

Prevalence of Pan, Gutka, Betalnut, Naswar and Cigarette Smoking in University Students of Karachi

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ABSTRACT

Objective: To evaluate prevalence of pan, gutka, betal nut, naswar and cigarette addiction among students of different universities and to be familiar with perception of people about addiction and smoking free public places.

Study Design: Cross-sectional study

Place and Duration of Study: This study was carried out at three different universities of Karachi, i.e. Karachi University, NED University & Sindh Medical University, Karachi from 10.08.2012 to 05.01.2013.

Materials and Methods: A cross-sectional study conducted with a total of 537 students aged between 18-28 years from three different universities of Karachi. A questionnaire was given to them containing 28 close ended questions about addiction of pan, gutka, betel nut, naswar and tobacco.

The data obtained was analysed by using SPSS version 17.

Results: The results showed 67.5% (361) were males and 32% (171) were females. The prevalence of addiction of pan, gutka, betel nut, Naswar and cigarette smoking is higher among males than in female university students. Addiction of betel nut is found 41.55% in males and 12.86% in females. There were 71.1% males and 72.5% females in complete favor of smoke free public places.

The perception about addiction was 5.62% of the males and 0.585% of the females feel that it's good. About 56.5% of the males and 84.79% of the females note that it's deleterious to health.

Conclusion: Most popular addiction is of betel nut. Many people think that public places should be smoked free. Most of them are aware of the deleterious effect of addiction to health and tried to quit but failed. Hence, it is suggested that some awareness program about quitting modalities should be introduced.

Key Words: Addiction, Awareness, Pan, Gutka, Betalnut, Naswar, Smoking

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INTRODUCTION

We live in a culture in which mass advertising glorifies excessive consumption and the near instant gratification of desires, unfortunately, proves to be a slippery slope for millions, and uninhibited desires prove to be like an uncontrollable fire, growing stronger each time they are fed. Some desires become overriding compulsions that could take years to overcome, if at all. The word addiction is often used to describe such a condition. Many studies have shown correlation between prolonged usage of smokeless tobacco, betel, areca, gutka with oral submucous fibrosis, oral cancers, leukoplakia and other head and neck malignancies.¹ Some traces of metals were found in supari, gutka, pan, mainpuri, mawa and sweet supari.¹

According to the National Institute on Drug Abuse,

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"Addiction is a chronic disease with genetic, environmental and behavioral factors contributing to its cause, manifestations and natural history."¹

Worldwide 58% of the total head and neck cancers occur in South and Southeast Asia.²

In Pakistan, 8.5 to 10 times increased risk of oral cancers because of chewing tobacco, eating pan, gutka, betel nut.² One of the study reveals that, in Karachi only, 21% men and 19.3% females are suffering from oral cavity cancer, 7% of primary school children eat gutka and 96% women living on coastal area of Karachi consume gutka while they breastfeed their child.¹ Smoking, alcohol consumption and chewing of betel quid (consists of mixture of areca nut, slaked lime, catechu and other condiments wrapped in betel leaf) are the predominant cause of oral cancer. The precancerous lesions caused by these gutka and pan masala has a high rate of malignant transformation and is extremely devastating with no cure.³ The emerging epidemic of oral submucous fibrosis has been credited to chewing of areca nut and its mixture. Chewing of betel quid with or without tobacco aggravates asthma and predispose the

users to diabetes mellitus. And it has been evident that chewing of tobacco cause increased incidence of still birth and low birth weight.⁴ it has also been evident that usage of habitual gutka cause severe oral mucosal disorders which may extend beyond the oral cavity.⁵

Worldwide of the population Areca nut is the fourth most commonly used as psychoactive substance. Areca nut chewing with sweeteners is also very common in Western Pacific, South and South East Asian countries like Pakistan and India. Areca nut (Chalia, supari) is culturally acceptable in Pakistan. Pan masal originated from India in 1970's and became available in Sub-Continent.⁶ it is increasingly popular in school going children.⁶ Betel nut is the second most common carcinogen consumed in sub-continent. A study revealed 72.7% of the school children were habitual users of betel nut.⁷ Another study stated that oral cancers among low-income salary families increased 200% during the period from 1998 to 2002.⁷ Around 390,000 oral and oropharyngeal cancers occur annually in the world, 228,000 (58%), cases occur in south and South East Asia.⁸ More East Asian communities emerged in UK, Africa Australia, China and United States.⁹ Tumbaku and naswar mainly contain tobacco, Tumbaku is chewable while naswar is placed in oral vestibule. Some other studies in Karachi showed higher usage of these substance in boys than girls.¹⁰ Worldwide around 600 million now use some form of this substance.¹⁰

Such endeavors can help in developing policies to implement focused intervention.¹⁰

With this background, this study was conducted with the objective of determining the prevalence of cigarette smoking and smokeless tobacco among Pakistani students from three different universities in Karachi.

