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## Knowledge and attitude of the secondary school and college students about drug abuse and participation in prevention programs in Tanta city, Egypt

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**Abstract:** Adolescence is a transitional stage of physical and mental human development with substantial risk for initiating substance use. **The aim of this study** was to assess knowledge and attitude of the secondary school and college students about drug abuse and participation in prevention programs. **Design and Methods:** descriptive comparative study. The study was carried out in technical secondary school in Tanta city and Faculty of Nursing, Tanta University, Egypt. The sample consisted of two groups where their total number constituted 406 students. **The tools of the study:** The first, structured interview sheet concerning socio-demographic data and knowledge of students regarding knowledge about 1) Drug abuse, 2) Participation in prevention programs. The second tool, it was used to measure the students' attitudes towards abuse and participate in prevention programs of it. **Results:** the study reveals that about two-thirds of the college students (65.02%) had information about the drug abuse dangers through various media as a main source of information, followed by (30.54% and 21.18%) from professors and subjects at the school and family respectively, compared to (35.47%) of the secondary school students who had information from colleagues and friends, while the information from family constituted 28.08%. (74.88%) of college students and (98.03%) of the secondary school students had poor score knowledge regarding drug abuse, there was statistically significant difference found. While (63.05%) of the college students and (63.55%) of the secondary school students had fair score knowledge regarding participation in prevention programs, there wasn't difference found. The students from two groups had a negative attitude toward drug abuse which represented about (96.55%) for college students and (100%) for the secondary school students, while the college students and secondary students had positive attitude toward participation in prevention programs (87.19% and 94.09% respectively), there were statistically significant difference were found. **Conclusion:** The students from college and the secondary school students had poor knowledge regarding drug abuse and both groups had fair knowledge regarding participation in prevention programs. On the other hand, the students from two groups had negative attitude toward drug abuse and participation in prevention programs. **Recommendations:** Secondary school and college based education program as a part of school and college curriculum and through community activities involving parents and faith-based organization. There is also a need for accompanying campaigns to increase the public awareness of the rationale for the drug abuse prevention and intervention initiatives proposed by the current study. This would make it easy to plan and implement them.

**Keywords:** knowledge, attitude, secondary school, college students, drugs, abuse, prevention programs.

### INTRODUCTION

Substance abuse is becoming a dangerous ongoing community health problem; it affects almost every community and family in some way. Its uses among students have an important area of research because of its implications of early substance dependence on the future of the youth. Studies showed relatively high rates of using alcohol and other substance use among high school students and those in higher educational institutions<sup>(1-4)</sup>.

The estimated number of people who had used an illicit drug in 2012 globally was some 243 million (range: 162 million-324 million), the mainly a substance abuse belonging to the cannabis, Opioid, cocaine or amphetamine-type stimulant (ATS) group — at least once in the previous year. Which accounts 3.1% of the world population age 15 years and above. illegal drugs are mostly consumed in industrialized nations. Addicts range from the homeless to white-collar professionals, college students, commercial sex workers, rural farmers and street children. It crosses national, ethnic, religious class and gender lines. The extent of illicit drug use among men and women differs from country to country. Men are two to three times more likely than women to have used an illicit substance<sup>(5)</sup>. 348 such substances had been identified at the end of 2013, exceeding the number of

substances already under international control (234 in 2013). The categories of substances that most frequently identified have been, in order of frequency, synthetic cannabinoids, phenethylamines, synthetic cathinone, tryptamines, various plant-based substances, piperazines, phencyclidines and ketamine, as well as aminoindanes<sup>(5)</sup>.

To develop a strategy, we have to understand the pattern of abuse. In Egypt, the secondary school students use substances abuse for entertainment on social occasions and socializing with friends. They mostly used being hashish. Sedatives and hypnotics were the next most frequently abused substance of physical exhaustion, fatigue, as well as to cope with psychosocial problems or difficult working conditions as well as at the time of exams. University students tend to use hard drugs<sup>(6,7)</sup>.

Historically, in the 1990s synthetic psychoactive drug use highly increased and become the most commonly available drug after cannabis and alcoholic beverages. During the second half of the 1990s, cannabis became prevalent in the form of bango, which is prepared from leaves of Cannabis sativa. The plant is increasingly widely cultivated in Egypt, especially in the Sinai Peninsula<sup>(8)</sup>.

In a study on the lifetime prevalence of substance abuse in Egypt, a community survey as a multistage study in 8 governorates, found the lifetime prevalence of substance abuse to be 9.6 % including 3.3% experimental and social use and 4.64% regular use; 1.6% of the sample was diagnosed with substance dependence and the prevalence of substance use in males was 13.2% and 1.1% in females. The study also showed that the age at the onset of substance use range from 16 – 19 years, with cannabis being the drug most abused in the study, followed by alcohol, pharmaceuticals, opiates, and stimulants. Drug use - in particular heroin - is becoming a serious problem in Egypt, where around 6 percent of a sample of secondary school students admitted to having tried drugs. 85 percent tried Cannabis and 10 percent of opium<sup>(7,9,10)</sup>. Drugs include all substances and chemicals that should not be used for any purpose other than for medical and scientific research. If used for purposes otherwise, they are called illicit drugs<sup>(11,12)</sup>.

