Concurrent Tobacco Use in a Random Sample of UK-Resident Bangladeshi Men

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Abstract

The literature on concurrent tobacco (CCT) use, i.e., regularly using both smoked and chewed tobacco, is sparse. ***Objectives:*** *This study aims to establish the point prevalence of CCT use in a randomly selected sample of UK-resident Bangladeshi males, compare CCT users with other tobacco users (smokers alone and chewers alone), and model the factors for CCT use and chewing tobacco use alone.* ***Methods:*** *A cross-sectional bilingual interview survey collecting data on age, marital status, social class, employment status, home ownership and overcrowding, self-assessed health and chronic illness episodes, social capital, nicotine dependence, and oral pain was used. Carbon monoxide readings validated smoked tobacco use. Logistic regressions were used for data analysis.* ***Results:*** *The initial response rate was 59 percent. Sample mean age was 40.7 years. CCT prevalence was estimated at 22 percent, practiced by older respondents of limited educational status. CCT users more likely had only average or poor self-rated health and more likely reported current oral pain compared with tobacco smokers. A wife chewing tobacco distinguished CCT users, as compared with tobacco smokers alone.* ***Conclusions:*** *In this sample of adult Bangladeshi males, CCT use was prevalent. CCT users more likely had a partner who was also a tobacco chewer, as compared with tobacco smokers.*

Key Words: concurrent tobacco use, South Asian immigrants, social support

Introduction

There are significant South Asian migrant communities worldwide, with approximately 1.7 million South Asians in the United States (1). Just under 8 percent of the UK's population of 54 million identify themselves as a member of a minority ethnic group, of which half have South Asian origins (2). These South Asian (Indian, Pakistani, and Bangladeshi) migrant communities differ in size, with linguistic, faith, and social diversity.

South Asian communities access a wide range of indigenous tobacco products in addition to the conventional manufactured cigarette. These include the smoked handmade bidi and the chewed tobacco-in-paan quid (areca nut, lime, chewing tobacco either as shredded leaf or as processed paste, and other flavoring agents enclosed in a betel leaf). Over 600 million people are estimated to chew tobacco-in-paan (3).

Concurrent tobacco (CCT) use, i.e., the regular use of both smoked and chewed tobacco, has little recognition, even though this behavior may increase risks of adverse health consequences relative to single tobacco product use (4). Tobacco use is a recognized common risk factor for both oral and systemic diseases (5).

CCT use prevalence in US adult males between 1992 and 2002 was 1 percent (6). A US cancer prevention trial identified 4 percent of participants as CCT users (7). CCT use may be more prevalent in South Asian migrant communities. One UK national survey (8) reported a 12 percent CCT prevalence in South Asian males, while a second study of Bangladeshi males aged 40 years and overreported a 10 percent prevalence (9).

There has been limited exploration of this behavior's social context, and the circumstances or events (individual, social, or environmental) providing the setting within which the behavior exists. In the US cohort study (6), CCT users were reported to be younger, more likely single, and of a lower educational level compared with tobacco smokers alone. The Bangladeshi community has gendered tobacco use, with males more likely to smoke and females more likely to chew tobacco (9). Men may more likely have the opportunity to both smoke and chew tobacco concurrently.

In summary, the sparse literature on CCT use suggests possible variations in the behavior's social context between different populations. Its impact on public health, especially in South Asian migrant communities, remains largely unrecognized.

To address this current lack of information, this study aims to investigate the prevalence of CCT use and the aspects of its social context in UK-resident Bangladeshi males. The specific objectives are: (a) to establish CCT use in a sample of UK-resident Bangladeshi males; (b) to

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compare CCT users with other tobacco users (smokers alone and chewers alone) using contextual and nicotine-dependence parameters; and (c) to model from these parameters the factors for CCT use and chewing tobacco use alone, compared with tobacco smokers.

Methods

Tower Hamlets is a densely populated London UK borough with high deprivation and unemployment levels. The Tower Hamlets Bangladeshi community numbers over 65,000, more than one-third the borough population and one-quarter of the UK's population of people of Bangladeshi origin. Three in five working Bangladeshi men are employed in the hotel and restaurant trade, and half are working as cooks or waiters (1). Smoking is more common in Bangladeshi men than the general adult population and other South Asian communities. Male Bangladeshi smoking prevalence is 40 percent compared with 24 percent of men in the general UK adult population (8).

