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Secular versus religious norms against smoking: Which is more important as a driver of quitting behaviour among Muslim Malaysian and Buddhist Thai smokers?

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Abstract

Purpose—This paper prospectively examined two kinds of social normative beliefs about smoking, secular versus religious norms, to determine their relative importance in influencing quitting behaviour among Muslim Malaysian and Buddhist Thai smokers.

Methods—Data come from 2166 Muslim Malaysian and 2463 Buddhist Thai adult smokers who participated in the first three waves of the International Tobacco Control Southeast Asia project. Respondents were followed up about 18 months later with replenishment. Respondents were asked at baseline about whether their society disapproved of smoking and whether their religion discouraged smoking and those recontacted at follow-up were asked about their quitting activity.

Results—Majority of both religious groups perceived that their religion discouraged smoking (78% Muslim Malaysians and 86% Buddhist Thais) but considerably more Buddhist Thais than Muslim Malaysians perceived that their society disapproved of smoking (80% versus 25%). Among Muslim Malaysians, religious, but not societal, norms had an independent effect on quit attempts. By contrast, among the Buddhist Thais, while both normative beliefs had an independent positive effect on quit attempts, the effect was greater for societal norms. The two kinds of normative beliefs, however, were unrelated to quit success among those who tried.

Conclusions—The findings suggest that religious norms about smoking may play a greater role than secular norms in driving behaviour change in an environment like Malaysia where tobacco control has been relatively weak until more recently but in the context of a strong tobacco control environment like Thailand, secular norms about smoking becomes the dominant force.

INTRODUCTION

According to social psychological theories [1–5], social norms are one of the key influences on people's behaviour. Evidence in support of the theories has been established across a wide range of behavioural domains including smoking and in a variety of populations [6, 7]. It has been argued that norms are not a unitary concept and the assessment of different kinds of norms can improve its predictive power [4, 8, 9]. In the present study, we focus on two kinds of social norms, namely, societal and religious norms with respect to smoking

behaviour. Both kinds of norms can be broadly described as an injunctive norm because they both include a prescriptive judgement on what is appropriate and they motivate action by highlighting the potential rewards and punishments for engagement or non-engagement in the behaviour [4]. Nevertheless, important distinctions can be made about these two kinds of norms. For example, societal norms about smoking are more depersonalized and they relate to the perception a person has of what the society in general in which they live in believes about smoking. By contrast, religious norms are more personal and are typically embedded within the social network to which a person belongs. As such, they have strong social identity implications. With respect to smoking, they relate to the perception of what the religion or religious authority a person identifies with believes about smoking.

Past research on smoking has demonstrated the role of societal norms in influencing smoking behaviour [10]. As smoking becomes increasingly denormalized, the societal norms against smoking also increase, leading to increased quitting activity among smokers [11]. Normative beliefs about smoking change over time particularly as evidence points towards the harms of smoking. In many jurisdictions, there is increasing tobacco control activity to curb the use of tobacco products in an attempt to reduce the harms due to tobacco use. As a result, the social acceptability of smoking is declining [12, 13]. Using data from the International Tobacco Control (ITC) project, Hosking, Borland, Yong, Fong, Zanna, Laux et al [14] examined the effects of smoking norms on quitting intentions in two developing countries (Malaysia and Thailand) and compared this with four developed Western countries, and found that societal norms against smoking were positively related to quit intentions in all countries but norms from significant others were predictive in all except Thailand. These findings suggest that different normative factors may play a different role in different cultural and/or tobacco control contexts.

In some countries where religion is central to the lives of people, religious campaigns have also been conducted to discourage smoking among its populations. Thus, one would expect religious norms on smoking to be changing over time in some countries as well. For example, religious authorities have initiated anti-smoking activities in countries like Malaysia, where Islam is the national religion, and Thailand, where Buddhism is embraced by most of its population. The Malaysian government in 2004 initiated a yearly nation-wide anti-smoking campaign during the fasting month of Ramadan to encourage Muslims to quit smoking. In Thailand, on a smaller scale mainly at the community-levels, monks and abbots have initiated several campaigns in their communities to encourage smokers to quit and to refrain from giving cigarettes as alms [15, 16]. Using data from the ITC-Southeast Asia (ITC-SEA) survey, Yong, Hamann, Borland, Fong, Awang, Omar et al [17] recently examined the role of religion and religious authorities in influencing quitting behaviour among Muslims in Malaysia and Buddhists in Thailand. Yong et al found that religious factors stimulated quit attempts among smokers in both countries and were related to quit maintenance in Malaysia but not in Thailand. They hypothesized that this difference could be due to the varying strength of the tobacco control environment in each country.