Teenagers try drugs are common at this age, they try so many new things. Risk taking behavior is normal among them and have a lot of jobs (reasons). It can be a symbol of status and maturity, conformity, or an attempt at coping with others<sup>(13)</sup>. The reasons for taking the drugs included wishing to try, and being seduced by drug users and drug dealers<sup>(14)</sup>. Most importantly a lack of knowledge, having inappropriate attitudes toward illegal drugs and lack of will to prevent themselves from being addicted<sup>(15)</sup>. There are some factors which facilitate young drug users, such as bad company, emotional immaturity, and lack of self-esteem. They thought wrongly that the drugs make them happy and to enjoy their lives<sup>(16)</sup>. McCrystal, Purcy, and Higgins (2007), said that antisocial behavior, hating the school, and the bad relationship with their parents/guardians caused a high level of drug abuse among young people<sup>(18)</sup>.

Generally, both personal and familial factors and the conditions of the school and the society play a vital role in drug abuse among children and adolescents. Also some factors as if one of the members, the type of parenting, interpersonal communications within the family, and the experience of teenager gets from the school<sup>(5)</sup>.

Drug abuse causes a lot of problems for the individual, family, and even countries. As for individuals they have physical, mental and psychological health problems due to drug abuse. At the family, community and national levels, drug abuse problems lead to ineffectiveness and many other problems in the society which negatively affects the quality of life of its people<sup>(19)</sup>.

The mass media helps to influence and educate people positively. When drug abuse is highlighted and glorified through publications, televisions, radios, electronic media and on-line, drug dealers and drug abusers often find opportunities to discover the latest sources of the drug<sup>(20)</sup>. Also, community agencies can participate with schools to help monitor illicit drug use patterns. Health programs are able to address prevention and intervention of drug abuse<sup>(21)</sup>.

Strategies that support people so they are able to prevent themselves from abusing drugs. They help them to promote beliefs, attitudes, and values about drug addiction. They

support self-control to prevent drug abuse and community-based programs to prevent drug abuse<sup>(19)</sup>. Several evaluations of information-based drug prevention programs have been undertaken<sup>(13, 23)</sup>. It is also possible to talk about preventing harm as well as preventing of use<sup>(13, 24)</sup>. A drug abuse prevention program has been developed with cooperation from students and their teachers. So, this study was aimed to assess the knowledge and attitude of the secondary and college students about substance abuse and participation in prevention programs in Tanta city, Egypt

#### *The aim of this study:*

The aim of the study was to assess knowledge and attitude of the secondary school and college students about drug abuse and participation in prevention programs.

#### *Research questions:*

- What are the knowledge of secondary school and college students about drug abuse and participation in prevention programs?
- What are the attitude of the secondary school and college students about drug abuse and participation in prevention programs?
- Is there a relation between knowledge and attitude of the secondary school and college students about drug abuse and participation in prevention programs?

## **MATERIALS AND METHODS**

### **MATERIALS**

#### *Design:*

The descriptive comparative study used a questionnaire survey design to assess knowledge and attitude of students about drug abuse and participation in prevention programs from secondary school and college students' perspective at one point of time.

#### *Setting:*

The study was carried out in the technical secondary school in Tanta city and students in Faculty of Nursing, Tanta University, Egypt.

#### *Subjects:*

The sample of this study consisted of two groups where their total number constituted 406 students. The first group was students from schools. Multistage, random sample was generated by selecting schools and students from the educational directorate located in Tanta city, Al-Gharbyia Governorate, Egypt. There are two educational directorates in Tanta city; the first one is called east Tanta directorate which has 7 technical secondary schools and the second one is called west Tanta directorate which include 6 technical secondary schools. The sample size was estimated to be 203 students. Thus, the system for selecting participants was as follows: 2 individual schools were randomly selected from each directorate by drawing the names of schools from a hat. After that, two individual classes of students were selected randomly from each school using a simple random sampling technique until the sample size of 203 was achieved. The second group of the sample was selected from Faculty of Nursing, Tanta University, Egypt. The students were randomly selected from the four academic years where we

chose about 50 students from each year; the number of this group was 203 students.

All of the participants received a full explanation of the objectives of the study before accepting to participate in this work. During the 2 months period of the study, four hundred and fifty were interviewed, twenty were interviewed for a pilot study, twenty-four of them were not cooperative and excluded, and the remaining four hundred and six (N= 406) who accepted and completed the questionnaire were the total studied population in this study. Their ages were 16-22 years. The study was done during the academic year 2013-2014, in Mars and April months.

#### **Tools of the study:**

To fulfill the purpose of this study two tools were used:-

##### **The first tool:-**

**Part I- Socio-demographic data of the students:** - which included: age, religion, residence, economic level of the family, the level of education the father, the mother of the students and smoking.

##### **Part II: - Knowledge of the students about:-**

**1) Drug abuse:-** as follow the satellite TV programs constantly, smoking, have enough information about the damage of drugs, source of information about the damage drug abuse, the sources of personal learning addiction, common types of substance abuse among young people, the reasons that push young people to drug abuse, the family role in pushing their children to drug abuse, the school or university role in the prevention of drug and the implications of drug abuse.

**2) Participation in prevention programs:** - which included if participated in programs for the prevention of addiction, have a desire to participate in future programs for the prevention of drug addiction to help young people and the adequacy of programs and youth prevention of addiction in the community.

##### **The scoring system of the students' knowledge:-**

###### **1) The total score of drug abuse knowledge is:-**

- Good level of knowledge  $\geq 75\%$ .
- A fair level of knowledge  $50\% - < 75\%$ .
- Poor level of knowledge  $< 50\%$ .

