

# **Cultural Factors Affecting Smoking Intentions in Sri Lankan Immigrant Adolescents: An Exploratory Study**

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#### **ABSTRACT**

This paper reports a small exploratory investigation into smoking intentions amongst Sri Lankan immigrant adolescents living in Perth, Western Australia. Four focus group discussions were conducted to explore how cultural values are expressed in this group's beliefs and attitudes towards smoking and non-smoking and how these values may influence their smoking-related behaviour. Females and males attached similar negative values to smoking per se. However, some males saw peers' smoking as a way to be cool and popular while some females saw peers' smoking as a way to solve stress and other personal problems. Males had strong positive associations with their favourite actors in available pre-2005 Indian films who smoke on screen and play tricks with cigarettes. They reported playing out these tricks using pencils, or cigarettes when available, to impress peers. Females expressed strong negative attributes towards peers who smoked but some males said they were happy to associate with mainstream Australian, English-speaking peers who smoked. For some males, the combined effect of being exposed to movie smoking and wanting to be friends with mainstream Australian peers could put them at greater risk of succumbing to peer pressure to smoke. It would not be cost effective to design a separate marketing strategy for the small segment of Sri Lankan immigrant adolescents in Australia. However, these preliminary findings form the basis of more extensive work looking at smoking intentions of immigrant adolescents in Australia which could lead eventually to the development of social marketing messages tailored more specifically for a multicultural society.

#### **ARTICLE**

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#### Introduction

In line with calls in the *American Journal of Public Health* (Baluja et al. 2003) to include immigrant status as a factor in North American tobacco control studies, and in the *Australian Health Review* (Blignault and Haghshenas 2005) to conduct more primary health research taking into account multicultural factors, this study contributes to the work in Australian research by exploring smoking initiation and susceptibility to smoking among a small sample of Sri Lankan immigrant adolescents in Perth, Western Australia. There are two reasons for conducting multicultural research: 1) we are ethically bound to address health issues within all sectors of the community, regardless of race, ethnicity, gender, etc., and 2) there may be much to be learned from studying the cultural protection ethnicity appears to afford young people in some groups. For example, in Sri Lanka tobacco uptake is almost unknown in

women and young people. Only older men (30 years +) are at risk of becoming smokers (and then, they would only smoke out of sight of elders); this is despite there being virtually no legal restrictions on advertising, selling or smoking in public places, as well as no public money spent on tobacco control education programs (personal observation; Global Youth Tobacco Survey 2002). A greater understanding of the dynamic transmission of cultural factors through qualitative research with Sri Lankan immigrants in WA could reveal how cultural values protect immigrant adolescents against smoking uptake.

Within every society, ideology and roles are deeply rooted in culture (Unger et al. 2003) and have an important influence on adolescents' beliefs, values, and smoking prevalence patterns (McGraw et al. 1991). The initiation of smoking in western societies usually occurs during adolescence, and the patterns of adolescent smoking are strongly associated with cultural dimensions (Landrine et al. 1994; Griesler et al. 2002; Wallace et al. 2002; McGrady and Pederson 2002; White and Scollo 2003; Shakib et al. 2003). These cultural values shape how adolescents think and feel, their conceptualisations relating to smoking, their decisions to experiment with tobacco, and their attitudes towards tobacco (Nichter 2003). A comparison of smoking prevalence rates across national populations and across ethnic groups reveals the extent of this variation (Harrell et al. 1998; Anderson and Burns 2000; Corrao et al. 2000; Ellickson et al. 2004).

Studies of adolescent smoking have identified ethnic differences in meanings and beliefs concerning smoking (Spruijt-Metz et al. 2004) and tobacco-related cultural norms and behaviours (Unger et al. 2003). Specifically, demographics are related to adolescent tobacco uptake across ethnic groups. Foreign-born respondents were less likely to be smokers than US-born respondents of the same ethnic group (Unger et al. 2000). North American Whites and Hispanics have a higher smoking prevalence than do African Americans and Asian Americans (Wallace et al. 2002). African-American teens reported later onset of daily smoking compared with non-African-American youth (Robinson et al. 2004), but higher rates by late adolescence (Kandel et al. 2004). Beliefs concerning smoking among adolescents (Hanson 1999) and the proportion of female and male adolescents who smoked varied amongst different ethnic groups (McGrady and Pederson 2002). Asian-Americans were less likely to seek help to quit smoking than white smokers (Zhu 1998; Grace et al. 2004). Indian boys and girls and Pakistani girls were relatively more anti-smoking than white girls (Markham et al. 2004).