A random sample of Bangladeshi men was selected from the current Tower Hamlets Electoral Register, the most comprehensive list of resident adults aged 18 years and over. Muslim–Bengali names were identified using a standardized protocol (10), and the addresses of potential participants were selected using a computer random number generator. Assuming a tobacco smoking prevalence of 45 percent, tobacco-in-paan chewing of 35 percent and a CCT use of 15 percent in Bangladeshi men, a level of significance of 5 percent and a power of the test of 95 percent, it was calculated that a sample of 260 should be recruited to establish the study objectives. Making an allowance of a 20 percent variation increased the sample size to 325. Bangladeshi men aged 18 years and over, residing in the borough, included in the electoral register, and are willing to take part and capable of answering the interview schedule were recruited into the study. Terminally ill, psychiatric patients and those with learning difficulties were excluded.

Whitehead and Dahlgren's "layers of influence" model (11) focused data collection content. This postulates that the many determinants of health inequalities are positioned around each other, with individual endowment (age, sex) at the center overlaid by individual behavior, then social and community networks, followed by living and working conditions and, finally, economic, cultural, and environmental factors.

A structured interview schedule was developed to collect information on the following topics:

- Demographics – age, marital status, self-reported social class, employment status, home ownership (rented or owned), and overcrowding (more than two people occupying a room) (8,12);
- Self–assessed health (single Likert response-style question) and chronic illness episodes (summed respondent selections from 17 major chronic illnesses) (12,13,14);
- Tobacco smoking [use of a tobacco product at least daily for last 6 months, validated with an expired air carbon monoxide reading, with a cutoff point of 6 ppm (15), using a Bedfont EC-50 carbon monoxide monitor (Bedfont Scientific, Rochester, Kent, UK)] and nicotine dependence [the eight-item Fagerstom Tolerance Questionnaire (FTQ), with a score of more than 7, indicating high nicotine dependence] (16,17);
- Wife's tobacco use (generated from responses to two questions about other smokers at home and other tobacco-in-paan chewers at home); and
- Dental service registration (single-item dichotomous response question) and current oral pain (single-item dichotomous response question) (17).

Two calibrated bilingual (English/Sylheti – the local Bengali dialect) male Bangladeshi interviewers were given an address list and instructed to make at least three attempts to contact the potential respondent. If the respondent was not at home or refused to take part, the next nearest address on the list was approached. The interviewers were instructed to conduct the interviews in the respondents' preferred language and location.

The robustness and cultural validity of the interview schedule was established in four focus group discussions involving 27 Bangladeshi adult men. Two additional behavioral items were incorporated into the schedule following these discussions: spitting out the chewing tobacco juices and the carrying of a paan box, which contains tobacco and other ingredients used in making up the paan quid, outside the home. The amended interview schedule was piloted with 15 Bangladeshi male respondents.

The data was analyzed with STATA (Statacorp, College Station, TX). Frequency distributions are presented and comparisons made using the Pearson Chi-square test. Binary and multinomial logistic regressions modeled the relationships between nicotine dependence, social context of tobacco use, and types of tobacco user (smoked, chewed, concurrent). Included items reflected the significance and the requirements of log likelihood tests. Conceptually, age, carbon monoxide reading, wife's chewing of tobacco, and the FTQ items were forced into the modeling following this exploratory analysis. Multinomial logistic regressions allow the simultaneous comparison of more than one contrast, in this case tobacco use status with tobacco smokers as the base category. Results are reported as rates ratios. For all tests, a significance level of 0.05 and below has been adopted.

The research protocol and instruments were approved by the local Research Ethics Committee. All respondents provided written consent to participate.

Results

One hundred ninety-three interviews were completed from the

initial list of 325, an initial response rate of 59 percent. The replacement list was then used until 325 interviews were completed. Reasons for nonparticipation, in order of magnitude, included no longer being at the address, refusal, illness, and temporary absence because of travel overseas. Following data checking, 301 interviews were included in the analysis.

