Socio-demographic Characteristics and Behavioural Risk Factors in Selected Tribal Community in Bangladesh

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Abstract

Tribal and minority populations are increasingly exposed to risk factors as a result of urbanization. The study was conducted in the Rakhain community in Cox's Bazar district, Bangladesh, with the aims of determining the socio- demographic characteristics and behavioural risk factors. This cross-sectional study was done among 287 Rakhain individuals. Data were collected by face to face interview using pretested structured questionnaire. More than one third respondents were from the age group of 35-44 years. Their mean age was 40.66 (±11.275) years. Majority of the respondents were male 148(52%), married 222(77.4%) and educated up to primary level 179(62.4%). The highest proportion 68(23.7%) of the respondents were housewife and day laborer and lowest were unemployed 26(9.1%). Their average monthly family income were 17874.56 (±7208.553) Taka. Statistically significant association were found between their smoking status and socio-demographic characteristics (p <0.001). The high burden of behavioral risk factors in Rakhain community was observed in the present study.

Key words: Behavioural risk factors, tribal.

Introduction

Bangladesh, one of the most densely-populated areas in the world, has about 160 million people in a land area of 55,598 square miles (147,570 square km)[1] About 1% of the population consists of what are locally termed 'tribal groups' due to their distinct and unique languages, cultures, traditions, religions, and customs that are primarily based in Sino-Tibetan ancestry.[2] The majority of these tribal groups, or 'Jummas' as they are known due to their livelihood by jhum (local term for slash and burn cultivation) live primarily in the hilly areas of the south-eastern region of the country, specifically Rangamati, Khagrachhari and Bandarban districts of the Chittagong Hill Tracts (CHT) and in the regions of Mymensingh, Sylhet, and Rajshahi

For centuries, communicable diseases were the main causes of death around the world. Life expectancy was often limited by uncontrolled epidemics. After the Second World War, with medical research achievements in terms of vaccination, antibiotics and improvement of life conditions, non-communicable diseases (NCDs) started causing major problems in industrialized countries.[3] A non-communicable disease

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(NCD) is a medical condition or disease that is by definition non-infectious and non-transmissible among people.[4] Substance use is one of the most common causes of preventable human deaths worldwide. Alcohol and tobacco are most commonly used substances throughout the world. Alcohol and tobacco are the most commonly used substances in India also.[5]

The underlying cause of NCD epidemic is the increase in lifestyle related risk factors resulting from social and economic changes. In many countries the increasing impact of globalization has given momentum to this process. Among the modifiable risk factors unhealthy diet, physical inactivity, alcohol and tobacco use are categorized into primary risk factors and overweight, raised blood pressure, raised total cholesterol levels and raised blood glucose are categorized as intermediate risk factors. Most population has been experiencing an increased prevalence of both primary and intermediate risk factors. Almost 6 million people die from tobacco use each year, both from direct tobacco use and second-hand smoke. By 2020, this number will increase to 7.5 million, accounting for 10% of all deaths. Smoking is estimated to cause about 71% of lung cancer, 42% of chronic respiratory disease and nearly 10% of cardiovascular disease. The highest incidence of smoking among men is in lower-middle-income countries; for total population, smoking prevalence is highest among upper-middle-income countries[6] Some studies regarding NCDs and behavioral risk factors have been done in Bangladesh, but studies related to behavioral risk factors in Rakhain community so far revealed are very limited.

Methodology

This was a descriptive type of cross-sectional study conducted among 287 tribal respondents of sadar upazilla in Cox's Bazar district from January to December 2013 with the aim to determine socio-demographic characteristics and behavioural risk factors in Rakhain community of Bangladesh. Pregnant women, seriously ill, lunatic person and who were not willing to take part voluntarily were excluded from the study. Participants were selected conveniently and in a way that each selected household may represent at least one female and one male between 25 to 64 years age group. Data were collected by face to face interview using structured pre-tested questionnaire. Data processing and analyses were done using SPSS (Statistical Package for Social Sciences) version 16.0. Behavioral risk factors include smoking pattern, physical exercise, alcohol consumption and healthy diet. Due to limitation of time and resources the study is conducted only one risk factor (smoking status).