Studies on tobacco use in Australia reveal that smoking rates and smoking cultural norms of ethnic communities vary considerably from those found generally in the Australian community (Tang et al. 1998; Carter 2003). Smoking prevalence among ethnic communities was higher among men than women compared to the Australian community in general (Trotter 1997). Prevalence of smoking was consistently lower among adolescents speaking a language other than English at home, compared with those speaking English at home (Tang et al. 1998; Chen et al. 2000); smoking onset was delayed for students who spoke a language other than English at home, possibly owing to stricter family rules about smoking (Tang et al. 1998). Higher prevalence rates have been reported among Aboriginal children compared with non-Aboriginal children (Forero et al. 1998).

These studies indicate that smoking plays different roles and has different meanings for young people from different ethnic communities, providing risk or protective factors for smoking-related behaviours. The key to successful social marketing is segmentation, which allows for the identification of subgroups that can be reached cost effectively (Forthofer and Bryant 2000). Social marketing decisions need to be informed by research to measure population attitudes and perceptions toward health and associated behaviours that could be translated into social marketing strategies for behaviour change (Tyas and Pederson 1998; Centers for Disease Control 2001). Specifically, Smith (2000) advocated for the development of factors sensitive to cultural differences and social behaviours in a given population.

Two aspects of cultural influence were explored in this study: the effect of media, specifically 'movie smoking' and the effect of peer influence. Media has been identified as an important social factor that influences cognitive beliefs and expectancies of adolescents (Stockwell and Glantz 1997; Strasburger and Donnerstein 2000; Tickle et al. 2001; Sargent 2005). Specifically, media's possible influences on smoking intentions have fuelled concerns over smoking scenes in movies (termed 'movie smoking' in the literature). Research on the impact of peer smoking on adolescent smoking behaviour has identified several important associations: adolescents start smoking because they perceived peer smokers as popular and respected (Aloise-Young et al. 1994); smoking onset was related to peer smoking and the inability of youngsters to resist peer pressures (Tyas and Pederson 1998); peer smoking was the most consistent and powerful predictor of adolescent smoking (Bauman et al. 2001); and peers have positive and significant effect in adolescent smoking (Krauth 2005; Lundborg 2006).

#### Methods

Focus group discussions were conducted with Sri Lankan immigrant adolescents to explore how cultural values are expressed in this group's beliefs and attitudes towards smoking and non-smoking and how these values may influence their smoking-related behaviour. This small exploratory study is the first step in a body of work investigating the role of cultural values in the smoking uptake process which we hope will eventually inform culturally appropriate strategies to deter smoking uptake in ethnic populations. Four focus groups (two male and two female) with 31 Sri Lankan immigrant adolescents (17 males: 14 females). aged 14 to 21 years, were conducted in Perth, Western Australia. Sri Lankan ethnicity was chosen for this pilot study as the lead researcher is Sri Lankan, has access to the community, is sensitive to the culture and is able to speak both Tamil and Singhalese as well as English. The participants were recruited through community organisations. For participants of all ages (14-21 years), parents were first approached for their consent and then participants were approached and asked whether they would consent. At the recruitment stage and the beginning of each discussion, confidentiality was discussed. As well as participating in the discussion, participants completed a short questionnaire on their smoking status, the number of their friends who smoke, and their intentions to smoke. The groups ranged in size from six to nine participants. No focus group mixed males and females, in line with the usual practice of seeking to obtain homogeneity within groups in order to canvass a full and frank discussion. As this was a small convenience sample, it was not feasible to stratify groups by both age and gender and it was felt that stratifying by gender was more important with this ethnic population than stratifying by age. The researchers felt that problems concerning disclosure of smoking behaviour might have arisen in mixed gender groups. This view was substantiated by the female participants who stressed the need for confidentiality in their discussions. Considering the sensitivity of the topic for this group of people, and the central role of gender, a Sri Lankan female adult was present when the female focus groups were facilitated and moderated by the male lead researcher. A flexible topic guide was used to direct the discussions. The topics were not covered in a particular order; rather they followed the participants' responses allowing further discussions to explore the topic area. The groups were not tape recorded as smoking is a highly culturally sensitive subject for this group and initial discussions with parents indicated that consent would not be forthcoming for tape recorded sessions. Consequently, the data below are primarily summarised from the lead researcher's notes and therefore include relatively few verbatim reports. The verbatims that are included are either translated with the original language shown in brackets or, when spoken in English, are presented without change.

## **Findings**

## **Adolescent Smoking Behaviour**

The following figures relating to demographics are presented for information and not intended to suggest the sample is representative of the population in this small exploratory qualitative study. Of the 31 participants, 24 (78%) said they had never tried a cigarette, six (19%) said they had tried a cigarette, and one (3%) said he had smoked in the past 30 days. None of the female participants said that they had ever tried a cigarette (the cultural taboo against smoking for Sri Lankan females is so strong that they may not have wanted to admit to it.). Table 1 indicates participants' current smoking status, peer smoking and intentions to smoke in the future.