MATERIALS AND METHODS

This was a descriptive (Cross-sectional) study conducted in three universities i.e, Karachi University, NED University & Sindh Medical University. The sample Size was 537 and the technique used was non-probability Convenience Sampling.

Questionnaire was developed, data was collected. The group was divided into three sub groups. After taking verbal consent, a structured questionnaire was given to students containing 28 close ended questions relevant to addiction and smoke free public places. Data was analyzed using SPSS version 17.

RESULTS

A total of 537 students were presented with a questionnaire out of which 67.5% (361) were males and 32% (171) were females. The prevalence of addiction to Pan, Chali (betal nut), Niswar, Cigarette and Gutka in 3 different Universities were; K.U. = 54.7% (293), JSMU. = 30.8% (165) and N.E.D. = 14.4% (77).

The prevalence of addiction among males was found to be 51.8% (187) while 48.1% (174) did not report addiction to the aforementioned articles (Pan, Chali (betal nut), Niswar, Cigarette and Gutka). The prevalence of addiction amongst females was found to be 12.28 (21) while 87.7% (150) Pan, Chalia (betal nut), Niswar, Cigarette and Gutka did not report addiction to the aforementioned articles.

Table No.1: Prevalence of addiction

Prevalence	Frequency		Percentage	
	Male	Female	Male	Female
Yes	187	21	51.8%	12.28%
No	174	150	48.1%	87.7%

Table No.2: Age of start of addiction

Prevalence	Frequency		Percentage	
	Male	Female	Male	Female
Less than 10 yrs	18	0	9.62%	0%
10-15 yrs	34	1	18.18%	4.7%
15-20 yrs	63	1	33.6B%	4.7%
20 yrs and above	23	1	12.2%	4.7%

Table No.3: Perception about smoke free public places

Prevalence	Frequency		Percentage	
	Male	Female	Male	Female
Definitely yes	257	49	71.1%	72.5%
Probably yes	49	18	13.5%	10.5%
Definitely no	18	16	4.9%	9.3%
Probably no	4	1	1.1%	0.58%
I don't know	18	2	4.9%	1.1%

Table No.4: Perception and addiction

Prevalence	Frequency		Percentage	
	Male	Female	Male	Female
It's a good habit	19	1	5.26%	0.585%
No harm in doing so	61	4	16.89%	2.335%
Deleterious to health	204	145	56.50%	84.79%
I don't know	44	5	12.12%	2.93%

Betalnut addiction in males were 41.55% and 12.86% in females. Pan was 20.75% in males and 1.75% in females. For gutka it is 41.5% in males and 0.58 % in females. Cigarette is 31.3 % in males and 0 percent in females. Niswar is 4.98% in males and 0 % in females. There were 71.1% males and 72.5% females in complete favor of smoke free public places.

The perception about addiction was 5.62% of the males and 0.585% of the females feel that it's good, whereas 56.5% of the males and 84.79% of the females note that it's deleterious to health. 16.89% of the males and

2.335% of the females feel that there is no harm and 12.12% of the males and 2.93% of the females have no opinion on the matter.

Table No.5: Reasons for starting addiction

Prevalence	Frequency		Percentage	
	Male	Female	Male	Female
It's a good habit	19	1	5.26%	0.585%
No harm in doing so	61	4	16.89%	2.335%
Deleterious to health	204	145	56.50%	84.79%
I don't know	44	5	12.12%	2.93%

