

Students' Knowledge of Substance Abuse on Campus at Bab Zubair Colleges

Firas Hadi Khalaf¹, Mohammed Kadhim Mutashar², Afnan Ahmed Abd Ali³

¹ A. Lecturer, Department of basic science, College of Nursing, University of Basrah, Basrah, Iraq

<https://orcid.org/0009-0005-7417-2440>

² A. Lecturer, Department of basic science, College of Nursing, University of Basrah, Basrah, Iraq

<https://orcid.org/0009-0000-3111-8210>

³ A. lecturer, Technical accounting, Technical college of management, southern Technical University

Email: firmas.khalaf@uobasrah.edu.iq¹, mohammed.kadhim@uobasrah.edu.iq², afnan.ahmed@stu.edu.iq³

Abstract. Background: Substance abuse refers to consumption of psychoactive substances without experiencing any negative consequences He/she is doing it for social, experimental or recreational use. Objective: To assess demographical data of the students, to assess students' knowledge level about addiction, to find out correlations among demographical data, and between knowledge. Methods: Study Design The research was conducted through descriptive design between the dates of November-April, 2024. The sample size of this descriptive study is 400, as planned; and the sample is 100 students only who fill in the data collection tools completely and who are volunteering in participating in the study , Only "100" of students were selected, a purposive sample type was initiated through a self-reported questionnaire , Organized random assignment of the sample was done in the four colleges separately, and at the same period. Each student is given a single paper of the instrument and he/she fill-in by him/her-self. Results: The results of the study show that there is a good knowledge among the students with total assessment was 2.47 (good).

Highlights:

1. Substance abuse involves psychoactive substance use without adverse consequences.
2. Assess demographics, knowledge, and correlations regarding addiction among students.
3. Students demonstrated good knowledge, scoring 2.47 (good) overall.

Keywords: Students', substance abuse, Knowledge. Colleges, Assessment

Introduction

Since the beginning of time, people have used and abused substances that are classified as psychoactive substances. In practically every culture, there has been a desire for people to escape from routine, frustration, and pains in order to find euphoria or a sense of well-being. Psychoactive drug prevalence, as reported by Silva et al. (2006)

is rising among college students, and this has become a significant public health and social issue. While going to college has traditionally been thought to protect against the emergence of substance use disorders, in recent decades, substance use has become one of the most common health issues on college campuses. College students are among the largest groups of drug abusers in the country, and young people (ages 18 to 24) are particularly vulnerable to addiction, which adds to the prevalence of addiction in college.

The start of college is characterised by a significant shift in lifestyle. Students experience high levels of stress during their academic studies, which leads to negative social and psychological effects. One such consequence is substance abuse, which some students turn to as a way to cope with their problems. Substances activate reward and pleasure circuits in the brain, which helps students better manage their stress and, as a result, use them to feel good (Vishnu Priya et al., 2018).

Substance use is also linked to significant general medical and psychiatric morbidity and mortality for many students. For example, nearly half of 946 college students who were followed from freshman to junior year met criteria for at least one substance use disorder during that time. Students who regularly use substances are more likely to have lower GPAs, spend fewer hours studying, miss significantly more class time, and fail to graduate or be unemployed after graduation (Wolaver et al., 2012).

Research has shown that compared to other age groups, youth usage of illegal substances is more common. University students abusing drugs and alcohol is a serious problem (Sadock et al., 2013&Adlaf EM, Gliksman et al., 2013). Other kids who do not use drugs or alcohol are likewise impacted by their use. Addicts hinder societal progress and create significant financial and social harm to the health system (Atkinson RL, Atkinson RC et al., 2019 & Greenberg, Lewis et al., 2012).

Addiction and substance misuse are not the same thing. Addiction, on the other hand, is a sickness, meaning you can't stop using even when your condition causes you damage. However, many people with drug misuse issues are able to stop or alter their harmful behaviour (Wolaver et al., 2012).

Methods

Design of the study

Research Design The study was carried out between November and April of 2024 using a descriptive approach. As intended, the sample size for this descriptive study is 400; however, only 100 students who voluntarily participate in the survey and fully complete the data collecting instruments are included in the sample.

