

ISSN 0970-0218



Apr-Jun 2022 / Vol 47 / Issue 2

# Indian Journal *of* Community Medicine

Official Publication of Indian Association of Preventive and Social Medicine

[www.ijcm.org.in](http://www.ijcm.org.in)



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# Assessment of Characteristics and Exposure to Vulnerable Factors for Drug use among Male Illicit Drug Users in Sri Lanka: A Multicenter Cross-Sectional Study

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## Abstract

**Background:** Illicit drug use has become a significant public health problem in Sri Lanka. This study was conducted to assess characteristics and exposure to vulnerable factors for drug use among institutionalized male drug users. **Methodology:** A cross-sectional study was conducted among 431 institutionalized male drug users from five selected rehabilitation centers in Sri Lanka. An interviewer-administered questionnaire was used for data collection. The history of exposure to vulnerable factors was assessed using a series of questions based on existing evidence. Chi-square test was used to identify factors associated with exposure to vulnerable factors for drug use at 0.05 significance level. **Results:** Experimental usage, peer pressure, being unaware about harmful outcomes of drug use, ability to conceal drug use behavior from family, easy accessibility, previous use of alcohol and tobacco, history of exposure to psychoactive substance use within the usual living set up, being in a family with inadequate protection and an unsatisfactory parenting status were identified as common characteristics of people with illicit drug use disorders and drug use behavior. The age of the first drug use was positively correlated with the age of the first alcohol use ( $r = 0.687$ ;  $P < 0.01$ ) and first smoking ( $r = 0.732$ ;  $P < 0.01$ ). Ethnicity, area of residence, severity of drug use, and age of initiation of drug use had statistically significant association with exposure to vulnerable factors for drug use ( $P < 0.05$  for all). **Conclusion:** Characteristics of people with illicit drug use disorders and drug use behavior were varied while the history of exposure to vulnerable factors for drug use was not uncommon in the sample. The study recommends considering these study findings during designing appropriate preventive and harm reduction strategies for illicit drug use.

**Keywords:** Characteristics, vulnerable factors, illicit drug use, institutionalized male drug users

## INTRODUCTION

Illicit drugs are defined as “psychoactive substances that the production, sale or use is prohibited with the prevailing legal system in a given country and for the long term on regular basis for a nonmedical purpose.”<sup>[1]</sup> According to the National Dangerous Drug Control Board (NDDCB), heroin, and cannabis are the most common illicit drugs popular in Sri Lanka followed by cocaine, opium, psychotropic drugs, and hallucinogens.<sup>[2]</sup>

The characteristics of drug users and exposure to vulnerable factors for drug use have geographical heterogeneity throughout the world according to the literature. Sri Lanka is considered as a transient point for global drug trafficking due to its unique geographical location. As illicit drug use has become a significant public health problem in Sri Lanka

during the recent decades, a detailed analysis of these factors is necessary for identification of high-risk individuals and proper planning of drug prevention programs in the local context. Hence, this study was conducted to assess characteristics and exposure to vulnerable factors during childhood and adolescence among institutionalized male drug users.

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**How to cite this article:** Darshana N, Wijesinghe CJ, De Silva PV. Assessment of characteristics and exposure to vulnerable factors for drug use among male illicit drug users in Sri Lanka: A multicenter cross-sectional study. *Indian J Community Med* 2022;47:285-91.

**Received:** 28-04-21, **Accepted:** 22-10-21, **Published:** 11-07-22

### Access this article online

Quick Response Code:



Website:  
[www.ijcm.org.in](http://www.ijcm.org.in)

DOI:  
10.4103/ijcm.ijcm\_712\_21

## METHODOLOGY

A cross-sectional study was conducted among 431 institutionalized male drug users from five selected rehabilitation centers. The five drug rehabilitation centers were situated in four different districts (Galle, Colombo, Gampaha, and Kandy) in Sri Lanka. Among them, four centers are managed under the purview of the NDDCB. The other rehabilitation center, which is also situated in Galle district, is managed by a Non-Governmental Organization (NGO) registered under NDDCB, named “New Life Rehabilitation Centre” (NLRC). The usual treatment period is 3 months in those rehabilitation centers. According to the records maintained by NDDCB, around 600 male drug addicts are treated and rehabilitated from these centers per year excluding readmissions. These centers provide rehabilitation services for the drug dependents free of charge. Nearly all treatment admissions (>99%) made into rehabilitation centers in Sri Lanka were males, therefore, only institutionalized male drug users were included in the study.

