Research article　　　　　　　　　　　　　　　　　　*Clinical research*

A study to assess the level of smokeless tobacco dependence and its health consequences among addicts in selected area

Dr.G.Bhuvaneswari[1*], Sangavi.R[2], Soniya.M[3], Sowmiya.S[4], Vijayprasath.M[5]

[1]*Associate Professor, Department of Community Health Nursing, Saveetha College of Nursing, SIMATS, Chennai, India*

[2]*B.Sc (Nursing) IV year, Saveetha College of Nursing, SIMATS, Chennai, India*

[*]**Address for correspondence: Dr.G.Bhuvaneswari**

ABSTRACT

Smokeless tobacco is tobacco consumed orally not smoked. It has been in use of long as other forms of tobacco consumptions and it's use was increased smokeless tobacco is available in many forms in India and it's widely used by all social groups.Tobacco use is a leading cause of non communicable diseases associated mortality and morbidity, and a growing public health challenge. While many people are aware that tobacco use increases the risk of cancer, there are alarming gaps in knowledge of the cardiovascular risks of tobacco use.

Objects

To assess the level of dependency among addicts.

Materials and methods

This study "Assess the level of smokeless tobacco dependences and its health consequences among addicts" was a descriptive study. This study population consisted of 60 samples of smokeless tobacco addicts. Cconvenient sampling technique was used and data collected using self structured questionnaires.

Results

Shows the majority of them are 17(28.3%) had low dependency, 41(68.3%)had moderate dependency,2(3.33%) had high dependency on smokeless tobacco.

Keywords: Smokeless tobacco, Level of dependency, Addicts.

INTRODUCTION

Smokeless tobacco is tobacco consumed orally not smoked. It has been in use of long as other forms of tobacco consumptions and it's use was increased smokeless tobacco is available in many forms in India and it's widely used by all social groups. It is more prevalent among the disadvantage and people who lives in rural areas.

There are two main types of smokeless tobacco — snuff and chewing tobacco. Snuff contains finely ground or cut tobacco leaves and can be dry, moist or in sachets (like tea-bags). Snuff can be administered through the nose (nasal snuff) or the oral cavity (known as snuff dipping). Chewing tobacco comes in the form of loose leaf (in pouches of tobacco leaves), 'plug' or 'twist' form. Tobacco can also be mixed with other psychoactive ingredients and administered

orally. One common ingredient, for example, is areca nut, which is itself psychoactive, possibly carcinogenic and potentially dependence forming

Smokeless tobacco contains nicotine and nicotine affects the heart .It cause the immediate effects of vasoconstriction, an elevated pulse rate and blood pressure increase and puts users at increased risk for stroke, coronary heart disease.

Smokeless tobacco contains nicotine which is an extremely addictive which is an extremely addictive poison .when a chewer places the tobacco in the mouth next to his or her mucous membrane.

Smokeless tobacco is also source of exposure to trace level of some heavy metals, some of which such as arsenic or manganese may increase risk of hypertension. It appears to be related to elevated hemocystine a risk factors for heart diseases.

Habit is any learnt behaviour that has a relatively high probability of occurrence in response a particular situation or stimulus. Good habits or bad habits both may be cultivated by a individual from being influenced by the situations, circumstance or by environment.

"Healthy youths with healthy habits are best resource of the country" he is able to recognize his potentiality and he can get a good identity in the society. Whereas the youth with bad habits are burden to the society and they are unable to recognize their potentiality because of this crisis, they may become useless or harmful.

There is sufficient evidence that the use of smokeless tobacco causes cancer in humans. Smokeless tobacco contains carcinogens, which contribute to cancers of the oral cavity and the risk of other head and neck cancers. Smokeless tobacco use also causes a number of non cancerous oral conditions and can lead to nicotine addiction similar to that produced by cigarette smoking.

