

Prevalence of Substance Abuse among Engineering Students

A Dissertation

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Submitted by

Debabrata Nayak

413HS1016

Under the Guidance of

Prof. Seemita Mohanty

Associate Professor

Department of Humanities and Social Sciences



NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA – 769008, ODISHA

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Declaration

I hereby declare that I have completed my project work on “Prevalence of Substance Abuse among Engineering Students” at National Institute of Technology, Rourkela, Odisha in the Academic Year 2014-15. The information submitted here by me is true and original to the best of my knowledge.

Debabrata Nayak
M.A. in Development Studies
Dept: Humanities and Social Sciences
National Institute of Technology, Rourkela, Odisha

Dr. Seemita Mohanty
Associate Professor
Department of Humanities and Social Sciences
National Institute of Technology, Rourkela
E-mail: seemita@nitrkl.ac.in, seemita.m@gmail.com
Phone: +91661 2462692 (o), Fax: +91 661 246 2690

CERTIFICATE

Date: 05.06. 2015

This is to certify that the project thesis entitled **Prevalence of Substance Abuse among Engineering Students** submitted by **Debabrata Nayak** for the award of the degree of MA in Development Studies in the Department of Humanities and Social Sciences, National Institute of Technology Rourkela is a record of bona-fide research work carried out by him under my supervision and guidance. His research work at the Department of Humanities and Social Sciences from National Institute of Technology, Rourkela has reached the standard fulfilling the requirements and the regulations relating to the degree. The contents of this thesis, in full or part, have not been submitted to any other university or institution for the award of any degree.

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ABSTRACT

The study was initiated with the key objective of examining the prevalence rate of substance abuse among engineering students of a premier engineering institute of India, and also to identify the factors responsible for such behaviour among these students. The objectives also included to identify and propose appropriate methods and solutions through which this type of behaviour among engineering students could be countered. The study was undertaken among students of a centrally funded technical institute. Data triangulation method was used by taking data from data sources like engineering students, non-technical students, hostel authorities, security personnel, student counsellor, nearby shopkeepers etc. for better data validity. The study was qualitative in nature. In-depth interviews and daily observation methods were used, to identify the nature of substance abuse among students and to provide proper solutions for those who are highly or moderately addicted to substance. The results of the study show that B.Tech students are more addicted to substance than the M.Tech and Ph.D. students. The main reason for this kind of behaviour is due to excessive freedom from both parents and administration. Use of psychoactive substances also leads to various types of health hazards such as chest pain, decrease in stamina and cough. It also has impact on education. In addition, the lack of any involvement from non-users or passive users against instances of substance abuse leads to a state of more vulnerability and a feeling of isolation among the user base. Some probable solutions recommended to decrease the harmful use of substance abuse among students are - awareness programmes, open house discussions, creation of support groups, in addition to strict rules and regulations regarding use of substance in hostels. Routine meeting with parents may also help to evaluate the changes perceived among the wards as a result timely treatment and support could be made available to the students.

Keywords: Substance Abuse, Drugs, engineering students, prevalence rate, psychoactive substances

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Chapter I

Introduction

1.1 Background of the Study

The youth of a country are always the vital resources of that country. The present and the future of a country are built upon them. But today sadly it is being observed more and more that substance misuse in India among youth is very much on the increase. The period of one's youth is a delicate phase of mental and physical improvement, and always fraught with danger as it is also a phase susceptible for all kinds of misdemeanours. The pre-adult life is a life of training and learning and for procuring skills and abilities that builds upon one's life as an adult. So the emphasis is always on acquiring skills and knowledge that will hold one in good stead when one gets into adulthood. But sometimes these stages of pre-adulthood and young adulthood situate the youth in conditions where substance abuse seems to be a convenient way out, or a 'cool' thing to do, rather than making them see the evil side of its usage. Today substance abuse among teenagers is a general concern globally. The period of youth is seen to be predominantly tilted towards deviant behaviour, including utilisation of substance. The pressure to do well in examinations, peer pressure, performance anxiety and changes in social equations are some of the factors that have assumed alarming proportions today and are playing vital roles in initiation of substance abuse among the youth.

As defined by World Health Organization (WHO), "Substance ill-use alludes to the unsafe or dangerous utilisation of psychoactive substances, including liquor and illegal drugs. Psychoactive substances utilization can prompt reliance disorder - a bunch of behavioural, psychological, and physiological phenomena that grow after rehashed substance utilization and that commonly incorporate a powerful urge to take the drugs, challenges in controlling its utilization, continuing in its utilization in spite of destructive results, a higher need given to

drugs use than to different exercises and commitments, expanded resistance, and at times a physical withdrawal state.” UN report also indicates that one million heroin addicts have been identified in India, and informally there are upwards of five million addicts.

Drug misuse gives unpredictable sensations, which has different social, economic, and psychological perspectives. The deterioration of the old joint family framework, perceived absence of parental love and care in current families where both of the parents are working, decay of old religious and cultural values and so forth prompt an increase in the quantity of drug addicts who take drugs to escape the hardships of their life. Peer pressure; desire to be popular, poor parental control and simple accessibility of the substances makes a pre-adult to strive for drugs misuse. Dependence on drugs influences the individual’s wellbeing as well as disturbs their family and the entire society. Adolescents are the most defenceless populace to start tobacco use. It is usually seen that most of the adults begin taking tobacco in their youth or puberty. Therefore it is imperative to understand the different components which influence adolescents to consume tobacco and other related substances.

As per World Bank reports, on a global scale around 82000-99000 kids & young people start smoking on a regular basis. If it proceeds in the same manner then it may lead to the death of almost 250 million kids. The World Bank also reports that it is a matter of great distress that India is the 3rd largest producer and consumer of tobacco in the world. Tobacco can be used as a part of both the means like smoking & non-smoking. Smoking structures incorporates *cigarettes, hookas, chillum* etc. Smokeless products are *insect quid, khaini, gutka & pan masala*. As indicated by National Sample Survey of India around 5500 new clients are included regularly making 2 million clients taking substance consistently.

