

Knowledge on the Effects of Drug Abuse among the Students In A Selected High School In Dhaka City

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Abstract

This was a cross-sectional study carried out among 120 students of National Ideal School in Dhaka city during September '2012 to November '2012. The objective of the study was to assess the level of knowledge about the effect of drug abuse. Students were selected by purposive sampling technique. A pretested semi structured questionnaire was used and data were collected by self-administered method. Analysed by computer program SPSS. On analyses, the students were found to have very poor knowledge regarding the causes of drug abuse, 50% stated about unemployment, 48% stated about drug abuse friend, and 39% due to illiteracy. About the type of various drugs- 74% mentioned the name of Heroin, 73% Phensidyle, 48% cigarette and 31% stated the name of Ganja. Knowledge about various diseases- 80% mentioned death, 63% said hepatitis-B, 34% stated stroke. Regarding the social effect- 45% stated about increased fatehood, 34% about increased dacoity, 27% mentioned about increased crime. Knowledge about the familial effect, 67% mentioned about familial disturbance, 53% about waste of money. Knowledge regarding the health effect, 46% mentioned about red eyes, 36% mentioned about vertigo, 48.% mentioned about malnutrition, 39% about damage of other organ. Knowledge about the mental effect, 56% mentioned about become angry, 54% about abnormal behaviour: 69% of the respondents said about the consequences of drug abuse, is unusual death, 58% through out of family, 30% damage of other organ. From above data the overall knowledge scoring was, poor knowledge 84.2%, average knowledge 15.8% and no good knowledge were scored by the students. It may be concluded that the secondary school students have poor knowledge about the effect of drug abuse. Therefore heath education program in the school on drug abuse should be arranged from the secondary school level.

Key Words: Drug abuse, smoking/ tobacco use, health effect, social effect, mental effect, health education, behaviour, level of knowledge, consequence of drug abuse.

Introduction

Many people do not understand why or how other people become addicted to drugs. In reality, drug addiction is a complex disease, and quitting takes more than good intentions.

Through scientific advances, we know more about how drugs work in the brain than ever, and we also know that drug addiction can be successfully treated to help people stop abusing drugs and lead productive lives. Drug abuse and addiction have negative consequences for individuals and for society.

Drug Abuse:

Abuse is a chronic, often relapsing brain disease that causes compulsive drug seeking and use, despite harmful consequences to the addicted individual and to those around him or her. Research shows that combining addiction treatment medications with behavioural therapy is the best way to ensure success for most patients. Similar to other chronic, relapsing diseases, such as diabetes, asthma, or heart disease, drug addiction can be managed successfully.

Effect of drugs on brain:

Drugs contain chemicals that tap into the brain's communication system and disrupt the way nerve cells normally send, receive, and process information. There are at least two ways that drugs cause this disruption:

- (1) by imitating the brain's natural chemical messengers and
- (2) by over stimulating the "reward circuit" of the brain.

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Some drugs (e.g., marijuana and heroin) have a similar structure to chemical messengers called neurotransmitters, which are naturally produced by the brain. This similarity allows the drugs to “fool” the brain’s receptors and activate nerve cells to send abnormal messages. Other drugs, such as cocaine or methamphetamine, can cause the nerve cells to release abnormally large amounts of natural neurotransmitters (mainly dopamine) which is needed to shut off the signalling between neurons. Long-term abuse causes changes in other brain chemical systems and circuits as well.^{1,2,3}

The use and abuse of drugs has been known since antiquity. Early in search for useful materials in nature, man discovered certain products that relieve pain by taking them orally or applying locally. The drug was used for medicinal purpose by the ancient Egyptians, Persians and Greeks.⁴

Cultural and social factors are of real importance in understanding the abuse of drug and it is related to the community attitude towards drug use habit. But the reason for current trends towards drug abuse is often presented as a consequence of modern life. Despite the long history of drug and its use in the society, the use of epidemiological approach to the study of this complex public health problem began in earnest less than two decades ago.^{5,6}