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Table 1: Participants'	current smoking	ะ คดคลงเกมา คดด	er smoking and	i intentions to smoke
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	Tried		How often		Friends		Smoke in future		
	Smoking			smoke					
	Yes	No	< 30	> 30	Non	Som	Yes	Might	No
			days <sup>a</sup>	days <sup>b</sup>	e	e			
Male	07	10	01	06	09	08	02	09	06
(n = 17)									
Female	-	14	-	-	11	03	-	02	12
(n = 14)			h						

<sup>&</sup>lt;sup>a</sup> Within 30 days (Occasionally); <sup>b</sup> 30 days ago (Once or twice).

#### **Smoking Uptake and Future Intentions**

In general, female participants indicated that they hated smoking and smokers while male participants stated that they did not like smoking, but did not mind other people smoking and were happy to have 'friends' who smoke. When prompted to talk more about 'friends', they indicated they were referring to mainstream or white English-speaking Australians. They expressed reservations about openly being with a Sri Lankan adolescent smoker.

Five of the seven (all males) who had tried smoking stated that they first tried between the ages of 15-17; the other two tried after this age. This relatively late trial compared to mainstream Australian adolescents is supported by studies on Non-English Speaking Background (NESB) groups (Tang et al. 1998; Chen et al. 2000). The reasons for trying smoking reported by our participants included curiosity, lighting up cigarettes for their peers, and pretending to be famous movie stars who do tricks with cigarettes in movies. They believed that experimenting with smoking would not addict them to regular smoking in the future. Similarly, Wang et al.'s (2004) qualitative study with children indicated that those children who thought addiction happened after several cigarettes or a duration of time were more likely to express intentions to experiment; this correlation between concepts of addiction and intention to smoke was supported by a quantitative follow-up study (Wang 2005).

Two female participants said they might smoke in the future; two thirds of the males said they might smoke in the future. This apparent greater smoking susceptibility in the males reflects a more pro-smoking attitude and a cognitive intention to smoke in the future (Pierce et al. 1996; Urberg et al. 1997; Tyas and Pederson 1998), and, if confirmed by quantitative research would be alarmingly high among this group of male adolescents. Pierce et al. (1996) argued that those who are never smokers but who report that they intend to smoke or hold pro-smoking attitudes are more likely to smoke in the future. The discussions revealed exposure to smoking in movies and desire to associate with peer smokers were the primary reasons male adolescents gave for taking up smoking or intending to smoke.

#### Media Exposure and Adolescent Smoking

Participants reported that they frequently watched Indian movies with their families and they discussed their perceptions of smoking scenes and star smoking in the Indian movies they had seen. They said that these movies were commonly available in the community (e.g., Sri Lankan and Indian grocery shops, Temples) and that it was a family activity to sit and watch them together. Participants commented that older movies they had seen (released prior to 1990) had fewer smoking scenes and depicted smoking as having undesirable social and health consequences; in contrast, in later Indian movies they had seen, there were more frequent positive depictions of smoking. [Their observation is supported by Charlesworth and Glantz' (2005) review of smoking in movies globally which noted that levels increased after 1990. Our study was done in 2005 so the movies the participants had watched would have been made before the 2005 Indian government ban on smoking in Indian movies and its requirement that existing movies be tagged with a warning scroll at the bottom such as 'smoking is injurious to health' (Thompson, 2005). A recent check indicates that older movies that are available in WA have not yet been modified to meet this recommendation but that new movies have indeed removed all smoking scenes.]

Variations in the perceived attitudes towards smoking in Indian movies were noted among older and younger male adolescents. Younger males (14-17 year olds) viewed smoking in movies in a more positive way than the older adolescents (18-21 year olds). Older adolescents were more attentive to the emotional status of smokers in film, particularly in terms of negative emotional states such as stress and fear. This might be explained by the older adolescents' greater facility with the language but supports McCool et al.'s (2001; 2003) findings that older adolescents were more likely to empathise with and acknowledge the relaxing effect of smoking during emotionally distressing situations.

Sensitivity to portrayal of smokers in movies varied by gender. Male participants discussed smoking scenes in a number of recent Indian movies portraying their favourite Indian movie stars (e.g., Rajanikanth, Vijay, Vikram) as fun loving, brave, risk taking, intelligent, tough and stylish. Some male participants said that they played tricks like 'Rajanikanth' who was nick-named 'Super Star', popular for his fighting scenes and for his tricks with cigarettes. Both males and females said that they loved to watch 'Vijay' movies and called him 'Young Commander (Illaya Thalabathi)'. Some male participants said that they had tried his tricks among their peer groups. One male participant who stated that he might try smoking in the future said:

I am so stimulated to try what Vijay do, though I am not inclined to smoke... I tried his tricks [with cigarettes] with pens when I was alone or with other friends, and all laughed.