Administrative arrangements

Following approval from the college dean and student affairs, written consent was obtained from each institution separately to get permission to gather the sample.

Ethical considerations

The researcher verbally obtained the students' consent to participate in the study, explained its purpose, explained how to fill out the study form, and made sure they understood that participation was completely voluntary and that they could leave the study at any moment. In addition to ensuring that their identities would remain anonymous in presentation reporting and/or any future publication of the study, the researcher also gave participants the assurance that the confidentiality of their data would be protected and securely maintained both during and after study participation.

setting of the study

Students studying in bab al Zubair comp colleges (Nursing=25%, Law=25%, Education=25%, and Art science=25% of the total sample)

the sample of the study

Only "100" of students were selected, a purposive sample type was initiated through a self-reported questionnaire.

Criteria of sample

Inclusion: Specifically, the mentioned four colleges were only targeted, students are all meant in sample focusing on the participating ones.

Exclusion: Other colleges in the same comps are excluded

Study tool

Student self-reporting questionnaires were used to gather data in a classroom setting. A questionnaire that was created by the students and asked about their sociodemographic traits and knowledge of drug usage was used as a data collecting method. It had 32 questions in total (7 demographic and 25 knowledge evaluation).

Survey Questionnaire: There are two sections to the survey. Some questions on the students' sociodemographics (age, sex, study, domicile, training course, and college) are asked in the first section, and 25 questions of their knowledge are asked in the second.

statistical data analysis

The statistical tool for social sciences, SPSS version 26, was used to analyse the data, which were then reported as frequency and percentage. The correlation between the various variables was evaluated using the mean score and significance.

Data collection

Organized random assignment of the sample was done in the four colleges separately, and at the same period. Each student is given a single paper of the instrument and he/she fill-in by him/her-self.

Analysis method

The data were analyzed using statistical analysis program Excel 2020. The variables were described using frequencies and percentages. The Pearson correlation coefficient (r) test to describe the relationship between qualitative data (demographic characteristics, and knowledge). Tables and figures are used to demonstrate the results and show the percentages and levels. Also the mean of scores is dependent on determining the level of knowledge.

According to Turney, S. (2024). The Pearson correlation coefficient (r) is the most common way of measuring a linear correlation. It is a number between -1 and 1 that measures the strength and direction of the relationship between two variables.

Pearson correlation coefficient (r) value	Strength	Direction
Greater than .5	Strong	Positive
Between .3 and .5	Moderate	Positive
Between 0 and .3	Weak	Positive
0	None	None
Between 0 and $-.3$	Weak	Negative
Between $-.3$ and $-.5$	Moderate	Negative
Less than $-.5$	Strong	Negative

Limitations of the study

As mentioned before just in this chapter, that the planned sample was 400, but the time and financial factors were constricting the fact that only one hundred students were collecting.

Result and Discussion

Table 1 Social-demographic characteristics

<i>Age</i>		<i>f</i>	<i>%</i>
<i>1</i>	18 - 23	87	87%
<i>2</i>	24 - 27	13	13%
<i>3</i>	28 - 30	0	0%
<i>4</i>	More than 30	0	0%
<i>Total</i>		100	100%
<i>Sex</i>			
<i>1</i>	Male	43	43%
<i>2</i>	Female	57	57%
<i>Total</i>		100	100%
<i>Study</i>			
<i>1</i>	Morning	88	88%
<i>2</i>	Evening	12	12%
<i>Total</i>		100	100%
<i>Social (Marital status)</i>			
<i>1</i>	Single	89	89%
<i>2</i>	Divorce	4	4%
<i>3</i>	Married	7	7%
<i>Total</i>		100	100%
<i>Residence</i>			
<i>1</i>	Urban	55	55%
<i>2</i>	Rural	45	45%

Total		100	100%
<i>Have you been involved with a training course about addiction affects?</i>			
1	No	80	80%
2	Yes	20	20%
Total		100	100%
<i>College</i>			
1	Nursing	25	25%
2	Economics	25	25%
3	law	25	25%
4	education	25	25%
Total		100	100%

This table shows that 78% of the sample were at age group of 18-23 years, 0% at age (28 years and over), regarding College, 25% for each one of the five College (College of Nursing, College of Lawand economic, College of arts, and College of Education), regarding sex, 57% was females, regarding marital status, 89% were single, regarding living, 55% at urban, 80% have not engaged in training courses about addiction and abuse.