With the objective of reducing interest and addiction to drugs, the Ministry of Social Justice & Empowerment has been executing the scheme of Prevention of Alcoholism and Substance (Drug) Abuse subsequent to 1985-86. The scheme was overhauled thrice in 1994, 1999 and 2008 and at present provides financial support to NGOs and other agencies and institutions for the following causes:

1. Awareness and Preventive Education
2. Drug Awareness and Counselling Centres
3. Integrated Rehabilitation Centres for Addicts (IRCAs)
4. Workplace Prevention Program (WPP)
5. De-habit Camps
6. NGO discussion for Drug Abuse Prevention
7. Innovative Interventions to reinforce group based restoration
8. Technical Exchange and Manpower advancement program
9. Surveys, Studies, Evaluation and Research on the subjects secured under the plan.

At present around 350 to 400 Integrated Rehabilitation Centres for Addicts (IRCAs) are working with the backing of the Ministry in the nation. De-habit camps are set-up frequently to contact uncovered zones. The Ministry has set up a National Centre for Drug Abuse Prevention (NCDAP) in the National Institute of Social Defence (NISD) for limiting drugs use and for supporting NGOs running de-dependence schemes. The Ministry is likewise supporting Twelve NGOs working in the field of drugs misuse as Regional Resource and Training Centres (RRTCs) for undertaking research and development in addressing drugs misuse, and for organising drugs ill-use camps and programmes.

1.2 Rationale and Significance of the study

- According to recent surveys (Tobaccofreekids.org & NIDA) youngsters & students are more vulnerable towards substance abuse (including illegal drugs like heroin, cocaine, *ganja*, and cannabis, ‘club drugs’, alcohol, and nicotine, a major component in tobacco).
- Centrally funded technical institutes are premier engineering institutes of the country where students from all parts of India and even abroad pursue their studies. A highly diverse student population forms the student base of such institutes.
- As a student of a centrally funded technical institute and a regular passive smoker I feel to be well-placed to contribute something which will help similar institutions to better manage the high rate of substance abuse among the students, and also provide information to other such institutions to take initiatives in curbing this menace.

1.3 Objectives of the Study

- To find out the level of substance abuse among engineering students in centrally funded technical institutions.
- To understand the reasons behind this kind of self-harmful behaviour among a student population considered to be the cream of our society.
- To highlight the factors contributing to this kind of “harmful use” among students, and propose suitable measures that can be taken to control this problem among engineering students.

1.4 Limitations of the study

All scientific inquiries are subjected to few limitations, although these may differ with respect to the magnitude of limitations. The findings of the present study are subject to the following limitations:

1. The study area was limited to a centrally funded technical Institution. Thus the results of the study are applicable only to similar kind of situation analysis.
2. The study affects to a certain time period. The result may not be valid for over a longer period of time due to fast changing socio-economic and socio-cultural setting in this study area.
3. Because of limitation of time and other resources involved in research, the present study was restricted to a limited number of samples. The result drawn from this study, therefore may have limited application i.e., it cannot be assumed to provide information, capable of generalization over other regions and could have regional biasness.

1.5 Implications of the Study

- The study will help us to know the present status of substance abuse in centrally funded technical institutes.
- It will help us to study the socio-economic status of the students using substance.
- The study will help us to find preventive measures to minimise the level of substance abuse and also to implement in different educational institutions.
- It will help us to upgrade new methodologies and implement policies and set of norms to keep institutions substance-free.

1.6 Research Methodology

- The study is qualitative in nature. Other methods are difficult to use as it is a sensitive topic to discuss.
- The study was conducted in a centrally funded technical institution of the country.
- Participant observation method was applied.
- In-depth interviews were taken from both male & female subjects.
- Sample size was 30. Twenty substance users (Male - 15 / Female - 5) and 10 non-users (Male - 4 / Female - 6).
- Based on observations & daily interactions with students & all those who are directly or indirectly a part of a centrally funded technical institute.
- Age limit of subjects: 18-30.
- Snowball sampling method was used for identifying substance users.
- TTFS (Time to First Smoke) in less than 30 minutes, method was used.
- Data Triangulation was used to elicit information from different individuals directly and indirectly associated with the students and to establish reliability of the study.
- Data was sourced from addicted students, non-addicted students, faculty, hostel officials, security guards, Institute counselor, and storekeepers selling alcohol, cigarettes and tobacco etc.
- A pilot study was done with five students who did not form a part of the main study, and necessary modifications were done.

Chapter- 2

Review of Literature

There are several studies which show the impact of substance abuse on adolescents. Also there are some studies describing about averting and controlling the negative impacts of substance on youths. Some studies also illustrate the status of laws, rules and regulations by Government of India and other global bodies with relation to its impact on a country's economy, and also about the costs incurred by tobacco users.

Fawcett et al, (1994) in their study have suggested about the needs and changes of communities and how they can play an important role in preventing substance abuse among youth. They have also proposed an action plan guiding community based initiatives to address such issues. Community coalitions or community action strategies are one of the best methods to prevent substance abuse among adolescents. To implement the plans in the ground, there should be a proper process or guide or a set of norms and procedure to get best outcomes. It also talks about the changes needed in the community or among the stakeholders of communities, such as schools, religious organizations, changes in business communities, law enforcement bodies, health sector or hospitals, media, youth organizations, changes in social service, government and community organizations. Monitoring progress and promoting renewal also helps the groups to modify their action plans periodically to respond to new challenges and opportunities.

Jena, Kishore and Sarkar's (2013) study discusses about the Global Adult Tobacco Survey (GATS) definition, analysis and interpretation of cigarettes and "Cigarettes per Day" and it proposes to modify the GATS definition and interpretation in future surveys taking into account the following factors. The study suggests that concurrent use of other tobacco

product(s) reduces the consumption (i.e. mean cigarette per day) of manufactured cigarette or GATS defined cigarette use. In case of rolled cigarette opposite finding may be due to low cost of it in comparison to other tobacco products resulting in higher consumption. Also this finding may be a result of misreporting in GATS survey (Jena et al., 2012). Hence exclusive and product specific analysis would be ideal to assess true consumption pattern (CPD) among male and female cigarette users. The anomaly in mean CPD estimate in GATS-India data was due to inclusion of two heterogeneous products to define cigarettes, variation in cigarette product specific user proportions contributing to the average and non-exclusive concurrent use of other tobacco products. The consumption pattern of cigarettes among the mixed users highlights bias in CPD reporting.

