Research Article

Prevalence of Addiction in University Students of Asia

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Abstract:

Background: Addiction is a sickness that progresses over time and causes people to lose control of their use, posing a risk for disability and premature loss of life. Students are always at greater risk to develop an addiction because of academic stress, disrupted sleep and social life, and peer pressure. Our review aims to find the prevalence of alcohol, nicotine, and cannabis addiction among university students in Asia. This will help to identify the extent of the problem and allow to establish goal-directed programs to control and reduce the prevalence of addiction and organize student awareness programs to minimize the destruction caused by it.

Methodology: In this systematic review, a comprehensive search was conducted in PubMed, Cochrane, and Google scholar in August 2022. Searches were conducted using keyword combinations such as addiction, substance abuse, alcohol, nicotine, cannabis, university students, Asia, and Asian nations. The review accepts full-text original English-language research that was completed within the last ten years.

Results: In total, twenty articles were included in this review. The highest prevalence of alcohol addiction in university students was 66.8%, while that of nicotine and cannabis addiction was 76.76 % and 27.3% respectively. The lowest prevalence of alcohol addiction was 7.8%, among the sample studies, the lowest nicotine addiction was 19.8%, and the lowest cannabis addiction was 9.88%.

Conclusion: The prevalence of addiction in Asian countries is high and is rising, with alcohol addiction being the most prevalent. Awareness campaigns and community programs should be initiated to reduce this high prevalence to save the continent of Asia from the harmful effects of addiction and substance abuse.

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Keywords:…….

INTRODUCTION:

Addiction is a progressive disease that causes people to lose control of some substances despite the worsening consequences of that use (1). It poses a significant risk of disability and early death. (2). It imposes a barrier against social development and damages to the economic and health system (3). In Asia, among young people, including students, there has been an upward trend in drug addiction including many substances over the previous two decades. A higher risk of addiction is reported among students because of academic stress, disrupted sleep and social life, and relatively easy access to these addictive materials (4). The average age of most abusers is 18 to 20 years. Pain relief, curiosity, loneliness, and friend encouragement proved to be the leading factors for its illicit use.

Several studies reported a high prevalence of drug addiction in students For instance, a study of teachers and college students in Northern Thailand revealed that at some point during their careers, males are more prone to cannabis and other addicting substances usages than females(5).Medical students consume alcohol, tranquilizers, and psychedelics at higher rates, and their dependence rates are higher because of self-prescription and handiness (6). Several studies assessing the ENDS cartridges' contents have discovered hazardous substances and varied quantities of nicotine. (7). In countries like those in the Southeast Asia Region (SEAR), where the high burden of tobacco use is further exacerbated by a large proportion of the young, vulnerable population, few established tobacco cessation faci-

lities, and a lack of regulatory provisions, the current situation calls for mobilizing policymakers to rise to this challenge. (8). Substance abuse is known to cause severe life-threatening conditions like cardiac arrhythmias, myocardial infarction, heart failure, HIV, and AIDS (9)(10).

Drug addiction has risen to become a global problem in the last few decades. It is a rising problem in our part of the world as well i.e. Asia. Our study aims to find out the prevalence of addiction to alcohol, nicotine, and cannabis in university students in Asia and consider the risks and outcomes associated with its use.

There are only a few systematic studies done to investigate this problem among students of Asia as compared to other continents. Moreover, the available studies are localized to specific countries and groups not encompassing all Asian students (11)(12). We aim to access the degree to which students are involved in these abysmal activities and what factors cause them to fall prey to these actions. As students are the key to the development of any nation, the rising trends of addiction among them pose a great threat and must be dealt with (13). Considering the facts, we require goal-directed programs to control and reduce the prevalence of addiction and organize student awareness programs to minimize the destruction caused by it.

OBJECTIVES:

To determine the prevalence of addiction (alcohol, nicotine, and cannabis) in university students in Asia.

METHODS AND METHOD:

This systematic review was following Preferred Reporting Items for The Systematic Review and Meta-Analysis (PRISMA) guidelines.