Table 2: The frequency and percentage of the knowledge by 25 questions and the mean score of each question in addition to the total assessment of the scale

Scale type (No/Yes likert-3)	NO		NOT SURE		YES		total		M. S	A s.
Item/Question	f	%	f	%	f	%	f	%		
Addiction is a serious and dangerous disorder.	6	6	3	3	9	91	10	100	2.85	Good
Addiction to CANNABIS is the worst type of addiction	1	17	9	9	7	74	10	100	2.57	Good

Addiction is not causing a family consequences and issues	80	7	7	1	13	10	100	1.	Fair
	0 %		%	3	%		%	33	
Family dysfunction can lead members to addiction	15	2	22	6	63	10	100	2.	Good
	5 %	2	%	3	%	0	%	48	
Youngest is the most exposed group to addiction in society	3	2	2	9	95	10	100	2.	Good
	3 %		%	5	%	0	%	92	
Financial status and unemployment have no causality to addiction	66	1	17	1	17	10	100	1.	Fair
	6 %	7	%	7	%	0	%	51	
Addiction has negative effects on society	38	3	32	3	30	10	100	1.	Fair
	8 %	2	%	0	%	0	%	92	
High lifestyle families are the most likelihood to addiction	33	2	22	4	45	10	100	2.	Good
	3 %	2	%	5	%	0	%	12	
Addiction has long term negative effects on health	7	1	10	8	83	10	100	2.	Good
	7 %	0	%	3	%	0	%	76	
Addiction make people be criminal	1	2	2	7	97	10	100	2.	Good
	1 %		%	6	%	0	%	96	
Negative friends have negative attitude to addiction	10	1	12	7	78	10	100	2.	Good
	0 %	2	%	8	%	0	%	68	
Low self-esteem, infirmity are the main cause to addiction attitude	11	3	31	5	58	10	100	2.	Good
	1 %	1	%	8	%	0	%	47	
Addiction makes people to withdraw	9	1	19	7	72	10	100	2.	Good
	9 %	9	%	2	%	0	%	63	
Addiction has negative effects on the mental health only	27	1	12	6	61	10	100	2.	Good
	7 %	2	%	1	%	0	%	34	
Person addiction has social consequences	3	1	11	8	86	10	100	2.	Good
	3 %	1	%	8	%	0	%	83	
Addiction affects only on organ	3	3	28	6	64	10	100	2.	Good
	3 %	3	%	4	%	0	%	51	
Addiction attacks the respiratory system mainly	12	2	28	6	60	10	100	2.	Good
	2 %	8	%	0	%	0	%	48	

Person who addicted is on given another chance to back-up the rest of his/her life	9	9	1	10	8	81	10	100	2.	Good
		%	0	%	1	%	0	%	72	
Addicted person can stop when he/she want	2	20	1	19	6	61	10	100	2.	Good
	0	%	9	%	1	%	0	%	41	
Family have the main role in cure of addiction	4	4	6	6	9	90	10	100	2.	Good
		%		%	0	%	0	%	86	
Arrest addicted person is a step in treatment	5	5	1	15	8	80	10	100	2.	Good
		%	5	%	0	%	0	%	75	
Addicted person can cure his/her self without health centers or hospitals	1	19	2	28	5	53	10	100	2.	Good
	9	%	8	%	3	%	0	%	34	
Willpower to give-up addiction may help in cure of addiction	1	19	2	29	5	52	10	100	2.	Good
	9	%	9	%	2	%	0	%	33	
One year treatment is enough to cure completely	1	16	4	48	3	36	10	100	2.	Good
	6	%	8	%	6	%	0	%	20	
Too much addiction leading to death	1	1	2	20	7	79	10	100	2.	Good
		%	0	%	9	%	0	%	78	

This table shows the average of answers of the participant for each question of the total 25 questions that were used to assess the knowledge of students about the effects of substance abuse. The results here showed that the majority of answers were nearly the same and all were above 2 scores. The whole assessment of the awareness regarding the risk factors was "2.47" and it was good. Researchers here used likert-3 scale, so that it ranges from 1 to 3 scores, so that the "2.47" was assessed as "good" for the whole scale.