Smokeless tobacco use can lead to oral cancer, Gum disease, and Nicotine addiction and it increases the risk of cardio-vascular disease including Heart attacks, more specifically. Smokeless tobacco causes leukoplakia, a disease of the mouth characterized by white patches and oral lesions on the cheeks, gums and tongue. Leukoplakia which can lead to oral cancer occurs in more than half of all users in the first 3 years of use. Studies have found that 60-70% of spit tobacco users have oral lesions.

OBJECTIVES

- To assess the demographic variable among smokeless tobacco addicts
- To assess the level of dependency among addicts
- To assess the associate factors of level of dependence and health consequences among smokeless tobacco addicts

MATERIAL AND METHODS

A sample of 60 male and female are selected by convenient sampling techniques. The descriptive study was conducted during a one week period. Data collection was conducted in Nemam. After getting permission from the village panchayat. Demographic variable consist of age, sex, education, occupation, BMI, respiratory rate, income. Self-structured questionarrie was used to collect data. The study investigators explained to the adults about the study's objectives, rational and requirement of consent to participate in the study. The investigators then provided instructions for filling the questionnaire, and then guided the adults. Understanding of each question was checked by asking the adults to repeat the meaning. During the filling of questionnaires, the investigators helped throughout and helped simplifying the meaning of each question, clarifying doubts and checking for completeness of filling up the questionnaire Chi-square test was used to test the association between categorical variables.

ETHICAL CONSIDERATION:

The project has been approved by ethics committee of the institution. Informed consent was obtained from participants before initiating the study.

RESULTS

Shows that the age out of 60 samples 2(3.33%)samples were under 15 yrs, 16(26.6%) were under 15 to 25 yrs , 19(31.66%)were under 36 to 55yrs, 23(38.33%)were more than 55yrs. Regarding gender out of 60 samples 32(53.4%) samples were female, 28(46.6%) were male Regarding educational status out of 60 samples 39(65%) samples were middle school, 11(18.33%)

samples were high school, 7(11.66%) samples were higher secondary, 3(5%)samples were graduate.Regarding type of smokeless tobacco out of 60 samples 36(60%) samples were using chewing tobacco, 14(23.3%) samples were snuff, 3(5%) samples were using dissolvable. Regarding occupation out of 21(35%) were unemployed, 26(43.3%) were coolie 2(3.33%) were government employed, 11(18.33%) were business 0% of professionals. Regarding environmental influences 7(11.6%) were influenced by family member, 27(45%) were influenced by neighbours 27(45%) were influenced by friend. Regarding low level of dependence 17members (28.3%) were influenced. Regarding moderate dependences 41 members (68.3%) were influenced. Regarding high dependences 2 members (34.3%) were influenced

Table 1: Frequency and percentage distribution of demographic variables among smokeless tobacco dependence

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (n)	PERCENTAGE (%)
1.	Age in year		
	<15 years	2	3.33%
	15 to 25 years	16	26.6%
	36 to 55 years	19	31.66%
	>55 years	23	38.33%
2.	Sex		
	Male	35	58.33%
	Female	25	41.66%
3	Educational level		
	Middle school	49	65%
	High school	11	18.33%
	Higher secondary	7	11.66%
	Graduate	3	5%
	Post graduate	0	0%
4.	Income level		
	<10,000	51	85%
	10,000 to 20,000	5	8.33%
	20,000 to 30,000	4	6.66%
	>30,000	0	0%
5.	Occupation		
	Unemployed	21	35%
	Coolie	26	43.3%
	Government employed	2	3.33%
	Business	11	18.33%
	Professional	0	0%
6.	BMI		
	<18.5	6	10%
	18.5 to 24	19	31.66%
	Above 24	35	58.33%
7.	Respiratory rate		
	<12	13	21.6%
	12 to 20	26	43.3%
	>24	22	36.6%
8.	Blood pressure		
	<100 / 60 mg	22	36.6%
	120 /80 mg	29	48%