Result

Out of 287 respondents, 101(35%) were in the age group of 35-44 years. The mean age of the Rakhain respondents was 40.66 (±11.275) years. Majority of the respondents were male 148(52%) and married 222(77.4%). Among the respondents, 179(62.4%) were educated up to primary level. The highest proportion 68(23.7%) of the respondents were housewife and day labourer and lowest was unemployed 26(9.1%). Their monthly family income ranged between 15001 Taka to 20000 Taka with an average of 17874.56 (±7208.553) Taka. Among the Rakhain respondents 157(54.7%) lived in joint family and remaining 130(45.3%) lived in nuclear family. Among the respondents 224(78%) had 5 or less family members in their family.

Table-1 : Distribution of the respondents by socio-demographic characteristics (n = 287)

| Variables	Frequency	Percent
Age group		
25-34 years	75	26.0
35-44 years	101	35.0
45-54 years	63	22.0
55-64 years	48	17.0
Mean = 40.66; (SD = ± 11.275)		
Sex		
Male	148	52.0
Femal	39	48.0
Marital status		
Unmarried	34	11.8
Married	222	77.4
Widow	31	10.8
Educational qualification		
Up to primary	179	62.4
Secondary	46	62
Higher secondary and above	6.0	21.6
Occupation		
Unemployed	26	9.1
House wife	68	23.7
Employee	59	20.5
Small business	66	23.0
Day labour	68	23.7
Monthly income		
Taka ≤ 15000	95	32.8
Taka 15001-20000	130	45.6
Taka >20001	62	21.6
Mean = 17874.56, (SD= ± 72908.553)		
Type of family		
Nuclear	130	45.3
Joint	157	54.7
Number of family members		
Up to 5	224	78.0
More than 5	63	22.0

More than two-third of the respondents smoked tobacco (70.7%; 95% CI 65.43-75.96) and about one-fourth respondents used smokeless tobacco (28.2%; 95% CI 22.99-33.40). Regarding physical activity forty nine respondents (17.1%; 95% CI 12.74-21.45)

involved low level physical activity. All the respondents took less fruit and vegetables (less than 5 servings per day). Almost one-third respondents were overweight and obese (31.7%; 95% CI 26.31-37.08). Most of the respondents used to consume alcohol (71.8%; 95% CI 66.59-77.00).

Table-2 : Distribution of behavioral risk factors among the respondents (n = 287)

Behavioural risk factors	Frequency	Percentage	95% Confidence interval (CI)
Smoke tobacco	203	70.7	65.43-75.96
Smokeless tobacco use	81	28.2	22.99-33.40
Low level physical activity	49	17.1	12.74-21.45
Alcohol consumption	206	71.8	66.59-77.00
Less fruit and vegetables intake	287	100	100-100
Overweight and obese	91	31.7	26.31-37.08