Table 3: Correlations of demographic data with knowledge assessment (2.47)

(r)	No.	1	3	4	5	6
	-1 to +1 Pearson correlation coefficient	Age	Study	Marital status	Residence	Have you been involved ..?
1	Addiction is a serious and dangerous disorder.	0.00	-0.07	-0.12	-0.09	0.00

2	Addiction to CANNABIS is the worst type of addiction	-0.05	-0.03	0.04	0.01	-0.11
3	Addiction is not causing a family consequences and and issues	-0.06	-0.13	0.00	0.09	-0.13
4	Family dysfunction can lead members to addiction	-0.09	-0.16	-0.02	0.04	-0.05
5	Youngest is the most exposed group to addiction in society	0.08	-0.34	-0.03	0.03	-0.03
6	Financial status and unemployment have no causality to addiction	-0.06	-0.21	-0.05	-0.05	-0.07
7	Addiction has negative effects on society	-0.03	0.00	-0.04	0.09	-0.04
8	High lifestyle families are the most likelihood to addiction	-0.02	-0.02	-0.11	0.01	0.13
9	Addiction has long term negative effects on health	0.06	-0.22	0.14	0.03	-0.01
10	Addiction make people be criminal	0.06	-0.07	0.06	0.15	0.08
11	Negative friends have negative attitude to addiction	0.10	0.14	-0.09	-0.02	0.02
12	Low self esteem, infirmity are the main cause to addiction attitude	0.21	0.15	0.01	0.14	0.06
13	Addiction makes people to withdraw	-0.01	-0.03	0.19	-0.07	0.02
14	Addiction has negative effects on the mental health only	-0.05	0.00	-0.26	-0.01	0.01
15	Person addiction has social consequences too	0.08	0.00	-0.04	0.03	0.08
16	Addiction affects only one single body organ	-0.15	0.04	-0.21	-0.03	-0.18
17	Addiction attacks the respiratory system mainly	-0.10	-0.12	-0.10	0.04	0.12
18	Person who addicted is on given another chance to back-up the rest of his/her life	-0.11	0.02	0.09	0.02	-0.06
19	Addicted person can stop when he/she want	0.02	0.08	-0.13	-0.16	-0.04
20	Family have the main role in cure of addiction	-0.01	-0.09	0.02	0.15	-0.07
21	Arrest addicted person is a step in treatment	-0.04	-0.11	0.02	0.20	-0.05
22	Addicted person can cure his/her self without health centers or hospitals	0.29	-0.12	0.00	-0.11	-0.12
23	Willpower to give-up addiction may help in cure of addiction	0.07	0.12	0.00	0.13	-0.08
24	One year treatment is enough to cure completely	-0.07	0.16	0.15	0.06	0.18
25	Too much addiction leading to death	0.19	-0.03	0.08	0.04	0.14

This table shows the correlation coefficient between demographic data and knowledge assessment that are ordinal. Values here are (from -1 to +1) to demonstrate the strength and direction of the relationship.

Discussion

Discussion of demographical data:

Researchers found that the majority of students were aged 18 to 23 years. Similarly, single students were composing the majority of the total sample (89%), also they were mostly females (57%).

These results were regular and have no significant remark for some issue because our Iraqi education system starts at 7 or 8 years in primary schools and ends at 17 or 18 to start joining the colleges. These age groups (over 18 and below 25) are mostly single because as it is usual the students get married mostly after getting appointed or finishing the college.