Female participants expressed a positive attitude toward their favourite (male) stars who smoked on-screen, mentioning actors such as *Vijay*, *Vickram* and *Ajith* who often smoke and do tricks with cigarettes in their movies. However, female participants did not have a positive attitude towards smoking and smokers in real life. The absence of smoking by positive role model female actors in movies, the girls' preference for movies characterised as romantic/drama (with a low level of smoking) and the portrayal of female smokers in movies as 'bad women' all reinforced a negative attitude towards smoking, possibly helping to protect female adolescents from smoking uptake. Further, the absence in their preferred romantic dramas of portrayals of boredom, depression, stress, as well as weight control (all perceived risk factors for smoking uptake) may help to protect against smoking initiation among female adolescents. Male adolescents' preference for action/adventure movies which tended to contain high levels of star smoking scenes could add to their susceptibility to smoking.

Generally, male adolescents perceived star smoking as contributing to a positive image, especially in terms of the tricks the stars performed. Tricks included taking a cigarette from a shirt

collar or sleeve, lighting a cigarette by scratching the match stick on shirt or trousers, tossing the cigarette up and catching it in the mouth. They spoke of these tricks as if they were realistic rather than carefully choreographed. This view reinforced their perception of mainstream Australian peers' smoking as appearing more fun, cool, and popular. They said that they played out such tricks among their smoking and non-smoking peers, and that this enhanced their popularity. For the tricks they used pencils, if they were non-smokers, but cigarettes if someone in the group smoked or if they had access to cigarettes. Sri Lankan parents may not be aware of any inherent danger watching Indian films with their children. As Sargent et al., (2005, p. 1187) has stated: "exposure to movie smoking has a considerable impact on adolescent smoking as it has a very strong social influence on this age group; as it is so pervasive, its impact outweighs whether peers or parents smoke or whether the child is involved in other activities, like sports".

#### **Peer Pressure and Adolescent Smoking**

Both male and female participants said that they are often under pressure from their peers to take up smoking. Some female participants said they avoid peers who smoke due to cultural norms and community pressure. However, some male participants expressed a desire to associate with their friends, irrespective of whether or not they smoked, and reported experiencing difficulty in refusing to join in smoking.

Some male participants felt uncomfortable with allowing friends to smoke alone and said that they wanted to be sociable. One participant said

Being with peer smoker without smoking put me into pressure of how he would think about our relationship... always felt that I am not welcomed.

This put them in an awkward position, where they did not want to isolate themselves from peers who smoke and neither did they wish to be ignored or teased for not smoking.

#### **Smoking Beliefs and Attitudes**

Responses to the short questionnaire indicated that both males and females held similar beliefs about smoking for items such as: smoking is socially not acceptable, parents won't approve, brings shame on the whole family, people around me disapprove of my smoking, smoking affects image, smoking hurts health and performance. Table 2 presents this common set of beliefs about smoking for male and females; however, the salience varied between male and female participants and this is indicated by the order in which these beliefs are presented for each gender.

Table 2: Most Salient Reasons for Not Smoking

Male	
Smoking is socially not acceptable	
Parents won't approve	
Smoking affects image	
Smoking hurts health and affects performance Smoking will bring shame on the whole family People around me disapprove of my	

smoking

# Female

Smoking is socially not acceptable
Parents won't approve
Smoking will bring shame on the whole

Smoking will bring shame on the whole family

People around me disapprove of my smoking

Smoking affects image

Smoking hurts health and affects performance

There was general agreement that parental disapproval and social unacceptability were the most important factors in their decision not to smoke. Females were more concerned than males about socio-cultural norms where smoking will bring shame on their families and will not accepted by their parents, friends and by their society in general. They felt that they should not bring disrespect to their parents by smoking. The female participants strongly felt

that associating with other female smokers would also bring shame to them and their family, and that they would be considered 'bad girls' by the community. Female participants indicated that being a smoker or being with a smoker could affect their marriage prospects and their social standing. Female adolescents believed that these cultural values play a major role in their life and were much more important to them than the health consequences of smoking.

Male participants, although similarly concerned about bringing shame on their family and the expectations of people around them, were then most concerned about their image, particularly in relation to their present or future girlfriends. They believed that the smell of cigarette smoke is unpleasant and would be avoided by male and female friends. Generally, male participants believed that smoking would keep peers from the Sri Lankan community away, but could help them develop better associations with peers with an English-speaking background. Particularly, some older male adolescents exhibited more positive attitudes towards smokers, were willing to socialise with smokers, and/or be affiliated with groups in which smoking is a normative behaviour. Males said that they were more likely to smoke to "fit in". One of the male participants said:

Being with peer smoker show me as 'big kid' than being with non-smokers. Another male participant said:

Though I do not smoke, I always enjoyed lighting up cigarettes for my friends... this builds bond and close association.