Search strategy:

A comprehensive search of the literature published in English was conducted using the databases PubMed (via MEDLINE), Cochrane, and Google scholar by using keywords addiction or substance abuse and Cannabis or Alcohol or Nicotine and Students or Medical students and Asia or Southeast Asia or Central Asia. Duplicate entries were eliminated, and then titles and abstracts were screened to determine which papers were eligible. Afterward, full-text articles were examined, and pieces that established the prevalence of alcohol, nicotine, and cannabis addiction were included. All published articles from the year 2012 to 2022 are included in this systematic review

Paper titles, full texts, and abstracts were individually scrutinized by two reviewers (ZM and ZM), and a third reviewer cross-checked their findings (ZK). To avoid duplications, pertinent studies were imported into Endnote X9 (Clarivate Analytics, US).

Inclusion Criteria:

All cross-sectional studies, articles, and Randomized Control Trials (RCT) reporting the lifetime combined prevalence of addiction or lifetime prevalence of Cannabis or Alcohol or Nicotine addiction or abuse among any university student that was published in the English language are included.

Exclusion Criteria:

Case reports, case studies, editorials, review articles employed nonprobability sampling or qualitative studies, or any studies taken in non-Asian countries or non-English languages are excluded.

Organization and Data Extraction:

Although most articles put together the three substances of interest, each substance was presented separately. Ten reviewers independently assessed the articles before inclusion in the final review using checklists.

RESULTS:

Specification of included studies:

The total search of databases determined 1678 studies out of which 478 studies were excluded because of duplication, and 610 studies were marked as ineligible by automation tools. Moreover, after title, abstract, and full-text screening, 20 articles were filtered out for this systematic review and the remaining studies were excluded because they didn`t meet our criteria. (Figure 1).

Baseline Characteristics:

The baseline characteristics of included studies are shown below in Table 1. All of these studies are cross-sectional the and sample size ranged from 100 to 4261. Only two studies had predominantly female participants (studies 1 and 5) while the rest of them had male predominance.[14][15]

Among these 20 studies, 3 were conducted in Iran [14][16][17]and three in Nepal [18][19][20].The rest of them were conducted in different countries such as two in Lebanon[21][22] and Thailand[23][24],

China(25)(26) and Russia(27)(15) and one study from Bhutan (28), India (29) (28), Korea (30), Mongolia (31), Myanmar(32)and Pakistan(33), etc

Prevalence:

As shown in Table 2, there were only 3 studies that reported the prevalence of Nicotine, Alcohol, and Cannabis addiction and one study only reported the prevalence of Cannabis addiction (33)(19)(18)(27). However, the rest of them reported the prevalence of either Alcohol/Nicotine or both of them. Reznik et al. reported the highest prevalence of alcohol addiction in university students i.e. 66.8%, Nawaz et al. reported the highest prevalence of nicotine and cannabis addiction i.e. 76.76 % and 27.3% respectively(15)(33).

While, the study by Poorojalal showed lowest prevalence of alcohol addiction i.e. 7.8%, among the sample studies(14). Goel showed the lowest nicotine addiction i.e. 19.8%, and Shrestha showed the lowest cannabis addiction i.e. 9.88%(29)(19)
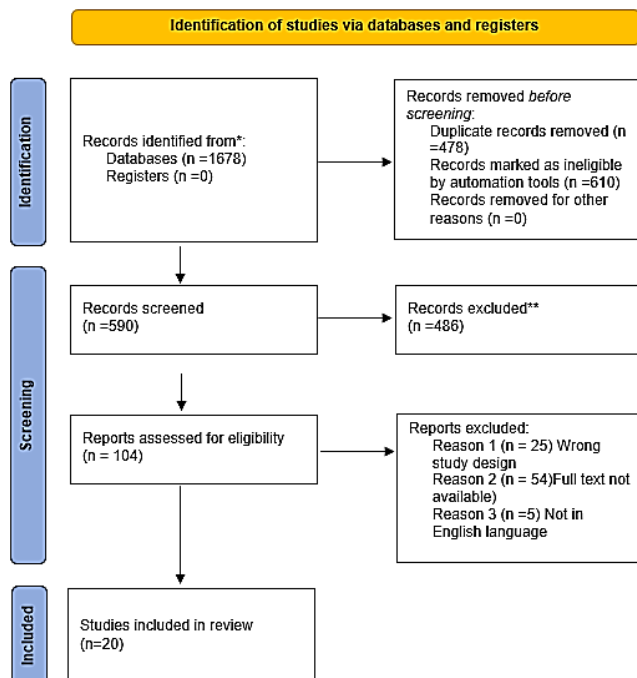