A cross-sectional research of Saudi Arabia's male pharmacy and nursing students titled "Evaluation of clinical knowledge of drugs causing addiction and associated social determinants" was carried out in January 2024. They found that the age group mostly was (19-20) about 63% for the total sample, and this results is supporting our. (Omairah et al. 2024). But they found that about 79% of the sample have received information about addiction and substance abuse. while the results here showed only 20% that have received it through courses only. (Omairah et al. 2024).

Another study that has supported the results of that the females were higher than males, they found that females consisting (84.4%) of the total sample 45, when we found that it was (57%) of the total sample 100. (Kadhila , 2023).

In addition to the study 238 students in the inaugural class of the Adnan Menderes University Health College Nursing Department's course, "Knowledge, Attitude, and Behaviour of Health College Students Related to Drug Abuse." After analysing the students' sociodemographic data, it was found that 70.6% of them were female. (Derya and others, 2016)

Discussion of students' knowledge about addiction:

In this part, considering table 4.2 (knowledge), researchers are showing the majority of what students know about substance abuse. The majority of them knew that the addiction is a serious disorder (91%), and that the youngest is the most exposed

group (95%), also they have known that addiction make people to be criminal (97%), family have main role in curing the case (90%), and they stated that the addiction person will have social consequences (86%). their knowledge for other questions was also reaching the 80% and not below the 50%. The total assessment of student knowledge was 2.47 and that was a good marker for their knowledge about substance abuse. On the other hand, The rest of the percentage was detecting that the students in this research had a moderate level of knowledge in the following points of assessment. They have a moderate level of knowledge about the family issues resulting from addiction (only 13% answered yes), and the financial status effects (only 17% answered yes), also about the possibilities of negative effects of addiction on society (only 30% answered yes).

This result was supported by another study, as it was mentioned that the youth period is a process in which behaviors of taking risks are seen mostly during it, in addition to the use of cigarettes, alcohol and drugs are seen more frequently. In this period, a peaceful and trouble-free family atmosphere will ensure the young people to complete their spiritual development (Kolay, 2009). Our study results that are similar to the literature stress the importance of growing up in a healthy family atmosphere for children and they also indicate the importance of considering the effect of family in both the prevention studies about addictive drug use and treatment studies.

The study also was found that 68.5% of the students stated that the psychological addiction is as important as physical addiction, 78.6% of them stated that drug use could be controlled if desired, 96.9% of them stated that drugs had negative effects on the nervous system and the lungs, 94.1% of them stated that drug affected driving, 88.7% of them stated that the use of other substances such and "thinner" was harmful, 90.8% of them stated that drugs caused aggressive behavior, 45.8% of them stated that ecstasy caused addiction, 69.7% of them stated that the addictive substances did not get the people away from the problems, 73.9% of them stated that addictive substances would be harmful when they were used several times, 75.2% of them stated that when addictive substances were used, it would cause addiction, 41.6% of them stated that they were curious about the effects of the addictive substances. (Derya, et al. 2016).

In a study conducted, it was detected that being role models of the parents (especially fathers) on drug use affected drug use by the young people (Momtazi, 2010). Besides this, another study indicates that family and close friends are effective in starting to use drugs in their youth period (Tanrikulu, 2009). In another study, it was found that father's and mother's education level, ethnicity and living place affected stimulating and addictive drug use of university students (McCabe, 2004).

Discussion of students knowledge about addiction and correlation to their demographics :

In this part, researchers consider table 4.3 (Correlation between demographic and knowledge assessment). and they have found that the higher positive relationship was ($r=0.21$ and 0.29), where the ($r=0.21$) between question number 12 "Low self esteem, infirmity are the main cause to addiction attitude" and Age variable. While, ($r=0.29$) was between question number 22 "Addicted person can cure his/her self without health centers or hospitals" and Age variable. There was no relationship between the study type (morning and evening) and the knowledge level, instead of that the evening students had higher knowledge about the question number 5 that was about (Youngest group is the most exposed group), results showed a negative relationship ($r=-0.34$). Finally, there was no relationship between the training course and question number one! "Addiction is a serious and dangerous disorder." ($r=0.00$), simply that was an indicator about the need for more advanced courses and information about substance abuse to be given to the students. Students that are getting the course have weak but positive relationships to the following information based on the question: (8; 17; 24; 25), the high style families are higher exposed to addiction; addiction attacks respiratory system; treatment can have effects on one year; and too much addiction leading to death.