	>130/90 mg	9	15%
9.	Type of smokeless tobacco		
	Chewing tobacco	36	60%
	Snuff	14	23.3%
	Dissolvable	3	5%
	Other	7	11.6%
10.	How often do you consume		
	< half an hour	26	43.3%
	Half an hour to one hour	27	45%
	One to two hours	7	11.6%
11.	Environmental influence		
	Family members	7	11.6%
	Neighbors	27	45%
	Friends	27	45%

Table 2: Frequency and percentage distribution of level of smokeless tobacco dependency and its health consequences among addicts.(N=60)

LEVEL OF DEPENDENCY	N	%
LOW DEPENDENCY	17	28.3%
MODERATE DEPENDENCY	41	68.3%
HIGH DEPENDENCY	2	3.33%
TOTAL	60	100%

Table 3: Mean and standard deviation level of smokeless tobacco dependency and its health consequences among addicts(N=60)

LEVEL OF SMOKELESS TOBACCO DEPENDENCY AND ITS HEALTH CONSEQUENCES	FREQUENCY
Mean	13.71
Standard deviation	2.34%

**Table 4 Association between level of smokeless tobacco dependency and demographic variables among addicts. (N=60)**

S. NO	DEMOGRAPHIC VARIABLES	LOW		MODERATE		HIGH		CHI SQUARE AND P VALUE
		NO	%	NO	%	NO	%	
1.	Age							X^2=2.710
	a)<15 years	1	1.66%	2	3.66%	2	3.66%	d.f=6
	b)15 to 25 years	4	6.66%	11	18.33%	1	1.66%	P=0.8443
	c)36 to 55years	5	8.33%	11	18.33%	3	5%	(N.S)
	d)>55 years	6	10%	16	26.66%	1	1.66%	
2.	Sex							X^2= 0.015
	a)Male	8	13.33%	24	40%	3	5%	d.f=2
	b)Female	6	10	17	28.33%	2	3.33%	P=0.9927
3.	Education							X^2=4.861
	a)Middle school	10	16.6%	25		4	6.665	d.f=6
	b)High school	3	5%	8	41.66%	0	0%	P=0.5618
	c)Higher secondary	2	3.33%	5	13.33%	0	0%	
	d)Graduate	0	0%	2	8.33%	1	1.66%	
	e)Post graduate	0	0%	0	3.33% 0%	0	0%	
4.	Income Level							X^2=8.325

	a)<10,000	7	11.6%	11	18.33%	3	5%	d.f=4
	b)10,000-20,000	6	10%	12	20%	8	13.33%	P=0.0804
	c)20,000-30,000	1	1.66%	1	1.66%	0	0%	
	d)>30,000	3	5%	5	8.33%	3	5%	
5.	Occupation							$X^2=2.784$
	a)Unemployed	7	11.6%	11	18.33%	3	5%	d.f=6
	b)Coolie	6	10%	12	20%	8	13.33%	P=0.8354
	c)Government employed	1	1.66%	1	1.66%	0	0%	
	d)Business							
	e)Professional	3	5%	5	8.33%	3	55%	
		0	0%	0	0%	0	0%	
6.	BMI							$X^2=8.428$
	a)<18.5	0	0%	3	5%	3	5%	d.f=4
	b)18.5 to 24	8	13.33%	10	16.6%	1	1.66%	P=0.0771
	c)Above 24	8	13.33%	17	28.33%	10	16.66%	
7.	Respiratory rate							$X^2=2.547$
	a)<12	5	8.33%	4	6.66%	3	5%	d.f=4
	b)12 to 20	5	8.33%	15	25%	6	10%	P=0.6362
	c)>24	6	10%	11	18.33%	5	8.33%	
8.	Blood pressure							$X^2= 0.699$
	a)<100 to 60 mmHg	6	10%	11	18.33%	5	8.33%	d.f=4
	b)120 to 80 mmHg	6	10%	16	26.66%	7	11.6%	P=0.9515
	c)>130/90 mmHg	3	5%	4	6.66%	2	3.33%	
9.	Type of smokeless tobacco							
	a)Chewing							$X^2=17.409$
	b)Snuff	8	13.33%	26	4.33%	2	3.33%	d.f=6
	c)Dissolvable	5	8.33%	9	15%	0	0%	P=2.90
	d)Other	1	1.66%	0	0%	2	3.33%	
		1	1.66%	5	5%	1	1.66%	
10.	How often do you consume							
	a)<half an hour							$X^2= 1.975$
	b)half an hour to one hour	7	11.6%	14	23.33%	5	8.33%	d.f=4
	c)one hour to 2 hour	6	10%	14	23.33%	7	11.6%	P=0.7404
		3	5%	2	3.33%	2	3.33%	
11.	Environment							$X^{2=0.203}$
	a)Family members	2	3.33%	3	5%	2	3.33%	d.f=4
	b)Neighbor	6	10%	14		6	10%	P=0.9952
	c)Friends	8	13.33%	13		6	10%	