The discussion considered how they perceived their peers' smoking and why they thought their friends smoke. A complex picture regarding participants' perceptions of self and peers in terms of decisions and smoking was revealed and these themes are presented in Table 3.

Table 3: Most Salient Perceived Reasons for Peer Smoking

1	M	la	I	ρ

Parties are better and more fun if people smoke

Teens who smoke are more popular and make more friends

Kids feel cool and more comfortable in social situations

People look grown up and feel more confident in decisions

Most teens can stop smoking when they want to

Smoking mild / herb cigarettes is less harmful

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Smoking effectively deals with stress

People look grown up and feel more confident in decisions

Smoking mild / herb cigarettes is less harmful

Smoking helps to overcome boredom

Most teens can stop smoking when they want to

Smoking controls weight

In summary, males generally thought that their peers smoked to appear more fun, cool, and popular; this could be regarded as a risk factor for male Sri Lankan immigrant adolescents. Females saw smoking as a way to overcome personal difficulties, to overcome stress, personal problems, boredom, and to lose weight; these beliefs could be regarded as risk factors for female Sri Lankan immigrant adolescents. Both groups of participants had a similar perception that smoking mild, herbal or menthol cigarettes is less harmful and that teens can stop smoking whenever they want to. These beliefs could be regarded as risk factors for both male and females.

#### **Discussion**

The findings show that the participants in our small sample of Sri Lankan immigrant adolescents attached similar negative values to smoking, arising from their perceived social

norms and cultural contexts. These values appeared to protect them against smoking uptake. However, differences were found among male and female adolescents' perceptions about the reasons their peers smoked. Female participants saw peers' smoking as a way to solve stress and other personal problems. Headen et al. (1991) and Markham et al. (2001) found similar results and suggested appropriate facilitation of self and community related support are needed for combating negative emotions among females. On the other hand, male participants saw peers' smoking as a way to be cool and popular. Markham et al. (2004) and Spruijt-Metz et al. (2004) stated that male adolescents associate peer smoking with better socialisation and are often at high risk of smoking uptake. They suggested a range of options should be available for shared tasks and socialising.

Males were more willing to associate with mainstream Australian friends who smoked and expressed positive attitudes towards smokers. These results were consistent with Alexander, et al's. (2001) findings relating to popularity and school smoking prevalence. Researchers suggest several possible approaches to address the influence of peer pressure to smoking. These include exercising parental control over the selection of friends or the choice of the groups of which they are members (Evans et al. 1992; Engels et al. 1999); placing antismoking advertisements in schools to negate or neutralise pro-smoking influences of cigarette advertisements and peer pressure (Pechmann and Shih 1999); changing positive perceptions of non-smoking adolescents about their peers who do smoke (Pechmann and Ratneshwar 1994); and improving their self-esteem and their ability "to say no" to smokers who put pressure on them to smoke (Landrine et al. 1994).

A major factor that emerged was the effect of viewing Indian films on this audience. Previous work by the World Health Organization (2003) investigated the response of Indian 16-18 year olds to smoking in Indian films, finding that young people wished to emulate the strength, masculinity and attraction depicted. Although the focus groups were conducted with both males and females, almost all the verbatims used in the executive summary appeared to have been spoken by males, although this is not made clear. Verbatims such as: 'films do influence us ... we try to act like them ... try to win a girl using methods we have seen heroes use' and 'My friends say I resemble Sanjay Dutt. So I joined a gym to get his type of body (physique). Copy his hairstyle and mannerisms too. Who knows, one day I may get a good break.' Few verbatims were likely to have been spoken by a female, possibly: "we copy everything .. their dress, hairstyle – streaks in hair, sandals, accessories, jewellery" and definitely 'even girls like us can start doing 'dadagiri' (behave like roadside hoodlums). We get influenced by movies, get ideas from there' (WHO 2003).

The present study was with Sri Lankan immigrant adolescents, rather than Indians in their home country, but we found the effect of movie smoking to be quite different for females and males. Indian films reinforced negative attitudes towards smoking in females. In contrast, for males, portrayal of their favourite male actors in Indian films as fun-loving, brave, risk-taking, intelligent, tough, stylish smokers had a powerful influence. These data were consistent with previous studies (Arnett 2001; McCool et al. 2001; 2004) in which older adolescents appraised movie images with a greater level of ambivalence compared to younger adolescents, and tended to associate their favourite actors' smoking with mood or situational factors. These false beliefs about smoking, conveyed in part by media, may offer a powerful means for conveying a false conception of the desirability and social acceptability of smoking (McCool et al. 2004) and may promote experimentation among male adolescents (Stacey 2000). This study suggests that seeing movie stars smoking, playing out tricks with pens or cigarettes among peers and being exposed to peers who smoke might play an important role in encouraging male Sri Lankan immigrant adolescents to start smoking.