The highest proportion of the respondents was daily smoker (37.98%) and lowest was past smoker (9.76%). Proportion of occasional smoker was 32.75%.
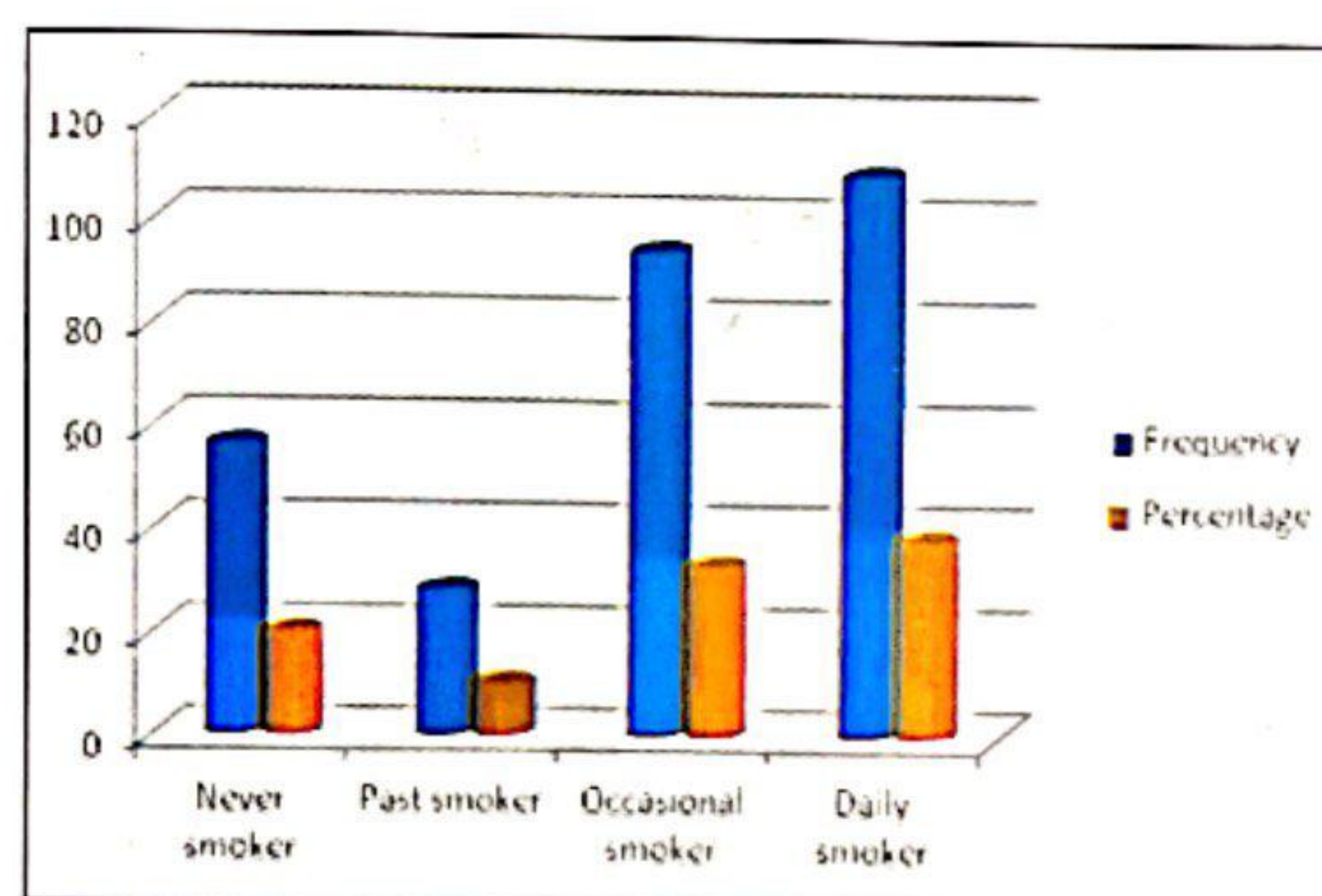
Figure-1: Distribution of respondents by smoking status

Proportion of daily smoker was highest in 35-44 years age group (52%) and lowest among the age group of 25-34 years. Among them 76 (51.4%) were male and one fourth (23.7%) were female. Regarding educational status 85(47.4%) was educated up to primary level. Among the day labourer majority were found as daily smoker (75%). Near three fifth unmarried respondents were occasional smoker. The relationship between smoking tobacco status and marital status of the respondent was tested by x^2 and was found statistically significant ($x^2=37.34$, $p <0.001$).

In chi-square test a significant association was found between smoking status of the respondents age group ($p <0.001$), Sex ($p <0.001$), education ($p <0.001$), occupation ($p <0.001$), marital status ($p <0.001$).

