

## The Impact of the Educational Program on High School Students' Knowledge Regarding Drug Addiction: A Quasi-experimental Study

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### Abstract:

**Background:** Addiction and substance abuse are among the most preventable and treatable health concerns during youth. The WHO estimates that 275 million people have taken illicit drugs at least once.

**Methods:** A quasi-experimental study design of (100) students were picked at random. Students selected from two schools and the work program on the influence of drugs and their assessment based on the pretest and then take three lectures to educate them and post-test to determine the difference in their knowledge and the development of information.

**Results:** The study's findings show that the mean age of  $16.26 \pm 0.543$  years; the parent's level of education, the highest percentage, are graduates from institute and college or higher study levels, and the majority of fathers were governmental employers, whereas the mothers was a housewife.

**Conclusions:** According to our findings, the program is an effective means of increasing high school students' knowledge and understanding of drug addiction.

**Implications for Practice:** the study recommended establishing a national educational program for all school students in Iraq.

**Keywords:** Educational Program, High School Students, Knowledge, Drug Addiction, Adolescents.

### Introduction:

Scholars have been preoccupied with the issue of drug usage since time immemorial. A psychosocial problem impacts every culture and jeopardizes young people's future. Many young individuals have become psychopaths, zombies, and criminals as a result of drug addiction, which is why this topic is being researched. Previously, drug use was occasional for religious, social-ritual, and treatment objectives, and only by particular groups under certain conditions, which is now discouraged. Such goals and conditions acted as a deterrent to reliance or misuse. Parents, lawmakers, teachers, and public health professionals are all concerned about adolescent substance use and its consequences. Substance experimentation, particularly with alcohol and tobacco, is a behavior that develops from early adolescence to late adolescence (King'endo, 2015).

Experimentation is not linked to long-term impairment. Using substances at a young age, alone, or in the setting of emotional and behavioral issues is deemed problematic. Substance abuse can lead to problems at school or job, legal issues, accidents, and interpersonal issues. Over 40% of people who started drinking before the age of fourteen acquired an alcohol habit. Comparatively, only 10% of individuals who started drinking at age twenty or older developed alcoholism (Purvis & Mac Innis, 2009).

Individuals who begin using drugs at a young age are more likely to develop drug abuse issues. This study focuses on children in high school who are more prone to become addicted to drugs. Further, it argues for a framework that can help these students overcome their addiction to drugs (Mahmood et al., 2018).

Iraq is one of the poor-income, conflict-affected countries that experiences a variety of mental health issues as a result of its continual exposure to large-scale emotive events such as consecutive wars (from 1980 to present), economic blockade, organized chronic violence, and terrorism (Hussain & Abdul Satar, 2013). These hazardous conditions had a profound psychosocial impact on the Iraqi people, particularly among youngsters and the

young, who were disproportionately affected by these events, suffering diseases, psychological shock, and death (Lafta, 2015).

Iraq's geographical position also makes it vulnerable to substance abuse. This is due to the long and porous border between Iraq and Iran, which is grappling with a major and increasing drug issue (Bengali, 2016). A more recent study found that 10.3 percent of Iraqis have used (alcohol, licit, or illicit drugs) at some point in their lives (Al-Hemiery et al 2017). Adolescence is a critical life stage during which patterns of health behavior are formed before moving on to adulthood, and they undergo physical, mental, and social interactional changes. Substance abuse affects people of all ages, but it appears to be more prevalent among adolescents in high school and college. Adolescence is also characterized by heightened exploration urges and peer influences. Adolescents are therefore more vulnerable to new experiences, such as substance abuse (Al Rikabi, 2011).

According to studies, the use of drugs among Iraqi youth is on the rise. The Iraqi Community Epidemiology Work Group, for example, found an increase in the use of alcohol, prescription drugs, and illicit drugs by Iraqi adolescents. According to a recent poll, 41.7 percent of Erbil high school students smoke, which is alarming because smoking can lead to other illicit substances, including as narcotics. One of the factors that influences students' decision to use narcotics is their knowledge of the consequences of their actions. Youth abstinence has been proven to be induced by providing accurate knowledge about the detrimental effects of substance use (Mahmood, 2018).

Students' knowledge of substance abuse can be improved through school-based health education. Students who receive substance abuse education in schools are more likely to make healthy decisions about their futures, which in turn minimizes or prevent the use of substances among this demographic. There has been no previous research on a substance abuse education program for adolescents, and our method will aim to fill that void in our knowledge. Accordingly, the objective of this study was to see if an educational program for high school students could help them better understand the dangers of substance abuse and how to avoid them, so that they would be more likely to take preventative steps (Bruno & Csiernik, 2020).