Nadeem et al (2009) article focuses on the consequences of drug abuse on different aspects such as economic, social, cultural etc. Apart from affecting the financial stability, addiction increases conflicts and causes untold emotional pain for every member of the family. The damage to the physical, psychological, moral and intellectual growth of the youth is very high. Women in India face greater problems from drug abuse. The consequences include domestic violence and infection with HIV, as well as the financial burden. India has braced itself to face the menace of drug trafficking both at the national and international levels.

Murthy's (2011) study covers the topic of substance use and addiction research in India. It covers the topic in different extents such as: epidemiology, clinical issues, biological studies, interventions and outcomes as well as community interventions and policies. It critically discusses about the need of standardised tools for assessment and monitoring of substance use. It talks about the scope of biological research which will help to translate the wider body of basic and animal research in the area. And it also focuses on the regional differences in substance abuse prevalence and patterns. It is far-sighted to recognize the dynamic nature of

substance use. Thus, there is a need for periodic national surveys to determine changing prevalence and incidence of substance use. In Indian context the drug related emergencies have not been adequately studied.

Paglia and Room's (1999) paper critically reviews all the evaluative literature on programs and other interventions designed to prevent substance abuse problems among youth. It focuses on the patterns and trends in youthful drug abuse and evidence on type of harms. It recommended that the programs should be designed on the basis of an assessment of the dimensions of drug related harm and measurement of changes in it. It also concentrates on school based drug education programs and on "natural experiments" and other quasi experimental designs which are cost-effective analysis, to explain to the youth about the need of harm reduction initiatives.

According to a research study carried out by Health and Ageing Department of Australian Government during the year 2005, focusing on understanding of youth smoking behaviour, uptake, addiction and cessation, although 'young people know that long term smoking is dangerous, but they do not focus on long term consequences of smoking.' The young people are often fuelled by counter examples of how someone they knew smoked all their life, and either suffers no health consequences or died of different reasons. The study tried to provide certain recommendations to the government such as - What should be role of parents? Legal Restrictions, Reducing palatability, cessations and how and what should be the public campaign's primary focus areas and strategies?

According to an article entitled "The Psychology of Smoking" people are seduced to try tobacco by the glamourization of smoking in the movies and in advertisements. Addiction to nicotine makes it hard to quit smoking once you have started, but this addiction can be overcome in two weeks once the psychological reasons for smoking are eliminated.

People start smoking in a misguided attempt to calm their nerves, cope with stress, or lose weight, but smoking does not help to solve the source of their problems or to compensate for poor eating habits. Denial that one is addicted to tobacco is the greatest barrier in overcoming the habit. Tobacco companies have encouraged habitual use of tobacco by including coupons, such as 'Camel Cash,' that can be collected and redeemed for merchandise. Although advertising by tobacco companies has been curtailed on television, there is sufficient promotion in other types of media to hook the next generation of users. Many smokers feel that they do not smoke enough to be harmful, 'but this kind of thinking is only self-delusion that justifies a bad habit' (<http://www.scientificpsychic.com/health/drug-rehab.html>).

Reddy and Gupta's (2004) report traces the past, present and future of tobacco control in India. It discusses about the historical background of India on substance abuse. It gives special importance to the role of civil societies as they create awareness and advocate for regulations on tobacco products. World Health Organization has established a civil society initiative to formalize the partnership of working together towards achievement of the health goals in both developed and developing countries. Civil societies play an important role in enforcement of rules and regulations, which the tobacco companies try to defy. The tobacco companies have introduced a new concept of Mobile Smoking Lounge (MSL) in India in three states, Haryana, Gujrat and Delhi. It also provides various examples of advertisement which indirectly promote substance abuse in India. It also showed a deceptive illustration about Indian urban women getting attracted towards substance abuse, to look cool and modern.

Juyal, et al (2008) study was conducted to know about the socio-demographic characteristics of substance abusers among college students in Dehradun. It was found that students belonging to urban areas, non-vegetarian by diet, and Hindu by religion were found to be at

an increased risk of developing substance abuse behaviour. The study was done by taking two categories of students a) Ever User b) Regular user. Concern about the use of harmful habit forming substances in students appears to be a very natural reaction; as they constitute a vital part of the society. 'Their age and often sudden wide exposure to new environments may render them extremely vulnerable for substance abuse.'

Therefore, from all the literature available on substance abuse we find that youth are the ones who are most vulnerable and susceptible to substance abuse. The reasons are definitely varied as revealed from the above studies, but certain similar patterns also emerge from all these prior studies. Taking into account what was indicated from the literature review on substance abuse, the present study was conducted to understand the prevalence rate of substance abuse among a student base belonging to engineering background, as qualifying for an engineering course in a centrally funded technical institution in India is considered to be one of toughest challenges for a student. After coming out successfully through such tough entrance examinations in addition to their regular board exams which are equally tough, what propels them to take to such deviant behaviour is something that needs to be examined thoroughly.

Chapter-3

Data Presentation and Analysis

3.1 Interview Guide

For substance users

1. What kind of drugs (including smoking and drinking) do you take?
2. What is the frequency of substance usage: hourly/daily/weekly basis?
3. When did you start this habit?
4. What are the factors that have influenced you to take to smoking/drinking or taking drugs?
5. Do you perceive any effect of substance abuse on your studies?
6. Do you perceive any effect of substance abuse on your health?
7. Do you perceive any effect of substance abuse on your relationships?
8. Do you wish to abstain from smoking/drinking or taking drugs?
9. Does anyone from your family uses substance?
10. When did you last take substance?
11. Do your friends take this habit of yours positively or not?
12. How much do you spend monthly on substance?
13. How did you manage to buy substance?
14. Do you consider yourself addicted?
15. How do you get access to these stuffs?
16. Do your parents know about this habit of yours?