###### **2) The total score of participation in prevention programs is:-**

- Good level of knowledge  $75\%$ .
- Fair level of knowledge  $50\% - \leq 75\%$ .
- Poor level of knowledge  $< 50\%$ .

##### **Tool II:**

It was used to measure the students' attitudes towards addiction and participate in prevention programs of addiction through Mohammed Scale (1997) <sup>25</sup>, which it consists of 45 statements, including 15 negative statements. The scale included three dimensions (cognitive, emotional, and behavioral) each dimension included 15 statements as follows:

1. Cognitive dimension which include the following statements (1, 6, 7, 10, 11, 13, 14, 18, 24, 25, 30, 31, 32, 33, and 37).

2. Emotional dimension which include the following statements (2, 5, 8, 9, 15, 19, 22, 23, 28, 29, 34, 35, 36, 41 and 45).
3. Behavioral dimension which include the following statements (3, 4, 12, 16, 17, 20, 21, 26, 27, 38, 39, 40, 42, 43 and 44).

##### **The scoring system of the students' attitude:-**

Students' attitude was measured using 5 Likert scale; which were as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. Negative weights were reversed. Total score of attitude toward drug abuse equal = 200 points, the attitude of the students considered negative if the total score is equal or more than 114 points (equal 60%) and considered positive attitude if the total scores less than 114 points. While the total scores of participation in prevention programs were considered positive attitude if the total score is equal or more than 21 points (equal 60%) and considered negative attitude if the total score less than 21 points.

## **METHOD**

1. Ethical consideration: Before the research was initiated, legal permission was obtained from the dean of Faculty of Nursing and Directorate of Rearing end Education. The purpose of the research was explained to the students and they were instructed about their right to refuse if they wished to do so. In addition, respondents were informed that any information that they shared would be used only for scientific purposes. No information about the identity of the students was required. The purpose of the study was explained and made clear to the educators of study setting to get their co-operation and acceptance.
2. Content validity of the tool was performed by five experts in the field of nursing. The expert panels were asked to evaluate the developing questions after translation according to (a) readability, (b) language appropriateness to avoid biases, (c) ease of understanding items.
3. the pilot study was conducted on 10% from nursing students (who were excluded from the study population), to identify the obstacles and problems that may be encountered in data collection.
4. Reliability of the tool was tested by using Cronbach Alpha test it was 0.80
5. The questionnaires were distributed to nursing students ( $n = 406$ ) after finishing their lectures or lab. Before the questionnaire was administered, the subjects were thoroughly briefed about the purpose of the study and the data collection process. They were also assured of their anonymity and the confidentiality of their responses.
6. The data collection was completed during the academic year 2013-2014, in Mars and April months.
7. Responding time to all questions in the tools consumed (15-20) minute.

##### **Statistical Analysis:**

The collected data were, organized, tabulated and statistically analyzed using the statistical package of social studies (SPSS) version 17. For age, range, mean and

standard deviation were calculated. For other variables, the number and percentages were calculated.

## RESULTS

The total sample consisted of 203 students, out of these 203 school students were enrolled in technical secondary school, and 203 were college students. The mean age of school students was significantly lesser than of college students ( $17.897 \pm 1.303$  years vs.  $20.148 \pm 0.974$ ,  $t = 19.720$ ,

$p < 0.001$ ). Compared to school students, the average family income was slightly in college sample (87.68% vs. 83.74%,  $X^2 = 2.544$ ,  $p = 0.280$ ), but their difference was not statistically significant. Regarding the level of education of the fathers and mothers of the students, there were statistically significant between two groups as ( $X^2 = 25.167$ ,  $p < 0.001$ ,  $X^2 = 37.537$ ,  $p < 0.001$  respectively). 25.12% of the secondary school students were smokers compared with 7.39% of college students.

Table (1):- The knowledge of the students about the source of information about the damage drug abuse and sources of personal learning addiction (n= 406).

The source of information and personal learning addiction		College N =203		Secondary school N=203		Chi-Square	
		N	%	N	%	X <sup>2</sup>	P-value
*The source of information about the dangers of drug abuse	Colleagues and friends	45	22.17	72	35.47	8.753	0.003*
	Family	62	30.54	57	28.08	0.297	0.586
	Various media	132	65.02	49	24.14	68.679	<0.001*
	Professors and subjects at the school	62	30.54	22	10.84	24.017	<0.001*
	Religious and scientific lectures	50	24.63	11	5.42	29.343	<0.001*
	Professors and subjects at the university	43	21.18	5	2.46	34.117	<0.001*
*Sources of personal learning drug abuse	Friends and colleagues	123	60.59	108	53.20	2.260	0.133
	Media	71	34.98	48	23.65	6.289	0.012*
	movies	95	46.80	52	25.62	19.717	<0.001*
	Other	17	8.37	10	4.93	1.944	0.163

\* More than one answer

**Table (1):-** shows the distribution of the knowledge of the students about the source of information about the drug abuse dangers and sources of personal learning drug abuse. It was found that about two-thirds of college students (65.02%) had information about the drug abuse dangers through various media as a main source of information, followed by (30.54% and 21.18%) from professors and subjects at the school and family respectively, compared to

(35.47%) of secondary school students who had information from colleagues and friends, while the information from family constituted 28.08%. Regarding the sources of personal learning drug abuse for college and the secondary school students, it was observed that (60.39% and 33.20% respectively) were colleagues and friends, followed by movies which constituted about (46.80%).