### **Methods:**

*Participants:* High school students in the Iraqi city of Basrah participated in this quasi-experimental design (one group; pre- and post-tests) from November 2020 to May 2021. According to information received from the Basrah Directorate of Education, there were a total of 122 high schools in the city. One hundred and twenty-two schools were considered, but only two schools (one for boys and one for girls) were chosen using a basic random sample procedure implemented in the Microsoft Excel application. A total of 100 students between the ages of 15 and 19 years old were recruited to take part in the study as a result of this. Note that high schools in Iraq are divided into three grades, which is worth mentioning (Shalini & Nayak, 2011; Alhyas et al., 2015; Geramian et al., 2012).

*Instrumentation:* For the purpose of testing students' understanding of drug addiction, data were collected at various points in time by administering a structured questionnaire. It consists of a questionnaire that is utilized in 16 numbers, with the awareness and knowledge used in drug addiction information to them, as well as factors that are centered on the shortcut sequential steps of drug addiction.

*Procedure:* Following the receipt of approval from the school's director and the participation of students in the program, the program is implemented. Participants in the study gave written consent before taking part in the trial. During the course of the class, they were asked to complete a questionnaire. To complete the questionnaire, it took between 40 and 45 minutes to complete. Data was gathered through the administration of a knowledge questionnaire on drug addiction, and a structured instruction program was developed specifically for them. After 14 days, a follow-up test was carried out using the same technique (Shalini & Nayak, 2011).

*Data Analysis:* Statistical data analysis: data of this study analyzed descriptive by identifying the change and the percentage, frequency, standard deviation and T-test. Also means determining the outcome.

### **Results**

There were 50 (50%) males and 50 (50%) females among the 100 students who completed a pre- and post-intervention survey. The subjects' mean age and standard deviation were  $16.5 \pm 1.29$  years, with a range of 15–18 years.

The findings demonstrate that the demographic characteristics of the participants had no significant impact on their knowledge and attitude toward addiction. Furthermore, the most important causative factors in addiction, according to the participants, were: insufficient job opportunities, insufficient parental control, immorality and decadence in society, easy access to drugs, prevalence of addiction, personal tendencies, insufficient recreational facilities, initial curiosity about the effects of drugs, desire for tranquility, desire for self-confidence, pressure at school.

The results show a statistically significant increase in students' mean knowledge score from  $11.52 \pm 2.750$  to  $16.42 \pm 2.778$  ( $p < 0.000$ ) after implementing a health education program.

**Table (1) Demographic Variables of the Study Samples**

Demographic Variables	F	%
<b>Age of Student/ years</b>		
15	10	10
16	69	69
17	15	15
18	6	6
$\bar{x} = 16.5 \pm 1.29$		
<b>Father Level of Education</b>		
Illiterate	4	4
Read and write	16	16
Primary school	7	7
Secondary school	22	22
Institute and Colleague Graduation or Higher	51	51
<b>Mother Level of Education</b>		
Illiterate	10	10
Read and write	19	19
Primary school	11	11
Secondary school	25	25
Institute and Colleague Graduation or Higher	35	35
<b>Father Occupation</b>		
Government Employee	52	52
Free Works	35	35
Retired	4	4
Un Employed	9	9
<b>Mother Occupation</b>		
Government Employee	36	36
Free Works	2	2
Retired	1	1
House Wife	61	61

Table (1) indicated that (69%) of the sample are within the age of (16) years and the mean age  $16.26 \pm 0.543$  years, the parent's level of education, the highest percentage (51%), (35%) for both father and mother are graduated from institute and college or higher study level respectively. Related to the parent's occupation, the results indicated that the highest percentage (52%) of fathers is a government employee while (45%) of mothers was a housewife.