Malaysia, being a more tobacco friendly country, and the absence of a strong societal norm against smoking, religious norms on smoking may have become more important in shaping how Muslim Malaysians should behave. By contrast, Thailand has had strong tobacco control for a long time and any effect of religious norms on smoking may have been overwhelmed by the strong societal norms against smoking, thus, making the former less influential in shaping the behaviour of Buddhist Thais. This explanation is consistent with the reference group theory, which posits that an individual's behaviour is largely influenced by the groups with which they identify and refer for normative guidelines for their behaviour [18, 19]. From a social identity perspective, the depersonalized societal norms on smoking should have little influence on behaviour whereas group norms should have a significant

impact particularly for those who identify strongly with the group. This is because the process of psychologically belonging to a group means that self-perceptions, beliefs, attitudes and behaviour are brought into line with the position advocated by the in-group norm [20].

Using an additional wave of data from the ITC-SEA survey, this paper sought to extend our previous work by examining the relative importance of the role of societal versus religious norms on smoking in influencing quitting behaviour of Muslims in Malaysia and Buddhists in Thailand. Specifically, we tested the hypothesis that in Thailand where tobacco control efforts have been longstanding and strong, societal norms on smoking would be more important than religious norms about smoking in influencing quitting behaviour of Buddhist Thais who smoke. By contrast, in Malaysia where the tobacco control environment has been strengthened only more recently, any behavioural change would be expected to be influenced more by one's normative beliefs about whether their religion is against smoking than their belief about the societal views on smoking.

METHODS

Data and sampling

Data come from the first three waves of the International Tobacco Control Southeast Asia (ITC-SEA) project, a cohort study conducted in Malaysia and Thailand where respondents were recruited using a multistage cluster sampling approach and followed up approximately every year and a half. Waves 1, 2 and 3 data were collected in 2005 (between January-March for both countries), 2006 (August-September for Thailand and August 2006-March 2007 for Malaysia), and 2008 (January-March for Thailand and March-September for Malaysia), respectively. Respondents completed a 50-minute face-to-face interviews conducted in Thai in Thailand and in Malay (predominantly) or English in Malaysia covering a wide range of questions including questions on perceived norms about smoking. The surveys were carefully translated and back-translated and checked by local members of the research team for accuracy of concept translation. For the purpose of this study, the sample consisted of 2166 respondents in Malaysia who reported at recruitment being a Muslim (of which 1017 were successfully followed up one and half year later) and 2463 respondents in Thailand who reported being a Buddhist at recruitment (1909 were successfully followed up). Other religious affiliations were not included in this paper because of small numbers. Across the 3 waves, 1424 respondents (487 Muslim Malaysians, 1312 Buddhist Thais) provided two sets of predictor-outcome data and 1324 respondents (530 Muslim Malaysians, 597 Buddhist Thais) provided only 1 set of predictor-outcome data. Study protocols were cleared for ethics by the institutional review boards at each of the research sites. Additional detailed information on the research design and survey methodology has been reported elsewhere [17, 21].

Measures

Predictor variables

Societal norms on smoking: This was assessed by asking respondents to rate on a 5-point scale how much they agree or disagree with the statement “[Malaysian/Thai] society disapproves of smoking”. This item was dichotomized into agreeing (1) versus disagreeing/neither (0) for the purpose of analysis.

Religious norms on smoking: Perceived religious norms about smoking were assessed by “As far as you know, does your religion discourage smoking?” (Yes, No, Don't Know). The “No” and “Don't Know” responses were combined for the purpose of analysis.

Other covariates

Religiosity: This was assessed using the question “In your day-to-day life, how often do you refer to or use your religious beliefs and values to guide your actions?” (Never, Almost never, Sometimes, and All the time).

Nicotine dependence: Respondents were asked the number of cigarettes smoked per day as a proxy measure of their nicotine dependency.

Product smoked: Respondents were asked whether they smoked exclusively factory-made cigarettes or whether they smoked hand-rolled cigarettes, either exclusively or with factory-made cigarettes.

