Original article

Trend of Tobacco and other substance habits among three generation in urban slums of Ahmedabad Municipal Corporation.

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Abstract:

Introduction: Habit of tobacco and other substances is believed to be affected by similar habits in different generations.

Objectives: 1) To find out the proportion of tobacco & other substance habits and its influencing factors. **2)** To find out trend of such habits in three generations. **3)** To increase awareness in community regarding relationship between such habits and different cancers.

Methodology: Community based cross sectional study was conducted at three slum areas of Ahmedabad Corporation during August-November, 2011. A standardized proforma was prepared which included details of socio-demographic variables, tobacco & other habits etc. Subjects were selected from house to house survey. Total of 300 individuals from 167 houses were selected.

Results: Population of 878 from 167 houses included 462(52.61%) males and 416(47.38%) females. Among 300 individuals with habits, there were 237(79%) males and 63(21%) females. According to modified Prasad's classification 97(32.3%) individuals belong to class3 and 95(31.7%) belong to class4. Majority 116(38.7%) individuals were of 30-55year (middle aged). Around 41(13.7%) Individuals were illiterate. Preferred habits were Guthka (44.7%), followed by Tobacco-lime (41.7%), Bidi (34.7%), Alcohol (41.3%) and snuffing (25%). Friends/peers (43.3%) followed by parents/guardian (29%) were the commonest influencing factors.

Conclusion: Significant gender difference observed among substance users. Literacy rate was high among youth and high socioeconomic class. Gutka, Cigarette, and Alcohol habits were significantly associated with youth (<30year) whereas usage of Khaini and Bidi was significantly associated with elder people (>55year). Overall smokeless tobacco was common in urban slum.

Key words: Tobacco, Generation, Habits

Introduction:

Globally tobacco is estimated to have killed 100 million people in the 20th century and continues to kill 5.4 million people every year and this figure is expected to rise to 8 million per year by 2030, 80% of which will occur in the developing countries.[1] Tobacco is estimated to lead 1 in 5 male deaths and 1 in 20 female deaths among over age 30.[2] India is second largest consumer of tobacco in the world.[3] In India, tobacco - attributable mortality is estimated to increase from 1% of total mortality in 1990 to 13% by 2020.[4]

Tobacco is used in different forms and the health effects are seen irrespective of the form in which it is used.[5,6] Smokeless tobacco is found to be as addictive and harmful as smoking yet more difficult to quit.[7] Smokeless tobacco, especially in the form of chewing has been associated with various oral diseases including cancers and adverse reproductive outcomes.[8] Tobacco chewing is prevalent in all parts of the world and all age groups, though it varies in its extent. In youth, the influence of friends and peers take on greater importance, but research clearly demonstrates the continued significance of parents in shaping the behaviours, choices

and habits of youth as they face the challenges of growing up.[9] Urban slum population not only has high proportion of such habits but is also deprived of much needed benefits of preventive health education. So, the present study was carried out in urban slums of Ahmedabad to study the proportion of tobacco habits in different age groups and to check its correlation with such habits in adjacent generations.

Aims and Objectives:

1. To find out the proportion of tobacco & other substance habits and its influencing factors in study group.
2. To find out trend of tobacco & other substance habits in three generations among the study group.
3. To increase awareness in the community regarding relationship between tobacco & other substance habits and different types of cancers.

Materials and Methods:

A Cross sectional community based study was conducted in three slum areas of Ahmedabad Municipal Corporation (AMC) area. The study was conducted from August to November, 2011. Sampling technique was purposive. Proforma was prepared which included details of various socio demographic variables e.g. age, sex, socioeconomic status, education level etc. It also includes information regarding tobacco & other substance habits and related influencing factors among study group. As the proforma was specially prepared for the study, field testing was done and necessary modifications were applied to make it standardized and uniform. A total of 300 individuals with tobacco & other substance habits were purposively selected from 167 houses. Majority (276, 92%) among 300 individuals were currently staying in these 167 houses, while others (24, 8%) who belong to these families but residing elsewhere or recently separated (within one year period) for one or other reason. Information was primarily assessed by directly asking the individuals about their tobacco & other substance habits after their informed verbal consent. Information was also sought from other family members, if any individual with such habit/s was not available at the time of study. Analysis was done by using appropriate statistical software applying suitable statistical tests.

