

**Original Research Article**

# Evaluation of oral health status among drug addicts in rehabilitation centre

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## Abstract

**Background:** The present study was conducted to investigate the attitude of drug addicts under withdrawal treatment towards oral health so that required interventions can be planned for the good health of those who are in rehabilitation phase of life.

**Materials and methods:** The present study comprised of 30 drug addicts (all males) admitted in the rehabilitation centre in Punjab, India. Data so obtained was subjected to analysis using SPSS version 16. Percentage and mean  $\pm$  standard deviation was calculated and Chi-square test was used for statistical analysis.

**Results:** Most of the participants (97%) were involved in more than one type of drug abuse and most of them used more than one type of route of drug substance administration. Regarding brushing frequency, about 17% not brushed their teeth regularly and 83% once a day and regarding the use of mouthwashes, 38% never used mouthwash, 59% used occasionally, 3% reported once a day. Most of the participants 92% never used floss to clean their teeth. Significant p value ( $<0.05$ ) was found on statistical analysis of periodontal status, carious and fractured teeth in relation to oral hygiene practices among drug addicts.

**Conclusion:** The result of the present study emphasis for more attention in designing and implementing oral health programs for addicts.

## Key words

Rehabilitation, Drug addicts, Oral hygiene.

## Introduction

Drug abuse results in various individual and social consequences and takes a heavy toll in terms of severe health complications, violence and social problems. In addition to the direct effects of drugs on oral health, drug abuse may aggravate oral problems indirectly through its adverse effects on user's behaviour and life style [1]. Substance Abuse and Mental Health Services Administration year 2000 survey reported that heavy alcohol drinking, tobacco and illicit drug use is increasing and causing serious health problems. Addicts are physically and psychologically dependent on drugs and neglect their oral hygiene, nutrition and systemic health, which are directly related to dental and periodontal diseases [2]. In addition to this, other hindrances to effective interventions include failure of addicts to accept the suggested treatment plan and lack of association between dental and general health care sectors serving drug addicts [3]. Thus, the present study was conducted to investigate the attitude of drug addicts under withdrawal treatment towards oral health so that required interventions can be planned for the good health of those who are in rehabilitation phase of life for their better future.

## Material and methods

The present study comprised of 30 drug addicts (all males) admitted in the rehabilitation centre in India. The rehabilitation centre was selected by convenient sampling and study population was selected by random sampling. Ethical approval was obtained from institutional committee. Permission was obtained from rehabilitation centre for the commencement of the study and was assured to keep the privacy regarding the personal data of the addicts. All participants were over 18 years and informed consents were obtained from all participants before data collection. Participants selected from the study were recently admitted addicts about 5 to 10 days back so that data gathered could present the real

status of the attitude and negligence of the addicts towards oral health. Data was gathered by interviewing the patients and attendant of the patient visiting the patient and oral cavity was examined for periodontal status and for carious and fractured teeth. Questionnaire regarding individual characteristics was filled by authors themselves after retrieving information. Data so obtained was subjected to analysis using SPSS version 16. Percentage and Mean  $\pm$  Standard deviation was calculated and Chi-square test was used for statistical analysis.

## Results

Demographic data reveals that average age of drug addicts admitted in rehabilitation centre was  $32 \pm 5$  years and the average age of start of drug abuse was  $21 \pm 3.2$  years. 99% of the participants were involved in smoking, 63% in sniffing of drugs, 91% used to administer drug orally and 68% used to inject drug substance. Most of the participants (97%) were involved in more than one type of drug abuse and most of them used more than one type of route of drug substance administration. Regarding brushing frequency, about 17% not brushed their teeth regularly i.e. once in 2-3 days and 83% once a day and regarding the use of mouthwashes, 38% never used mouthwash, 59% used occasionally, 3% reported once a day. Most of the participants 92% never used floss to clean their teeth (**Table - 1**).

Only 4% of the participants visited dentist within last six months, 37% visited in previous year and 59% had visited more than 1 year ago. Periodontal health status found that, calculus was present in 48% of participants, 61% had bleeding on probing, 59% had shallow periodontal pocket and 18% had deep periodontal pockets. Carious teeth were present in all participants, had 39% of them had fractured teeth. Significant p value ( $<0.05$ ) was found on statistical analysis of periodontal status, carious and fractured teeth in

relation to oral hygiene practices among drug addicts (**Table – 1**).

## Discussion

In general, it may be stated that poor oral status among addicts compared to the general population may be attributed to the direct effects of drug abuse or the withdrawal treatment (such as methadone), as well as the indirect effects of addiction such as unhealthy lifestyles, poor oral self care, sugar consumption and risky behaviors [4].