Researchers have suggested several possible approaches to curbing adolescent exposure to smoking in movies. These include persuading the movie industry to voluntarily reduce depiction of smoking and cigarette brands (Dalton et al. 2003) as has now been done in India

(Thompson 2005); incorporating smoking occurrences into the movie rating system to make parents aware of the risks a movie with smoking poses to the adolescent (Sargent et al. 2005; Sargent 2005); and showing an antismoking advertisement before movies with smoking to modify the effect of pro-smoking movie depictions on smoking attitudes and behaviour (Pechmann and Shih 1999).

We acknowledge three important limitations: first, this was a small convenience sample from a small population of Sri Lankan immigrants in Perth, Western Australia. We do not intend that these findings should be generalised. Second, the sensitivity of the topic for this sample was such that we were unable to tape record the focus groups and the presence of a male researcher in the female groups may have inhibited free discussion. Nevertheless, a Sri Lankan female adult was present in those groups and the researcher's ability to speak the language would have helped to put both male and female participants at their ease. Finally, the results relating to movie smoking are, in part, superseded by the Indian government's ban on depicting smoking in movies; however, the availability of older movies in the Sri Lankan community would suggest that the findings still have some relevance.

In conclusion, numerous studies have investigated the influences of movie smoking or peer influence on adolescents' smoking behaviour, and a few have considered the differences among ethnic/social groups. Although small, to our knowledge, our study is unique in finding an important combined effect of movie smoking and peer influence in a context of ethnicity. With more extensive further research, understanding such issues sensitive to cultural differences and social behaviours in a given population could be useful information when designed targeted social marketing strategies for behaviour change.

#### References

- Alexander, C., M. Piazza, D. Mekos, and T. Valente (2001), "Peers, schools, and adolescent cigarette smoking," *Journal of Adolescent Health*, 29, 22-30.
- Aloise-Young, Patricia A., J.W. Graham, and W.B. Hansen (1994), "Peer influence on smoking initiation during early adolescence: a comparison of group members and group outsiders," *Journal of Applied Psychology*, 79 (2), 281-287.
- Anderson, Christy and David M. Burns (2000), "Patterns of adolescent smoking initiation rates by ethnicity and sex," *Tobacco Control*, 9 (2), 4-8.
- Arnett, Jeffrey (2001), *Adolescence and Emerging Adulthood: A Cultural Approach*, New Jersey: Prentice Hall.
- Baluja, Kaari Flagstad, Julie Park and Dowell Myers (2003), "Inclusion of immigrant status in smoking prevalence statistics," *American Journal of Public Health*, 93 (4), 642-646.
- Bauman, Karl E., Karen Carver and Karin Gleiter (2001), "Trends in parent and friend influence during adolescent: the case of adolescent cigarette smoking," *Addictive Behavior*, 26, 349-361.
- Blignault, Ilse and Abbas Haghshenas (2005), "Identification of Australians from culturally and linguistically diverse backgrounds in national health data collection.," *Australian Health Review*, 29 (4), 455-468.
- Carter, S. M. (2003), "From legitimate consumers to public relations pawns: The tobacco industry and young Australians," *Tobacco Control*, 12, iii71.
- Centers for Disease Control and Prevention (CDC) (2001), Marketing strategies for physical activity [On-line]. National Center for Chronic Disease Prevention and Health Promotion. Available from www.cdc.gov/nccdphp/dnpa/readyset/market.htm.
- Charlesworth, Annemarie, and Glantz, Stanton (2005), "Smoking in the movies increases adolescent smoking: A review," *Pediatrics*, 116, 6, 1516-1528.
- Chen, J., A. Bauman, C. Rissel, K.C. Tang, R. Forero and B. Laherty (2000), "Substance use in high school students in New South Wales, Australia, in relation to language spoken at home," *Journal of Adolescent Health*, 26, 53-63.

