Research Article

ASSESSMENT OF NICOTINE DEPENDENCY AMONG ADULTS AT SELECTED AREAS OF WAGHOLI, PUNE

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A R T I C L E   I N F O A B S T R A C T

Substance addiction has a severe impact not only on the individual, but also those close to them and society as a whole. The objectives of the study are to assess the 1.Level of nicotine dependency among tobacco smokers. 2. Level of nicotine dependency among smokeless tobacco users.3.To associate the findings of tobacco smokers and smokeless tobacco users with selected demographic variables. The quantitative non-experimental survey design was used to survey 500 families with, N=2230, out of which 270 adults were selected by Non probability purposive sampling technique. Data collection was done by Demographic questionnaire, Screening questionnaire and Standard and modified rating scales ie Fagerstrom Test for Nicotine Dependence (FTND) and Fagerstrom Test for Nicotine Dependence For smokeless tobacco (FTND-ST) were used to assess nicotine dependency for smokeless and tobacco smokers. Findings of nicotine dependency shows that out of 270 adults 94% adults were using smokeless form of tobacco consumption, 3% were using smoking form and 3% were using in both smoking and smokeless form of tobacco consumption. Among the 3% smokers 53 % were having low to moderate and 47 % having high dependency on nicotine. Findings of 94% smokeless tobacco users show that 83 % were having high dependence and 17% were having low dependence on nicotine. There was no association found with any of the demographic variable in the study with the nicotine dependency in smokers and smokeless tobacco users. Study concludes that adults who are using nicotine in any form are prone to develop moderate to significant level of nicotine dependency. If health personnel's move towards primary prevention aspect of community psychiatry then only we can create awareness among society about the varied perspectives of prevention of addiction and its intoxicating effects in society.

INTRODUCTION

Substance is used in reference to any drug, medication or toxin that shares the potential for abuse. Addiction is physiologic &psychological dependence on drugs of abuse that affect the central nervous system in such way that withdrawal symptoms are experienced when the substance is discontinued. Substance addiction has a severe impact not only on the individual, but those close to them and society as a whole. In recent times substance addiction has become a major problem in India.[1] There are varieties of drugs available today, which include narcotics, depressants, stimulants, hallucinogens and cannabis. In other words opium, morphine, heroin are different form of drugs.

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Some drugs like bhang, hashish, tobacco and liquor are common which a man of low income can afford while drugs like LSD, Morphine etc, are costly. Only different section of society can have accessibility to them. Among all this nicotine in both tobacco smokers and smokeless tobacco users very common. Hence the physiological & psychological phenomenon of a person is affected due to repeated intake of nicotine leading to nicotine dependence.[2]

Nicotine was isolated from tobacco leaves (nicotine tabacum) in 1828.There are many species of tobacco plants. The tobacco species serves as the major source of tobacco products today. India is the second largest consumer of tobacco in the world.[3] Nicotine is a toxic colorless or yellowish oily liquid which is chief active constituent of tobacco. It acts stimulant in small doses, but in large amount blocks the action of autonomic nerve & skeletal muscle cell. Hence the physiological & psychological phenomenon of a person is affected due to repeated intake of nicotine leading to nicotine dependence.[4]

Nicotine dependence is characterized by tolerance, craving, feeling a need to use tobacco, withdrawal symptoms during period of abstinence and loss of control over the amount of duration of use. There are several factors contributing to tobacco use among adolescents and adults. They are peer pressure, movies hero-worship, advertisement, insecurity, anxiety, poor impulse, poor social support, urbanization. Other factors responsible for nicotine addiction includes its high level of availability, small number of legal and social consequences of tobacco use and advertising method and sophisticated marketing use by tobacco companies.[5]

Need of Study

Addiction to tobacco kills 1% prematurely every 6 seconds. One in two long term smokeless largely in low middle income countries will die from tobacco addiction. This epidemic reflects the highly addictive nature of tobacco and specifically of nicotine, its principle addicting component.[8]

The World Health Organization estimated that about 5 million people die prematurely every year in the world due to the use of tobacco mostly cigarette smoking . By 2030 it is estimated that the number of premature death attributable to tobacco would double to 10 million deaths every year with about 7 millions of deaths taking place in developing countries.[9]

National statistics: India is a large country with each state having distinct social, cultural and economic characteristics tobacco epidemic is not uniform across the country. There are wild variations in tobacco consumption across age, sex, religion, and socio economic classes.