Results:

Out of 878 family members from 167 houses, 462 (52.61%) were males and 416 (47.38%) were females. Among 300 individuals, significantly higher number of males (237, 79%) had tobacco and other substance habits as compared to females (63, 21%) (Chi-square value: 127.2, $P<0.0001$). Out of 300 individuals, 41 (14%) individuals were illiterate. Majority (114, 38%) individuals were studied up to secondary level followed by (90, 30%) up to primary level and (55, 18%) up to higher secondary level. According to modified Prasad's classification, socioeconomic class of families showed that majority belonged to class 3 (97, 32.3%) followed by class 4 (95, 31.7%), class 5 (67, 22%), and class 2 (41, 14%). Age distribution showed that majority (116, 38.7%) were of 30-55 year (middle aged) followed by elderly >55 years (94, 31.3%) and youth <30 years (90, 30%). (Table- 1) Comparison of education status between youth & elder people and different socioeconomic class showed significant difference. (Table- 2) Pattern of tobacco and other substance habits were categorized in three groups (Table- 3) which are (a) those who had recently (within 6 months) developed habits (b) those who had habits in past (before 6 months) but had given up and (c) exclusively both (Past habit of >6 months which is also present currently). Most common oral tobacco habits were Gutkha (44.7%) followed by Khaini (41.7%). Among smoked tobacco, Bidi users (34.7%) were more common than cigarette users (24%). Among other substance

habits, alcohol usage (41%) was highest. In snuffing habit gender difference shows that out of total 63 females having any substance habits, 37 females were having snuffing habits whereas for males snuffing was present only in 19 out of 218. Snuffing habit was significantly associated among females (Chi-square value: 84.30 and P value: <0.0001). Regarding the influencing factors for tobacco and other substance habits, majority were associated with friend circle (peer groups) (130, 43.3%) followed by parents/guardian (87, 29%) and media (44, 15%). No specific influencing factor was mentioned by 39 (13%) individuals. The trend of Tobacco and other substance habits and related influencing factors among youth and elder people is described in Table- 4.

Discussion:

In the present study the proportion of tobacco and other substance habits was 34% (300 individuals out of 878 from 167 houses). As per nationwide survey in India, prevalence of tobacco use in any form among male was 23.2% to 69.3% and among female was 4.0% to 50%.[11] Similar gender differences was also found in the present study & it was significantly higher among males as compared to females. Overall smokeless tobacco prevalence in India is 35-40%.[7] Different proportions of tobacco and other substance habits is shown in Table-1. Majority had mixed pattern of tobacco consumption. As per census 2011, Literacy rate of India and Gujarat was 74.04% & 79.3% accordingly. In the present study literacy rate was at higher side (86%), might be due to data from the urban area. Youth and higher socioeconomic class shows higher education as compare to elder people and lower socioeconomic class (Table- 2). This justifies and explains an increasing level of education in younger generations as compared to past and a clear association of socioeconomic development with the education.

Tobacco and other substance habits are associated with various adverse consequences according to their types of usage by individuals e.g. smokeless tobacco including Guthka, Khaini, Pan-masala, and Snuffing are associated with benign oral lesions to various types of malignant oral cancers.[9] Tobacco usage in smoking forms e.g. Cigarette, Bidi and Huka etc. is linked with various interstitial lung diseases and lung cancers.[9] Alcohol is associated many benign to malignant type of liver diseases.[10] Proportions of different forms of tobacco and other habits are given in Table-3. The Gutkha was most common form of oral tobacco use whereas Bidi was commonest form of smoked tobacco consumption. Alcohol addiction was also parallel with the tobacco usage in the urban slums. As seen from table 4, top five leading habits among youth was Gutkha, Alcohol, Cigarette, Bidi and Pan-masala, whereas among elder people it was Khaini, Bidi, Pan-masala, Bhang and Alcohol. This shows changing trend of tobacco consumption. Now Cigarette smoking is taking over the Bidi as smoked tobacco consumption. Similarly, Gutkha is taking over the khaini in the smokeless tobacco consumption. Alcohol is also showing a significantly increasing trend. These are probably explained by a multitude of social factors including availability, advertising and marketing & social trend. This may also be attributed to higher social status even among different substance abuse as well e.g. a person who smokes cigarette is considered with higher social status among substance abusers. The proportion of other habits such as pan masala, Snuffing, Ganja-Bhang and Huka all have decreased but the difference is statistically not significant (Table-4). Regarding Influencing factors for such habits, friends and media were significantly associated with youth (<30year) as compare to elder people (>55yr). Community based awareness campaign is emphasized for behaviour change among youth of slum area.