The most common drug abuse in Bangladesh is tobacco, which occupies almost 30% of drug market. Tobacco smoking stands as the major cause of cardiac problem in Bangladesh. Unfortunately the government of Bangladesh still could not recognize tobacco as a drug for multiple reasons. The second, third and fourth highest numbers of population abuse alcohol, sedatives/tranquilizers and cannabis respectively. Majority of the drug users (more than 75%) are of the group from 20-29. So, it can be generalized that drug abuse in Bangladesh is primarily the problem of youth. Married people are found more involved in drug abuse. Non-Muslim lower class population are the most vulnerable group of drug abuse. The upper and upper middle class were the leading group of population for drug abuse at the beginning of the epidemic. But at present the lower income group of population, specially, the rickshaw pullers, motor vehicle workers, day labours and small business men, are most vulnerable group for drug abuse. More than 40% have secondary or higher secondary level of education.⁷

Many road accidents occur under the influence of alcohol each year, numerous deaths occur from the toxic effect of alcohol, over doses of sedatives or opiates.^{8,9}

If preventive steps are not taken at this early stage of the problem, it would ultimately turn into a serious health and social problem for all of us. Drug addiction causes physical, mental and psychological problem like drug dependence, personality change, work failure, decline in academic performance, ill health, associated diseases like Hepatitis B, acute bacterial endocarditis or even AIDS. It is also well associated with crimes of various degree for the purpose of procuring money to sustain the costly habits.¹⁰

There is no doubt that smoking and drug abuse is slow motion suicide. Drug abuse and cigarette smoking is directly associated with the incidence of certain killer disease and crimes of various degree. An early identification of the extent of the menace might be helpful in controlling smoking and drug addiction and prevention of the problem in the country. So it was decided to undertake a study among the high school children to know the level of knowledge and understand the role of health education in augmenting the knowledge in this problem and development a drug free and smoking free health society. Though this study is of small scale, it is hoped that it will be able to expand our knowledge about the hazards of drug abuse. It will be helpful for future planning for prevention and control of the menace of drug abuse.¹¹

Materials and Methods

Study design:

The study is a descriptive type of cross-sectional study carried out among the male students of National Ideal School of class VIII, IX & X of Khilgaon area in Dhaka city. The total duration of the study was September’12 to November’12.

Selection of the study place:

- Students were interested about the topic.
- The teachers of the school willingly gave permission.
- They are vulnerable to drug abuse.

Sample Size:

The sample size was 120. All the attending students of the designated classes were included in the study.

Inclusion criteria:

- Only the interested students were included in the study.
- Only male students were included as they are more vulnerable because they are exposed to urban environment.

Exclusion criteria:

- Female students were excluded as they were least interested about the topic.

Sampling method:

Purposive sampling was used who were willing to take part in the study.

Research instrument and method of data collection:

Research instrument was questionnaire. The questionnaire was prepared on the basis of the objective and the variables of socio-demographic and knowledge related to the effect of drug abuse. The questionnaire was semi-structured, simple, easy to understand and in Bangla. The questionnaire was pretested in a small group of students of another school for feasibility and acceptability.

Data Collection:

At first a brief introduction was given at the beginning of the data collection to explain the purpose and importance of the study and seeking cooperation. They were informed about the topic. Then the questionnaire was distributed among the students. After half an hour the filled in questionnaires were taken back from the students. Data were collected by self-administered method.

Data processing & Analysis:

After collection of information through questionnaire, data were checked and verified on the spot. Then the results were tabulated and analysed with the help of Computer program SPSS windows version 17.

Results

A total of 120 students were studied to assess their knowledge about the impact of drug abuse on health and society. The data were collected with a specific pre-designed and pre-tested questionnaire and self-administered method. The results of the study are described as follows:

Table - 1: Distribution of the students by class

Class	Frequency	Percentage
VIII	32	26.7
IX	43	35.8
X	45	37.5
Total	120	100.0

Table 1 shows the distribution of students by class. Out of 120 students 26.7 % were in class VIII, 35.8 % were in class IX and 37.5 % in class X.

Table - 2: Distribution of the students by age

Age in Years	Frequency	Percentage
11	8	6.7
12	16	13.3
13	29	24.2
14	38	31.7
15	19	15.8
16	10	8.3
Total	120	100.0

Table 2 shows the distribution of the students by age. Out of 120 students, 11 years were 6.7 %, 12 years were 13.3 %, 13 years 24.2 %, 14 years 31.7%, 15 years 15.8%, 16 years 8.3% respectively.