Socio-demographics: This included age, annual household income, highest level of education, place of residence (urban or rural), and gender.

Outcome variables—At each follow-up, *quit attempts* were assessed by asking: “Since we last talked to you in [year of last survey], have you made any attempts to quit?” Those who said “Yes” and were abstinent for at least 24h were considered as having made a quit attempt. Those who reported being currently quit were also coded as having made a quit attempt. Among those who had made a quit attempt, *quit success* was assessed by: “Are you back smoking or are you still stopped?”.

Data analysis

All analyses were conducted using Stata Version 10 and significant was set at $p < .05$. For cross-sectional analyses, chi-square tests examined differences in socio-demographic characteristics and reported norms across the two religious groups. Generalized Estimating Equation (GEE) models with binomial variations, logit link function and an unstructured correlation structure were fitted to the data to examine prospectively the relationship between reported norms and quitting outcomes of interest. This allows us to maximise the number of observations across all waves whilst controlling for the correlations between responses from the same respondents at multiple waves. Analyses were conducted in stepwise fashion, first univariately, where each predictor was entered into the model one at a time for each outcome of interest, and then multivariately where we also controlled for socio-demographics and other covariates in the models to determine their independent effects on outcomes.

Results

Sample characteristics

Compared to those lost to the study, for both religious groups those who remained in the study tended to be younger, with lower income and education, from rural region and smoke primarily hand-rolled cigarettes (see Table 1). Among those retained, the respondents for both religious groups were predominantly male but the proportion was significantly greater among Muslim Malaysian respondents than their Buddhist Thai sample (98% vs 92%, $p < .001$). The Muslim Malaysian respondents were also significantly younger ($p < .001$), better educated ($p < .001$), smoked more heavily ($p < .01$), and more likely to smoke mainly factory-made cigarettes ($p < .001$) than the Buddhist Thai sample. However, the Buddhist Thai respondents were significantly more likely to be from the rural region than the Muslim Malaysians (68% vs 46%, $p < .001$). A significantly greater proportion of the Muslim Malaysians reported that their religious beliefs guide their actions all the time as compared to the Buddhist Thais (58% vs 26%, $p < .001$).

Societal and religious norms against smoking – prevalence and correlation

The majority of respondents in both religious groups reported that their religion discourages smoking but the proportion was significantly greater among the Buddhist Thais than among the Muslim Malaysians (86% vs 78%, $p < .001$ - see Figure 1). A significantly greater proportion of the Buddhist Thais also reported that their society disapproves of smoking as compared to the Muslim Malaysians (80% vs 25%, $p < .001$). Correlation analyses using Spearman's rho revealed that the two norms were only weakly correlated for Muslim Malaysians ($r = .09$, $p < .01$) but more strongly correlated for the Buddhist Thais ($r = .15$, $p < .001$).

Norms and quitting activity

Results from the GEE models are presented in Table 2. Perceived societal norms against smoking were positively related to making a subsequent quit attempt for both religious groups. However, this relationship was significant only for the Buddhist Thais, and it remained significant even after controlling for socio-demographics and other covariates including religious norms in the multivariate model (AOR=1.47, 95%CI: 1.19–1.82, $p < .001$).

Perceived religious norms against smoking were also positively related to making a subsequent quit attempt for both groups. This relationship was significant for both groups in the univariate models but the effect became stronger for the Muslim Malaysians after controlling for societal norms and other covariates in multivariate models (AOR=1.50, 95%CI: 1.11–2.03, $p < .01$). By contrast, for the Buddhist Thais, the effect became attenuated after controlling for societal norms and other covariates (AOR=1.28, 95%CI: 1.01–1.63, $p = .039$).

Among those who made a quit attempt, we also examined whether the two types of normative beliefs were related to quit success but found no relationship. We also explored for moderating effect of locality (urban/rural) and religiosity for the above predictive models by creating multiplicative interaction terms between these variables and normative indicators, and none of these were statistically significant.

Discussion

Using an additional wave of the ITC-SEA data, the results of this study confirm that the vast majority of both the Muslim Malaysians and the Buddhist Thais perceive that their religion discourages smoking. The findings also confirm that only a minority of the Muslim Malaysians perceive that their society disapproves of smoking as compared to the large majority among the Buddhist Thais. There is evidence from this study that these normative beliefs have an influence on quitting behaviour but the effect appears to differ across the two religious groups. Muslim Malaysian smokers were more likely to make a quit attempt if they perceived that their religion discourages smoking whereas the Buddhist Thai smokers were more likely to do so if they believed that their society disapproves of smoking. However, normative beliefs from both secular and religious perspectives did not appear to influence quit success among those who tried.