The medical consequence of nicotine dependence results in 1/3rd of all cancers, Foremost among the cancers caused by tobacco is lung cancer killer of both men and women. Cigarette smoking has been linked to about 90% of all lung cancer cases. Smoking is also associated with cancers of mouth, pharynx, larynx and the overall rates of death from cancer are twice as high among smokers as among nonsmokers.[14]

These worst prognostic conditions of tobacco users motivated the researcher for study on nicotine dependency. Thus the researcher finds a need to survey the nicotine dependence among smokers and smokeless tobacco users in selected rural area of Pune.

Problem Statement

A descriptive survey to assess the nicotine dependency among adults at selected areas of wagholi, Pune

Objective

1. To assess the level of nicotine dependency among tobacco smokers.
2. To assess the level of nicotine dependency among smokeless tobacco users.
3. To associate the findings of tobacco smokers and smokeless tobacco users with selected demographic variables.

Variables

Variables used in study is study variable/research variable. Study variable is nicotine dependency among adults.

RESEARCH METHODOLOGY

Research Approach

In order to achieve the desired objectives of this study, quantitative research approach was adopted.

Research Design

The design adopted for this study is descriptive survey design. It examines and describes the nicotine dependence among adults at Wagholi, Pune.

Setting of the Study

Setting refers to the area where the study is conducted. Quatitative researchers deliberately strive to study their phenomenon in variety of natural context. This study was proposed to be conducted at Wagholi, Pune.

Population

In this study, target population comprises all adults using nicotine in smoking and smokeless form and accessible population is all adults using nicotine from selected area of Wagholi, Pune.

Sample

According to Polit and Hungler, sample is a subset of a population, selected to participate in a study. The sample consisted of 270 adults who are using nicotine in smoking and smokeless form and meet the inclusion criteria.

Sampling Technique

According to Polit and Hungler, sampling technique is the process of selecting a portion of the population to represent the entire population. In the present study, Non probability purposive sampling technique is used.[34]

Sampling Criteria

The following criteria were set to select samples:

Inclusion Criteria

1. All adults who are tobacco smokers and smokeless tobacco users and have consumed more than 10 times in any form.
2. Adults who are willing to participate in the study.

Exclusion Criteria

1. The adults who are consuming, smoking and smokeless products other than tobacco.
2. Adults who are deaf and dumb.
3. Adults who are mentally ill and challenged.

Ethical Consideration

1. Researcher has obtained approval from Director Professor of Institute.
2. Researcher has obtained approval from DHO, Zillaparishad.
3. Researcher dully explains the purpose of the study.
4. Only the samples who had signed the consent form are included in the study.
5. Confidentiality of the data is maintained strictly.

Organization of Study Findings

The analysis of data was mainly classified in to 4 sections:

Section-1

It deals with sample characteristics in frequency and percentage of data and distribution of demographic variables.

Section-2

It deals with the screening questionnaire for nicotine assessment.

Section -3

It deals with the assessment of level of nicotine dependency among smokeless tobacco smokers in selected area of Wagholi.

Section-4

It deals with the assessment of level of nicotine dependency among smokeless tobacco users.

Section-5

It includes analysis of data to find the association between findings of tobacco smokers and smokeless tobacco users with selected demographic variables

Section I

are Hindu & 4% are Muslim in which 64% live in a nuclear family and remaining 36% in a joint family. Table reveal that out of 270 adults in selected area of Wagholi, 235 adults are married and remaining around equally distributed to unmarried, divorced and single parent. Findings show that out of 270 adults 53% employed in private sector, 23% are unemployed, 22% are self employed and remaining 2% are government employed. Table show that 66% families monthly income is less than Rs 10,000,20% are earning 10,001 to 15,000 monthly and remaining around equally distributed to monthly income of 15,001-20,000 and 20,001 & above that shows most of from low socio economic status.

Section II

Table2: Shows distribution of tobacco related parameters of tobacco users in the smokeless and smoking form, associated physical illness, and reason for initiation. Finding shows that out of 270 adults 255(94%) were using tobacco in smokeless form, 7(3%) were using smoking form and 8(3%) adults were using in both smoking and smokeless form. Out of 15 adults who were using smoking pattern of tobacco consumption 3(20%) were using cigarette and 12 (80%) were using bidi.

