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Epidemiology of Substance Abuse in Bangladesh: A Narrative Review

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Abstract

Background: Substance abuse is an important public health and social problem in Bangladesh. The menace of substance has been increasing day by day in the country.

Objectives: This review was aimed to look into the epidemiology of substance abuse in Bangladesh based on recent literatures.

Methods: Search was done in PubMed, PubMed Central, Google Scholar, and Bangla JOL with searching keywords till March 2018. After considering inclusion and exclusion criteria total 15 articles were selected for review.

Results: From the pooled data the review revealed majority of the respondents were less than 30 years of age, 94.17% were male, 62.90% were unmarried, 94.17% from urban background, and 19.66% were businessman. Peer pressure was found as the commonest risk factors (54.69%) followed by anger or impulse issues (41.87%) and availability of drugs (41.17%) were considerable risk factors. Heroin was found as a first choice of drug followed by yaba and cannabis.

Conclusion: This review revealed early adulthood was more risky years, males are mostly affected by drugs, peer pressure was most significant influencing risk factor and heroin is the mostly expected drug in Bangladesh.

Keywords: Substance abuse; Bangladesh; Drug abuse; Epidemiology; Heroin; Yaba; Demography

Introduction

Substance abuse is recognized as an important public health and social problem in Bangladesh [1,2]. The incidence of drug abuse has been increasing day by day in a developing country like Bangladesh [2]. Drug addiction hampers the mental well-being of an individual as well as it causes lots of physical complications [2]. In terms of geographical location Bangladesh is situated in the central point of the world's biggest growing narcotics zone: the 'golden crescent' (Afghanistan, Pakistan, and Iran) and the 'golden triangle' (Myanmar, Laos, and Thailand). So, the country has become a major transit point for drug dealers [3]. They are routing their shipments through this country to the markets of other parts of the world including Europe, Africa and America. Besides this, India, which is an important producer of opium and other substances located around Bangladesh. Though there was no available exact estimation of substance abusers in Bangladesh, on the basis of different and statistics, it can be estimated that the number may be more than 6 million and these people spend over 70 million BDT every day on illegal narcotics [3]. The major illicit drugs available in Bangladesh are opium derivatives (heroin, pethidine), cannabis (marijuana, ganja, chorosh, bhang, hashish), stimulants (yaba, cocaine), sleeping pills, cough syrup (phensidyl, dexpotent etc.) and few others [1,4]. The problem is increasing day by day and threatening the nation. Males are being affected by drugs more than the females [1] and early adulthood is the vulnerable age for abusing drugs. Preferable drugs are heroin, yaba, cannabis, followed by few others. However, it is under studied in the country. No nation-wide prevalence study has been published yet. There is dearth of epidemiological research on drug abuse. We aimed to look into the epidemiology of drug use in Bangladesh based on the existing literature.

Methods

For selecting article search was done in electronic data bases (PubMed, PubMed Central, Google Scholar & Bangla JOL) with searching key words till March 2018. Initial screening was done by analyzing the titles, then abstract was reviewed and finally full articles were downloaded and studied. After exclusion of duplication, screening, finally selection was done on basis of inclusion and exclusion criteria and finally 15 articles were selected for review.

Searching words

Substance abuse in Bangladesh, drugs in Bangladesh, drug abuse in Bangladesh, yaba in Bangladesh, addiction in Bangladesh, cannabis in Bangladesh, substance use disorder in Bangladesh, substance related disorder in Bangladesh, prevalence of substance use/related disorder in Bangladesh, demography of substance users in Bangladesh

Inclusion criteria

1. Full downloadable original articles in pdf form

2. Articles regarding substance abuse in Bangladesh

3. English language.

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Exclusion criteria

1. Review articles

2. Articles of single substances

3. Article of suicide outside the Bangladesh demography.

Variables: Age, sex, occupation, status, residence, marital status, choice of drug, route of drug, identifiable risk factors, reason for relapse, and sources of money, were considered as the variables of the study.

Permission: As the data includes only online available previously published information, no formal ethical clearance was needed.

Data analysis: All selected articles were scrutinized for the variables and data were pooled to create a single source. Percentages were calculated based on summation of the total samples of the mentioned article and summation of corresponding variable frequencies. There were multiple responses and different pattern of variables in different articles. So total number of sample and total frequencies were mentioned in every variables separately.

