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A COMPARATIVE STUDY ON TOBACCO USE AND IT'S CORRELATES AMONG ADOLESCENT BOYS IN KAMRUP (METRO) AND KAMRUP (RURAL) DISTRICT OF ASSAM

Community Medicine

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ABSTRACT

Introduction- In Assam, sharp rise of tobacco use is seen in the last decade and this habit has influenced people of all ages, including the adolescents. In the recent years, despite various initiatives by the Government tobacco use by adolescents is seen to be on the rise in both urban as well as the rural areas of Assam.

Materials and methods- The present community based cross sectional study was carried out for a period of 5 months from October 2018 to February 2019 in sampled villages of Kamrup (Rural) district and sampled wards of Kamrup (Metro) District. A total of 300 adolescent boys from each district were included in the study. A predesigned & pretested interview schedule was used to interview the respondents.

Results- In Kamrup (M) district, 26.3% of the adolescent boys use tobacco while in Kamrup (R) district, 24.6% of the adolescent boys use tobacco. In Kamrup (M) district 42 (14%) participants use smoking product and 57 (19%) use smokeless product. Both smoking and smokeless tobacco products are used by 6.7% of the total respondents. In Kamrup (R) district, 48 (16%) participants use smoking product and 42 (14%) use smokeless product. Both smoking and smokeless tobacco products are used by 5.3% of the total respondents. Cigarette and Gutkha are the most commonly used products in both Kamrup (M) and Kamrup ® district.

Conclusion- The most important factors affecting smokeless tobacco use by adolescents in Assam are easy availability of these products, promotion and advertisements by the manufacturers. Present situation demands more awareness raising campaigns, training and workshop of school teachers and health workers to make adolescents aware of ill effects of tobacco products.

KEYWORDS

Adolescent Boys, Smoking Tobacco Products, Smokeless Tobacco Products

INTRODUCTION-

India has the 2nd largest consumers of tobacco throughout the world. Tobacco problem in India is very complex with use of variety of smoking forms (Bidi, Cigarette, Cigar, Hookah) and smokeless forms (Gutkha, Panmasala, Khaini etc). In India, higher percentage of tobacco users are found in Meghalaya, Manipur, Mizoram, Assam, Tripura, Arunachal Pradesh and Odisha. Another matter of concern is that, India has the largest number of smokeless tobacco users in the world and the adolescents and youths are in the grasp of tobacco, especially the smokeless tobacco.

In Assam, the comparison between Global Adult Tobacco Survey; GATS-1 (2010-11) and GATS-2 (2016-17) has revealed news of concern. From GATS-1 to GATS-2, although the prevalence of smoking has decreased by 1.1 percentage points, the prevalence of smokeless tobacco has increased significantly by 9 percentage points. The prevalence of any tobacco use has significantly increased from 39.3% in GATS 1 to 48.2% in GATS 2[1]. This is a matter of concern, as most of the adults start to use tobacco products from the adolescent period itself.

Adolescence is the transitional age occurring during the period from puberty to legal adulthood between 10 to 19 years. Adolescents, especially the adolescent boys start to use tobacco products due to various reasons such as peer pressure, experimentation as well as out of curiosity. Tobacco use is started before the age of 19 by an overwhelming majority of smokers. It is estimated that, around 5500 adolescents start using tobacco everyday in India[2]. As per the Global Youth Survey (GYTS), 2009 India it was reported that 14.6% of the students in the age group of 13-15 years currently use any form of tobacco, 4.4% currently smoke cigarette, 12.5% currently use some other form of tobacco[3].

In Assam, however, sharp rise of tobacco use is seen in the last decade. Use of areca nut is a part of custom for the people of Assam and this habit has influenced people of all ages, including the adolescents. In the recent years, despite various initiatives by the Government tobacco use is seen to be on the rise in both urban as well as the rural areas of Assam. Therefore, the present study was carried out to compare the pattern of tobacco use among the adolescents in Kamrup (Metro) and Kamrup (Rural) districts of Assam.

MATERIALS AND METHODS-

The present community based cross sectional study was carried out for a period of 5 months from October 2018 to February 2019 in sampled villages of Kamrup (Rural) district and sampled wards of Kamrup (Metro) District of Assam to make a comparative study to assess the trends and awareness regarding tobacco use among the adolescent boys in Kamrup (Rural) and Kamrup (Metro) Districts of Assam.