Table 1 Frequency and percentage distribution of demographic data n-270

Sr.No.	Parameters		Number of adults	Percentage
1.	AGE(IN YEARS)	18-25	22	8%
		26-35	93	34%
		36-45	71	26%
		46-55	46	17%
		56-60	38	14%
2.	RELIGION	Hindu	259	96%
		Muslim	11	4%
		Sikh	0	0%
		Christian	0	0%
		Other	0	0%
3.	Gender	Male	193	71%
		Female	77	29%
4.	Marital status	Unmarried	12	4%
		Married	235	87%
		Divorced	1	1%
		Single	22	8%
5.	Education	Illiterate	92	34%
		Primary	74	24%
		Secondary & higher secondary	95	35%
		Graduate & above	9	3%
6.	Occupation	Unemployed	63	23%
		Government	5	2%
		Private	143	53%
		Self employed	59	22%
7.	Monthly family income	Less than 10,000	179	66%
		10,001- 15,000	54	20%
		15,001-20,000	17	6%
		Above 20,000	26	7%
8.	Type of family	Nuclear	141	64%
		Joint	85	36%

Table-1 Shows Frequency and percentage distribution of demographic variables of adults in selected area of Wagholi

Findings show that Out of 270 adults in selected area of Wagholi, 34% were found to be in 26-35 year age group, 26% of adults belong to the 36-45yr age group, 17% are from 46-55yr age group, 14% from 56-60yr age group and 8% of adults belong to 18-25yr age group.71% adults were male and 29% were female. Out of 270 adults, 34% adults were found to be illiterate while 35% from majority upto secondary education, 24% taken only primary education & remaining 3% are highly educated. The Table enlightened that out of 270 adults 96%

In smokeless pattern of tobacco consumption out of 267 adults 70% were using tobacco consumption, 17% were using mishri 7% were using gutakha, 4% were using gutakha + tobacco,1% were using mishri + tobacco form. Out of 270 adults 4% were having nicotine associated physical illness and 1% were having lung disease, and 96% were don't have any nicotine associated physical illness. Out of 270 adults the reason for initiation of tobacco consumption is found peer pressure among 83% adults.

Table 2 Distribution Frequency and Percentage of Screening Questions of Tobacco Consumption
n=270

Sr no	Parameters		Number of adults	Percentage
1	Habit of tobacco consumption	Smoking	7	3%
		Smokeless	255	94%
		Both	8	3%
2	Pattern of tobacco consumption for smoking	Bidi	12	80%
		Cigarette	3	20%
		Hukka	0	0%
		Other	0	0%
3	Pattern of smokeless tobacco consumption	Gutakha	18	7%
		Mawa	0	0%
		Mishri	45	17%
		Tobacco	184	70%
		Gutakha+Tobacco chewing	11	4%
		Mishri+Tobacco	2	1%
		Mawa+Tobacco	1	0%
4	Nicotine associated physical illness	Any type of cancer	0	0%
		Infertility	0	0%
		Lung cancer	2	1%
		Heart disease	0	0%
		Other	10	4%
		No illness	258	96%
5	Reason for initiation	Peer pressure	223	83%
		Unemployment	17	6%
		Religious reason	7	3%
		Effect of television mass media	3	1%
		Any chronic physical illness	1	0%
		Other	19	7%

Section: III

Table 3 Distribution of level of Nicotine Dependency among smokers

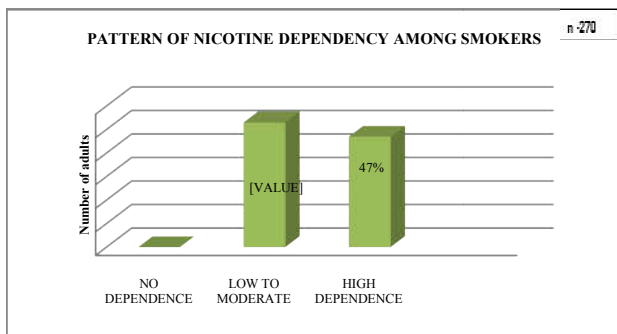| Sr. no.	Level of Nicotine Dependency	Number of adult	Percentage
1	No dependence	0	0
2	Low to moderate dependence	8	53%
3	High dependence	7	47%

Figure 1 Distribution of nicotine dependence among smokers

Figure shows that among 15 tobacco smokers 53 % were having low to moderate and 47 % high dependency on nicotine.