Table - 3: Distribution of the students by father's occupation

Occupation	Frequency	Percentage
Service	16	13.3
Business	98	81.7
Farmer	0	0.0
Labor	4	3.3
Others	2	1.7
Total	120	100.0

Table 3 shows the distribution of the students by father's occupation. Out of 120 fathers, 13.3% were service holders, 81.7% business men, 3.3% labors and 1.7% in other professions.

Table - 4: Distribution of family monthly income of the students

Income in Tk.	Frequency	Percentage
Tk. 5000-15000	23	19.2
Tk. 16000-25000	53	44.2
Tk. 26000-35000	19	15.8
Tk. 36000-45000	3	2.5
Above Tk. 45000	8	6.7
Not mentioned	14	11.7
Total	120	100.0

Table 4 shows the distribution of family monthly income of the students. Out of 120 students, the family income of Tk-5000-15000 were 19.2%, Tk-16000-25000 were 44.2%, Tk-26000-35000 were 15.8%, Tk-36000-45000 were 2.5%, above Tk-45000 were 6.7% and 11.7% did not mention their family income.

Table - 5: Distribution of students knowledge about causes of drug abuse (n=120)

Causes of drug abuse	Frequency	*Percentage
Depression	30	25.0
Family dispute	32	26.7
Illiteracy	47	39.2
Unemployment	60	50.0
Drug abused friend	58	48.3

*Total exceeds 100 due to multiple responses

Table 5 shows the distribution of students knowledge about causes of drug abuse. Out of 120 respondents, 25.0% said that depression causes drug abuse, 26.7% about family dispute, 39.2 about illiteracy, 50.0% about unemployment, 48.3% about drug abused friend.

Table - 6: Distribution of students knowledge about the type of drug abuse

Drugs	Frequency	*Percentage
Phensidyle	87	72.5
Pathedine	15	12.2
Heroine	89	74.2
Morphine	9	7.2
Cannabis (Ganja)	37	30.8
Cigarette	58	48.3

*Total exceeds 100 due to multiple responses

Table 6 shows the distribution of students knowledge about the type of drug abuse. Out of 120 respondents, 72.5% mentioned the name of Phensidyle, 12.2% mentioned Pathedine, 7.2% morphine, nobody mentioned the name of tranquilizer and 30.8% mentioned the name of Ganja, 48.3% cigarette and 74.2% mentioned the name of Heroin.

Table - 7: Distribution of students knowledge about the social effect regarding drug abuse

Effect	Frequency	*Percentage
Increase crime	32	26.7
Increase dacoity	41	34.2
Increase hijack	54	45.0
Increase fatehood	63	52.5
Absent mind in school	25	20.8
Absent from school	29	24.2
Absent from work place	21	17.5
Increase unemployment	16	13.3

*Total exceeds 100 due to multiple responses

Table 7 shows the distribution of students knowledge about the social effect regarding drug abuse. Out of 120 students, 26.7% mentioned about increase crime, 34.2% about increase dacoity, 45.0% about increase fatehood, 20.8% about absent mind in school, 24.2% about absent from school, 17.5% about absent from work place, 13.3% about increase unemployment.

Table - 8: Distribution of students knowledge about the Familial effect regarding drug abuse (n=120)

Effect	Frequency	*Percentage
Breakdown of family	26	21.7
Familial disturbance	80	66.7
Absent from program	16	13.3
Waste of money	64	53.3

*Total exceeds 100 due to multiple responses

Table 8 shows the distribution of students knowledge about the familial effect regarding drug abuse. Out of 120 students, 21.7% mentioned about breakdown of family, 66.7% about familial disturbance, 13.3% about absent from any program, and 53.3% about loss of money.