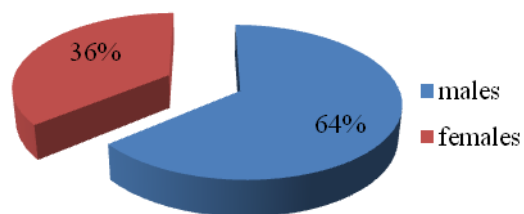


Figure No.1: Gender Distribution

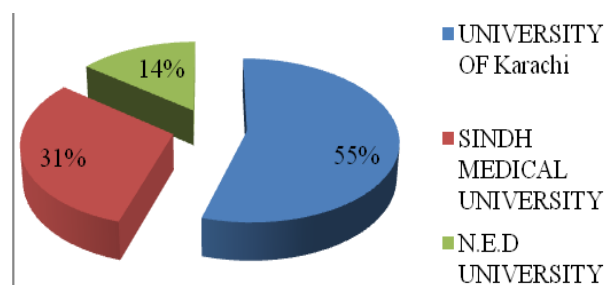


Figure No.2: University Distribution

Out of total participants, 52.9% of males and 9.5% of females practice their addiction in public. There were multiple reasons found in starting eating and getting addicted to Pan, Chalia (betel nut), Niswar, Cigarette and Gutka, 9% males started this as a fashion symbol, 41.1% males and 14.2% started because of peer pressure, while 9.6% males got addicted for pleasure.

DISCUSSION

The variables in this study were selected based on findings from high income countries which suggested that the smoking status of young adult's family members and friends, as well as no restrictions in private and public spaces may be related to addiction initiation, consumption, and cessation. This study shows that prevalence of addiction among university students of Karachi is very high with 67.5% among males and 32% among females.

When individual articles were searched we came to know that betel nut was the most common source of addiction being 41.55% in male and 12.86 among females. The cause that the factor which contributed

most towards addiction was being offered by friend. Others being pleasure, fashion and stress. Addiction for seeking pleasure and family problems were also culprits, in a research it was noticed that students are motivated by their friends.

According to our research there is no relation between father's income and addiction because most of students spend their own money getting by private tuitions.

According to our study most of the male students started their addiction between the ages of 15-20 years while most of the female students started their addiction above 10 years of age. According to a research, It is reported that majority of the respondents started smoking at age of 15-20 years which is same as our study.(12,13)

According to our study 2.6% of Males and 4.5% have tried to quit their addiction while 45.5% of Males and 14.2% of Females have not. In a research it was found that most students (82%) who had ever smoked daily had tried to quit.(14,15)

The points that should be noted and was a source of comfort was that majority of students consider addiction deleterious to health. Majority of students spend just less than 100rs on addiction.

CONCLUSION

Most popular addiction is of betel nut both among males and females students. Many people believe that public places should be smoke free. Most of them are aware of the fact that addiction is deleterious to health and tried to quit but got failed due to improper guidance. Hence it is suggested that some awareness program about quitting modalities should be introduced.

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REFERENCES

1. Kamal R. Gutka: Taste for the toxic. The Express Tribune, March 21st, 2012. [Cited 2014 August 21]. Available from <http://tribune.com.pk/story/352654/gutka-taste-for-the-toxic/>
2. Baig S, Lucky MH, Qamar A, Ahmad F, Khan S, Ahmed W, et al. Human Papilloma Virus and Oral Lesions in Gutka Eating Subjects in Karachi. JCPSP 2012;22(3): 135-8.
3. Nair U, Bartsch U, Nair J. Alert for an epidemic of oral cancer due to use of the betel quid substitutes gutkha and pan masala: a review of agents and causative mechanisms. Mutagenesis. 2004;19(4):251-62.

4. Imam SA, Nawaz H, Sepah YJ, Pabany AH, Ilyas M, Ghaffar S. Use of smokeless tobacco among groups of Pakistani medical students – a cross sectional study. BMC Public Health 2007;7:231.
5. Javed F, Chotai M, Mehmood A, Almas K. Oral mucosal disorders associated with habitual gutka usage: a review. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics 2010;109(6):857–864.
6. Shah S, Qureshi R, Azam I. Is Chaalia/Pan Masala harmful for health? Practices and knowledge of children of schools in Mahmoodabad and Chanesar Goth, Karachi. JPMA 2009; 59:550.
7. Khan MS, Bawany FI, Shah RS, Hussain M, Nisar N, Arshad MH. Comparison of knowledge, attitude and practices of betelnut users in two socio-economic areas of Karachi. JPMA 2013; 63: 1319.
8. Changrani J, Gany F. Paan and Gutka in the United States: An Emerging Threat. J Immigran Health. 2005;7(2):103-7.
9. Blank M, Deshpande L, Balster RL. Availability and characteristics of Betel product in US. J Psychoactive Drugs 2008; 40(3): 309–313.
10. Mazahir S, Malik R, Maqsood M, Ali K, Merchant R, Malik F, et al. Socio-demographic correlates of betel, areca and smokeless tobacco use as a high risk behavior for head and neck cancers in a squatter settlement of Karachi, Pakistan. J of Substance Abuse Treatment Prevention and Policy 2006;1:10.