**Table (2) Knowledge of High School Students**

No.	Questions	Pre-test				Post-test			
		correct		Incorrect		correct		Incorrect	
		No.	%	No	%	No.	%	No.	%
1	Do you know what kinds of drugs?	77	77%	23	23%	89	89%	11	11%
2	Do you know the way drug prevention	85	85%	15	15%	97	97%	3	3%
3	Do you have enough awareness of the harm drugs	84	84%	16	16%	95	95%	5	5%
4	Drugs are not forbidden in Islam	92	92%	8	8%	97	97%	3	3%
5	More prone to drug addiction are the elderly	82	82%	18	18%	90	90%	10	10%
6	The most susceptible to drug category are teenagers (15-20)	91	91%	9	9%	96	96%	4	4%
7	More reasons for young people to blockbuster drugs, smoking or alcohol is the lack of religious education, family disintegration	88	88%	12	12%	94	94%	6	6%
8	Harshness family and busy parents for their children because of the reasons for resorting to addictive	91	91%	9	9%	96	96%	4	4%
9	The presence of drug users in the family pays other individuals for abuse	74	74%	26	26%	91	91%	9	9%
10	Drug abuse does not affect the actions of the individual addict negatively	91	91%	9	9%	97	97%	3	3%
11	Drug abuse affects the security of communities and economy	79	79%	21	21%	91	91%	9	9%
12	Disease caused by addiction, which is cancer of the mouth, throat, lungs and pancreas	83	83%	27	27%	97	97%	3	3%
13	The drug included form of liquid and tablet and oils, needle and powder	88	88%	12	12%	93	93%	7	7%
14	The drug use olfactory (inhalation) only	75	75%	25	25%	88	88%	12	12%
15	Common types of drugs are: crystals, heroin, cocaine, hashish	86	86%	14	14%	98	98%	2	2%
16	Signs through which revealed addict and identify it is the loneliness and neglect resorting to lies and lack of school attendance	87	87%	13	13%	97	97%	3	3%

**Table (3): Pre- and Posttest Statistical Data Analysis**

Scores	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	100	5	18	11.52	2.750
Post-test	100	9	20	16.42	2.778

**Table (4): Pre- and Post-test Statistical Data Analysis for Paired Samples**

Scores		Paired Differences					t	df	P-value
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pretest - posttest	-4.900-	1.693	.239	-5.381-	-4.419-	-20.4*	49	0.000

Results from this study show that the program's effectiveness is demonstrated by a significant increase in students' knowledge of drug addiction between pre- and post-program for the case group, as well as the majority of students' responses for the case group at post-program having good knowledge of drug addiction.

Using our findings, we may conclude that the program fulfilled its goal of increasing students' understanding and awareness of drug addiction.

### Discussion

Learning and applying new information is the first and most important step in forming healthy habits of behavior. School-based programs can assist kids better understand the consequences of substance abuse, which can help prevent or reduce substance abuse among students. Many studies show that students' lack of information about substance abuse is a significant factor in their use (Alhyas et al., 2015). When it comes to learning about substance abuse in school, students can get information from their peers, the media, their family, and their teachers. Many countries have adopted a school-based program (excluding Iraq), which is the most widely accepted source of knowledge. To find out if a health education program is beneficial in boosting student awareness of substance abuse, researchers conducted this study (Mahmood et al., 2018).

As previously documented by Geramian et al (2012) and Rockville (2009), the majority of high school students had intermediate understanding prior to the education program. A health education program has had a considerable impact on students' understanding of substance use, which supports the program's ability to improve students' understanding of substance use.

In Germany, Isensee et al. (2014) conducted a similar study and discovered the same results. After a school-based prevention program is introduced, students' understanding about smoking increases. Another study discovered a link between the implementation of an education program and students' understanding of substance use. Social workers were crucial in helping students understand the negative effects of substance abuse and how it was presented, and this outcome implies that this current program was a success, in part because to their participation (Theou et al., 2015).

This study found no statistically significant correlation between sociodemographic characteristics such gender, age, parental education or occupation status with differences in knowledge. All high school students, regardless of their background or socioeconomic status, could benefit from the existing educational model described in this study, according to the findings. According to past studies, students' comprehension has increased significantly. Substance abuse became more apparent to individuals after they attended a health education session. According to Goswami, (2015) the intervention significantly improved students' understanding of substance use at a one-week posttest.

### Implications for Practice:

The study proposed that all Iraqi school students be enrolled in a national educational program. Intervention initiatives such as health education and awareness programs should be implemented in order to keep drug abuse knowledge at an optimal level. Drug abuse education can be incorporated into their academic program.

### **Limitations:**

The study's limitation is the inability to follow up on students and assess their knowledge over a long period of time due to the use of the post-test pre-test design, which is ineffective in evaluating educational interventions in the absence of a control group. Also, the study's limitation is the inability to follow up on students and assess their knowledge over a long period, also there is little or no information regarding this geographic area because, to our knowledge, this is the first study to look into an educational intervention to improve high school students' awareness of substance use in the southern Iraq region.

### **Conclusion**

Health education about substance abuse among high school students was adopted, and this resulted in a rise in students' knowledge of the issue at hand. Because of this, the adoption of this school-based prevention program is crucial to strengthening protection and decreasing the prevalence of substance abuse among adolescents.

### **Human Subjects Approval Statement:**

This study was authorized by the University of Basrah's College of Nursing's research ethics committee. The Basrah Governorate's Directorate of Education granted written authorization. In addition, all participant students' parents provided signed informed consent.

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