The NDDCB is in charge of overseeing and coordinating all drug control activities of law enforcement agencies, prevention, treatment, and rehabilitation in Sri Lanka. Four treatment and rehabilitation centers are conducted under the purview of the board throughout the country with a greater focus in Colombo, Kandy, Galle, and Gampaha districts. As NDDCB is the responsible institution at national level, all four rehabilitation centers under the purview of the NDDCB were included for the study based on judgmental sampling method. Apart from NDDCB, there are many NGOs and religious institutions that are engaged in the prevention of drug addiction. Nearly 20 such centers are maintained island-wide.<sup>[2]</sup> However, among them, only NLRC under purview of NGO was included based on feasibility of data collection.

The sample size was calculated using the formula recommended by Lwanga and Lemeshow ( $n = Z^2 P [1-p]/d^2$ ) for estimating a population proportion in cross-sectional studies,<sup>[3]</sup> where  $n$  indicated the sample size,  $P$  indicated the estimated population proportion of the characteristic of interest, and  $d$  indicated the absolute error or precision. In calculating the sample size, the  $z = 1.96$  corresponding to the significance level of 0.05 and a precision of 5% was considered. As there were multiple characteristics of interest, the estimated proportion was taken as 50% to achieve the maximum value for calculated sample size resulting in a sample size of 384 subjects. Additional 10% was added to account for nonresponses. Based on the above calculation, a minimum sample of 427 institutionalized male drug users was required for the study. However, a total sample of 431 drug users out of 600 admissions per year admitted to the selected rehabilitation institutions during the study period were recruited using convenience sampling. Ethical approval for the study was obtained from Ethics Review Committee, Faculty of Medicine, University of Ruhuna, Sri Lanka (Ref. No 11.07.2016:3.13).

An interviewer-administered questionnaire was used to collect information on characteristics of illicit drug users after obtaining informed written consent. Data collection was done for 1-year duration. The history of exposure to vulnerable factors was assessed using a series of questions developed by the principal investigator based on existing evidence. Severity of addiction was measured using Drug Abuse Screening test (20<sup>th</sup> version) (DAST 20).<sup>[4]</sup> The judgmental validity of the questionnaire including the face validity, content validity, and consensual validity was assessed by a panel of experts consisting of a Consultant Community Physician, a Consultant Psychiatrist, and an expert in behavioral sciences and social work.

Frequency distributions, percentages, means, and standard deviations were used as appropriate to describe the characteristics of drug use and exposure to vulnerable factors. Education level was assessed according to the highest grade completed or highest examination passed. Having educational qualifications lower than General Certificate of Education (Ordinary Level) was considered as having an unsatisfactory level of education. Having at least one of the following factors was considered as having unsatisfactory parenting status; i.e., having a single parent or no parents, mother/father/both being abroad, living with guardian during childhood and/or adolescence. Pearson correlation coefficient was used to assess the association between age of first drug use and use of other substances. Living with a person who addicted to illicit drugs, exposed to family violence, exposed to some form of abuse during childhood and adolescence, and unsatisfactory parenting status were considered as vulnerable factor for drug use during childhood and adolescence. Associations of ethnicity, area of residence, age of first drug use, and severity of drug use with exposure to vulnerable factor for drug use during childhood and adolescence were assessed using Chi-square test at 0.05 significance level.

## RESULTS

A total of 431 male illicit drug users from five selected rehabilitation centers participated in the study. The response rate was 100.0%.