Table-3: Distribution of the respondents by socio-demographic characteristics and their smoking status (n= 287)

Age in years	Never n(%)	Past n(%)	Occasional n(%)	Daily n(%)	x^2	p value
25-34	33(32.7)	0(0)	47(46.5)	21(20.8)		
35-44	11(14.7)	0(0)	25(33.3)	39(52.0)	91.84	<0.001
45-54	6(9.4)	13(20.3)	19(29.7)	26(40.6)		
55-64	6(12.8)	15(31.9)	3(6.4)	23(48.9)		
Sex						
Male	9(6.1)	16(10.8)	47(31.8)	76(51.4)	43.08	<0.001
Female	47(33.8)	12(8.6)	47(33.8)	33(23.7)		
Educational status						
Up to primary	26(14.4)	24(13.3)	46(25.4)	85(47.4)	35.20	<0.001
Secondary	12(26.1)	0(0)	19(41.3)	15(32.6)		
Higher secondary	18(30.0)	4(6.7)	29(48.3)	9(15)		
Occupation						
Unemployed	4(15.4)	13(50.0)	2(7.7)	7(26.9)		
Housewife	16(23.5)	10(14.7)	20(29.4)	22(32.4)	123.57	<0.001
Employee	20(33.9)	2(3.4)	29(49.2)	8(13.6)		
Day laborer	1(1.5)	0(0)	16(23.5)	51(75)		
Small businessman	15(22.7)	3(4.5)	27(40.9)	21(31.8)		
Marital status						
Unmarried	6(17.6)	0(0)	20(58.8)	8(23.5)	37.34	<0.001
Married	46(20.7)	18(8.1)	72(32.4)	86(38.7)		
Widow	4(12.9)	10(32.3)	2(6.5)	15(48.4)		

Discussion

Social custom are an integral part of Bangla culture and tobacco use is one of the accepted social norms in the country. Recently the country has been experiencing health and economic transition, and has a double burden of communicable and non- communicable diseases. Tobacco is the major risk factor for non-communicable diseases. The study was conducted to determine socio-demographic characteristics and behavioural risk factors in selected tribal community of Bangladesh.

Out of 287 respondents, 101(35%) were in the age group of 35-44 years. The mean age of the Rakhain respondents was 40.66 (±11.275) years. A study conducted in North Bengal, India[7] where 37.6% respondents were from the age group of 35-49 years. Majority of the respondents was male 148(52%) and married 222(77.4%). Among the respondents, 179(62.4%) were educated up to primary level. This finding was similar with NCD survey.[8] In the study it was found that the lowest proportion of the respondents was unemployed and proportion of other occupations (employee, day laborer and small businessman) were almost equal. It was consistent with a study done in Kerala, India.[9] Their monthly family income ranged between 15001 Taka to 20000 Taka with an average of 17874.56 (±7208.553) Taka. This finding corresponded with a study done by Markovic et al.[10] Among the Rakhain respondents 157(54.7%) lived in joint family and 224(78%) had 5 or less family members in their family.

In the study more than two-third of the respondents smoked tobacco (70.7%; 95% CI 65.43-75.96) and about one-fourth respondents used smokeless tobacco (28.2%; 95% CI 22.99-33.40). Almost forty percent of the respondents were daily smoker, which was similar to the other studies.[9, 11] But it was lower than that of Indonesia (54%) and Vietnam (58%).[12]

Proportion of daily smoker was highest in 35-44 years age group (52%) and lowest among the age group of 25-34 years. Among them 76 (51.4%) were male and one fourth (23.7%) were female. Regarding educational status 85(47.4%) was educated up to primary level. Among the day labourer majority were found as daily smoker (75%). Near three fifth unmarried respondents were occasional smoker. The relationship between smoking tobacco status and marital status of the respondent was tested by x^2 and was found statistically significant (x^2=37.34, $p < 0.001$). In chi-square test a significant association was found between smoking status and socio-demographic status of the respondents (age group $p < 0.001$, sex $p < 0.001$, education $p < 0.001$, occupation $p < 0.001$, marital status $p < 0.001$). These findings were consistent with a study which was done in a tribal community of Native America.[13]

Conclusion

The study concludes that the prevalence of smoking among male tribal who are day labourer and educated up to primary level was very high. This provides essential information on key indicators of behavioral risk factors and creates an opportunity for policy makers, programme managers, and researchers to adopt interventions for the Rakhain community. Based on these findings, the specific recommendations are: Mass awareness through campaigns and public education in Rakhain community would be beneficial for raising community awareness and changing health risk behaviors. Population based approach using primary health care system should be reoriented towards early detection and treatment.

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