Table (2) The knowledge of the students about the common substance abuse among young people and the implications of drug abuse (n= 406).

The common substance and the implications of drug abuse		College N =203		Secondary school N=203		Chi-Square	
		N	%	N	%	X <sup>2</sup>	P-value
*The common substance abuse among young people	Cannabis	132	65.02	118	58.13	2.040	0.153
	Opium and its derivatives	42	20.69	19	9.36	10.205	0.001*
	Ecstasy	80	39.41	31	15.27	29.770	<0.001*
	Steroids	68	33.50	42	20.69	8.429	0.004*
	Heroin	55	27.09	10	4.93	37.092	<0.001*
	Cocaine	40	19.70	10	4.93	20.528	<0.001*
	Volatile Matter	26	12.81	17	8.37	2.107	0.147
*The implications of drug abuse	Lack of sleep	102	50.25	47	23.15	32.072	<0.001*
	Loss of appetite	113	55.67	36	17.73	62.862	<0.001*
	Inability to concentrate in the study	144	70.94	119	58.62	6.747	0.009*
	physical weakness	112	55.17	86	42.36	6.664	0.010*
	Rejection by friends	74	36.45	17	8.37	46.018	<0.001*
	the inability to act duties	90	44.33	62	30.54	8.245	0.004*

<b>Absence frequency</b>	74	36.45	17	8.37	46.018	<0.001*
<b>conflict with teachers</b>	76	37.44	26	12.81	32.733	<0.001*
<b>Conflict with friends</b>	94	46.31	31	15.27	45.877	<0.001*
<b>Poor academic performance</b>	94	46.31	8	3.94	96.839	<0.001*
<b>conflict with parents</b>	61	30.05	17	8.37	30.723	<0.001*
<b>Financial problems</b>	106	52.22	29	14.29	65.797	<0.001*

\* More than one answer

**Table (2)** illustrates the knowledge of the students about the common substance abuse among young people and the implications of drug abuse it was found that about two-thirds of college students (65.02%, 39.4%1, 33.50%) reported that the most common type was Cannabis, Ecstasy, Steroids respectively, while (58.13%, 20.69%, 15.27%) of the secondary school students also reported Cannabis, Steroids, and Ecstasy respectively. Regarding the implications of drug abuse about more than half (70.94%,

55.67%, 55.17%, 52.22%) of college students stated that the inability to concentrate in the study, loss of appetite physical weakness and financial problems respectively. while for more than half (58.62%) of the secondary school students reported that an inability to concentrate on the study is first, followed by physical weakness (42.36%), the inability to act duties (30.54%) and lack of sleep (23.15%). A significant difference was found between college secondary students in inability to concentrate in the study.

Table (3):- The knowledge of the students about the reasons that push young people to drug abuse (n=406).

*The reasons that push young people to drug abuse	College N =203		Secondary school N =203		Chi-Square	
	N	%	N	%	X <sup>2</sup>	P-value
Increased leisure time	64	31.53	12	5.91	43.773	<0.001*
Peer pressure	103	50.74	49	24.14	30.665	<0.001*
The absence of family supervision	86	42.36	30	14.78	36.509	<0.001*
Lack of understanding between children and parents	63	31.03	12	5.91	42.538	<0.001*
The boredom of the study and the lack of places for recreation	53	26.11	9	4.43	36.854	<0.001*
Not to satisfy the needs of the youth psychological and social	74	36.45	4	1.97	77.760	<0.001*
Misconceptions about addiction	60	29.56	13	6.40	36.894	<0.001*
Family breakdown	116	57.14	72	35.47	19.179	<0.001*
The weakness of religious education	119	58.62	35	17.24	73.818	<0.001*
Frequent pampering	75	36.95	10	4.93	62.868	<0.001*
Lack of awareness about danger of the drug	54	26.60	25	12.32	13.217	<0.001*
The father's absence from home	61	30.05	24	11.82	20.371	<0.001*
a tendency of parents to drug use	68	33.50	18	8.87	36.882	<0.001*
Wrong breeding methods and the excess of cruelty and neglect	68	33.50	16	7.88	40.588	<0.001*
No control on young	73	35.96	17	8.37	43.184	<0.001*
Not to discuss matters with the young man	55	27.09	9	4.43	39.250	<0.001*

\* More than one answer

The knowledge of the students about the reasons that push young people to drug abuse presented in **Table (3)** it was observed that the most reasons mentioned by the college students were weakness of religious education (58.62%), family breakdown (57.14%), peer pressure (50.74%), the absence of family supervision (42.36%), not satisfying the needs of the youth psychological and social (36.45%),

compared to of secondary school students who reported that the most reasons of drug abuse were a result of family breakdown (35.47%), peer pressure (24.14%), the weakness of religious education (17.24%). There were statistically significant differences between two groups regarding all reasons of drug abuse (P =<0.001).

Table (4):- The knowledge of the students about the participation in programs, the desire to participate in future and the adequacy of programs and the role of the school or university in the prevention of drug abuse (n=406).