Table - 9: Distribution of students knowledge about the early health effect regarding drug abuse (n=120)

Effect	Frequency	*Percentage
Vertigo	43	35.8
Red eyes	55	45.8
Increase heart rate	22	18.3
Vomiting	25	20.8
Imbalance in speech	27	22.5
Disturbance in respiration	20	16.7

*Total exceeds 100 due to multiple responses

Table 9 shows the distribution of students knowledge about the early health effect regarding drug abuse. Out of 120 students, 35.8% mentioned about vertigo, 45.8% about red eyes, 18.3% about increase heart rate, 20.8% about vomiting, 22.5% about imbalance in speech and 16.7% about disturbance in respiration.

Table - 10: Distribution of students knowledge about the late health effect regarding drug abuse (n=120)

Effect	Frequency	*Percentage
Malnutrition	58	48.3
Damage of other organ	47	39.2
Waste of money	6	5.0
Haziness on eyes	24	20.0

*Total exceeds 100 due to multiple responses

Table 10 shows the distribution of students knowledge about the late health effect regarding drug abuse. Out of 120 students, 48.3% mentioned about malnutrition, 39.2% about damage of other organ, 5.0% about waste of money and 20.0% about haziness on eyes.

Table - 11: Distribution of students knowledge about the mental effect regarding drug abuse (n=120)

Effect	Frequency	*Percentage
Inattentive	31	25.8
Suffer from indecision	33	27.5
Abnormal behavior	65	54.2
Become angry	67	55.8
Depression	9	7.5

*Total exceeds 100 due to multiple responses

Table 11 shows the distribution of students knowledge about the mental effect regarding drug abuse. Out of 120 students, 25.8% mentioned about inattentive, 27.5% about suffer from indecision, 54.2% about abnormal behavior, 55.8% about become angry and 7.5% about depression.

Table - 12: Distribution of students knowledge about the diseases, caused by drug abuse (n=120)

Diseases	Frequency	*Percentage
Liver cirrhosis	16	13.3
Hepatitis-B	75	62.5
Lung cancer	4	3.3
Brain damage	11	9.2
Stroke	41	34.2
Hypertension	21	17.5
Death	96	80.0

*Total exceeds 100 due to multiple responses

Table 12 shows the distribution of students knowledge about the diseases, caused by drug abuse. Out of 120 students, 25% said that liver cirrhosis is caused by drug abuse, 62.5% said hepatitis-B, 3.3% said lung cancer, 9.2% said brain damage, 34.2% said stroke, 17.5% said hypertension, and 80.0% said death.

Table - 13: Distribution of the students by overall level of knowledge

Level of Knowledge	Frequency	Percentage
Poor Knowledge (<20 score)	101	84.2
Average Knowledge (20-40 score)	19	15.8
Good Knowledge (>40 score)	00	0.0
Total	120	100.0

Table 13 shows the distribution of the students by overall level of knowledge. Here 84.2% of the students had poor knowledge on the effect of drug abuse. Among the students 15.8% had average knowledge and none had good knowledge. To evaluate the knowledge level, a simple scoring system was applied i.e. for each correct answer one point was allocated. Total correct answers were divided into three groups; Poor, average, and good. Those who scored below 20 points as poor, 20 to 40 point as average and above 40 points as having good knowledge.

Discussion

This study was conducted between 14th September to November 30th 2012 in National Ideal School, Khilgaon in Dhaka city. It was a cross sectional descriptive type of study. The objective of the study was to assess the knowledge about the effects of drug abuse among the students of classVIII, IX and X. Though drug abuse is very frequent among this group, the knowledge regarding the ill effects was found very poor. Now a days tobacco and drug abuse are being recognized as an epidemic. The study found that respondents had little knowledge about the effect of drug abuse. The sample in this study was drawn from the metropolitan city only which was not typical of Bangladesh and also the sample was not representative of the population of same age group. The age of respondents was between 11 to 16 years. The average age of the study population was 14.5 years. The respondents were from different socio- economic group. According to study subjects the monthly income of their guardians ranged from less five thousand to above forty five thousand. 26.7% of the study subjects were in class VIII, 35.8% were in class IX and 37.5% of the subjects were in class X. Among the fathers of the respondents, 13.3% were service holders, 81.7% were businessmen, 3.3% were labors and 1.7% were in other professions. Among the mothers, 11.7% were service holders, 0.8% were businessmen, 86.7% were housewives and 0.8% were in other professions.