Table- 1: Socio-demographic profile of Tobacco and other substance users.

Socio-demographic profile (N=300)	No.	Percentage
Gender		
Male	237	79
Female	63	21
Age distribution (Generation)		
Youth (<30 years)	90	30
Middle age (30-55 years)	116	38.7
Old (>55 years)	94	31.3
Socio-economic class status		
Class 2	41	14
Class 3	97	32.3
Class 4	95	31.7
Class 5	67	22
Educational status		
Illiterate	41	14
Primary	90	30
Secondary	114	38
Higher secondary	55	18
Tobacco and other substance habits		
Only Smokeless tobacco users	73	24.3
Only Smoked tobacco users	12	4.0
Only other substances users	4	1.3
Mixed pattern observed	211	70.3

Table- 2: Comparison of education status with extremes of ages and with various socio- economic classes among tobacco and other substance users.

Generation (N=184)	*Illite rate*	*Liter ate*	χ^2	*P value*
Youth (<30 years)	*7*	*83*	*5.86*	*0.016*
Old (>55 years)	*19*	*75*		
Socio-economic class (N=300)	*Illite rate*	*Liter ate*	χ^2	*P value*
Class 2	*4*	*37*	*10.24*	*0.017*
Class 3	*9*	*88*		
Class 4	*11*	*84*		
Class 5	*17*	*50*		

Table-3: Pattern of tobacco and other substance habits.

No	Substance habits* (N=300)	Only current users (<6 month)	Only past user (before 6 month)	Exclusively Both (current as well as past)
1	Guthka (44.7%)	78	36	20
2	Khaini (41.7%)	33	11	81
3	Pan-masala (39%)	24	47	45
4	Snuffing (25%)	10	9	56
5	Cigarette (24%)	37	23	11
6	Bidi (34.7%)	20	26	58
7	Huka (17%)	13	32	6
8	Ganja-Bhang (27%)	16	41	24
9	Alcohol (41%)	19	51	54

* Study subjects may have more than one habit.

Table- 4: Comparison of various types of substances habit and related influencing factors in two (youth & old) generations. (N=184)

Substance habits*	Youth (n=90)		Elderly (n=94)		Chi-square	P value
	Number	Percentage	Number	Percentage		
Guthka	62	68.8	19	20.2	44.20	<0.0001
Khaini	28	31.1	63	67.0	23.71	<0.0001
Pan-masala	31	34.4	37	39.4	0.477	0.48
Snuffing	15	16.7	26	27.6	3.21	0.073
Cigarette	36	40.0	14	14.9	14.64	0.0001
Bidi	34	37.8	61	64.9	13.53	0.0002
Huka	14	15.5	25	26.6	3.35	0.067
Ganja - Bhang	19	21.1	32	34.0	3.83	0.05
Alcohol	46	51.1	27	28.7	9.63	0.0019
Influencing factors	**Youth (n=90)**		**Elderly (n=94)**		**Chi-square**	**P value**
	Number	**Percentage**	**Number**	**Percentage**		
Friends	37	41.1	24	25.5	5.04	0.025
Parents	13	14.4	41	43.6	18.87	<0.0001
Media	29	32.2	09	9.6	14.39	0.0001
self-started	11	12.2	20	21.3	2.69	0.10

***** There might be more than one habit among individuals.

Summary:

Tobacco and other substance habits were more common in males than in females (except for snuffing habit). Literacy rate was significantly higher in younger generation and in high socioeconomic class as compare to older generation and low socioeconomic class. Guthka, Cigarette, and Alcohol habits were significantly associated with youth (<30year) whereas usage of Khaini (mixture of tobacco & lime) and Bidi was significantly associated with elder people (>55year). Overall smokeless tobacco was common in urban slum. Regarding Influencing factors, friends and media were significantly associated with youth.

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