- Corrao, M. A., G.E. Guindon, N. Sharma and D.F. Shokoohi (2000), *Tobacco Control Country Profile*, Atlanta, GA: The American Cancer Society.
- Dalton, M. A., J.J. Sargent, M.L. Beach, *et al.* (2003), "Effect of viewing smoking in movies on adolescent smoking initiation: a cohort study," *Lancet*, 362, 281-285.
- Ellickson, P. L., M. Orlando, J.S. Tucker and D.J. Klein (2004), "From adolescence to young adulthood: Racial/ethnic disparities in smoking," *American Journal of Public Health*, 94 (2), 293-299.
- Engels, R. C., R.A. Knibbe, H. De Vries, *et al.* (1999), "Influences of parental and best friends' smoking and drinking on adolescent use: a longitudinal study," *Journal of Applied Social Psychology*, 29, 337-361.
- Evans, W. N., W.E. Oates and R.M. Schwab (1992), "Measuring peer group effects: a study of teenage behaviour," *The Journal of Political Economy*, 100 (5), 966-982.
- Forero, R., A. Bauman, and J. Chen (1998), "Alcohol and other drugs usage amongst Aboriginal and Torres Strait islander school students in New South Wales, Australia," *International Journal of Adolescence Medical Health*, 10 (1), 39-40.
- Forthofer, M. S., and C.A. Bryant (2000), "Using audience-segmentation techniques to tailor health behavior change strategies," *American Journal of Health Behavior*, 24 (1), 36-43
- Grace, X., G. Ma, S. Shive, Y. Tan, P. Thomas, and V. Man (2004), "Development of a culturally appropriate smoking cessation program for Chinese-American youth," *Journal of Adolescent Health*, 35, 206-216.
- Griesler, P. C., D.B. Kandel and M. Davies (2002), "Ethnic differences in predictors of initiation and persistence of adolescent cigarette smoking in the national longitudinal survey of youth," *Nicotine and Tobacco Research*, 4, 79-93.
- Global Youth Tobacco Survey (GYTS) (2002), "Tobacco use among youth: A cross country comparison," *Tobacco Control*, 11, 252-270.
- Hanson, M. J. (1999), "Cross-cultural study of beliefs about smoking among teenaged females," *Western Journal of Nursing Research*, 21, 635-651.
- Harrell, J. S., S.I. Bangdiwala and S. Deng (1998), "Smoking initiation in youth: The roles of gender, race, socioeconomics, and developmental status," *Journal of Adolescent Health*, 23, 271-279.
- Headen, S., K. Bauman, G. Deane and G. Koch (1991), "Are the correlates of smoking initiation different for black and white adolescents?" *American Journal of Public Health*, 81, 854-858.
- Kandel, D., G. Kiros, C. Schaffran and M. Hu (2004), "Racial/Ethnic differences in cigarette smoking initiation and progression to daily smoking: A multilevel analysis," *American Journal of Public Health*, 94 (1), 128-135.
- Krauth, B. V. (2005), "Peer effects and selection effects on smoking among Canadian youth," *The Canadian Journal of Economics*, 38 (3), 735-757.
- Landrine, H., J. Richardson, E. Klonoff and B. Flay (1994), "Cultural diversity in the predictors of adolescent cigarette smoking: The relative influence of peers," *Journal of Behavioural Medicine*, 17, 331-346.
- Lundborg, P. (2006), "Having the wrong friends? Peer effects in adolescent substance use," *Journal of Health Economics*, 25, 214-233.
- Markham, W.A., P. Aveyard, H. Thomas, A. Charlton, M.L. Lopez and H. De Vries (2004), "What determines future smoking intentions of 12- to 13-year-old UK African-Caribbean, Indian, Pakistani and White young people?" *Health Education Research*, 19 (1), 15-28.
- Markham, W.A., K. Featherstone, A. Taket, E.Trenchard-Mabere and M. Ross (2001), "Smoking amongst UK Bangladeshi adolescents aged 14-15," *Health Education Research*, 16, 143-156.
- McCool, J., L. Cameron and K. Petrie (2001), "Adolescent perceptions of smoking imagery in film," *Social Science and Medicine*, 52, 1577-1587.
- McCool, J., L. Cameron and K. Petrie (2003), "Interpretations of smoking images in film among older teens," *Social Science and Medicine*, 56, 1023-1032.