### Characteristics of drug users and drug use behavior

Majority of the drug users were Sinhalese (82.4%) and Buddhists (70.5%) [Table 1]. The mean age (SD) of the sample was 31.7 (10.3) years. The highest proportion of them was residents of urban areas around the capital city of the country (75.6%). Over 2/3<sup>rd</sup> of the drug users (67.5%) had an unsatisfactory education level. Among drug users, majority (93.5%) were employed and nearly half of them were nonmanual workers (56.5%) while 8.3% were engaged in drug business. The majority (61.2%) had a monthly income of more than 250 USD with a mean income (SD) of 365 (345) USD which was considered as a satisfactory income. Approximately 2/3<sup>rd</sup> of the sample were daily paid workers. A significant amount of drug users had vocational or technical

**Table 1: Sociodemographic distribution of drug users in the sample (n=431)**

Characteristic	n (%)
Age (years)	
25 or below	115 (26.7)
>25	316 (73.3)
Mean±SD=31.7±10.3 years, Median 29.0 years, Range 16-62 years	
Ethnicity	
Sinhala	355 (82.4)
Tamil	26 (6.1)
Muslim	45 (10.4)
Other (burger and malay)	5 (1.1)
Religion	
Buddhist	304 (70.5)
Hindu	11 (2.6)
Islam	48 (11.1)
Catholic	68 (15.8)
Level of education	
Unsatisfactory	281 (65.2)
Satisfactory	140 (31.8)
Type of employment	
Professionals and semiprofessionals	84 (19.5)
Nonmanual workers	144 (33.5)
Skilled manual workers	100 (24.9)
Unskilled workers	75 (18.6)
Unemployed	28 (6.5)
Marital status	
Married/living together	160 (37.1)
Unmarried	234 (54.3)
Divorced/separated	35 (8.1)
Widowed	2 (0.5)
Family type	
Nuclear family	277 (64.3)
Extended family	98 (22.7)
Other*	56 (13.0)

\*Living alone/with friends or no permanent place. SD: Standard deviation

training (32.3%). A majority of the drug users (54.3%) were unmarried, while 65.0% lived in a nuclear family setting.

Use of alcohol (92.8%) and tobacco products (99.5%) was widespread among the sample. However, alcohol use was discontinued while tobacco use was continued with drug use behavior by all drug users. The majority of drug users (90.0%) had initiated the use of psychoactive substances with tobacco products. Cannabis was identified as a gateway drug for illicit drug use for 81.0% of the drug users.

Over half of the drug users (51.2%) initiated illicit drug use behavior before 18 years of age [Table 2]. The age of the first drug use positively correlated with the age of the first alcohol use ( $r=0.687$ ;  $P<0.01$ ) and first smoking ( $r=0.732$ ;  $P<0.01$ ). Experimental usage (67.5%) was identified as the main reason for initiation of illicit drug use. Illicit drugs were introduced by friends for the majority of drug users (87.0%). Of the 41 (9.5%) drug users who had worked abroad, 31.7% got addicted to illicit drugs while being abroad.

**Table 2: Characteristics related to drug use behavior among illicit drug users (n=431)**

Variable	n (%)
Age of initiation of illicit drug use (years)	
<18	221 (51.2)
18 or above	210 (48.8)
Mean±SD=17.9±3.2 years, Median (IQR)=17.0-3.0 years, Range=8-32 years	
Reason for initiation of illicit drug use	
As an experiment	291 (67.5)
Due to peer pressure	124 (28.7)
Due to the inability to face problems	11 (2.5)
Other*	5 (1.3)
Person who introduced illicit drugs	
Friend	375 (87.0)
Family member	16 (3.7)
Neighbor	17 (3.9)
Person at the workplace	13 (3.0)
Self-introduced	8 (1.9)
Foreigner	2 (0.5)
Easy accessibility for drugs**	
Yes	365 (84.7)
No	66 (15.3)
Awareness about adverse consequences of drug use	
Not aware	329 (76.3)
Aware	102 (23.7)

\*As a social symbol/to have more sexual pressure, \*\*Able to purchase drug directly from drug suppliers within living community. SD: Standard deviation, IQR: Interquartile range

Among the drug users, 84.7% ( $n=365$ ) were able to purchase drugs directly from the suppliers within their living community. Approximately 72% were able to keep the drug use a secret from the family for over 1 year. Interestingly, only 23.7% of the drug users were aware of the adverse consequences of illicit drug use. Nearly 71% ( $n=306$ ) had high level of severity of addiction based on DAST 20 scoring system.