**Table - 1:** Characteristics of drug addicts admitted in rehabilitation centre.

Variables	Mean ± Standard deviation/ (%)
<b>Age</b>	32±5 years
<b>Average Age of starting drug abuse</b>	21±3.2 years
<b>Route of drug abuse</b>	
Smoking	99%
Sniffing	63%
Orally	91%
Injection	68%
<b>Number of abused drugs</b>	
One	3%
More than one	97%
<b>Brushing frequency</b>	
Once in 2-3 days	14%
Once a day	86%
Twice a day	-
<b>Use of mouth washes</b>	
Never	38%
Occasionally	59%
Once a day	3%
Twice a day	-
<b>Use of floss</b>	
Never	92%
Occasionally	8%
Once a day	-
Twice a day	-
<b>Time of last dental visit</b>	
Visited in last six months	4%
Visited previous year	37%

More than 1 year ago	59%
<b>Periodontal health status</b>	
Presence of calculus	48% (p=0.02)
Bleeding on probing	61% (p=0.01)
Presence of Shallow pockets	59% (p=0.001)
Presence of deep pockets	18% (p=0.032)
<b>Presence of carious teeth</b>	100% (p=0.000)
<b>Presence of fractured teeth</b>	39% (p=0.035)

The present study found poor oral health status and negligence for oral hygiene practices among drug addicts. Periodontal health status revealed that, calculus was present in 48% of participants, 61% had bleeding on probing, 59% had shallow periodontal pocket and 18% had deep periodontal pockets. Carious teeth were present in all participants, had 39% of them had fractured teeth. Most of the participants told reason for dental visit was broken tooth. Similarly, Robbinson PG [3] reported that a number of participants said that they frequently ended up in hospital casualty departments because of accidents. Breaking or losing teeth during accidents and fights further compromised the oral health of participants. D'Amore MM, et al. [5] examined whether substance use is associated with oral health status among people with substance dependence and found that the majority of the sample reported unsatisfactory oral health (60%), with the most recent dental visit being more than 1 year ago or not able to recall. Shekarchizadeh H, et al. [1] investigated OHB and its determinants among drug addicts in withdrawal treatment of the patients, 48% reported brushing their teeth less than once a day and 81% flossed their teeth rarely or never.

Madinier I, et al. [6] conducted a study to determine the impact of illicit drugs on dental health and the use of illicit drugs for toothache and found that drug users exhibited more decayed teeth, reduced masticatory function and a lower periodontal health correlated with

inadequate dental hygiene. Pourrhashemi SJ, et al. [4] conducted a cross-sectional study among women addicts at three rehabilitation centers in Tehran and found that less than half of the dentate women responded to questionnaire regarding tooth brushing as rarely or never (44.2%) and most of them (81.8%) had never used dental floss.

For people who have a substance abuse problem, maintaining an adequate level of oral hygiene is often not adhered to. They may be overcome with the devastating effect of their addiction and forget to brush or floss for days on end. Many people who take drugs or alcohol tend to use the substances in higher amounts in the evenings, before going to sleep. The increase in consumption of sugary drinks including alcohol, snack food that includes high sugar levels and refined carbohydrates at night is known to lead to a higher rate of decay and plaque. This is particularly true if a person does not brush and floss their teeth before going to sleep. For people who vomit when they are intoxicated or under the influence, they expose their teeth to corrosive chemicals that can increase the problems of decay and enamel wear on their teeth. Stimulants like ecstasy, amphetamines and cocaine are known to cause individuals to clench and grind their teeth when under the influence [7]. In addition to dental caries, these patients can develop inflammation and hyperplasia of gingival, uvulitis, leukoplakia, oral papillomas, and tongue carcinoma. The underlying pathology includes poor oral hygiene due to short-term and long-term debilitating psychological effects, xerostomia, alveolar bone loss, and carcinogens in marijuana [8].

Dental care for patients receiving drug rehabilitation treatment can improve their oral health; help them to recover from drug abuse and to reconstruct a non-addict identity [9]. Drug users have a special need for dental care. Oral health can be a low priority for them whilst using drugs. Drug users have the same entitlement as anyone else to dental care. Dental care of recovering drug users can not only improve their

oral health, but can assist them construct a non-addict identity [3].

## Conclusion

The result of the present study emphasis for more attention in designing and implementing oral health programs for addicts. Preventive strategies on oral health should be planned and need to be integrated into other health promotion programs for addicts during their withdrawal treatment.

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