Results

The mean age of the respondents was 28.10 years with ranges from 10-50 years. Majority of the respondents were less than 30 years of age. About 94% of the respondents were male, 63% were unmarried, 94% from urban background, 33% were unemployed and 51% were from joint family (Table 1). Peer pressure was found as the most influencing risk factors. About 55% of the respondents take substance due to peer pressure, 41% were influenced by availability of drugs, 34% took drug to get pleasure, and 27% started for their curiosity (Table 2). Heroin was the choice of drug in this review. About 67% of respondents considered heroin as their choice of drug, 44% considered yaba, and 39% considered cannabis as drugs of choice (Table 2). For abusing drugs 65.49% of the respondents arranged money from criminal activities, 64.28% from family and 33.80% from own income. Majority of the respondents (63.45%) took drug orally, 57.39% took through inhalation, and only about 9% in injectable form (Table 3). But, a substantial portion of respondents took drug in multiple routs. Moreover, abusing more than one substance is an important concern (Table 4).

Discussion

In this paper, epidemiology of substance addiction in Bangladesh was reviewed. About 94% of the respondents were male that signifies the gender representation of substance use in Bangladesh. Repeated studies in Bangladesh revealed that males are being addicted more than the females [4-14]. This review found unmarried (62.90%) respondents were more likely to take substances than married and others those are supported by other studies [3,10]. However, Maehira et al., found most of the respondents (59%) were divorced/separated/widower/widow [5]. Most of the respondents (94.17%) were urban background which was found in multiple studies [3,8,12-14]. The situation can be explained by the sample distribution and place of the studies. Most of the studies were conducted in clinical settings in urban areas. As a result, such urban rural distribution was found. Study revealed almost similar distribution in regards to the educational achievements, interestingly more respondents were prevalent in graduate class (Table 2). Unemployment and businessmen were more prone for substance abuse which was found in multiple studies [2,8,10,11,13,14]. Unemployment may act as both cause or effect of substance abuse. However, none of the studies studied the relationship of unemployment and substance abuse. In other ways, Islam and Hossain, found students were more take substance than unemployment and businessman [11]. Peer pressure contributed highest as a risk factor followed by anger or impulse, availability and getting pleasure which was supported by multiple original studies [1,3,11,14,15]. Heroin as a most choice able drug of majority of the respondents followed by yaba and cannabis those are repeatedly found in other study [1,3,4,6-9,11,12,14,15]. In current scenario of the country yaba might be the most abused drug and future studies would reveal that.

Year	Author	City	Location	Sample Size	Type of study	Investigated issue
2014	Zaman et al. [1]	Dhaka	CTC	300	Cross-Sectional	Psychosocial illness in detoxification center
2013	Maehira et al. [5]	Dhaka	Private Hospital	260	Prospective cohort	Factors associated with relapse in detoxification–rehabilitation programme
2010	Roy et al. [6]	Dhaka	BSMMU and CTC	500	Case Control	Personality Traits of Substance Users
2013	Hossain et al. [7]	Dhaka	CTC	1076	Cross-Sectional	Sex-habit and STIs among drug abusers in Detoxification
2013	Riya et al. [8]	Dhaka	CTC	150	Cross-Sectional	Pattern of Drug Abuse in Addiction Rehabilitation Centers
2015	Islam et al. [2]	Mymensingh	Private Hospital	38	Cross-Sectional	Social Impact of Drug Addiction
2015	Khan [9]	Munshiganj	Community	182	Cross-Sectional	Debunking the Drug Abuse-Crime in Urban Youths
2017	Hasam and Mushahid [10]	Sylhet	Private Hospital	99	Cross-Sectional-multi center	Causes of Drug Addiction in Urban Life
2014	Islam et al. [11]	Across Bangladesh	Universities, public institutions	100	Descriptive	Impact of Drug abuse
2017	Mohit et al. [3]	Dhaka	Private Hospital	306	Descriptive	Prevalence and Patterns of Substance Abuse among Male Patients
2017	Roy and Mian [12]	Sylhet	Private Hospital	155	Descriptive	Socio-Demographic and Clinical Profile of Substance Abusers
2017	Soron et al. [13]	Dhaka	NIMH and CTC	101	Descriptive	Social and Family Determinants of Substance Abuse
2016	Maruf et al. [14]	Dhaka	Private Hospital	105	Descriptive	Pattern of Substance Use in De-addiction Clinic
2018	Hossain et al. [15]	Dhaka	CTC	120	Descriptive	Oral and Dental Diseases and Oral Hygiene Practices among Illicit Drug Abusers
2017	Ahad et al. [4]	Sylhet	Private Hospital	42	Descriptive	Socioeconomic Status of Young Drug Addicts

CTC- Central Drug Addiction Treatment Centre
BSMMU- Bangabandhu Sheikh Mujib Medical University
NIMH- National Institute of Mental Health

Table 1: List of articles.