For non-users

1. Have any friend of yours tried to take help from you to get de-addicted?
2. Have you ever tried voluntarily to help your friend?

3. Have you ever informed your friend's parents/guardians?

Questions asked to Hostel Authorities:

1. Are you aware of students getting addicted to substance?
2. Have any measures been taken to address these issues? If yes, what are they?

3.2 Levels of Substance Abuse

For better understanding the students have been categorised into four levels in this study:

Level 1- Addicted

Those who take substance within five minutes of waking up in the morning time, and continue taking substance within a gap of 2 – 3 hours during a 24 hour period, are termed as 'addicted'

Level 2 - Moderately addicted

Students smoking 3 times a day, i.e. - during afternoon after lunch, again after 5-6 hours in the evening, and again after dinner, i.e. before going to bed.

Level 3- Tried at least once

Level 4 - Not yet tried

3.3 Key Findings from the Study:

The study conducted at a centrally funded technical institute revealed that in the said institution, substance includes the following - Cigarettes, Weed, Alcohol, Tobacco, *Bidi*, and Hashish. Most of the students are addicted to smoking of cigarettes and inhaling weed in different forms such as *bong, joint and chillam*. Binge drinking is now in trend among youths, especially among students who wish to reflect a 'cool' personality and desirous of putting up a show of maintaining a privileged status. Those who take alcohol are taking alcohol twice a month.

Bidi was found to be rarely used by the students. Before joining the engineering institute most of the students had already tried substance once at their school or intermediate level.

But weed-intake is mostly practiced after joining the engineering programme. The students coming under Level 1 are comparatively less than Level-2 students or those who are in the way to get addicted or semi-addicted. Majority of the males are in Level 3 or those who have tried substance at least once after joining the engineering courses. Females are comparatively more in Level 4. From levels (1-4) it is in decreasing order in case of females. In most of the cases, it was observed that the level of substance use increases during bachelor degree especially in Bachelor of Technology (B.Tech); for instance the students in B.Tech 1st year have high chances to fluctuate positively towards substance abuse. And in that pattern, it tends to increase up to B.Tech final year. But in Masters in Technology (M.Tech) and PhD, it tends to decrease gradually or remains static in most of the cases.

3.4 Reasons for Substance Abuse:

It is one of the interesting parts of the study where we were able to analyse the reasons why and how they get so indulged in substance abuse. In addition the objective was also to analyse how it affected their psychology? The most common reasons for smoking or being alcoholic in majority of the cases was that they took once just for experiment, as to how it feels and to know why their friends or colleagues take substance. In some cases parents and siblings also play an important role directly or indirectly in influencing the youngsters.

In the second stage they try to enjoy, looking stylish and having a show-off attitude. The second stage very soon influences the third stage and changes the mentality of the abuser and makes it as a kind of need for socialization, or to be a responsible citizen of the society or

class. And gradually the nicotine works as a slow poison by making them addicted towards substance and makes it a daily routine. Then it plays a role of stress or pain reliever. Those people who are in between level 3 and level 2 use substances for time-pass or during some occasions. But as the level increases in slow process, the series of occasions also increase. For instance: male respondents first took alcohol (mostly) during birthday parties and marriage occasions. But as the frequency is supposed to happen very rarely, the category of “occasion” increased to other reasons like ‘cracking job interviews’, birthdays of any friend or any mutual friend, friend having a successful love affair, friend passing the class examinations or sometimes after completions of exam sessions are some of the good reasons for getting drunk and stoned. But there are some alternative cases also where an individual’s love affair or relationship gets affected or breaks up, sometimes failure in cracking some important career objectives, makes the individual feel wiped-out and get drunk and stoned. Both positive and negative situations are cited as factors or reasons by these individuals to get drunk and stoned. From this we can interpret that once it becomes a habit then any kind of excuses are generated by these students to misuse substance.

3.5 Factors Influencing Substance Abuse

Some important factors influencing students in engineering institutions in India to get intoxicated are:

- **Freedom from any kind of Supervision**

It is one of the crucial factors which play an important role to make youngsters or youth to go boozing. Most of the students remain outside their homes, i.e. in hostels. This is the place where no one or hardly anyone bothers about their activities. All the decision-making process is in the hands of those who are not experienced about the consequences of taking bad decisions. Those who are in first year have their age below 18 or just 18.

The age group from (15-22) is the period which plays a crucial role in making someone's life more rewarding. It makes a base for a successful career whether in academics, or in sports etc.

In the study it was revealed that almost all the students accepted that due to excessive freedom and independence to do what they wanted, they got scope for substance abuse.

- **Peer Pressure**

Peer group or friends' psychology and their behavioral background highly impacts an individual's perception; especially in case of substance abuse. Friends may create pressure on them (peer-pressure) to get them galvanized towards using drugs or tobacco products. Some good friends also help towards getting sober, but wrong decisions about friends change their behaviour towards practicing something disastrous and become an unfortunate need of their life. These friends decide their future personality and future decisions. The results showed that there were some instances where friends encouraged the students to take ill-decisions, for fulfilling their own selfish desires.

- **Weather:**

Weather plays an important role in affecting someone's behaviour and psychology. In my study it was found that winter and rainy seasons play a major role to practice substance abuse. Most of the subjects tried substance whether alcohol or cigarettes during winter and rainy seasons. The reasons behind this kind of behaviour is the perception that alcohol and smoking keeps our body warm and it creates a feeling of relaxation to our mind and body.