*The Participation in programs prevention of drug abuse		College N =203		Secondary school N=203		Chi-Square	
		N	%	N	%	X <sup>2</sup>	P-value
The participation in programs for the prevention of addiction	Yes	10	4.93	10	4.93	0.566	0.753
	No	124	61.08	131	64.53		
	Did not have the opportunity	69	33.99	62	30.54		
The desire to participate in future programs for the prevention of drug addiction	Yes	151	74.38	166	81.77	3.238	0.072
	No	52	25.62	37	18.23		
The adequacy of programs prevention in the community	Inadequate programs	163	80.30	151	74.38	2.024	0.155
	Adequate of programs	40	19.70	52	25.62		
The role of the school or university in the prevention of drug abuse	The development of religious faith	94	46.31	91	44.83	0.089	0.765
	The development of young people's awareness of the dangers of addiction	138	67.98	82	40.39	31.115	<0.001*
	provide different activities	57	28.08	36	17.73	6.151	0.013*
	recreation for young people	63	31.03	9	4.43	49.231	<0.001*

\* More than one answer

**Table (4):-** presents the knowledge of the students about the participation in programs, the desire to participate in future and the adequacy of programs and the role of the school or university in the prevention of drug abuse. It was found that the majority of the students (61.08%) college compared to (64.53%) of secondary school students not participated in any programs for the prevention of addiction. Also (74.38%) of the college students compared to (81.77%) of the secondary school students not desired to participate in future programs prevention of drug addiction, there were no statistically significant differences found. While regarding to

the role of the school or university in the prevention of drug abuse more than two-thirds (67.98%) of the college students stated that the development of young people's awareness of the dangers of addiction is the main role followed by the development of religious faith (46.31%), and recreation for young people (31.03%), compared to secondary school students who mentioned that the development of religious faith (44.83 %), the development of young people's awareness of the dangers of addiction (40.39%) and provide different activities (17.73%) were the main role of schools, there were statistical significant differences found.

Table (5) Mean and standard deviation of knowledge regarding drug abuse participation in prevention programs, attitude about drug abuse and sharing in prevention programs among college and secondary school students.

Items	College N =203			Secondary school N=203			T-Test	
	Mean	±	SD	Mean	±	SD	t	P-value
Knowledge regarding drug abuse	24.089	±	12.584	12.778	±	4.200	12.147	<0.001*
Knowledge regarding participation in prevention programs	1.990	±	0.645	2.123	±	0.652	-2.066	0.039*
Attitude regarding drug abuse	139.813	±	19.663	145.005	±	11.208	-3.269	0.001*
Attitude regarding participation in prevention programs	24.079	±	3.565	24.734	±	2.566	-2.125	0.034*

**Table (5)** shows the mean and standard deviation of knowledge regarding drug abuse, participation in prevention programs, and attitude about drug abuse and participation in prevention programs among college and secondary school students. The mean  $\pm$ SD (24.089  $\pm$  12.584) of knowledge regarding drug abuse among college students was higher than the mean  $\pm$ SD (12.778 $\pm$ 4.200) among secondary school students, while secondary school students had knowledge more than college students regarding participation in prevention programs, attitude regarding drug abuse and participation in prevention programs which the mean  $\pm$ SD ( 2.123  $\pm$  0.652, 145.005 $\pm$ 11.208 and 24.734  $\pm$ 2.566 respectively ), statistically significant difference were found.

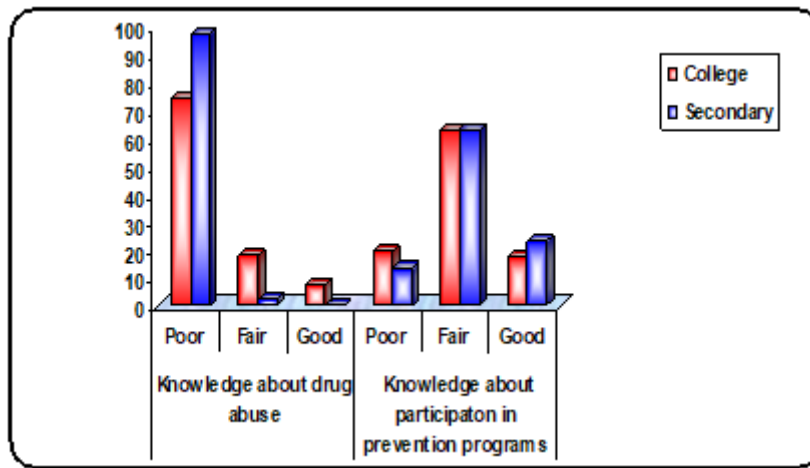


Figure (1) the total knowledge of the college and secondary school students regarding drug abuse and sharing in prevention programs

The total score knowledge of the college and secondary school students regarding drug abuse and participation in prevention programs is illustrated in figure (1), where (74.88%) of college students and (98.03%) of the secondary school students had poor knowledge regarding drug abuse,

there was statistically significant difference found as  $p < 0.00$ . While (63.05%) of college students and (63.55%) of the secondary school students had fair knowledge regarding participation in prevention programs there wasn't difference found as  $p = 0.118$ .