Section: IV

Table 4 Distribution of Nicotine Dependency among smokeless tobacco users

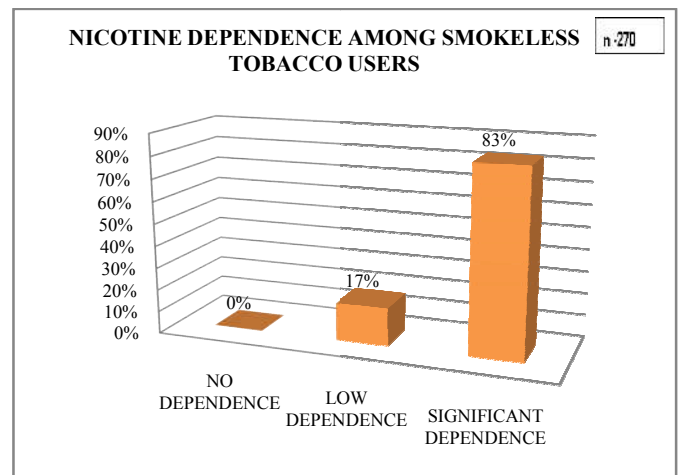| Sr.no	Level of nicotine dependency	Number of adults	Percentage
1	No dependency	0	0%
2	Low dependency	45	17%
3	Significant dependence	222	83%

Figure 2 Distribution of nicotine dependence among smokeless tobacco users

Figure 2 shows that among 267 smokeless tobacco users, 83 % were having significant dependence on nicotine whereas 17 % were having low dependence.
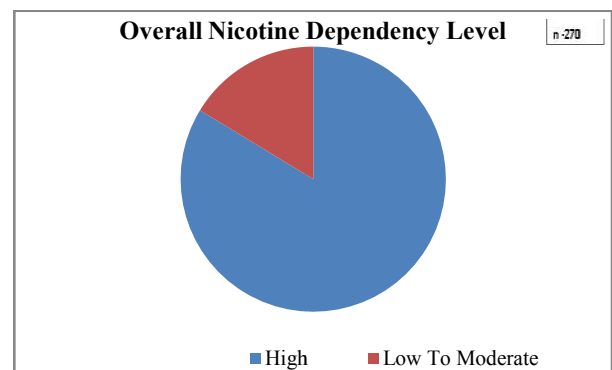

Figure 3 Over all distribution of Nicotine Dependency.
Figure shows that out of 270 adults 84 % were having high dependency and 16 % were having low dependency on nicotine

Section: V

Association of Nicotine Dependency with age groups: Shows no association of any demographic variable with Nicotine Dependency

DISCUSSION

The findings of the study was discussed with the objectives and assumptions stated. The present study was undertaken to assess the nicotine dependency among adults at Wagholi.

In this study section I describe the frequency and percentage wise distribution of Demographic variables. Findings show that majority was from 26-35yr age group and more male than female. Most of the families are belong to low socio economic status. SECTION –II It deals with the assessment of nicotine usage and type of nicotine consumption among adults 94% adults consuming tobacco in smokeless form and 3% in smoking form while 3% consuming in both smoking and smokeless form. SECTION-III It deals with the assessment of nicotine dependency among tobacco smokers. Findings of this section shows that among tobacco smokers 53 % were having low to moderate and 47 % high dependency on nicotine. SECTION –IV Findings show that among smokeless tobacco users 17 % were having low dependence and 83 % were having significant dependence on nicotine. SECTION –V It was found that nicotine dependency not associated with any demographic variables such as age, gender, monthly income of family, marital status and type of family.

CONCLUSION

The present chapter is devoted to the presentation of results and their interpretation and the inferential and descriptive statistical techniques used for analyzing the data have been presented objective wise.

The chapter presents the results that nicotine dependency found in adult is low to moderate and high dependency. There were no association with demographic variables such as age, gender, income of family, marital status and type of family. These all findings are presented in figures, graph and tabular form so we can reveal finding in measurable data.

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