- **Ignorance of Parents:**

It is in rarest of rare cases that parents are aware about their children's attraction or affirmative behaviour towards psycho-active substances. It is obvious that parents always give priority to their own children and are always with them having a positive perception

towards their own blood. The study shows that parents have totally no idea about the addiction of their children. Even if there are some cases where parents are aware about the behaviour of their son/daughter towards substance such as smoking, alcohol and chewing tobacco (it excludes- weed, dendrite, brown-sugar etc.) they are unaware about the addiction or they perceive that their children have tried these out only for experimentation. The parents hardly try to check their children on these issues; the seriousness is directed only towards academic marks and grades. This factor plays a major role in the “freedom” of children and that “freedom” influences the level of substance abuse in any individual’s behaviour.

3.6 Impact of Substance Abuse on Health

According to the subjects of my study, they accepted that there is a negative impact on their health. But 1/4th of students refused to accept any negative consequences on health. Some of the basic health related problems are loss of stamina, laziness, chest pain, weight loss, memory loss, body-ache, blood-vomiting (rarely), hangover and cough. They have their own “Balance-Theory”, where they perceive that they are doing exercises and gym by balancing it to the amount of substance they have taken during the past day/week. They contemplate, “we are totally free from ill-effects of substance abuse”. Most of them perceive their present status of health as their permanent nature and avoid discussing any future changes or consequences.

3.7 Impact on Study

The findings from the study show that most of the respondents are of the opinion that there is neutral impact on their studies, or no effect on their study. Interestingly there are also students who feel that there is a positive impact on their studies. These students perceive that

after taking substance there is enhancement in their creativity (almost all those who are positive on substance) and they get good marks due to substance and even it motivates them to acquire more knowledge. There are some students who also experienced some negative consequences on their studies such as: memory loss, delay in submitting assignments and project works, loss in concentration, unable to remember well. But the strange and the serious fact is that most of the students in the said institute either think there is totally no impact on their studies or have a positive effect on their education. But unfortunately there are very less number of students who are aware or have experience of negative consequences of substance abuse. And all these students may get swayed by other external factors or even by their own friends.

3.8 Impact on Mindset

All of the substance abusers feel a positive impact on their psychology or have a positive impact after consuming substance. Certain apparent positive consequences of substance abuse as quoted by the respondents are as follows:

- ‘Smoking helps to feel drowsy after getting tired or acts as sleeping dose.’
- ‘During exams it makes us active and makes us not to feel drowsy.’
- ‘It helps us to have patience and remain stress-free.’
- ‘It acts as a pain reliever, both mentally and physically.’
- ‘Feel wonderful after taking beer.’
- ‘It gives a feeling of enjoyment.’
- ‘Weed helps to make great intellectual conversations.’
- ‘Weed helps in generating new ideas.’
- ‘Substances help to make new friends.’
- ‘It provides a high mode of relaxation.’
- ‘It makes us feel proud to be the highest tax payers of the country.’

3.9 Access Points

No doubt the places from where students access the supply of substance play a major role on the extent of substance abuse. The students of this particular engineering institute are well equipped to fulfil their needs of substance. There are certain places that are well-known for supplying substances to students. The following places are:

- Back Post (back entrance gate)
- Sector 2 market
- Front Post (old main gate)
- Side Post (side entrance gate)
- *Nala* Road (a nearby market area infamous for its narrow lanes and by-lanes)
- Pump House Road (Kansbahal, a nearby locality)
- Plant Site (a nearby market area)
- Sector 15 market
- *Aambagan* (popular market place)

Some other places outside the town from where drugs are procured that fulfill the substance requirements are:

- Bhubaneswar (state capital)
- Haridwar (a tourist place in north India well-known for its religious significance)

In addition to all these places, there are also peddlers inside the institute campus area who fulfil the demand of substance from the students. Many a time some students also play the role of a peddler and the motive behind this deviant behaviour is to earn money to fulfil their own needs.

3.10 Expenses Incurred

Most of the expenses incurred by B.Tech students are from the money that they got from their parents. Some of them claim to fulfil their needs by doing online jobs. Most of those who practice substance abuse try to collect money from own friends or share the resources (substances) among themselves. M.Tech and PhD students fulfil their needs from own stipend and fellowships as well as from family (if needed).

3.11 Acceptance of Addiction

More than half of the students did not accept that they were addicted. A very small percentage of the subjects accepted about their addiction to substance. The basic reasons stated by the students claiming about their non-addiction are:

- During visit to home they avoid taking substance.
- They perceive that they have enough will power to get rid of the habit at any time they wished to.

3.12 Statements from Friends

Most of them who are addicted or semi-addicted have positive and neutral remarks from their friends' side. No negative remarks were stated by any of their friends.

3.13 Plans to Abstain from Taking Substance:

Some of the subjects from M.Tech and PhD background have tried to drop their habits at least once, but in very rare instances they have been successful. But those who have been successful in getting rid of the habit cannot make themselves to abstain from all the

substance; for instance, an individual was able to successfully get rid of the habit of taking alcohol, but was still using cigarettes, or chewing tobaccos. Students from B.Tech and other backgrounds have no plans to abstain from using substance, at-least not for the next five years.

3.14 Impact on Relationships

The male respondents denied having any type of problems in relationships due to substance abuse. But the female respondents stated that, “There are huge problems that we face due to substance, both in our love relationships as well as among our friends from same sexes.”

3.15 Suggestions and Feedback from the Respondents

- “There is lack of *culture* among the students.”
- “Most of the family members provide money for a more comfortable living for the children, but they waste it or misuse it.”
- Most of the students search for funds from their own friends.
- Most of the availability of substance is from the betel shops.
- “We need some replacement mentally” or there is a need to replace substance by some other means to fulfill the psychological needs.
- Parents are also responsible to some extent.
- Most of the students try it for experience or just to try once.
- Most of the students perceive themselves to be helping out the economy. For instance - according to Reserve Bank of India “25% contribution for infrastructure development of the country is achieved from tobacco users”.