The sample mean age was 40.7 years [95 percent confidence interval (CI): 40.2, 41.2 years]. Eighty-nine percent reported that they had been born in Bangladesh. The average length of UK residence of the Bangladeshi-born was 24.8 years (95 percent CI: 23.8, 25.8 years). Seventy-one per-cent were married, with 3.5 average children. Thirty-six percent reported that they were tobacco smokers alone, while 8 percent were tobacco chewers alone. Twenty-two percent of the respondents reported that they were CCT users, i.e., both smokers and chewers. Combining tobacco smokers alone with CCT users indicated that 58 percent of the respondents were tobacco smokers, while combining tobacco chewers alone with concurrent CCT users indicated that 30 percent were tobacco chewers. Mean carbon monoxide readings were 10.3 (95 percent CI: 9.3, 11.2) for tobacco smokers alone, 3.2 (95 percent CI: 2.5, 3.9) for tobacco chewers alone, 11.2 (95 percent CI: 10.1, 12.4) for CCT users, and 2.2 (95 percent CI: 1.7, 2.7) for nontobacco users. The sensitivity and specificity of self-reported tobacco use, using the carbon monoxide readings, was calculated as 93.3 and 93.8 percent, respectively.

Table 1 reports the sample characteristics according to tobacco use status. Tobacco smokers alone were younger and tobacco chewers alone were older. Tobacco chewers alone and CCT users were more likely to have had no education. Tobacco smokers were more likely to rate their health as either excellent or good, while tobacco chewers were more likely to rate their health as average or poor. The number of chronic illness episodes complemented this, with significantly fewer in tobacco smokers alone and more in tobacco chewers alone. Tobacco smokers alone were less likely, and tobacco chewers alone and CCT users were more likely to report current oral pain.

Noncurrent tobacco users were found to have the highest mean social capital score, while tobacco chewers had the lowest mean social capital score. Examination of individual social capital items showed that only 5 percent of the respondents' wives were reported to smoke, compared with 50 percent who used chewing tobacco. Eighty-three percent of tobacco chewers, compared to 23 percent of tobacco smokers alone, also had a wife who chewed tobacco ($P = 0.00$).

No significant difference in the number of cigarettes smoked daily between tobacco smokers and CCT users was found. The most common number smoked daily was 10 to 19. Table 2 presents responses to FTQ items comparing tobacco smokers and CCT users with respect to their tobacco smoking alone. No significant differences between most individual items were found. Seventy-seven percent of tobacco smokers alone smoked up to 19 cigarettes daily, compared to 64 percent of the CCT users. The type of cigarette smoked differed, with tobacco smokers alone significantly more likely to smoke manufactured cigarettes (91 percent) than CCT users who more likely smoked bidi (24 percent) ($P < 0.01$). Tobacco smokers alone were significan-

Table 1
Characteristics of the Sample according to Tobacco Use Status ($n = 301$)

	Tobacco smokers ($n = 107$)	Tobacco chewers ($n = 23$)	Concurrent (smokers and chewers) ($n = 66$)	Not a current tobacco user ($n = 105$)	*P*-value
Age (mean years, 95% CI)	35.6 (33.4, 37.8)	50.2 (44.6, 55.7)	46.4 (43.2, 49.7)	46.4 (43.2, 49.7)	
Social class (%)					
Nonmanual	14	5	12	15	0.362
Manual	86	95	89	85	
Education (%)					
None	6	13	20	6	<0.01
Some	94	87	80	94	
Residence in the UK (%)					
Up to 20 years	49	35	30	35	<0.05
More than 20 years	51	65	70	65	
Self-reported general health (%)					
Excellent/good	56	35	33	43	<0.05
Average/poor	44	65	67	57	
Chronic illness episodes (mean, 95% CI)	0.8 (0.55, 1.06)	1.94 (1.4, 2.5)	1.69 (1.2, 2.2)	1.6 (1.3, 2.0)	<0.05
Current oral pain (%)	15	36	32	26	<0.05
Social capital score (mean, 95% CI)	19.5 (17.3, 21.8)	16 (10.8, 21.3)	21 (17.3, 24.7)	24 (20.8, 26.6)	

Table 2
Tobacco Smokers, Concurrent Tobacco Users, and Nicotine Dependence Using Smoked Tobacco (%) (*n* = 173)

	Tobacco smokers alone	Concurrent users (smoked and chewed)	*P*-value
Reason for smoking: a habit	90	92	ns
First smoke within 30 minutes of waking	51	63	ns
Easy to go without a cigarette	11	7	ns
Not smoking difficult in public places	51	59	ns
First smoke hate to give up most	51	47	ns
Smoke when ill	28	37	ns
Smoke more at the beginning of day	41	59	ns
Inhales smoke	98	1	ns
Other smoker at home	47	20	<0.01
Want to give up smoking	75	85	<0.01
Tried giving up smoking	46	57	ns

Table 3
Tobacco Chewers, Concurrent Tobacco Users, and Nicotine Dependence Using Chewed Tobacco Alone (%) (*n* = 89)