- McCool, J., L. Cameron and K. Petrie (2004), "Stereotyping the smoker: adolescents' appraisals of smokers in film," *Tobacco Control*, 13, 308-314.
- McGrady, G. A. and L.L. Pederson (2002), "Do sex and ethnic differences in smoking initiation mask similarities in cessation behaviour?" *American Journal of Public Health*, 92, 961-965.
- McGraw, S., K. Smith, J. Schensul and J. Carrillo (1991), "Sociocultural factors associated with smoking behaviour by Puerto Rican adolescents in Boston," *Social Science and Medicine*, 33, 1355-1364.
- Nichter, M. (2003), "Smoking: What does culture have to do with it?" *Addiction*, 98 (1), 139-145.
- Pechmann, C. and A. Ratneshwar (1994), "The effects of antismoking and cigarette advertising on young adolescents' perception of peers who smoke," *Journal of Consumer Research*, 21, 236-251.
- Pechmann, C. and C.F. Shih (1999), "Smoking scenes in movies and antismoking advertisements before movies: effects on youth," *Journal of Marketing*, 63 (3), 1-13.
- Pierce, J., W. Choi, E. Gilpin, *et al.* (1996), "Validation of susceptibility as a predictor of which adolescents take up smoking in the United States," *Health Psychology*, 15, 355-361.
- Robinson, M., I. Berlin and E. Moolchan (2004), "Tobacco smoking trajectory and associated ethnic differences among adolescent smokers seeking cessation treatment," *Journal of Adolescent Health*, 35, 217-224.
- Sargent, J. D. (2005), "Smoking in movies: impact on adolescent smoking," *Adolescent Medicine Clinics*, 16 (2), 345-370.
- Sargent, J. D., M.L. Beach, A.M. Adachi-Mejia, A. M., *et al.* (2005), "Exposure to movie smoking: its relation to smoking initiation among US adolescents," *Pediatrics*, 116 (5), 1183-1191.
- Shakib, S., M. Mouttapa, C. Johnson, A. Ritt-Olson, D. Trinidad, P. Gallaher and J. Unger (2003), "Ethnic variation in parenting characteristics and adolescent smoking," *Journal of Adolescent Health*, 33, 88-97.
- Smith, William A. (2000). "Social marketing: An evolving definition," *American Journal of Health Behavior*. 24 (1), 11–17.
- Spruijt-Metz, D., P.E. Gallaher, J.B. Unger and C.A. Johnson (2004), "Meanings of smoking and adolescent smoking across ethnicities," *Journal of Adolescent Health*, 35, 197-205.
- Stacey, J. (2000), "Feminine fascinations: forms of identification in star-audience relations," in J. Hollows, P. Hutchings and M. Jancovich, eds. *The Film Studies Reader*. London: Arnold, 147-154.
- Stockwell, T. F. and S.A. Glantz (1997), "Tobacco use increasing in popular films," *Tobacco Control*, 6, 282-284.
- Strasburger, V. and E. Donnerstein (2000), "Children, adolescents, and the media in the 21st century," *Adolescent Medicine Clinics*, 11 (1), 51-68.
- Tang, K., C. Rissel, A. Bauman, J. Fay, S. Porter, A. Dawes, and B. Steven (1998). "A longitudinal study of smoking in year 7 and 8 students speaking English or a language other than English at home in Sydney, Australia," *Tobacco Control*, 7, 35-40.
- Thompson, Geoff (2005, June 3). "Smoking banned in Indian films." *PM*, ABC radio transcript. Available from www.abc.net.au/pm/content/2005/s1384270.htm.
- Tickle, J. J., J.D. Sargent, M.A. Dalton, *et al.* (2001), "Favourite stars, their tobacco use in contemporary movies, and its association with adolescent smoking," *Tobacco Control*, 10, 16-22.
- Trotter, L. (1997), "Survey of smoking beliefs and behaviour in Greek and Chinese communities," *Quit Evaluation Studies*, 9, 108.
- Tyas, S. I. and L.L. Pederson (1998), "Psychosocial factors related to adolescent smoking: A critical review of the literature," *Tobacco Control*, 7, 409-420.
- Unger, J., T. Cruz, S. Shakib, J. Mock, A. Shields, L. Baezconde-Garbanati, P. Palmer, J. Cruz, E. Edsall, E. Gritz, T. Glynn and A. Johnson (2003), "Exploring the cultural context of tobacco use: A transdisciplinary framework," *Nicotine and Tobacco Research*, 5, S101-S117.

- Unger, J., P. Palmer, C. Dent, L. Rohrbach and C. Johnson (2000), "Ethnic differences in adolescent smoking prevalence in California: Are multi-ethnic youth at higher risk?" *Tobacco Control*, 9, 9-14.
- Urberg, K. A., S.M. Degirmencioglu and C. Pilgrim. (1997), "Close friend and group influence on adolescent cigarette smoking and alcohol use," *Developmental Psychology*, 33, 834-844.
- Wallace, J. M. Jr., J.G. Bachman, P.M. O'Malley, L.D. Johnston, J.E. Schulenberg and S.M. Cooper (2002), "Tobacco, alcohol, and illicit drug use: Racial and ethnic differences among US high school seniors, 1976-2000," *Public Health Report*, 117, S67-S75.
- Wang, Calvin. (2005), Exploring young people's concepts of smoking addiction: Perceived opportunities to try smoking without becoming addicted. PhD thesis, Edith Cowan University.
- Wang, Calvin, Nadine Henley and Robert Donovan (2004), "Exploring children's conceptions of smoking addiction," *Health Education Research*, 19 (6), 626-634.
- White, V. and M. Scollo, (2003), "How many children take up smoking each year in Australia?" *Australian New Zealand Journal of Public Health*, 27, 359-360.
- World Health Organization. (2003), 'Bollywood': Victimn or Ally? A study on the portrayal of tobacco in Indian Cinema. Geneva, Switzerland: World Health Organization. Available from www.who.int/tobacco/communications/events/wntd/2003/bollywood/en/.
- Zhu, S. (1998), "Tobacco control section California helpline for Asian Americans and Pacific Islanders," *Asian American Pacific Island Journal of Health*, 6, 260-261.