Table 2: Shows the majority of them are 17(28.3%) had low dependency, 41(68.3%) had moderate dependency,2(3.33%) had high dependency on smokeless tobacco

FIGURE

LEVEL OF DEPENDENCY
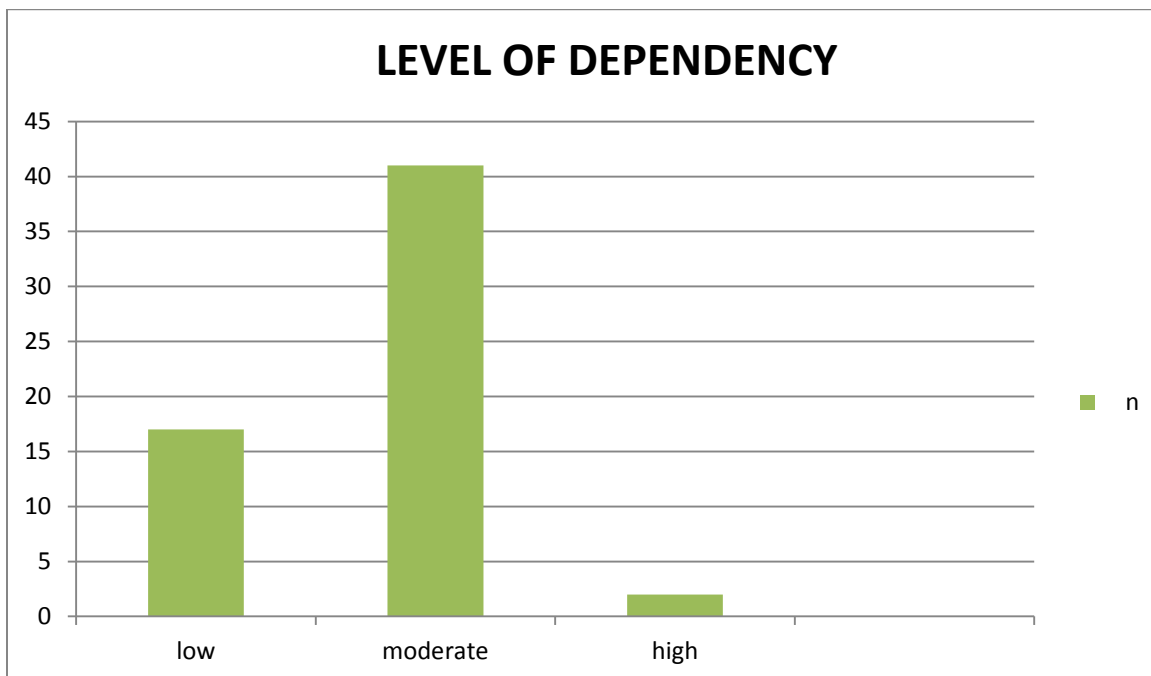
DISCUSSION

The main focus of the study is to assess the smokeless tobacco dependence and its health consequences .Total 60 samples were selected by convenient sample technique. Assess the level of dependence and its health consequences among addicts by using demographic sheet and self structured questionnaire

➢ **Prakash C Gupta, et.al (2016)** that South Asia is a major producer and net exporter of tobacco. Over one-third of tobacco consumed regionally is smokeless. Traditional forms like betel quid, tobacco with lime and tobacco tooth powder are commonly used and the use of new products is increasing, not only among men but also among children, teenagers, women of reproductive age, medical and dental students. Smokeless tobacco users studied prospectively in India had age-adjusted relative risks for premature mortality of 1.2–1.96 (men) and 1.3 (women). The study findings shows that current male chewers of betel quid with tobacco in case-control studies in India had relative risks of oral cancer varying between 1.8–5.8 and relative risks for oesophageal cancer of 2.1–3.2.