- Strict government/ management regulations should be there.
- Celebrity advertisements play a major role in impressing the youth.
- Yet at the same time, some claimed that there is no impact of advertisements on them.
- The type of anti-tobacco awareness advertisements that are shown in cinema halls has no impact on the youth. For example – usually a person from low economic background is shown to be getting addicted and suffering the consequences of addiction. These ads have no effect on the educated and smart youngsters usually coming from affluent background and who do not identify with the man portrayed on the screen.
- Wherever it is shown that a person died of smoking it is false information.
- Never dope under imposition or peer pressure.
- Know your limits.
- Ban on substance may lead to more criminal activities inside the institute campus.
- Almost all the stake-holders believed that substance users will try to arrange their needs by some different means.
- “The counsellor will not be able to fulfill our financial conditions of the family, it is not worth to visit institute dispensary.”
- “Strict rules in using substance abuse may lead to suicides”.
- As informed by the students themselves, almost 30% of the male students are highly addicted (in level 1), around 60-70% are moderately addicted (in level 2), and almost 80% are in level 3 (tried at least once).
- The percentage of girls experienced substance use is relatively less as compared to boys but the rate is fast rising among them also.

3.16 Response from the Non-addicted Students

The respondent group also included students who totally abstain from any kind of substance abuse, but were friends of substance abusers.

- Almost all the respondents had friends who used to take substance.
- They never tried voluntarily to stop their friends from taking substance, except one student but were unsuccessful in his attempt.
- No one of them has ever tried to inform his/her friend's parents or guardians.

These responses from the peer group are perceived to be playing a major role in substance abuse among the youth. The fallouts are very serious as it shows that there is no shield or the shield is not strong enough to make a susceptible student abstain from substance abuse.

3.17 Response from the Hostel Authorities

- Yes, they are aware of students smoking weed and taking alcohol.
- Yes, they have printed guidelines on notice boards and they try to create awareness about substance abuse.
- But, they also accept that the rules and regulations should be stricter.
- Regular inspections and monitoring should be there, which will help to create an atmosphere of support and openness that will further the process of counselling among the students.

3.18 Field Observation Report

- There is a lack of strong rules and regulations to deter substance abuse among students.
- Students are able to access substance by just a call to the retailer and also by visiting the residences of shopkeepers.

- Some near-campus store keepers/retailers have reported that their sale of cigarettes was around 300 per day.
- Students prefer taking recourse to illegal activities like, stealing and pilfering to cope to the needs of the substance.
- To some extent substance abuse is leading to sexual activities by students.
- Students are using cough syrups as a substitute of for substance use.
- Weed is the best choice as it is easily available at a cheap price. And it does not lead to any type of side-effects such as vomiting, or lack of hunger and bad taste as alcohol does.
- Peddlers are active both inside and outside the institute campus.
- Students are losing their character and behaviour, which may lead to serious socio-psychological problems.
- Some students are also using medical syrups and tablets as substance.
- When caught by security guards students try to harm and humiliate the security personnel.
- Some substance users maintain networks with unscrupulous persons or agents.
- Students concoct numerous reasons and explanations to go and have a smoke or a drink.
- There were some students who took help from the institute Counsellor to de-addict themselves.
- Almost all the students are aware about the presence of a Counsellor in the institute dispensary.
- Some Hindu students relate it to religious and pious activities, especially weed/*ganja*. They advocate the use of weed/*ganja* as an offering to Lord Shiva, with all of them posing as His ardent devotees.

- Students skip the Tobacco awareness advertisement/campaigns, while watching movies.
- Substance leads to conflicts between friends and relatives.
- They need a shorter but happy life, rather than a long and stressed life.
- It was also observed that there were students who smoked regularly, but they denied this and avoided to be a part of the study. More than 20 such students avoided being a part of this study.
- “Females are also able to jump the walls of hostel to take substance.”- As said by security personnel.
- Most of the girls who use substance for the first time inside the institute are victims of peer pressure.
- Those male students who decline to take substance due to immediate negative consequences are humiliated by their peers. Due to this the individuals try to take more and more substance in order to show others about his strong masculinity.

Chapter 4
Case Studies

There are certain cases that should be discussed in details, for better understanding of the study.

N.B - (In any of the cases the names of individuals are replaced by Code names to maintain ethics of the study done).

Case 1:

Code name - B1, Age - 20 years, Annual income of the family - Rs.7, 00,000

Caste - General, Sex - Male, Qualification – B.Tech 2nd year.

Cigarette	Weed	Alcohol
6-7 Day	Monthly thrice	Weekly Once
Within 5 minutes after waking	When have a free time	-

The individual (B1) takes substance such as cigarette, weed and alcohol. The frequency is 6-7 cigarettes per day; within 5 minutes after waking up. This shows that he is highly addicted to smoking cigarettes. He used to take weed about thrice monthly. He takes weed when he has free time. The individual takes alcohol once a week, which is quite high as compared to others. In most of the cases, people take alcohol once in one to two months.

Starting Date - 13th June 2013

The reasons given for practicing substance abuse are primarily for relief from stress and assisting to concentrate. He started taking substance for experiment and fun. After joining the

engineering course he started taking substance. There is negative impact on his health, for instance – suffering from chronic cough with ‘tar-like’ discharge.

Surprisingly he has positive impact on studies and has achieved good marks/grades. Parents are ignorant about his habits. The boy gets hangover of Weed: 7-8 hrs, Alcohol- 3- 4hrs (if taken in excess), No hangover after smoking cigarettes.

Expenditure on substance – Rs. 4000-8000 per month (receives 1/2 from family and ½ from online jobs). He got full scope to go for substance abuse due to freedom from any family supervision. So there is no one to stop him from doing all these activities. His friends pose no objections to his substance addiction. Even no one tried to discourage him, regarding these habits in him. It has no impact on his relationships. He accesses substance from Plant Site and Pump House areas. He does not consider himself as addicted.

Brands consumed – Cigarette - All (common ones), Alcohol - All (common ones) and Weed- Bong, joint.

Case 2:

Code Name - B4, Age - 23 years, Annual Income of family - 3.5 lacs, Sex – Male
 Qualification - B.Tech 4th year.