Demographic Variable	Frequency	Percentage	Total sample
Sex			
Male	856	94.17	909
Female	53	5.83	909
Marital Status			
Married	332	46.82	709
Unmarried	446	62.90	709
Divorce	28	3.94	709
Widow	2	0.97	206
Habitat			
Urban	834	94.17	1067
Rural	233	21.84	1067
Missing	28	7.8	1067
Occupation			
Student	182	19.34	941
Unemployment	271	32.22	841
Business	185	19.66	941
Service	142	16.86	842
Driver	5	3.50	143
Cultivator	5	4.95	101
Day labor	19	10.50	181
Other	15	5.24	286
Housewife	4	3.81	105
Retired	1	0.95	105
Education			
Illiterate	61	23.55	259
Below SSC	157	24.30	646
SSC	171	22.95	745
HSC	193	19.97	966
Graduate	278	26.07	1066
Postgraduate	60	10.84	100
Type of family			
Nuclear	143	48.97	292
Joint	149	51.03	292

Table 2: Distribution of demographic variables of the respondents.

Variable	Frequency	Percentage	Total sample
Risk factors			
Peer pressure	710	54.69	1298
Getting pleasure	155	34.06	405
Curiosity	243	27.24	892
Depression	57	19	300
Failure in love	56	11.61	482
Loneliness	12	4	300
Unemployment	141	15.87	888
Frustration	134	20.83	643
No reason	17	10.96	155
Family problem	252	34.14	738
Availability	105	41.17	255
surrounding environment	43	10.59	406
Anger/ Impulse	170	41.87	406
Financial	58	18.95	306
Relationship	52	16.99	306
Family history	27	8.82	306
Political issue	11	3.59	306
Parental separation	8	2.61	306
Death of loved ones	4	1.30	306
Prescription	3	1.93	155
Choice of drugs			
Heroin	1625	66.98	2426
Phensidyl	613	25.26	2426
Cannabis	942	38.82	2426
Sedatives	180	16.58	1085
Yaba	596	44.37	1343
Danti	30	10	300
Shisha/Hukka	24	8	300
Cough syrup	61	9.47	644
Injection	136	7.06	1926
Alcohol	303	27.72	1093
Pathedine	168	22.76	738
Morphine	12	2.63	456
Cocaine	13	2.86	453
Reason to relapse			
Peer influence	69	18.64	370
Family-related problem	44	11.89	370
Personal problems	13	20.31	64
Drug craving, withdrawal symptoms	6	9.37	64
To enhance sexual power	2	3.12	64
Psychological	60	19.60	306
Anger/ Impose	52	16.99	306
Frustration	30	9.80	306
Loneliness	26	8.49	306
Break up	22	7.18	306
Environmental	14	4.57	306
Occasion celebration	12	3.92	306
Extra marital affair	8	2.61	306
Unemployment	7	2.28	306

Table 3: Distribution of Risk factors, drugs choice, reasons for relapse, among the respondents.

Variable Routes of drug	Frequency	Percentage	Total sample
Oral	356	63.45	561
Inhalation	332	57.39	561
Injection	50	8.91	561
Drug abuse in lifetime			
Single drug	105	35	300
Two drugs	380	27.61	1376
Three drugs	353	25.65	1376
Four drugs	322	23.40	1376
Five drugs	213	15.47	1376
Six drugs	107	7.77	1376

Table 4: Distribution of routes and number of drugs among the respondents.

Conclusion

The review revealed the recent epidemiology of substance abuse in Bangladesh. To the authors best knowledge this is the first study to explore the substance abuse in the country. Early adulthood, is risky part of life, abusers are mostly male, peer pressure is the most significant influencing risk factor and Heroin is the mostly expected drug. However, further systematic reviews would help to generalize the findings.

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