	Tobacco chewers alone	Concurrent users (smoked and chewed)	*P*-value
Reason for chewing: a habit	65	66	ns
First chew within 30 minutes of waking	44	16	<0.00
Easy to go without chewing tobacco	25	35	ns
First chew hate to give up most	67	17	<0.00
Chew tobacco when ill	48	36	ns
Chew tobacco more at beginning of day	64	23	<0.00
Other tobacco chewer at home	87	78	ns
Want to give up chewing tobacco	57	54	ns
Tried giving up chewing tobacco	67	86	ns
Chew tobacco leaf	44	14	<0.05
Swallow chewing tobacco juices	65	73	ns
Carry a paan box	38	13	<0.05

tly more likely to report the presence of another tobacco smoker at home.

Tobacco chewers alone were significantly likely to chew more than 10 paan daily, compared to CCT users who were more likely to chew between one to four paan daily ($P < 0.01$) (Table 3). Other significant variations showed that tobacco chewers alone were more likely to have their first chewing tobacco intake within 30 minutes of waking, were more likely to have more chewing tobacco intakes at the beginning of the day, and would most hate to give up these morning intakes. Tobacco chewers alone were also more likely to chew tobacco leaf (44 percent versus 14 percent, $P < 0.05$) and to carry a paan box when outside their homes compared with CCT users (38 percent versus 13 percent, $P < 0.01$).

Table 4 reports multinomial logistic regressions, developed using backward stepwise elimination and the log likelihood ratio test, comparing CCT use, chewing tobacco use, and no tobacco use with tobacco smokers. Compared to tobacco smokers alone, CCT users more likely had a tobacco-chewing wife (RR = 6.03, 95 percent CI: 1.99, 18.26). A tobacco-chewing wife also distinguished tobacco chewers alone (RR = 64.8, 95 percent CI: 2.53, 1,658.6) compared to tobacco smokers alone. Respondents who used no tobacco at all were older (RR = 1.05, 95 percent CI: 1.01, 1.09) than tobacco smokers.

Discussion

This cross-sectional study investigated CCT prevalence and its social context in UK-resident Bangladeshi males, a globally migrating South Asian community. It has compared tobacco use behavior associated with the use of a traditional indigenous product, chewed tobacco in the paan quid, and the conventional smoked cigarette. Use of the traditional indigenous product is prevalent in this community. The study is the first to observe associations between CCT

Table 4
Multinomial Logit for Socioeconomic and Health Risk Factors for Tobacco Use Categories of a Random Sample of UK-Resident Adult Bangladeshi Men (Comparison Group, Cigarette Smokers) (*n* = 152)

Variable	RR	Standard error	*P*	95% CI
Concurrent tobacco				
Age	1.01	0.026	0.62	0.96, 1.06
Tobacco-chewing wife	6.03	3.38	0.00	1.99, 18.26
Social class	1.41	0.78	0.52	0.47, 4.21
Social capital score	0.98	0.01	0.40	0.94, 1.02
Number of chronic illnesses	1.14	0.25	0.56	0.72, 1.78
Years in the UK	1.01	0.03	0.70	0.94, 1.08
Chewing tobacco				
Age	1.03	0.03	0.33	0.96, 1.10
Tobacco-chewing wife	64.80	106.25	0.01	2.53, 1,658.6
Social class	1.64	1.42	0.56	0.29, 9.16
Social capital score	0.94	0.03	0.10	0.87, 1.01
Number of chronic illnesses	1.03	0.30	0.90	0.57, 1.85
Years in the UK	1.01	0.05	0.93	0.89, 1.12
No current tobacco use				
Age	1.05	0.02	0.01	1.01, 1.09
Tobacco-chewing wife	1.36	0.78	0.58	0.44, 4.23
Social class	1.22	0.66	0.71	0.41, 3.59
Social capital score	0.99	0.01	0.63	0.95, 1.02
Number of chronic illnesses	1.05	0.21	0.79	0.71, 1.56
Years in the UK	0.98	0.03	0.64	0.92, 1.05

use and a wife's chewing tobacco habits.

The study confirms the high prevalence of tobacco use among adult Bangladeshi males. Different tobacco types were used daily by 68 percent of the sample. Concurrent tobacco use was reported by 22 percent of the sample.