Khan¹⁰ found that 90% of the study subjects acknowledged that drug abuse have adverse effect on personal, family and social life. It was found that level of knowledge regarding the causes of drug abuse, types of drug abuse, social and health effect and consequences of drug abuse was very poor. 13.3%, 62.5%, 3.3% of the study subjects knew that drug abuse may cause liver cirrhosis, hepatitis-B, and lung cancer.

Study by Rahman¹² among the teachers of secondary school and madrasa about the hazards of tobacco with intervention found that 35% of the respondents had poor knowledge on disease due to smoking and 46% had no knowledge before intervention while after intervention 8% revealed good knowledge, 54% average knowledge, 42% poor and 4% had no knowledge. From this finding it is doubtless to say that knowledge will improve after education intervention.

Knowledge regarding causes of drug abuse, effect of drug abuse and consequence of drug abuse is similar with the findings of the study done by Rahman¹³. The primary health effect regarding drug abuse, 35.8% mentioned about vertigo, 45.8% about red eyes, 18.3% about increase heart rate, 20.8% about vomiting, 22.5% about imbalance in speech and 16.7% about disturbance in respiration. The knowledge about the late health effect regarding drug abuse, 48.3% mentioned about malnutrition, 39.2% about damage of other organ, 5.0% about loss of money and 20.0% about haziness in eyes. The knowledge about the mental effect regarding drug abuse, 25.8% mentioned about inattentive, 27.5% suffer from indecision, 54.2% about abnormal behavior, 55.8% about become angry and 7.5% about depression. The knowledge about the consequence of drug abuse, 5.8% of the respondents said permanent loss of money, 16.7% unusual life span, 30.0% damage of other organ, 57.5% through out of family and 69.2% is unusual death. All of the study subjects did not know about the consequences of drug abuse. Many of them mentioned three or four diseases which are caused by drug abuse. The study subjects knew that 13.3% cause Liver cirrhosis, 62.5% hepatitis-B, and 3.3% lung cancer. From this study one can say that health education can improve the level of knowledge of the individuals. Study by Farah¹⁴ found that 98% of the respondents had good knowledge regarding harmful effects of drug abuse in the study of drug addicts admitted in treatment and rehabilitation centre of Dhaka City.

According to the objective, to evaluate the impact of health education this study revealed the improvement of knowledge among the study subjects regarding effect of drug abuse. To compare or co-relate with other studies one of the limitation was shortage of literature on the same subject, though some studies were done regarding assessment of knowledge of hazards of tobacco among the workers and problems of alcohol and drug addiction among the medical students and a study of drug addiction with drug addicted admitted in drug addiction treatment centre but no intervention study was done at all. That's why the researcher could not co-relate the result, with others. So researcher suggested for further study in this respect.

Conclusion

The study period was too short. To observe the effect, further evaluation should be undertaken and to make it sustainable every group should be intervened 3-4 times at the interval of 10-15 days for 3 months.

Bangladesh is a developing country. Malnutrition and communicable disease are not controlled yet. In this circumstance, hazards of tobacco use and drug abuse and its consequences are exercising as a double burden for the country which is in part, also acting as a barrier on the way of development. The world is aware of this. So, if we want to save ourselves and coming generation, it is necessary to prepare them for avoiding of tobacco and drug abuse. Drug abuse is at present regarded as one of the most serious problem and everyone should think of it. It is gradually increasing in the society and proportion is tremendously increasing day by day and drug abuse is regarded as one of the major public health issue in the country. Some steps were taken by department of narcotic control like updating drug laws enacted during British rule and implementing the Narcotics control act 1990. On the basis of such small scale study information gathered from it, more effective steps should be taken without any delay for its successful prevention. Health education intervention may play an important role by imparting knowledge that informs, motivate and encourage people, adopt and maintain healthy practice and life style. In this way the problem could be solved otherwise it may bring inoperable destruction for the society and ultimately the country as a whole.

It was very much hopeful that students of this study desired to learn regarding the topic from primary level.

So it can be concluded that Health Education can play an important role to control the menace of drug abuse and health hazards due to cigarettes smoking.

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