The differential effect of the two types of norms on smoking behaviour across the two religious groups deserves some discussion. Consistent with reference group theory [18, 19] which postulates that in-group members of a community look to their reference group for guidance as to how they should behave, it is not surprising that the Muslim Malaysians defer to the views of their religion as to whether they should continue to smoke or not and in the absence of strong societal views against smoking, norms of the religious group become more salient and influential in engaging them to behave according to the position advocated

by the ingroup norm in relation to smoking. By contrast, in Thailand where societal and religious views on smoking are very similar, behavioural change among the Buddhist Thai smokers are primarily driven by their perceived societal norms rather than by their perceived religious norms. The greater role of the former normative beliefs in driving a change in behaviour might be because in Thailand the long history of tobacco control has helped the Thais to internalize the rules and expectations of society in regards to smoking. Hence, they are less reliant on external pressure or religious prescriptions to influence their behaviour.

The differences in effects between the two religious groups could also stem from differences in the two religions. The precepts of Buddhism are less prescriptive than that of Islam and this might explain why religious views on smoking are less important and influential for the Buddhist Thai smokers as compared to the views on smoking espoused by the society at large. The incentive for change for the latter is the promise of better health outcomes by giving up smoking which is more salient as opposed to the more distant promise of a better after-life from obedience to religious teaching, something that many Buddhists may believe that they can still redeem through the cycle of reincarnation. The emphasis on public display of obedience in Islam and the preaching of eternal damnation in hell for disobedience could explain the greater role of religious norms on smoking for driving behavioural change among Muslim Malaysians who smoke. It might be argued that the effect of religious norms observed on Muslim Malaysian smoking behaviour might reflect either the effects of the anti-smoking Ramadan campaign that has been conducted in Malaysia since late 2004 or the 1995 religious edict/fatwa which declared that smoking is “haram” (forbidden) albeit this position in practice is only adopted by some states in Malaysia. However, both of these explanations seem unlikely as we found both factors failed to predict making quit attempts [17]. Moreover, both factors could not easily explain why the prevalence of normative beliefs against smoking from religious perspective is significantly higher among Buddhist Thais.

Normative influences, whether religious or otherwise, are only one source of influence on people's behaviour and therefore, it is not surprising that they are insufficient to help people to quit successfully as shown in this study. Given the addictive nature of smoking, more needs to be done such as providing effective stop-smoking medications or behavioural interventions to ensure that those who have quit smoking are able to maintain their abstinence from smoking [22].

The use of longitudinal data and GEE models are two major strengths of this study as it allows us to not only increase our ability to make inferences about the directionality of effects but also maximizes the sample used in analyses, thus, increasing the power of detection of effects. The ability to compare the impact of normative influences on behaviour change across two major religions is another strength as it helps to provide insights into the similarities and differences of effects across religions. However, several limitations are worth mentioning. First, the high attrition rate in Malaysia (more than 50%) is a cause for concern as it might have contributed to the lack of a predictive effect for societal norms. This is a possibility as the same measure of societal norms has been shown previously to be positively associated with increased intention to quit smoking among Malaysian smokers based on cross-sectional data from the first wave of the ITC-SEA survey [14]. Nevertheless, to the extent that the effect of societal norms on quitting behaviour that can be detected is not greater than that of religious norms, it would not have affected the conclusions we can draw. Second, we acknowledge that our use of single-item for measurement of the two types of normative beliefs may raise concerns about their validity and reliability. However, our ability to find a predicted association with quit attempts for societal norms and to replicate what we found previously for religious norms lend some support for their construct validity. Third, the inability to include a comparable religious group (Buddhist Malaysians and

Muslim Thais) within country because of small numbers makes it difficult to overcome the potential confounding between country and religion. Thus, care should be taken when generalizing our findings to other Muslim or Buddhist country. Fourth, the low number of female smokers in our two religious samples precluded our ability to test for gender differences in effects. Thus, it is unclear whether our findings would generalise across the gender groups in each country.