Cotinine analysis, to validate nicotine intake, was not collected in this study. Confidence in the point prevalence estimates was strengthened by the use of exhaled air carbon monoxide scores to validate self-report. While little response deception in surveys of the general population has been reported (18), this is not necessarily the case with respect to tobacco-related studies of Black and minority ethnic groups (19). Carbon monoxide assessment is a straightforward and cheap method of validating smoked tobacco use. No similar methodology is available to validate chewing tobacco use.

Logistic regressions have been used to identify hypotheses for further investigation. Previous reports identified CCT users as younger men who are more likely to be single and of a lower educational level, compared to tobacco smokers alone (6). In this study, respondent age was not found to be a confounder for either CCT or chewing tobacco alone use when controlled for in the regression analyses.

Wife's' tobacco chewing was identified as a predictor of both CCT use and chewing tobacco alone use compared to tobacco smokers alone. While robust assumptions were made in deciding an appropriate overall sample size, statistical relationships were attenuated as the analysis plan was implemented. This was especially so when the socioeconomic and health risk factors for the small group of tobacco chewers alone were analyzed. Wife's tobacco chewing remained the only significant variable, albeit with a large standard error and wide confidence intervals.

Partner's own tobacco-smoking behavior in either encouraging or discouraging tobacco use and cessation has been reported previously. Successful quit outcomes are reduced for tobacco users either living with other tobacco users or with limited social support (20,21). A hypothesis for further exploration is that, in this community, the practice of sharing chewing tobacco-in-paan may offer relaxation and social exchange in a sociocultural environment otherwise lacking these opportunities. Tobacco smoking is not an acceptable behavior for Bangladeshi women.

Two limitations of the study should be noted. Effectively sampling minority groups is challenging (22). The most current electoral register was adopted as a sampling frame. This pragmatic approach may omit recently arrived community members while also including those who have moved out of the borough. While the initial participation rate compares favorably with that reported in other inner-city area studies (23), potential selection and information biases should be acknowledged. These might create a variation in tobacco use estimates, although this study's point prevalence of all tobacco use is similar to the 63 percent previously reported in an earlier national population survey. It has also been noted that survey nonresponders may have a worse health status (24).

The cross-sectional study design has limited ability to record the dynamic nature of tobacco initiation and use over time and other factors such as acculturation, the extent to which a migrant assimilates the values, beliefs, culture, and lifestyle of the host country (25). That acculturation might not be unilinear is supported by qualitative community research (26). This suggests a multidirectional movement between the different forms of tobacco use because of the developing knowledge of smoked tobacco's greater

harm and the perceived opportunities for "harm reduction" provided by indigenous tobacco chewing products, despite public health concerns about toxin and nicotine levels (27).

CCT users offer unique challenges to achieving successful tobacco cessation (28). Oral pain in this sample was common, especially so in CCT users and tobacco chewers alone, suggesting a possible high dental treatment need.

In Bangladeshi tobacco-chewing women, we have reported the presence of significant numbers of oral mucosal lesions associated with oral pain (29). Dentists' skills in identifying oral lesions, an outcome of tobacco chewing, are important. Brief interventions with patients to encourage cessation attempts are recommended. This study's findings suggest a need for this advice to include both smoked and chewed tobacco, consolidating the opportunity of identifying the oral health impacts of both smoked and chewed tobacco on patients.

In conclusion, this study demonstrates that, in this inner-city sample of UK-resident adult Bangladeshi males, tobacco use, and especially CCT use, has a high prevalence. CCT users more likely have a partner who also chews tobacco when compared with those who smoke tobacco alone. Development of the dental team's public health role in providing advice on both smoked and chewed tobacco cessation is indicated. Further research is needed to explore these findings and their implementation.

