareness and factors like age, marital status, and residence, while economic status and parental education showed no notable influence.

The findings suggest that educational programs should focus on high-risk groups. Strengthening students' awareness of drugs, promoting coping strategies, and involving families and formal education to counter misinformation from social networks are crucial for reducing drug use.

Ethics Approval

The Public Health Faculty approved and validated the study's proposal. All participants gave their written informed consent before their involvement in this study, which was voluntary. The information was gathered in an anonymous manner and utilized exclusively for research. Afghani customs, university rules, and attire were all taken into account. The person was not harmed physically or psychologically.

Data availability and materials

This published article contains all of the data created or examined during this investigation.

Competing Interests

No competing interests have been declared by the authors.

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References

1. Glaze, J.A., *Opium and Afghanistan: Reassessing US counternarcotics strategy*. 2007: JSTOR.
2. Maaß, C.D., *Afghanistan's drug career: Evolution from a war economy to a drug economy*. 2011, SWP Research Paper.
3. (UNODC), U.N.O.o.D.a.C. *World Drug Report 2018 (United Nations publication, Sales No. E.18.XI.9)*. 2018; Available from: https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_1_EXSUM.pdf.
4. Degenhardt, L., et al., *The increasing global health priority of substance use in young people*. *The Lancet Psychiatry*, 2016. **3**(3): p. 251-264.
5. Hannah Ritchie, P.A.a.M.R. *Opioids, Cocaine, Cannabis, and Other Illicit Drugs*. 2022; Available from: <https://ourworldindata.org/illicit-drug-use>.
6. Holm, S., et al., *The importance of cannabis culture in young adult cannabis use*. *Journal of Substance Use*, 2014. **19**(3): p. 251-256.
7. Luikinga, S.J., J.H. Kim, and C.J. Perry, *Developmental perspectives on methamphetamine abuse: Exploring adolescent vulnerabilities on brain and behavior*. *Progress in neuro-psychopharmacology and biological psychiatry*, 2018. **87**: p. 78-84.
8. Schulte, M.T. and Y.-I. Hser, *Substance use and associated health conditions throughout the lifespan*. *Public health reviews*, 2013. **35**: p. 1-27.
9. Organization, W.H. *WHO Drug Information*. 2024.
10. Bhutani, P., et al., *US FDA approved drugs from 2015–June 2020: a perspective*. *Journal of Medicinal Chemistry*, 2021. **64**(5): p. 2339-2381.
11. Avram, S., et al., *DrugCentral 2021 supports drug discovery and repositioning*. *Nucleic acids research*, 2021. **49**(D1): p. D1160-D1169.
12. Muradi, M. and H. Ahmad, *Assessment of the Level of Awareness and Practice About Drugs and Their Harms Among University Students in Kabul Afghanistan*. 2024.
13. Tsering, D., R. Pal, and A. Dasgupta, *Substance use among adolescent high school students in India: A survey of knowledge, attitude, and opinion*. *Journal of Pharmacy and Bioallied Sciences*, 2010. **2**(2): p. 137-140.
14. Prakash, O., et al., *Knowledge and attitude of Indian adolescents towards addiction: Findings from an exploratory survey*. *Journal of Mental Health and Human Behaviour*, 2009. **14**(2): p. 74-79.
15. Haddad, L., et al., *Knowledge of substance abuse among high school students in Jordan*. *Journal of transcultural nursing*, 2010. **21**(2): p. 143-150.
16. Brook, U., *Addiction among high school pupils in Holon (Israel) and their attitudes towards drugs: A pilot study (1993–1994)*. *Journal of tropical pediatrics*, 1996. **42**(3): p. 175-177.
17. Hahn, E.J., et al., *Kindergarten children's knowledge and perceptions of alcohol, tobacco, and other drugs*. *Journal of School Health*, 2000. **70**(2): p. 51-55.
18. Colomer-Pérez, N., et al., *Alcohol and drug use in European university health science students: Relationship with self-care ability*. *International journal of environmental research and public health*, 2019. **16**(24): p. 5042.