➢ **Gunilla Bolinder, (2014)** et.al Objective of this study is Little known about the risks of cardiovascular disease associated with the use of smokeless tobacco, which produces blood nicotine levels similar to those caused by cigarette smoking. Both smokeless tobacco users and smokers face a higher risk of dying from cardiovascular disease than nonusers. Although the risk is lower for smokeless tobacco users than for smokers, the excess risk gives cause for preventive actions.

➢ **DN Sinha (2012)"**A study was conducted on gutkha advertisement and smokeless tobacco use by adolescents to know tobacco use prevalence among 13-15 years students in Sikkim. The study findings shows that there is a strong association between exposure to gutkha advertisement and current smokeless tobacco use among boys and girls. It also recommended for strong restriction by government.

REFERENCE

[1]. Katharine ME, Stephen RL. The millennium development goals and tobaccocontrol. Geneva: World Health Organization; 2004.

[2]. Urmi Sen. A Review of the Tobacco Scenario in Kolkata. Proceeding of Tobacco Research in India: Supporting efforts to reduce harm; 2002.

[3]. Gupta PC. Youth tobacco Surveillance in Northeastern States of India, 2001. Proceeding of Tobacco Research in India. Supporting efforts to reduce harm; 2002.

[4]. Horn KA, Gao X, Dino GA, Kamal-Bahl S. Determinants of youth tobacco use in West Virginia: A comparison of smoking and smokeless tobacco use. Am J Drug Alcohol Abuse 26, 2000, 125-138.

[5]. Gupta PC, Ray CS. Smokeless tobacco and health in India and South Asia. Respirology 8, 2003, 419-31.

[6]. Gupta PC, Ray CS. Epidemiology of betel quid usage. Ann Acad Med Singapore. 33, 2004, 316.

[7]. Nishtar S, Ahmed A, Bhurgri Y, Mohamud KB, Zoka N, Sultan F, et al. Prevention and control of cancers: National action plan for NCD prevention, control and health promotion in Pakistan. J Pak Med Assoc 54, 2004, S45-56.

[8]. Brundtland GH. Achieving worldwide tobacco control. Jama 284, 2000, 750-1.

[9]. Warnakulasuriya S, Sutherland G, Scully C. Tobacco, oral cancer, and treatment of dependence. Oral Oncol 41, 2005, 244-60.

[10]. John RM. Tobacco consumption patterns and its health implications in India. Health Policy 71, 2005, 213-22.

[11]. World Health Organization. Addressing the Worldwide Tobacco Epidemic through Effective Evidence-Based Treatment. Expert Meeting March 1999, In: Tobacco Free Initiative. Rochester, Minnesota: WHO; 2000.

[12]. Mack TM. The new pan-Asian paan problem. Lancet 357, 2001, 1638-9.

[13]. Avon SL. Oral mucosal lesions associated with use of quid. J Can Dent Assoc 70, 2004, 244-8.

[14]. Merchant A, Husain SS, Hosain M, Fikree FF, Pitiphat W, Siddiqui AR, et al. Paan without tobacco: An independent risk factor for oral cancer. Int J Cancer 86, 2000, 128-31.

[15]. Tobacco habits other than smoking; betel-quid and areca-nut chewing; and some related nitrosamines. IARC Working Group. Lyon, 23-30 October 1984. IARC Monogr Eval Carcinog Risk Chem Hum 37, 1985, 1-268.