References

1. Ahluwalia KP. Assessing the oral cancer risk of South-Asian immigrants in New York City. Cancer. 2005;104(12): 2959-61.
2. The Census 2001. London: The Stationery Office. [cited 2006 June 20]. Available from: www.statistics.gov.uk/pdfdir/ethnicity0203.pdf
3. Changrani J, Gany F. Paan and gutka in the United States: an emerging threat. J Immigr Health. 2005;7(2):103-8.
4. Critchley JA, Unal B. Health effects associated with smokeless tobacco: a systematic review. Thorax. 2003;58(5): 435-43.
5. Sheiham A, Watt RG. The common risk factor approach: a rational basis for promoting oral health. Community Dent Oral Epidemiol. 2000;28(6):399-406.
6. Mumford EA, Levy DT, Gitchell JG, Blackman KO. Tobacco control policies and the concurrent use of smokeless tobacco and cigarettes among men, 1992-2002. Nicotine Tob Res. 2005;7(2): 891-900.
7. Wetter DW, McClure JB, de Moor C, Cofta-Gunn L, Cummings S, Cinciripini PM, Gritz ER. Concomitant use of cigarettes and smokeless tobacco: prevalence, correlates, and predictors of tobacco cessation. Prev Med. 2002;34: 638-48.
8. Erens B, Primatesta P, Prior G, editors. Health survey for England. The health of minority ethnic groups 1999. London: The Stationery Office; 2001.
9. Pearson N, Croucher R, Marcenes W, O'Farrell M. Oral health and treatment needs among a sample of Bangladeshi medical care users aged 40 years and over living in Tower Hamlets, UK. Int Dent J. 2001;51(1):23-9.
10. Ecob R, Williams R. Sampling Asian minorities to assess health and welfare. Epidemiol Community Health. 1991; 45(2):93-101.
11. Whitehead M, Dahlgren G. What can be done about inequalities in health? Lancet. 1991;338(8794):1059-63.
12. Thompson RL, Margetts BM, Speller VM, McVey D. The Health Education Authority's health and lifestyle survey: who are the low fruit and vegetable consumers? Epidemiol Community Health. 1993; 53(5):294-9.
13. Majeed A, Bardsley M, Morgan D, O'Sullivan C, Bindman AB. Cross sectional study of primary care groups in London: association of measures of socioeconomic and health status with hospital admission rates. Br Med J. 2000;321 (7268):1057-60.
14. Stansfeld S, Rael EG, Head J, Shipley M, Marmot M. Social support and psychiatric sickness absence: a prospective study of British civil servants. Psychol Med. 1997;27(1):35-48.
15. Middleton ET, Morice AH. Breath carbon monoxide as an indication of smoking habit. Chest. 2000;117(3):758-63.
16. Fagerstrom KO, Schneider NG. Measuring nicotine dependence: a review of the Fagerstrom Tolerance Questionnaire. J Behav Med. 1989;12(2):159-82.
17. Croucher R, Islam S, Jarvis M, Garrett M, Rahman R, Shajahan S, Howells G. Tobacco dependence in a UK Bangladeshi female population: a cross-sectional study. Nicotine Tob Res. 2002;4(2):171-6.
18. West R, McEwen A, Bolling K, Owen L. Smoking cessation and smoking patterns in the general population: a 1-year follow-up. Addiction. 2001;96:891-902.
19. Simon TR, Sussman S, Dent CW, Stacy CW, Burton D, Flay BR. Predictors of misreporting cigarette smoking initiation among adolescents. Eval Rev. 1996;20(5): 552-67.
20. Monden C, De Graaf N, Kraaykamp G. How important are parents and partners for smoking cessation in adulthood? An event history analysis. Prev Med. 2003; 36:197-203.
21. Woodby LL, Windsor RA, Snyder SW, Kohler CL, Diclemente CC. Predictors of smoking cessation during pregnancy. Addiction. 1999;94:283-92.
22. Kalsbeek WD. Sampling minority groups in health surveys. Stat Med. 2003;22: 1527-49.
23. Gulliford MC, Sedgwick JE, Pearce AJ. Cigarette smoking, health status, socioeconomic status and access to health care in diabetes mellitus: a cross-sectional study. BMC Health Serv Res. 2003;3(1):4.
24. Barchielli A, Balzi D. Nine year follow-up of a survey on smoking habits in Florence (Italy): higher mortality among non-responders. Int J Epidemiol. 2002; 31(5):1038-42.
25. Salant T, Lauderdale DS. Measuring culture: a critical review of acculturation and health in Asian immigrant populations. Soc Sci Med. 2003;57:71-90.
26. Croucher R, Rahman S. Tobacco control policy initiatives and UK resident Bangladeshi male smokers: community based, qualitative study. Ethn Health. 2007;12(4):1–17.
27. McNeill A, Bedi P, Islam S, Alkhatib MN, West R. Levels of toxins in oral tobacco products in the UK. Tob Control. 2006;15(1):64-7.
28. Severson H. What have we learned from 20 years of research on smokeless tobacco cessation? Am J Med Sci. 2003; 326(4):206-11.
29. Croucher R, Pau A, Jerreat M, Begum S, Marcenes W. Oral health of Bangladeshi women tobacco-in-paan users and self-reported oral pain following tobacco cessation. J Public Health Dent. 2003; 63(4):235-9.