### Exposure to vulnerable factors during childhood and adolescence

A history of exposure to psychoactive substance use within the usual living set up, being in a family with inadequate protection during childhood/adolescence and an unsatisfactory parenting status were identified as common vulnerable factors for drug use [Table 3]. Drug use among family members was reported by a considerable proportion (13.0%), a majority of whom had a sibling addicted to drugs (65.0%), and 3% reported illicit drug use by the father. Drug use among relatives was reported by 27.1%. Nearly half of drug users had lived with a person addicted to alcohol (47.3%) while 30.9% had lived with a person addicted to drugs.

Nearly 1/3<sup>rd</sup> of the drug users was exposed to family violence while a majority (64.3%) were exposed to some form of abuse during childhood and adolescence including emotional (64.3%), physical (7.4%), and sexual (2.3%) abuse. Having a single parent or growing up with a guardian

was considered as having unsatisfactory parenting status and nearly half of the drug users (52.9%) had experienced some kind of unsatisfactory parenting. Among the unsatisfactory parenting status, mother being abroad (40.8%) and death of the father (35.1%) were common experiences of the drug users.

A drug user who was residents of urban areas around the capital city of the country was more likely to have history of living with a person addicted to drugs ( $P < 0.001$ ) and history of exposure to some form of abuse during childhood and adolescence ( $P = 0.014$ ) while being Sinhala were more likely to have history of exposure to family violence ( $P = 0.001$ ) [Table 4]. A drug user to have higher severity of addiction was more likely among drug users with history of living with a person addicted to drugs ( $P = 0.001$ ) and with history of exposure to some form of abuse during

childhood and adolescence ( $P < 0.001$ ) while age of first drug use before 18 years of age was more likely to have drug users with history of exposure to some form of abuse during childhood and adolescence ( $P = 0.045$ ) and drug users with history of unsatisfactory parenting status ( $P = 0.020$ ) [Table 5].

## DISCUSSION

The characteristics and exposure to vulnerable factors for drug use during childhood and adolescence were assessed among institutionalized male drug users and presented in this paper. According to the findings, the majority of drug users were Sinhalese, Buddhist, above 25 years of age, residing in the urban areas around the capital city of the country and had an unsatisfactory education level. When considering the ethnic distribution in our study, it was not comparable to the ethnic distribution at national level. According to the 2012 Census report, 74.9% of the Sri Lankan population was Sinhalese, 15.3% were Tamils, 9.3% were Muslims, and 0.5% belonged to other ethnic groups. Accordingly, a higher proportion of Sinhalese (82.4% vs. 74.9%) and Muslims (10.4% vs. 9.3%) had used illicit drugs compared to Tamils (6.1% vs. 15.3%). This disparity may be due to geographical disparity of the ethnicity, economic status, and availability and accessibility of drugs within the country, as well as cultural beliefs and differences in health-seeking behavior as observed in other studies.<sup>[5-7]</sup> However, the proportion of Buddhists (70.5% Vs. 70.1% in census data) and Muslims (10.4% vs. 9.7% in census data) in this sample was compatible with the religious distribution of the Sri Lankan population, while the proportion of Hindus had showed a large discrepancy (2.6% vs. 12.6% in census data). Further, the majority of the drug users were from areas around the state capital and the areas which consist predominantly of Tamil and Muslim populations were not adequately represented among admissions to the selected

**Table 3: Distribution of exposure to psychoactive substance use within usual living set up and unsatisfactory parenting status experienced by the illicit drug users during childhood/adolescence (n=228)**

	n (%)*
Exposure to psychoactive substance use within usual living set up	
Drug use among family members	60 (13.9)
Drug use among relatives	117 (27.1)
Living with a person addicted to drugs	133 (30.9)
Living with a person addicted to alcohol	204 (47.3)
Status of parenting	
Parental separation	48 (21.0)
Death of father	80 (35.1)
Death of mother	18 (7.9)
Mother being abroad	93 (40.8)
Father being abroad	29 (12.7)