Conclusion

Researchers concluded that the 18 to 23 age group is the most, and being female is also single, and have similarity to other studies results. Participants were knowledgeable in some points and slightly knowledgeable in other points of assessment. They were knowledgeable in the seriousness of the addiction as a disorder, and the risk of the students' age group being sensitive to being more exposed to addiction. and that

was supported by other studies. researchers also concluded that the addiction can make a person criminal and that is a good indicator that must be considered seriously to intervene for early prevention. In addition, researchers concluded that the family has a main role in addiction occurrence and addiction cure. participants in the study have moderate knowledge in the case of the linkage between the financial status and the exposure to addiction, also with the negative effects of addiction to society. The relationship between age and knowledge assessment was weakly positive. Study types have no relationship, and there is no relationship between training course and knowledge. so that advanced courses are informed to them.

Recommendations

1. Initiating a study for the same purpose but with survey sample of about one thousand participants from at least 25 different colleges have the same age group, to be more represented.
2. Make sure that an effective program for education and the addiction has negative effects and social consequences.

References

- [1] D. Adibelli and S. Olgun, "Knowledge, Attitude and Behavior of Health College Students Related to Drug Abuse," *Ulutas Med. J.*, vol. 2, no. 2, pp. 90-100, 2016, doi: 10.5455/umj.20160523110809.
- [2] E. M. Adlaf, L. Gliksman, A. Demers, and B. Newton-Taylor, "Illicit Drug Use among Canadian University Undergraduates," *Can. J. Nurs. Res.*, vol. 45, no. 2, pp. 34-43, 2013.
- [3] H. H. Abdul-Ra'aoof, M. A. Akber, F. A. Jassim, A. M. Tiryag, S. S. Issa, M. A. Atiyah, et al., "The Psychological Impact of Violence on Emergency Department and Intensive Care Unit Nurses: A Cross-Sectional Study," *Res. J. Trauma Disabil. Stud.*, vol. 3, no. 4, pp. 228-233, 2024.
- [4] M. A. Atiyah and M. F. Hasan, "Assessment of Pharmacy Staff Knowledge towards Prevention of Osteoporosis in Adolescent Girls," *Age*, vol. 20, no. 6, pp. 30-39, 2024.

- [5] A. M. Arria, K. E. O'Grady, K. M. Caldeira, K. B. Vincent, H. C. Wilcox, and E. D. Wish, "Suicide Ideation among College Students: A Multivariate Analysis," *Arch. Suicide Res.*, vol. 13, no. 3, pp. 230-246, 2013.
- [6] R. L. Atkinson, R. C. Atkinson, E. E. Smith, D. J. Bem, S. Nolen-Hoeksema, and C. D. Smith, *Hilgard's Introduction to Psychology*, 13th ed. California, CA: Wadsworth Pub. Co., 2019.
- [7] M. A. Atiyah, "Nurses' Knowledge Regarding Management of Hypovolemic Shock: A Cross-Sectional Study," *Academia Open*, vol. 9, no. 2, pp. 10-21070, May 2024.
- [8] A. O. Awosusi and J. A. Adegboyega, "Knowledge of Health Effects and Substance Use among Students of Tertiary Institutions in Southwestern, Nigeria," *J. Educ. Pract.*, vol. 4, no. 23, pp. 2222-1735, 2013.
- [9] H. H. Abdul-Ra'aoof, A. M. Tiryag, and M. A. Atiyah, "Knowledge, Attitudes, and Practice of Nursing Students about Insulin Therapy: A Cross-Sectional Study," *Academia Open*, vol. 9, no. 1, pp. 10-21070, 2024.
- [10] A. Maher, "Knowledge of Nursing College Students on Preventive Measures for Irritable Bowel Syndrome: Pre-Experimental Study," *Int. J. Integr. Mod. Med.*, vol. 2, no. 3, pp. 16-24, 2024.
- [11] D. B. Buller, R. Borland, W. G. Woodall, J. R. Hall, P. Burris-Woodall, and J. H. Voeks, "Understanding Factors That Influence Smoking Uptake," *Tob. Control*, vol. 12, suppl. 4, pp. IV16-IV25, 2003, doi: 10.1136/TC.12.SUPPL_4.IV16.
- [12] G. Gilanie, U. I. Bajwa, M. M. Waraich, M. W. Anwar, and H. Ullah, "An Automated and Risk-Free WHO Grading of Glioma from MRI Images Using CNN," *Multimed. Tools Appl.*, vol. 82, no. 2, pp. 2857-2869, 2022.
- [13] J. L. Greenberg, S. E. Lewis, and D. K. Dodd, "Overlapping Addictions and Self-Esteem among College Men and Women," *Addict. Behav.*, vol. 38, no. 3, pp. 61-71, 2013.
- [14] L. Haddad, A. Shotar, M. Umlauf, and S. Al-Zyoud, "Knowledge of Substance Abuse among High School Students in Jordan," *J. Transcult. Nurs.*, vol. 21, no. 2, pp. 143-150, 2010.
- [15] S. S. Hamid, W. D. A. Ali, and M. A. Atiyah, "Assessing Nursing Students' Knowledge of Sleeve Gastrectomy Effects," *Academia Open*, vol. 9, no. 2, pp. 10-21070, 2024.