In conclusions, the findings from this study demonstrate that in the absence of strong societal views against smoking, Muslim smokers in Malaysia appear to look to their religion for guidance on whether they should quit smoking or not. By contrast, the presence of strong tobacco control efforts in Thailand where religious and secular views on smoking are very similar, Buddhist smokers appear to be primarily influenced to quit smoking by the views on smoking held by their society. Consistent with the prediction of the reference group theory, these findings suggest that in country where religion is central to the lives of people but where tobacco control efforts are only at an early stage, religious views on smoking seem to play a more central role than societal views in prompting smokers to quit. As tobacco control progresses, societal views on smoking may become the main driver of quitting behaviour.

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Figure 1.

Weighted estimate of the prevalence of normative beliefs about smoking from secular and religious perspectives among Muslim Malaysians and Buddhist Thais.

NB. Levels of perceived societal and religious norms against smoking were both significantly different at $p < .001$ between Muslim Malaysians and Buddhist Thais.

Table 1

Characteristic of the two religious groups by socio-demographics and other related variables.

	Muslim Malaysians, MM (%) N=2166			Buddhist Thais, TB (%) N=2463			Among retained: MM vs TB	
	Retained n=1017	Not retained n=1149	p	Retained n=1909	Not retained n=554	p	p	p
Age group (in years)								
18–24	12.7	19.2	.000	4.9	16.3	.000		.000
25–39	29.4	37.6		22.1	34.5			
40–54	36.7	30.1		42.2	35.0			
55+	21.3	13.1		30.8	14.3			
Sex Male	97.8	97.2	.354	91.8	91.9	.939		.000
Income Low	26.3	18.5	.000	29.9	22.0	.000		.000
Medium	19.3	23.3		25.9	24.6			
High	16.7	23.4		24.6	31.4			
No information	37.8	34.7		19.6	22.0			
Education								
No schooling/elementary	31.1	18.9	.000	77.1	60.5	.000		.000
Secondary	57.5	65.9		15.6	29.8			
Post-secondary	11.4	15.1		7.3	9.8			
Locality Rural	45.8	24.7	.000	67.7	51.9	.000		.000
Cigarette per day 5 or less	17.2	15.8	.665	18.9	21.2	.234		.004
6–10	33.6	35.1		34.9	35.7			
11–20	44.7	43.5		38.3	38.1			
21+	4.5	5.6		7.8	5.1			
Type of product used								
Factory-made cigarettes	72.7	85.4	.000	42.1	57.9	.000		.000
Hand-rolled cigarettes	12.7	8.1		34.9	20.4			
Both	14.6	6.6		23.0	21.8			
Religious beliefs guide actions								
Never	6.5	4.8	.103	4.3	5.1	.150		.000
Almost never	1.2	2.7		3.0	3.9			
Sometimes	34.3	34.7		66.9	70.1			

	Muslim Malaysians, MM (%)		Buddhist Thais, TB (%)		Among retained: MM vs TB	
	Retained n=1017	Not retained n=1149	Retained n=1909	Not retained n=554	p	p
All the time	58.0	57.8	25.8	20.8		
Cohort Waves 1–2	68.1	71.3	80.6	77.9	.112	.171
Waves 2–3	31.9	28.7	19.4	22.0		.000

NB. The percentages are unweighted.

Table 2

GEE model predicting making quit attempts among Muslim Malaysians and Buddhist Thais.

	Muslim Malaysians (N=893 cases, 1231 obs)		Buddhist Thais (N=1855 cases, 2941 obs)	
	OR (95%CI)	AOR (95% CI)	OR (95%CI)	AOR (95%CI)
Society disapproves of smoking				
Disagreeing/neither	Reference	Reference	Reference	Reference
Agreeing	1.18(0.93–1.50)	1.21(0.93–1.57)	1.54(1.27–1.87) ***	1.47(1.19–1.82) ***
Religion discourages smoking				
No/Don't know	Reference	Reference	Reference	Reference
Yes	1.37(1.05–1.79) *	1.50(1.11–2.03) **	1.34(1.08–1.67) **	1.28(1.01–1.63) *

NB.

*
p < 0.05;**
p < .01;***
p < .001;

obs, person-wave observations; OR, odds ratios; AOR, odds ratios adjusted for the other normative belief variable along with age, gender, locality, income, education, cigarettes per day, type of products used, cohort and religiosity; CI, confidence interval.