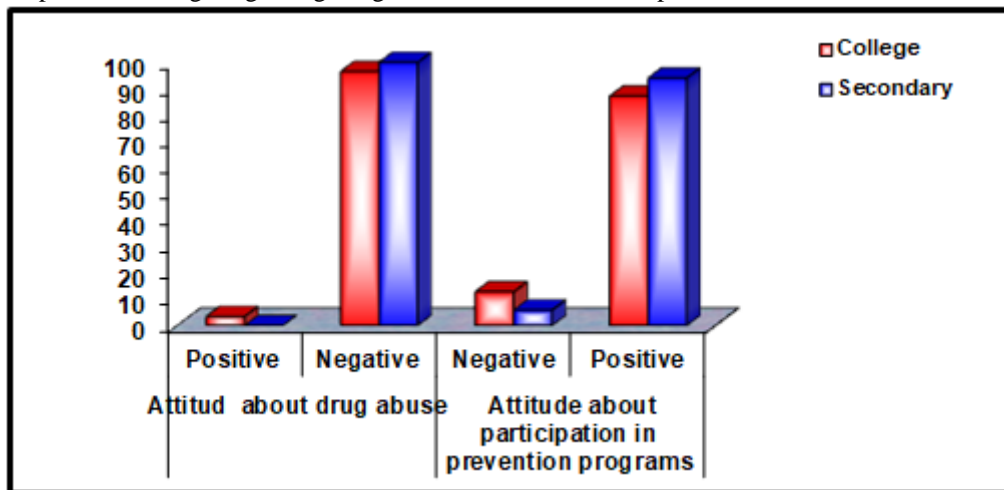


Figure (2) Total attitude of the college and secondary school students regarding drug abuse and participation in prevention programs.

Figure (2) shows the total attitude of the college and secondary school students regarding drug abuse and participation in prevention programs, which shows that the students from two groups had a negative attitude toward drug abuse which represented that (96.55%) for college students and (100%) for the secondary school students.

Regarding the participation in prevention programs, the figure presents that the college students and the secondary students had a positive attitude toward participation in prevention programs (87.19% and 94.09% respectively). There was statistically significant difference were found.

Table (6) Relation between economic level of the family and of knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students.

Items	Economic level of the family										
	High level			Average level			Low level			ANOVA	
	Mean	±	SD	Mean	±	SD	Mean	±	SD	F	P-value
Knowledge regarding drug abuse	18.541	±	13.316	18.448	±	10.659	18.000	±	11.675	0.018	0.982
Knowledge regarding participation in prevention programs	2.189	±	0.739	2.037	±	0.632	2.143	±	0.793	1.104	0.333
Attitude regarding drug abuse	137.649	±	16.238	142.943	±	16.333	141.952	±	12.663	1.803	0.166
Attitude regarding participation in prevention programs	23.054	±	2.697	24.500	±	3.093	25.238	±	3.700	4.456	0.012*

As regard the relation between the economic level of the family and knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students. It was clear from **Table (6)** that there were no statistically significant differences between knowledge regarding drug abuse and the different levels of the economic standard of students as mean  $\pm$  SD 18.541 $\pm$ 13.316, 18.448 $\pm$ 10.659, 18.000 $\pm$ 11.675 for high, average, low income respectively as P = 0.982. Regarding Knowledge regarding participation in prevention programs,

there were no statistically significant differences between knowledge regarding drug abuse and the different levels of economic standard of students as mean  $\pm$  SD 2.189  $\pm$  0.739, 2.037 $\pm$ 0.632, 2.143 $\pm$ 0.793675 for high, average, low income respectively as P= 0.333.the results reveal also that there were no statistically significant differences between attitude regarding drug abuse and the economic level of the family as P=0.166, attitude regarding participation in prevention programs its observed that low level had high participation mean  $\pm$ SD (25.238  $\pm$  3.700 ) and significant difference were found as P=0.012.

Table (7) Relation between the father's level of education and knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students.

Items		The father's level of education					ANOVA	
		Illiterate	Reads and writes	Basic education	Secondary	University	F	P-value
Knowledge regarding drug abuse	Mean	16.143	15.935	21.344	21.211	16.962	4.643	0.001*
	$\pm$ SD	8.017	8.106	9.751	12.421	11.366		
Knowledge participation in prevention programs	Mean	2.036	1.984	2.016	2.021	2.127	0.797	0.528
	$\pm$ SD	0.693	0.779	0.577	0.668	0.607		
Attitude regarding drug abuse	Mean	141.393	139.000	143.891	144.905	141.822	1.471	0.210
	$\pm$ SD	18.400	15.467	16.121	16.958	15.512		
Attitude participation in prevention programs	Mean	24.821	23.419	24.656	25.095	24.204	3.168	0.014*
	$\pm$ SD	3.400	3.076	3.497	2.787	3.027		

**Table (7)** Represents relation between the father's level of education and knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students. It was showed that the fathers of the students who had basic education their mean  $\pm$ SD (21.344  $\pm$ 12.421) had high knowledge regarding drug abuse more than other levels of education, significant difference was found between all levels of education. Regard knowledge regarding participation in prevention programs it was observed that the fathers who had university level their mean  $\pm$  SD(2.127  $\pm$  0.607 ) had willing

participate more in prevention programs than illiterate, reads and writes, basic education and secondary level, there was no statistically significant differences found. Attitude regarding drug abuse the fathers with secondary education their mean  $\pm$ SD (144.905  $\pm$  16.958) had high attitude, no statistically significant differences were found. Attitude regarding participation in prevention programs the fathers of the students with secondary education their mean  $\pm$  SD (25.95  $\pm$ 2.787) had high attitude toward participation in prevention and there significant differences were found as P= 0.014

Table (8) Relation between the mother's level of education and knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students.