Taking the prevalence of tobacco use by adolescents as 21.8%[4], absolute error as 5% with 95% confidence interval, the sample size was calculated as 273 on the basis of the formula,

$$n = \frac{4pq}{l^2}$$

which was rounded to be 300. Thus, from Kamrup (Metro) and Kamrup (Rural) district each, sample size was taken to be 300.

In Kamrup (Rural) District two Development Blocks (Rani & Boko Development Blocks) were selected for the study. From each development block 5 villages were selected by simple random sampling method. Then from each village 30 households were selected by simple random sampling and from each household one adolescent was interviewed for the study making a total of 300.

In Kamrup (Metro) District, out of total of 31 wards, 6 wards were selected randomly for the study. From each ward 50 households were selected using simple random sampling and only one adolescent from each household was interviewed making a total of 300**.** The interviews were conducted by house to house visit. Adolescents residing in the area for last 6 months and consenting for the interview were included. Adolescents who had difficulty in communicating due to mental illness, hearing disorder or serious illness were excluded from the study. They were carefully briefed regarding purpose of the study so as to get their full co-operation during the study period, so that

information about the events under study could be obtained to optimal level. The respondents were interviewed using the predesigned & pretested interview schedule. In case adolescent was not found or present in the household, the next house was taken into consideration. Privacy and confidentiality of personal information was maintained in every step of the study and results were presented in aggregate form without individual identification. Assamese and Hindi languages were used to obtain the information. The findings of the study were tabulated and presented as percentage.

Operational Definitions-

Current user and ex-user- Current users were defined as subjects who reported use of any type of tobacco product at the time of survey or used tobacco at least once in the last 30 days preceding the survey. Ex-users were defined as subjects who used any type of tobacco product previously and given up or not using for last 30 days preceeding the survey.

RESULTS AND OBSERVATIONS-

Table 1 shows distribution of respondents according to their socio-demographic profile. In Kamrup (M) district, majority of the respondents (38%) belong to the age group 14-15 years and majority (86%) live in nuclear family. About 72.7% read in the class standard 5-10. In Kamrup (R) district, majority of the respondents (40.3%) belong to the age group 10-14 years and majority (76.7%) live in nuclear family. Majority (68%) read in the class standard 5-10.

Table 2 shows distribution of respondents according to prevalence of tobacco use. In Kamrup (M) district, 26.3% of the adolescent boys use tobacco while in Kamrup (R) district, 24.6% use tobacco.

Table 3 and Table 4 shows the distribution of respondents according to type of tobacco product consumption. In Kamrup (M) district, among the 300 study participants 42 (14%) use smoking product and 57 (19%) use smokeless product. In Kamrup (R) district, among the 300 study participants 48 (16%) use smoking product and 42 (14%) use smokeless product. Cigarette and Gutkha are the most commonly used products in both Kamrup (M) and Kamrup ® district.

Table 5 shows distribution of respondents according to their habits and frequency of tobacco use in both Kamrup (M) and Kamrup (R) district. In both districts, majority are current users of both smoking and smokeless products. In both districts, majority use ≤ 5 number of cigarettes/bidis per day and smokeless products ≤ 5 times per day.

Table 6 shows distribution of respondents showing correlates between tobacco use and awareness. Majority of the respondents know that tobacco is an addictive substance in both Kamrup (M) (57.3%) and Kamrup (R) (61.3%) district . About 58.7% of the respondents in Kamrup (M) and 56% in Kamrup (R) district know that tobacco is harmful to health. Majority of the respondents in both Kamrup (M) (89.3%) and Kamrup (R) (91%) have not heard about de-addiction centre.

Table 1- Distribution of respondents according to their socio-demographic profile

Socio-demographic factors		Kamrup (M)		Kamrup (R)	
		Frequency	Percentage	Frequency	Percentage
Age in years	10-13 years	107	35.7	121	40.3
	14-15 years	114	38	74	24.7
	16-19 years	79	26.3	105	35
Religion	Hindu	112	37.3	137	45.7
	Muslim	140	46.7	94	31.3
	Christian	48	16	69	23
Type of family	Nuclear	258	86	230	76.7
	Joint	42	14	70	23.3
Class Standard	Illiterate	18	6	12	4
	Up to Class 5	8	2.7	12	4
	Class 5-10	218	72.7	204	68
	Class 11 and above	56	18.6	72	24
Socio-economic status	Class 1	49	16.3	39	13
	Class 2	80	26.7	26	8.7
	Class 3	93	31	93	31
	Class 4	65	21.7	115	38.3
	Class 5	13	4.3	27	9