- [16] J. G. Kadhila and P. F. Tulong, "Knowledge and Attitude Regarding Substance Abuse among Fourth Year Nursing Students at a University, Khomas Region, Namibia," *Int. J. Sch. Cogn. Psycho.*, 2023, doi: 10.287.
- [17] S. Kolay Akfert, E. Çakıcı, and M. Çakıcı, "The Relationship Between Smoking-Alcohol Use and Parental Problems of University Students," *Anadolu Psikiyatri Dergisi*, vol. 10, pp. 40-47, 2009.
- [18] A. J. Kadhim, R. I. Abed, and W. A. A. Hattab, "Effect of Training Sessions on Iraqi Nurses' Practice Concerning Patients in Post-Anesthesia Care at Ghazi Al-Hariri Surgical Specialities Hospital," *Nveo-Natural Volatiles & Essential Oils J.*, vol. 23, pp. 9396-9403, 2021.
- [19] S. R. LeNoue and P. D. Riggs, "Substance Abuse Prevention," *Child Adolescent Psychiatr. Clinics*, vol. 25, no. 2, pp. 297-305, 2016.
- [20] M. A. Maajida Aafreen, V. Vishnu Priya, and R. Gayathri, "Effect of Stress on Academic Performance of Students in Different Streams," *Drug Invention Today*, vol. 10, no. 9, 2018.
- [21] O. H. Mohammed, Y. E. Hossein, and A. H. Mohamed, "Assessment of Knowledge and Attitudes of Secondary School Students Regarding Drug Abuse at Minia City," *Minia Sci. Nurs. J.*, vol. 9, no. 1, pp. 2-8, 2021.
- [22] M. Kadhim, F. H. Mahfoudh, and A. A. Maher, "Morphology of Medical Pathological Terms with the Prefix (Cardio)," *Int. J. Lang. Learn. Appl. Linguist.*, vol. 3, no. 3, pp. 21-24, 2024.
- [23] A. A. Al-Mussawi, K. J. Awad, A. F. Kareem, Z. A. Hasan, N. S. Kadhim, I. H. Yaseen, et al., "Assess Knowledge of Nurses Who Provide Prenatal Care Concerning Toxoplasmosis in Basra City," *Int. J. Nurs. Didact.*, vol. 6, no. 4, pp. 01-04, 2016.
- [24] S. Momtazi and R. Rawson, "Substance Abuse among Iranian High School Students," *Curr. Opin. Psychiatry*, vol. 23, no. 3, pp. 221-226, 2010, doi: 10.1097/YCO.0b013e328338630d.
- [25] O. A. Qadhi, M. M. Alasmari, I. N. Alsulaim, W. Syed, and M. B. A. Al-Rawi, "Evaluation of Clinical Knowledge of Drugs Causing Addiction and Associated Social Determinants among Male Pharmacy and Nursing Students in Riyadh, Saudi Arabia," *Pers. Med. Res.*, vol. 38, pp. 102606, 2024.