Figure 1

SERIAL NO.	AUTHORS	YEAR OF STUDY	TYPE OF STUDY	SAMPLE SIZE	STUDY LOCATION
1	Poorolajal	2019	Cross. Sectional	4261	Iran
2	Zahedi	2016	Cross-sectional	2157	Iran
3	Talih F	2018	Cross-sectional	172	Lebanon
4	Nawaz H	2017	Cross-sectional	780	Pakistan
5	Reznik	2019	Cross-sectional	626	Russia
6	Assaf G	2018	Cross-sectional	231	Lebanon
7	Yoo HH	2020	Cross-sectional	323	Korea
8	Shrestha	2020	Cross-sectional	100	Nepal
9	Bhatta	2018	Cross-sectional	224	Nepal
10	Dorji	2020	Cross-sectional	428	Bhutan
11	Kushwaha	2019	Cross-sectional	326	Nepal
12	Mei S	2017	Cross-sectional	1092	China
13	Htet	2020	Cross-sectional	3456	Myanmar
14	Goel	2015	Cross-sectional	1455	India
15	Mozafarinia	2017	Cross sectional	422	Iran
16	Chu JJ	2016	Cross-sectional	1853	China
17	Jaichuen	2018	Cross-sectional	1279	Thailand
18	Shiqi Wang	2020	Cross-sectional	1074	Mongolia
19	Saiphoklang	2018	Cross-sectional	422	Thailand
20	Gritsenko	2020	Cross-sectional	828	Russia

SERIAL NO.	STUDY AUTHORS	PREVALENCE OF ALCOHOL ADDICTION (%)	PREVALENCE OF NICOTINE ADDICTION %	PREVALENCE OF CANNABIS ADDICTION %
1	Poorolajal	7.8%	13.5%	-
2	Zahedi	18.1%	13.2%	-
3	Talih F	51.8%	-	-
4	Nawaz H	16%	76.76%	27.3%
5	Reznik	66.8%	34.1%	-
6	Assaf G	57.7	-	-

7	Yoo HH	55.9%	-	-
8	Shresta	41.86%	13.95%	9.88%
9	Bhatta	42.41%	24.6%	35%
10	Dorji	51.6%	-	-
11	Kushwaha	59.6%	28.2%	-
12	Mei S	34.2%	10.3%	-
13	HItet	20.3%	-	-
14	Goel	19.8%	9.4%	-
15	Mozafarinia	19.90%	-	-
16	Chu JJ	49.60%	-	-
17	Jaichuen	36.90%	-	-
18	Shiqi Wang	-	33%	-
19	Saiphoklang	-	23.8%	-
20	Gritsenko	-	-	11.3%

Table 1Prevalence of Alcohol, Nicotine, and Cannabis addiction

ADDICTION IN STUDENTS OF ASIA	PREVALENCE
Alcohol	26.5%
Nicotine	20.19%
Cannabis	20.3%

Table 3 Prevalence of Addiction in students of Asia

Prevalence of Alcohol, Nicotine, and Cannabis reported by Students in Asia are 26.5%, 20.19%, and 20.3% respectively, with Alcohol being the most prevalent.
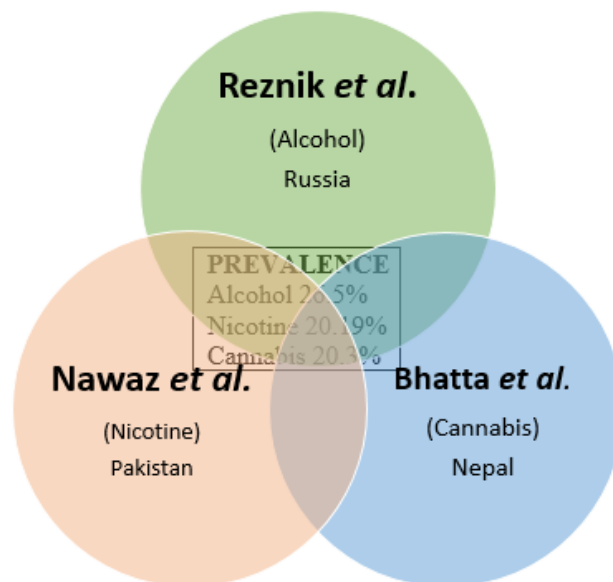
DISCUSSION:

Our Systemic study includes 20 studies on the prevalence of drug addiction in university students in Asia after a thorough screening from PubMed, Google Scholar, and Cochrane. This study deals with alcohol, nicotine, and cannabis addiction among university students. Among the 20 papers selected for this review 17 deal with alcohol addiction, 11 with nicotine, and 4 with cannabis addiction. Our systematic review has included studies taken place in all the Asian countries in the last ten years and there was a lot of difference in the prevalence of addiction to different substances in different countries, with the prevalence of alcohol addiction as high as 66.8% in Russia(15) and as lowest as 7.8% in Iran(14).

Furthermore, it was seen that the prevalence of alcohol addiction which is impressible in Islam was seen more in non-Islamic countries than Islamic ones. Nevertheless, the overall prevalence of alcohol addiction was found to be very high among university students in Asian countries. Nicotine and cannabis varied differently regardless of beliefs. Nicotine was most prevalent in Pakistan at 76.76%(33) and least in India at 9.4%(29). This large difference in the prevalence between the two neighboring countries can be attributed to considerably different sample sizes used in these two studies or any bias which might have occurred as the studies were questionnaire-based. Cannabis addiction was found to be most prevalent in Pakistan at 27.3%(33) and least prevalent in Nepal at 9.88%(19).

This high prevalence of the three harmful substances included in our study i.e. alcohol, nicotine, and cannabis imposes a serious threat. The most dangerous of these is alcoholism. It is discovered to be a necessary underlying cause for over 30 conditions and a contributing factor for many more, including numerous infectious diseases, cancer, diabetes, neuropsychiatric disorders (including alcohol use disorders), cardiovascular disease, liver and pancreatic disease, and unintentional and intentional injury. (34)While, nicotine which is most preferably used in form of cigarettes is not free from its side effects either. There is an increased risk of cardiovascular, respiratory, and gastrointestinal disorders, with a weakened immune system and a risk for developing metastasis. Cannabis, which is now also used medicinally, has a significant potential for misuse and can result in major consequences such as respiratory and cardiovascular illnesses, cognitive changes, psychosis, schizophrenia, and mood disorders. (35)

Students and especially university students are always at high risk of falling into an addiction to substances due to newfound freedom, peer pressure, and an innate desire of trying new things. So, considering the many harmful side effects of addiction, this particular segment of society must be saved. The youth is considered tomorrow's future and as drug addiction has impacted the youth greatly, it also poses a great threat to the betterment of society and the economic development of countries. Awareness programs against drug abuse should be encouraged. Counseling programs in all schools, colleges, and universities should be introduced. The students should be screened regularly for depression, anxiety, etc. as

these are high-risk factors for drug abuse. Patients who are indulged in these acts should be identified early and subjected to interventions as soon as possible. Also, a strict check should be there on the selling of drugs and all the manufacturers and sellers should be punished according to the law. Other measures include notifying the authorities about any illegal conduct of drug abuse or drug exchange amongst youth, especially near schools, colleges, parks, and other hotspots where the youth is known to spend most of their free time.

STRENGTH AND LIMITATIONS:

To our knowledge, this is the first study of its kind to be conducted to determine the incidence of addiction among university students in Asia. PRISMA guidelines were followed and a rigorous methodology was used to perform it. The search strategy was carefully developed and comprehensive in nature. The review was restricted to articles covering the period of 2012 to 2022 to give more relevance to the current situation and for purpose of planning realistic interventions. All the studies added to the review were cross-sectional and have different sample sizes. More high-powered studies are needed to find out the prevalence of students in Asia so that goal-based intervention programs could be implemented to control this problem.

CONCLUSION:

The prevalence of addiction in Asian countries is high and is rising, with alcohol addiction being the most prevalent. Addiction poses a serious threat and causes many physical and mental health problems, a decline in quality of life, and even premature loss of life.

Awareness campaigns and community programs should be initiated to reduce this high prevalence to save the continent of Asia from the harmful effects of addiction and substance abuse.

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