Table 2- Distribution of respondents according to prevalence of tobacco use

Tobacco use	Kamrup (M)		Kamrup (R)	
	Frequency	Percentage	Frequency	Percentage
User	79	26.3	74	24.6
Non user	221	73.7	226	75.4
Total	300	100	300	100

Table 3: Distribution of respondents according to type of tobacco product consumption in Kamrup (M)

Response		Kamrup (M)	
		Frequency	Percentage
Smoking product*(n=42)	Cigarette	38	90.5
	Bidi	6	14.3
Smokeless product*(n=57)	Guthka	53	92.9
	Khaini	16	28.1
	Pan masala	32	56.1
Both smoking and smokeless product	20	6.7	

Table 4- Distribution of respondents according to type of tobacco product consumption in Kamrup ®

Response		Kamrup (R)	
		Frequency	Percentage
Smoking product*(n=48)	Cigarette	43	89.6
	Bidi	10	20.8
Smokeless product*(n=42)	Guthka	34	80.9
	Khaini	16	38.1
	Pan masala	25	59.5
Both smoking and smokeless product	16	5.3	

Table 5- Distribution of respondents according to their habits and frequency of tobacco use

Variables		Kamrup (M)		Kamrup (R)	
		Frequency	Percentage	Frequency	Percentage
Habits of tobacco use					
Smoking product	Ex-user	18	42.8	13	27.1
	Current user	24	57.2	35	72.9
	Total	42	100	48	100
Smokeless product	Ex-user	12	21.1	15	35.7
	Current user	45	78.9	27	64.3
	Total	57	100	42	100
Frequency of tobacco product use among the tobacco users					
Smoking product(numbers of cigarettes/ beedis per day)	≤5	34	80.9	29	60.4
	6-10	8	19.1	19	39.6
	Total	42	100	48	100
Smokeless product (times per day)	≤5	37	64.9	23	54.7
	6-10	20	35.1	19	45.3
	Total	57	100	42	100

Table 6-Distribution of respondents showing correlates between tobacco use and awareness

Variables	Response	Kamrup (M)		Kamrup (R)	
		Frequency	Percentage	Frequency	Percentage
Is tobacco an addictive substance	Yes	172	57.3	184	61.3
	No	56	18.7	61	20.3
	Don't know	72	24	55	18.4
Is tobacco harmful to health?	Yes	176	58.7	168	56
	No	124	41.3	132	44
Whether noticing anti-tobacco information in mass media	Yes	271	90.3	227	75.7
	No	29	9.7	73	24.3
Whether aware on statutory warning on packets of tobacco products	Yes	117	39	109	36.3
	No	183	61	191	63.7
Heard of de-addiction center?	Yes	32	10.7	27	9
	No	268	89.3	273	91

DISCUSSION-

In our study, prevalence of tobacco use among adolescent boys in Kamrup (M) and Kamrup (R) district were found to be 26.3% and 24.6% respectively. Similarly, in a study done by Sogarwal R et al[5] in 2014, found the prevalence of tobacco use to be 31.5%.

Cigarette and gutkha are the predominant forms of tobacco in both Kamrup (M) and Kamrup (R) district. Baruah M et al[6] in their study done in 2016 in Guwahati also found the same predominance. Das N et al[7] in their study in Jorhat, Assam also found cigarette and gutkha as most commonly used tobacco products.

Mass media is the common source of information for the adolescent boys regarding anti tobacco information. Pawar RD et al[8] in their study in 2017 also found the same.

Jeganathan M et al[9] , in their comparative study carried out in Kanyakumari found that 63% of the subjects residing in urban areas and 57% of subjects residing in rural areas were aware about the ill effects of tobacco use, which is almost similar to our study where the percentage were 58.7% and 56% respectively.

CONCLUSION-

The most important factors affecting smokeless tobacco use by adolescents in Assam are easy availability of these products, promotion and advertisements by the manufacturers. Use of areca nut is a part of custom for the people of Assam and this habit has influenced the adolescents also. Some of the other reasons for rise of tobacco use in Assam are weak enforcement of laws and lack of co-ordination of stakeholders to combat this deadly habit particularly in young and productive age group. Present situation demands more awareness raising campaigns, training and workshop of school teachers and health workers to make adolescents aware of ill effects of tobacco products. Different IEC activities including postering, displays, rallies, street plays and exhibitions are also equally important. The tobacco menace among the adolescent boys must be controlled in Assam for better future of them.

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