\*Percentages do not add up to 100% due to multiple responses

**Table 4: Associations of ethnicity and area of residence with exposure to vulnerable factor for drug use during childhood and adolescence (n=431)**

Vulnerable factor exposed for drug use	Ethnicity		Significance $\chi^2$ (P) df=1	Area of residence		Significance $\chi^2$ (P) df=1	Total (n=431), n (%)
	Sinhala, n (%)	Others, n (%) <sup>#</sup>		Urban areas around the capital city, n (%)	Others, n (%) <sup>§</sup>		
Living with a person addicted to drugs							
Yes	115 (86.4)	18 (13.6)	2.226 (0.136)	116 (87.2)	17 (17.8)	13.998 (<0.001)*	133 (100.0)
No	240 (80.5)	58 (19.5)		210 (70.4)	88 (29.6)		298 (100.0)
Exposed to family violence							
Yes	122 (91.0)	12 (9.0)	10.083 (0.001)*	104 (77.6)	30 (22.4)	0.411 (0.521)	134 (100.0)
No	233 (78.4)	64 (21.6)		222 (74.8)	75 (25.2)		297 (100.0)
Exposed to some form of abuse during childhood and adolescence							
Yes	244 (88.1)	53 (11.9)	1.201 (0.273)	220 (79.4)	57 (20.6)	6.025 (0.014)*	277 (100.0)
No	131 (85.1)	23 (14.9)		106 (68.8)	48 (31.2)		154 (100.0)
Unsatisfactory parenting status							
Yes	191 (83.7)	37 (16.2)	0.658 (0.417)	166 (72.8)	62 (27.2)	2.105 (0.147)	228 (100.0)
No	164 (80.8)	39 (19.2)		160 (78.8)	43 (21.2)		203 (100.0)

\*Significant at 0.05 significance level, <sup>§</sup>Areas away from capital city of country, <sup>#</sup>Muslim, Tamils, Burger, Malay



**Table 5: Associations of age of initiation of illicit drug use and severity of drug use with exposure to vulnerable factor for drug use during childhood and adolescence (n=431)**

Vulnerable factor exposed for drug use	Age of initiation of illicit drug use		Significance $\chi^2$ (P) df=1	Severity of drug use		Significance $\chi^2$ (P) df=1, n (%)	Total (n=431), n (%)
	<18 years of age, n (%)	18 years and above age, n (%)		Low, n (%)	High		
Living with a person addicted to drugs							
Yes	76 (57.1)	57 (42.8)	2.650 (0.104)	24 (18.1)	109 (81.9)	11.216 (0.001)*	133 (100.0)
No	145 (48.6)	153 (51.3)		101 (33.9)	197 (66.1)		298 (100.0)
Exposed to family violence							
Yes	69 (51.5)	65 (48.5)	0.004 (0.952)	34 (25.3)	100 (74.7)	1.244 (0.265)	134 (100.0)
No	152 (51.1)	145 (48.9)		91 (30.6)	206 (69.4)		297 (100.0)
Exposed to some form of abuse during childhood and adolescence							
Yes	152 (54.8)	125 (45.2)	4.016 (0.045)*	51 (18.4)	226 (81.6)	42.229 (<0.001)*	277 (100.0)
No	69 (44.8)	85 (55.2)		74 (48.1)	80 (51.9)		154 (100.0)
Unsatisfactory parenting status							
Yes	129 (56.6)	99 (43.4)	5.449 (0.020)*	62 (27.2)	166 (72.8)	0.770 (0.380)	228 (100.0)
No	92 (45.3)	111 (54.7)		63 (31.1)	140 (68.9)		203 (100.0)

\*Significant at 0.05 significance level

rehabilitation centers. In general, the findings suggest that illicit drug use among drug users in Sri Lanka may vary between the ethnoreligious communities and different socioeconomic and cultural backgrounds in the country.