Items		The mother's level of education					ANOVA	
		Illiterate	Reads and writes	Basic education	Secondary	University	F	P-value
Knowledge regarding drug abuse	Mean	17.328	16.073	19.661	22.138	16.130	5.691	<0.001*
	SD	9.602	7.423	9.433	14.037	10.065		
Knowledge regarding participation in prevention programs	Mean	1.938	2.073	1.932	2.083	2.174	1.894	0.111
	$\pm$ SD	0.687	0.699	0.640	0.640	0.586		
Attitude regarding drug abuse	Mean	142.172	142.220	141.322	145.211	140.120	1.353	0.250
	$\pm$ SD	14.914	16.290	18.445	15.191	16.454		
Attitude regarding participation in prevention programs	Mean	24.250	24.085	24.441	25.073	23.989	1.935	0.104
	$\pm$ SD	3.172	3.171	3.212	2.798	3.270		



The relation between the mother's level of education and knowledge regarding drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students are presented in **Table (8)**. Mothers of students with secondary education had high knowledge regarding drug abuse, knowledge regarding participation in prevention

programs, attitude regarding drug abuse and attitude regarding participation in prevention programs as mean  $\pm$  SD (22.138  $\pm$  14.037, 2.83  $\pm$  0.640, 145.211  $\pm$  15.191 and 25.073  $\pm$  2.798 respectively). Significant statistically differences were found regard knowledge about drug abuse as  $P < 0.001$ .

Table (9) the correlations between the mother's knowledge about drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students.

Correlations	Knowledge regarding drug abuse		Knowledge regarding sharing in prevention programs	
	r	P-value	r	P-value
Attitude about drug abuse	0.088	0.076		
Attitude about sharing in prevention programs			0.025	0.614

**Table (9)** presents the correlation between knowledge about drug abuse, participation in prevention programs, attitude about drug abuse and participation in prevention programs among college and secondary school students. The results reveal that there was not a correlation between knowledge about drug abuse and participation in prevention programs with attitude about drug abuse and the attitude regarding participation in prevention programs where  $r = 0.088$  and  $P = 0.076$ ,  $r = 0.025$  and  $P = 0.614$  respectively.

## DISCUSSION

The adolescent period is a time of vulnerability during which internal conflict caused by hormonal changes, the influence of peer group, and the attitude and practices of significant adults in their lives such as teachers and parents, societal pressure, norms and values and economic situations all contribute to mold the character and behavioral patterns that are carried onto adulthood. They are a high-risk group, more likely to be engaged in risky sexual and drug (26).

In this study, the mass media was largely the source of information for the college and secondary students, a finding in consistent with the similar to findings from Bangladesh, India, and Africa (27,28,29). Also, these findings agree with those of **Salim and Siddiqui (2015)**, (30) who found among the secondary school students in Jizan, Kingdom of Saudi Arabia, that the internet has surpassed TV as the major source of information when compared to past studies. Regarding the other sources of information, around one-third of the college students stated that the family had a role in learning the drug abuse and the colleagues and friends represented around one-quarter, while for secondary school the colleagues and friends were important sources for them, this indicates the influence of peer group in the adolescent stage. Parents, friends, and teachers (**Haddad et al., 2010**) (31) and media such as radio or television (**Tsering et al., 2010**) (28); **Haddad et al., 2010** (31); **Nebhinani et al., 2012** (32) are reported to be major source of information among adolescents.

With regard to drugs on the prohibited list, there were 3 drugs that respondents appeared to be most knowledgeable

about them, it was found that about two-thirds of college students reported that the most common type was Cannabis, Ecstasy, Steroids respectively, while the secondary school students also reported Cannabis, Steroids, and Ecstasy respectively. According to the national report in Egypt, cannabis is the most drug misused and alcohol is a distant second followed by non-prescribed drugs and opium. In accordance to **Abianwu (2005)** (33), who stressed that cannabis is by far the most commonly used illicit drug with the usage of 4% of the world population compared to 1% for all other drugs combined. **Oshodi et al., (2010)** (34), also explained in their study that marijuana is the most commonly used substance followed by tobacco. They further confirmed that in the United Kingdom, cross-sectional studies have shown that among students aged 15-16 years, at least 40% had used illicit drugs, mainly cannabis, at some time during their lives.

Regarding the implications of drug abuse, more than half of the college students stated that the inability to concentrate on the study, loss of appetite physical weakness and financial problems respectively, while for more than half (58.62%) of the secondary school students reported that inability to concentrate on the study is first, followed by physical weakness (42.36%), the inability to act duties (30.54%) and lack of sleep (23.15%). In the same context **Ahmed et al., (2002)** (27), found that majority of participants were aware of the harmful effects of substance/drug abuse on society and human body as well as negative image of addicts in society, linked substance/drug abuse to disturbed family peace, and cited it to be responsible for poor academic performance.

The current study demonstrated that the college students claimed that the leading reasons that push adolescents to drug were weakness of religious education, family breakdown, the contact with unhealthy guys and the absence of family supervision respectively, compared to the secondary school students who reported that the most reasons of drug abuse were a result of family breakdown, peer pressure, the weakness of religious education and the absence of family supervision. In spite of all the listed reasons that could a predispose one to drug abuse, these

findings might be due to decrease the role of parents and knowledge about religious. These two factors are considered the main fort safety for young people. This in agreement with **Tulu and Keskis (2015)**<sup>(35)</sup>, concerning the causes of alcohol and drug abuse among Mekelle University, College of Social Sciences and Languages (CSSL), the findings discovered that, the foremost important causes are; peer pressure, academic adjustment related factors, psychological, social factors, environmental factors and socio-economic factors.