Cigarettes	Chewing Tobacco	Alcohol	Weed
Since 2007	Since 2009	Since 2007	Since 2008
21 cigarettes per week	10 packets daily	Monthly twice	Regularly 10 grams
Within 3-4 hrs after waking-up in the morning.	Within 2 hours after waking-up in the morning.	After Dinner	Within 2hrs after waking-up in the morning.

The individual code name B4 is addicted to almost all type of substances such as Cigarettes, Tobacco, Weed and Alcohol. The frequency is 21 cigarettes per week, within 3-4 hrs after

waking up in the morning. In case of tobacco, the individual intakes about 10 packets a day, within 2 hours after waking up in the morning. But in case of alcohol it has a quite different pattern. The individual takes alcohol twice a month, after dinner. The frequency of alcohol is less because it is very expensive than any other substance and it has different effects such as vomiting and ‘heavy-stomach.’

In case of weed, which is one of the most common substances abused by students, the individual takes it every day regularly, about 10 grams in quantity, and having the frequency of within 2 hrs after waking and again taking it in next one hour. Sometimes it depends on the availability of weed with him. Regarding health he accepts that there are negative consequences on his health like, feeling lazy and lack of stamina. But he feels that there is certain positive impact on his studies, such as building creativity, improving patience, stress-free feeling, and acts as a pain-reliever. He started abusing substance, just for enjoyment. According to him he is semi- addicted. It also begets new friends for him as per his perception.

Expenses incurred: Smoking- Rs.500-600 (monthly), Chewing Tobacco- Rs.500-600, Alcohol- Rs.700-800 (monthly) and Weed- Rs.500. He used to manage his expenses from the pocket money given by his parents.

Case 3:

CODE NAME-#3G Age-24 Annual Income of the family- Rs. 4-5 lakhs Caste- OBC
Sex- Female Qualification – M.Tech Final year.

Cigarette	Alcohol	Weed
4-5 per day	Once in two months	4 times weekly
Since 2012 Spring	Since 2012 Winter	Since 2013 Winter

The interval of using substances are - 1 in Afternoon, 1 in evening and 2 in Night (After Dinner). She has also tried Hash 4 times till today.

The reason for taking weed is that she “Loves the tinge of Nicotine”.

The hangover after taking weed is for (1-2 hrs) and it depends on quality. In case of alcohol the hangover happens during waking up in the morning. The subject accepted the negative impact on health such as chest pain, body ache (in case of Vodka). But according to her there is a positive impact on studies. She feels it helps to enhance her creativity. “It helps in generating new ideas and helps in making new friends.”

She usually smokes when she is in the company of her good friends.

Expenditure - Rs.500 monthly. She faced very negative impacts on relationships.

In her family her cousin brothers and maternal Uncle and aunt used to take alcohol.

The Access Points are: - Back Post, *Nala* Road, Pump House, Sector 2, and Haridwar. Her Parents do not know about her substance addiction. She does not consider herself as addicted.

Case 4:

Code Name- #2G, Age- 22, Annual Income of the family- Rs.12 lakh, Sex-Female

Caste-General, Father’s Occupation- Government Service, Qualification-M.Tech

Smoke	Weed
30 cigarettes per week	3 joints in weekends
Since 2011 Winter	Since 2013

The interval of using substance is 1 in afternoon, 1 in evening and 2 at night. Almost in every 5 hours. The reason she started was for experiment. Substance acts as Pain killer and Tension Reliever to her. She accepts about the negative impact on her health. She has constant chest pain due to smoking. It has no impact on her studies - neither positive nor negative. It has no

impact on her love relationships as her boy-friend also takes substance. But she admitted that there are negative consequences happened on her friend's life, who is supposed to take substances. Her friends' reactions are positive. She got the scope due to freedom from all types of restrictions. She also considers herself addicted towards substance. Her monthly expenses are Rs.500 per month on substance. She uses her pocket money for these expenditures. Her parents are ignorant about her addiction towards substance.

Case 5:

Code Name- B4 (A), Age -22, Annual Income- Rs.6, 00,000, Caste- General, Sex- Male

Qualification – B.Tech 4th year.

Smoking	Alcohol	Weed
3 cigarettes per day	Once in 2 months	Twice a week
Since 2012	Since 2012	Since 2014

In this case the individual is addicted to substances like Cigarettes, Alcohol and Weed. He started on all these stuffs after joining the engineering course. In 2012 during his B.Tech 2nd year he started both smoking cigarettes and drinking alcohol. The frequency is 3 times, that is during the evening hours and at night time. He takes alcohol once in two months. He started weed in his last year, having frequency 2 times a week. According to him it has no impact on his studies. Regarding health also there is no impact. He tried to quit smoking last month but was successful for only for two days. His friends are neutral regarding abuse of substance. No one from his family is addicted to any type of substances. The factors motivating him are freedom from family restrictions, and flexible rules and regulations in the Institute. The reason of abusing substance is also to feel enjoyment and gratification. He takes weed in different forms such as, Bong, Joint and *Chillam* etc.

His monthly expenses regarding the purchase of such stuffs are about Rs.1000 per month.

He manages the expenses from his family. No one in his family is aware about his addiction.

He considers himself as addicted only to smoking.

Chapter 5

Conclusion and Recommendations

5.1 Conclusion

Conclusions related to substance abuse among engineering students drawn from the analysis of responses are:

- Students from undergraduate courses are more addicted than Masters level students.
- Most of the students are moderately addicted.
- Weed is the most common substance abused among the students in the said technical institution.
- Factors like freedom, parents' ignorance, a permissive culture, current weather and peer group pressure play major roles in impacting the students positively towards substance abuse.
- According to the respondents for a majority of them there is either neutral or positive impact on their study. Very few of the subjects accepted any negative impact on their studies.
- None of the students has been able to get rid of this substance abuse habit successfully.
- Students from B.Tech background have no plans to abstain from substance abuse.
- Students accepted the negative impacts of substance on their health.
- Male subjects denied any type of impact on relationships, but all of the female subjects accepted negative impacts on relationships and also with friends.
- Mostly winter and rainy seasons attract the youth towards substance abuse.