When considering the education level of the participants, a majority of the drug users had unsatisfactory education levels, which was compatible with the existing.<sup>[8-12]</sup> A Rapid Assessment of Drug Use Patterns (RADUP) in Sri Lanka conducted in 2018 (11<sup>[13]</sup>) found that more than 95% of the drug users tend to be in their late 30s, a finding comparable to our study results and confirmed by two other researchers,<sup>[11,12]</sup> implying that drug use behavior is identified in late 20s in many drug users in the country. Therefore, primordial and primary prevention for drug use can be implemented to targeting this age group. The fact that a majority of drug users were unmarried and living in nuclear family setting was also compatible with the findings in RADUP.

Previous studies support that persistent drug users were more likely to be unemployed.<sup>[14]</sup> Conversely, in our study, only 6.5% were unemployed. However, as nearly half of drug users were manual workers in our study, it can be assumed that they were compelled to do manual works due to their unemployment. This is further supported by the fact that 2/3<sup>rd</sup> of the sample were daily paid workers.

Irrespective of the employment status, the majority in our study sample had a satisfactory monthly income. Engaging in drug business was identified by a few drug users as an easy method for obtaining drugs for daily use. As a considerable proportion of drug users in our study sample have had vocational or technical training, it will be beneficial if occupational opportunities could be arranged for them based on their training after discharge from the rehabilitation center. As many drug users do not have a stable job, this fact needs to be considered in

the provision of psychosocial support following rehabilitation, enabling them to contribute to the country's economy.

Worldwide, many drug users have initiated the use of psychoactive substances with tobacco products<sup>[11,15-19]</sup> similar to our study. The use of alcohol and tobacco products was widespread among our sample (more than 90.0%). A local study done in 2008 found that only 6% had started drugs before commencing smoking, compared to 4.6% in our study. Torabi and co-researchers found that heavy smokers were 10–30 times more likely to use illicit drugs than nonsmokers.<sup>[17]</sup> A study done in the USA found that the use of tobacco had an association with the initiation of alcohol and illicit drugs.<sup>[20]</sup> Further, this study revealed that associated factors for initiation, addictive process, abstinence and relapse of tobacco, alcohol, and illicit drugs are almost similar. Therefore, if someone is addicted to tobacco or alcohol, there is a high chance to get addicted to illicit drugs if they were exposed,<sup>[21]</sup> which explains the widespread use of alcohol and tobacco products among the sample. However, the highly addictive nature of illicit drugs leads to discontinuing alcohol use while tobacco use continues with drug use behavior,<sup>[22,23]</sup> a finding compatible with our study results.

The adolescent period has been identified as a vulnerable period for risk behaviors<sup>[24,25]</sup> and therefore can be identified as a risk period for initiation of use of psychoactive substances including illicit drugs. Nearly half of drug users in our study had initiated illicit drug use before 18 years of age. Another local study reported that the majority (70.1%) had started using drugs when they were in the age group of 10–20 years. Kandel and Logan (1984) found that most start their journey of drug use in the early 20s with cigarettes and alcohol use. The first drug use at a lower age is a strong predictor of further use of illicit drugs.<sup>[26]</sup> Similarly, the age of the first drug use was positively correlated with the age of the first alcohol use

and first smoking in this study. A study done in Australia also found similar associations,<sup>[27]</sup> making our results comparable with other studies related to the initiation of illicit drug use behavior. This was further supported by our study by identifying the age of first drug use before 18 years of age was more likely to have drug users with history of exposure to some form of abuse during childhood and adolescence ( $P = 0.045$ ) and drug users with history of unsatisfactory parenting status ( $P = 0.020$ ) [Table 5] supporting literature.