The study also revealed that the bulk of students did not participate in a program for the prevention of substance abuse. This may less knowledgeable about programs thus, it was surprising that 74.38% and 81.77% from the college and secondary students respectively have desired to participate in future programs for the prevention of drug addiction. In a study done by **Nebhinani et al., (2013)**<sup>(36)</sup>, in India, they stated that prevention-based programs are necessary to decrease demand through informing people about the relative risks of dependence on numerous illegal drugs depend on the present knowledge of these risks.

Our findings showed that the majority of the college and secondary students had a poor score of total knowledge regarding drug abuse. This indicated that they need much more information about drug abuse from governmental and nongovernmental organization to promote their health education. In contrast to the findings of our results **Masibo, et al., (2013)**<sup>(37)</sup>, who found that all the participants were secondary school students/pupils had adequate knowledge on psychoactive substances. The students thought of themselves to be sufficiently enlightened concerning the drugs, their effects and therefore the issues related to their use.

In this study, the college and secondary school students have a negative attitude regarding drug abuse and a positive attitude regarding the sharing in prevention programs. The findings of this study match with the finding of other research by **Heydarabadi et al., (2014)**<sup>(38)</sup>, who mentioned that more than 90 % of students had a moderate and a good attitude towards drugs, i.e. they believed that drugs are harmful and have side effects. Similar was found in Bangladesh where participants appeared to be socially conscious in their attitude towards substance/drug abuse. Majority of them were aware of the harmful effects of substance/drug abuse on society and human body.<sup>7</sup>

The current study revealed that the students who had high economic level of the family had a high level of knowledge regarding drug abuse as mean  $\pm$  S.D 18.541  $\pm$  13.316, while those who had low family economic level had high-level attitude regarding the sharing in prevention programs as mean  $\pm$  S.D 25.238  $\pm$  3.700. This is in agreement with **Siddiqui and Salim (2016)**<sup>(39)</sup>, stated that students with stable and comfortable living status (higher family income and parents living together) showed the higher level of substance abuse awareness.

The fathers of the students who had basic education had high knowledge regarding drug abuse more than other levels of education, Regard knowledge about the participation in

prevention programs it was observed that the students who their fathers had university level had willing to participate more in prevention programs than illiterate, reads and writes, basic education and secondary level. Regarding the attitude toward drug abuse and willing to participate in prevention programs the fathers of the students with secondary education had a high attitude. Also, the mothers of students with secondary education had high knowledge regarding drug abuse, attitude regarding drug abuse and attitude regarding participation in prevention programs. In the same context the results of a study done by **Siddiqui and Salim (2016)**<sup>(39)</sup>, who revealed that Students whose fathers were more educated (intermediate school postgraduate level) were at lower risk for having insufficient awareness regarding substance abuse opposed to those whose fathers were illiterate. In the same contexts, the students whose their mothers were more educated (primary school-postgraduate level) were at less risk for having insufficient awareness regarding drug abuse compared to those whose their mothers were illiterate.

The results of this study revealed that there was not a correlation between knowledge about drug abuse and participation in prevention programs with the attitude about drug abuse and attitude regarding participation in prevention programs where  $r = 0.088$  and  $P = 0.076$ ,  $r = 0.025$  and  $P = 0.614$  respectively. Knowledge and awareness about drug abuse are necessary in order to educate the students to prevent drug abuse. Clearly understanding the negative effects of substance abuse can change attitudes and reduce the risk of behavior leading to alcohol abuse (**Planken & Boer, 2010**)<sup>(40)</sup>. Therefore providing appropriate information to improve students' understanding about drug misuse is an important issue of drug abuse prevention.

## CONCLUSION

It was concluded from this study that the knowledge of the students about the source of information about drug abuse was through various media for college students, while friends and colleagues are the main sources for secondary school students. Friends and colleagues are sources of personal learning drug abuse. Cannabis is the most common substance abuse among young people. On the other hand, the most implication for the students is an inability to concentrate on the study. Contact with bad guys, family breakdown, and weakness of religious education for studies students are the reasons that push young people to drug abuse. The students from college and the secondary school students had a poor knowledge regarding drug abuse and both groups had fair knowledge regarding participation in prevention programs. On the other hand, the students from two groups had a positive attitude toward drug abuse and participation in prevention programs.

## RECOMMENDATION

- Our main recommendation is to address this phenomenon, and increase the awareness of young people regarding danger, and psychological and social implications through concerning starting the preventive education programs for students in first years of study protect them from falling into the danger of drugs.

- Secondary school and college based education program as part of school and college curriculum and through community activities involving parents and faith-based organization .
- The existence of positive attitude towards drug abuse, this calls for future studies to discuss the possibilities to change these attitude, in order to serve this significant slide.
- There is also a need for accompanying campaigns to increase the public awareness of the rationale for the drug abuse prevention and intervention initiatives proposed by the current study. This would make it easy to plan and implement them.
- Establish the training programs for health visitors, specialists and social workers in all sectors of education (public and private and university) to emphasize the guidance and counseling as methods of addressing drug abuse in college and schools, their effectiveness in addressing the problem should be investigated. This would contribute towards strengthening guidance and counseling in schools.

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