- [26] G. K. Padhy, S. Das, T. Sahu, and S. Parida, "Prevalence and Causes of Substance Abuse among Undergraduate Medical College Students," *Indian Med. Gazette*, vol. 148, no. 8, pp. 276-282, 2014.
- [27] R. S. Palmer, T. J. McMahon, D. I. Moreggi, B. J. Rounsaville, and S. A. Ball, "College Student Drug Use: Patterns, Concerns, Consequences, and Interest in Intervention," *J. Coll. Stud. Dev.*, vol. 53, no. 1, pp. 1-17, 2012.
- [28] M. Rhemulla, E. I. Fried, S. H. Aggen, F. Tuerlinckx, and D. S. Muris, "Psychological Assessment in Substance Use Disorders," *J. Counselling Psychol.*, vol. 67, no. 4, pp. 51-67, 2024.
- [29] S. M. Usama, N. S. Kadhim, and K. S. Mahdy, "Effect of Substance Abuse on Academic Performance in High School Students in Iraq," *J. Educ. Appl. Sci.*, vol. 11, no. 8, pp. 232-239, 2024.
- [30] B. J. Sadock and V. A. Sadock, *Kaplan & Sadock's Synopsis of Psychiatry*, 8th ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2013, pp. 380–470.
- [31] L. V. R. Silva, A. Malbergier, V. A. Stemliuk, and A. G. Andrade, "Factors Associated with Drug and Alcohol Use among University Students," *Revista de Saúde Pública*, vol. 40, no. 2, pp. 280-288, 2006.
- [32] C. Stewart, "The Influence of Spirituality on Substance Use of College Students," *Journal on Drug Education*, vol. 31, no. 4, pp. 343-351, 2001.
- [33] M. Stitzer and N. Petry, "Contingency Management for Treatment of Substance Abuse," *Annu. Rev. Clin. Psychol.*, vol. 2, pp. 411-434, 2006.
- [34] A. Ç. Tanrikulu, K. B. Çarman, Y. Palancı, D. Çetin, and M. Karaca, "Smoking Frequency and Risk Factors Among Various University Students in the City Center of Kars," *Türk Toraks Dergisi*, vol. 10, no. 3, pp. 101-106, 2009.
- [35] A. Troisi, "Harmful Effects of Substance Abuse: A Darwinian Perspective," *Functional Neurology*, vol. 16, no. 4, pp. 237-246, 2011.
- [36] S. Turney, "Pearson Correlation Coefficient ® | Guide & Examples," *Scribbr*, Feb. 10, 2024. [Online]. Available: <https://www.scribbr.com/statistics/pearson-correlation-coefficient/>. [Accessed: Apr. 1, 2024].
- [37] A. M. Tiryag, "Revitalizing Hearts: The Transformative Impact of Pacemaker Therapy on Cardiac Conduction Disorders," *Academia Open*, vol. 9, no. 1, pp. 10-21070, 2024.

- [38] A. M. Wolaver, "Effects of Heavy Drinking in College on Study Effort, Grade Point Average, and Major Choice," *Contemp. Econ. Policy*, vol. 20, no. 4, pp. 415-428, 2012.
- [39] W. A. A. Hattab, "Impact of Hyperviscosity of Blood on Elevation of Blood Pressure Among Adults in Baghdad City," *Kufa Journal for Nursing Sciences*, vol. 5, no. 2, 2015.
- [40] P. K. Yadav and R. Parajuli, "Knowledge Regarding Drug Abuse Among School Students," *J. Edu. Sci.*, 2021.
- [41] F. A. Yusuf, "Factors Influencing Substance Abuse Among Undergraduate Students in Osun State, Nigeria," *Afr. Res. Rev.*, vol. 4, no. 4, 2010.