Experimental usage was identified as the main reason for initiation of illicit drug use in many studies including local studies.<sup>[11,28-30]</sup> De Silva and Fonseka found that 74% of drug users initiated taking drugs as an experiment, compared to 67.5% in our study. On the other hand, in our study, a significant proportion of drug users (28.7%) had used illicit drugs due to peer pressure. Peer pressure was recognized as a major causal factor in the initiation of illicit drug use in many similar studies.<sup>[31-33]</sup> Although only 28.7% of the illicit drug users have used illicit drugs due to peer pressure, illicit drugs were introduced to a vast majority by friends. This suggests that although friends introduced drugs for many drug users, among them majority had used drugs as an experiment and not due to peer pressure. Further, according to our study, only a minority (8.6%) of the drug users had introduced drugs to other persons. In contrast, Voss and Clayton (1984) found that nearly 50% of drug users transmitted drug use to others.

With the prevailing cultural and legal backgrounds, the majority of drug users try to keep their drug use behavior as a secret from their closest persons including family. It is confirmed by our study and 72.2% of drug users were able to keep their drug use behavior as a secret from family for more than 1 year. Further, many of them (51.5%) used to consume illicit drugs away from their usual residence to keep it a secret. Hence, we can assume that many drug users have a fear of introducing drugs for nondrug users due to cultural and social issues.

Vulnerable factors for drug use identified in our study were compatible with the literature. A study done in Poland identified poor childhood protection, weak family relationships, living with the problem of drug or alcohol and in families with a single parent (mother) as vulnerable factors for drug use.<sup>[34]</sup> Exposure to childhood abuse and neglect emerged as vulnerable factors for drug use in another study, where about 20% of the adults had experienced of abuse or neglect in childhood.<sup>[35]</sup> Further, a considerable proportion of patients in treatment for substance use disorder had a history of childhood abuse and neglect, and children of parents with substance use disorder had a higher chance of getting the disorder. In keeping with our study, Simcha-Fagan *et al.* identified family background, early child behaviors, parental-marital behaviors, the quality of the bond between parents and children, early adjustment problems with peers and at home, familial disorganization, and parental antisocial behaviors as key predictors for illicit drug use<sup>[36]</sup> and having substance-using parents or relatives was

identified as a vulnerable factor for illicit drug use in Turkey by Çiftçi Demirci *et al.*,<sup>[37]</sup> Compatible to literature this study also identified that a drug user to have higher severity of addiction was more likely to have drug users with history of living with a person addicted to drugs and history of exposure to some form of abuse during childhood and adolescence. Moreover, study identified that a drug user who was residents of urban areas around the capital city of the country was more likely to being a drug user with history of living with a person addicted to drugs and to have history of exposure to some form of abuse during childhood and adolescence. Moreover, being in Sinhala were more likely to have history of exposure to family violence [Table 4]. These findings can be used during planning and implementing drug prevention programs for the identification of target groups.

This study identified the characteristics and exposure to vulnerable factors of males with illicit drug use disorder and their drug use behavior in Sri Lanka. As they vary across ethno-religious communities and socio-economic and cultural groups in the country and many of factors were compatible with existing literature, the study emphasizes the need of considering them during rehabilitation process at the individual level for planning and implementing illicit drug use prevention interventions. However, as study did not assess the characteristics and exposure to vulnerable factors respect to particular illicit drug type and as there is possibility to differ the them according to particular type of illicit drug, it was identified as a limitation of the study.

## CONCLUSION

Characteristics of illicit drug users in Sri Lanka vary across ethnoreligious communities and socioeconomic and cultural groups in the country. Experimental usage, peer pressure, being unaware about harmful outcomes of drug use, ability to conceal drug use behavior from family, easy accessibility, previous use of alcohol and tobacco, history of exposure to psychoactive substance use within the usual living set up, being in a family with inadequate protection and an unsatisfactory parenting status were identified as common characteristics of people with illicit drug use disorders and drug use behavior. These study findings will be beneficial for the policymakers to design appropriate preventive strategies and harm reduction strategies for illicit drug use to make a “Drug-Free Community” in the future.

## Acknowledgments

We would like to acknowledge the Chairman, National Dangerous Drug Control Board, Sri Lanka for granting permission for data collection, the managers, and staff members of the selected five rehabilitation centers for the support given during data collection, University Grant Commission, Sri Lanka for financial assistance for the study and all the participants in the study for their cooperation for the study.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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