- Substance use leads to increase in crime-rate among the students as per their submission. Stealing is the most common crime committed among the addicted students.
- Easy access to substance both inside and outside the institute campus is a key factor behind this deviant behavior among students.
- Both male and female students are susceptible to substance abuse. The percentage among male students is certainly higher at present but girls are also becoming equally vulnerable to such habits.
- Sexual promiscuity is also on the rise because of these habits among the youth.

5.2 Recommendations based on the Findings of the Study:

- The institute authorities should determine the depth and severity of substance abuse among students so that rectification measures could be subsequently planned.
- Feedback and opinions of people involved in student activities and administration should be taken due cognizant.
- Health data of individual students should be recorded and digitised. Current health data can also be collected by organizing regular health and nutrition camps once every year or even once every semester. Attendance of all students in these health camps should be compulsory.
- Written policy on drugs and alcohol usage inside campus should be made available to all students.
- Yearly parents-teachers meeting should be there.
- There should be at least one awareness day against substance use organised by student clubs inside the institute premises.

- The programmes should not be preachy or prohibitionist. It should allow students to look introspectively about their behaviour and choices that they have made for themselves.
- The programmes should address the myths and false perceptions about substance by students and prepare action plans to change the mind-set of any student.
- “Curriculum infusion” should be implemented, where the negative consequences of drugs should be included as a subject in the curriculum.
- There should be modifications in the extra academic component in the curriculum for 1st year students as they are more vulnerable towards drug abuse.
- There should be a special section in institute newsletters/magazines about substance abuse and its harmful consequences.
- According to COTPA (Cigarette and Other Tobacco Products Act) 2003, educational institutions should not allow any shops selling substance within 100 yards of its boundary. But this regulation is routinely flouted in academic institutes. This plays a major role in easy-availability of tobacco products to the students.
- Faculty and other institute employees should be advised or requested not to take any substance during class hours or inside the campus as this creates a bad environment inside the institute premises. In addition, it also impresses the young minds in a negative way.
- Surprise inspection of Halls of Residences should be done to know about the status of outsiders residing in halls without permissions.

- Outsiders should be allowed only after having permission from warden and also the guardian of the boarder should be informed by the authorities.
- According to some students – “There are a couple of students having weed plant with them, kept secretly and illegally in their respective rooms in the hostel.” Keeping weed plant or marijuana is an offense by the Indian Penal Code act.
- There should be mission & vision statements relating to a ‘Substance-free campus.’
- The library should be equipped with magazines, journals and online materials helpful in creating awareness among the youth against substance abuse.
- Institutes can take help of social media, DC++ (A software mostly used by students to share all types of files, movies, software etc. as well as for group chatting) and also from own cyber department by having own page and site against the free use of psycho-active materials.
- Students should be checked from doing illegal activities. Students who are addicted sometimes indulge in illegal activities like theft and peddling. This should be strictly checked and curbed.
- World No Tobacco Day (WNTD) is observed around the world every year on May 31st. But strangely academic campuses all over the country, witness to high level of tobacco consumption among students, do nothing on this day to generate awareness among the students. It is just another day for everyone with hardly a soul aware of the importance of the day in generating awareness among the youth. This should be immediately rectified with proper awareness generation about substance abuse among the students.

5.3 Concluding Remarks

Indeed students from premier engineering institutions in India are highly competitive and talented to set milestones in academics. They play a major role in building the country's future. But due to the confidence of acquiring a bright economic future, the students become content and complacent. Even parents and guardians start believing that no strict restriction or regulation is essential for their children at this level. This belief among parents, and also among the authorities leads to freedom for the youth. Due to freedom, the youth groups try to practice new things, just to experiment once, for instance: smoking. During their stay at home, the adolescents have the fear of being caught by elders. But in hostels or halls of residences, there is no one to make them understand about the ill-effects of substances. In a very slow and gradual process the experiment leads to addiction. The reason mostly affecting youth is the nearby environment such as friend-circle or sometimes, cousins and relatives who also play a major role in getting them addicted to substance. Yet at the same time there are also students who in spite of experiencing craving to take substance, have managed not to do so because of the fear of their parents, effect on health, and also because of their own strong will-power. But most of those who are addicted have the mentality that-“one-day we will die” or if anyone died due to cancer, without having tasted any substance, then they say - “It's better to die by taking substance, rather than not taking anything”.

Parents' ignorance plays the major role in addiction of any individual. Movies showing smoking as a kind of style-statement also give rise to craving within the individuals. Because, for today's youth, their role-models are actors and actresses, rather than freedom-fighters or academicians. The college authorities also sometimes stay away from their responsibility of identifying any individual's changing behaviour towards negative traits. In case of female students, the trend of abusing substance is seen to be rising day by day. The reason may be, is

that, now a day the girls perceive that -“if boys are taking substance than what’s wrong if we took also”? The availability of substance is restricted by the government, but still it is not so effective on the ground which leads to rise in addiction among people. Some students also perceive that they are doing good for the society by taking substance, as they are paying taxes directly or indirectly for the development of the country.

Lack of strict rules in educational institutions is providing scope to rise in statistics of youth substance abuse. Lack of proper education and awareness during schools at initial stages of a student’s career also impacts on substance abuse. There is a chance in increase of trend of males from moderate to high level substance abuse, and for females who are in Level 3 having less usage of substances have high chances of increase in using of substance. Substance like cannabis creates hallucinations in the mind of the youth, which has high ill-effects. There should be awareness about the psychological factors and perceptions of the youth as well as the generation-gap which will make people understand what today’s youth are thinking or how they accept the current happenings in the society.

Another factor that plays a major role in prevalence of substance abuse among students is the role of non-addicted persons in their vicinity. People today are focussed only on their own well-being, as a result of which nobody takes any interest in these students’ activities, nor do they seem to be very bothered about their condition. Their immediate communities and the society at large are ignorant or indifferent to their condition. We need proper awareness programmes and efforts from both students and administration to make institutions healthy and thriving.

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