

Indian Youth Speak About Tobacco: Results of Focus Group Discussions With School Students

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This article discusses the findings of Focus Group Discussions (FGDs) that were conducted as a formative assessment for Project MYTRI (Mobilizing Youth for Tobacco Related Initiatives in India), a randomized, multicomponent, school-based trial to prevent and control tobacco use among youth in India. Forty-eight FGDs were conducted with students ($N = 435$) in sixth and eighth grades in six schools in Delhi, India. Key findings include: (a) students in government schools reported as "consumers" of tobacco, whereas students in private schools reported as "commentators"; (b) parents and peers have a strong influence on youth tobacco use; (c) chewing *guthka* is considered less harmful and more accessible than smoking cigarettes; (d) schools are not promoting tobacco control activities; and (e) students were enthusiastic about the role government should play in tobacco control. These findings are being used to develop a comprehensive intervention program to prevent and control tobacco use among Indian youth.

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Tobacco-related morbidity and mortality continue to escalate, particularly among the less developed regions of the world. Worldwide, nearly 4.9 million people died from

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tobacco-related illnesses in 2002; the figure is expected to rise to more than 10 million by the year 2030 if current tobacco use trends persist (World Health Organization [WHO], 2002). The vast majority of these deaths are likely to occur in India and China, where the rate of tobacco consumption continues to rise, particularly among women and youth (Gupta & Ball, 1990; Mackay, 1998; Peto & Lopez, 2001; Sudarshan & Mishra, 1999). In India, tobacco is primarily chewed in the form of *gutkha* (flavored chewing tobacco that contains betel nut, catechu, and other ingredients) but is also smoked in the form of cigarettes and *bidis* (hand-rolled cigarettes consisting of sundried tobacco flakes wrapped in a tendu leaf and secured with a thread on one end).

Similar to other countries in the world, the most susceptible time for initiating tobacco use in India is during adolescence and early adulthood, between the ages of 15 and 24 (National Sample Survey Organization, 1998). The majority of users start using tobacco before age 18, and some even start as young as 10 years old (Patel, 1999). It is estimated that 5,500 adolescents start using tobacco every day in India, joining the 4 million young people under the age of 15 who already regularly use tobacco (Patel, 1999; Rudman, 2001). Preventing the onset of tobacco use, then, requires intervention in early adolescence, prior to the time when tobacco has already become addictive (Reddy et al., 2002; U.S. Department of Health and Human Services [DHHS], 1994). This will be particularly important to prevent an enormous increase in tobacco-related morbidity and mortality in India.

Evidence regarding tobacco control efforts in several countries suggests that multi-component intervention strategies are effective in delaying the onset and reducing tobacco use among youth (Flay, 2000; McAlister, Perry, & Macoby, 1979; Vartiainen, Pallonen, McAlister, & Puska, 1990). A multicomponent approach positively targets the social, environmental, and intrapersonal factors that influence experimentation and maintenance of tobacco use among youth. Such an approach involves several intervention components and often includes classroom curricula, parent and peer group involvement, community mobilization, media, and policy changes. These strategies affect personal factors such as social competence, health-related knowledge, and skills to be able to identify and resist influences to use tobacco (Perry, 1999a). They also target young people's larger social environment by facilitating healthy changes in their homes, schools, and communities. Mobilizing Youth for Tobacco Related Initiatives in India (Project MYTRI), a partnership project of Health Related Information Dissemination Amongst Youth (HRIDAY) in New Delhi and the University of Minnesota in the United States, aims to prevent and control tobacco use among youth in India. For this purpose, the project proposes to develop, implement, and evaluate a multicomponent approach based on international experience and adapted to incorporate lessons gathered during previous research conducted in India (Reddy et al., 2002). The proposed MYTRI intervention model (see Figure 1) was developed by prioritizing a set of determinants, guided by social cognitive theory as it applies to youth health promotion and as considered appropriate to the Indian context. This model guided the research methodology employed in this study while retaining the flexibility to identify and explore other determinants.

The project is a randomized, school-based trial in 30 schools in three cities in India and is designed to evaluate the efficacy of large-scale behavioral interventions for preventing and reducing tobacco use among adolescents in Grades 6 through 9. For the purpose of the trial, it was imperative, due to sociocultural differences, to find out whether Project MYTRI's intervention objectives were relevant to its targeted population, what interven-

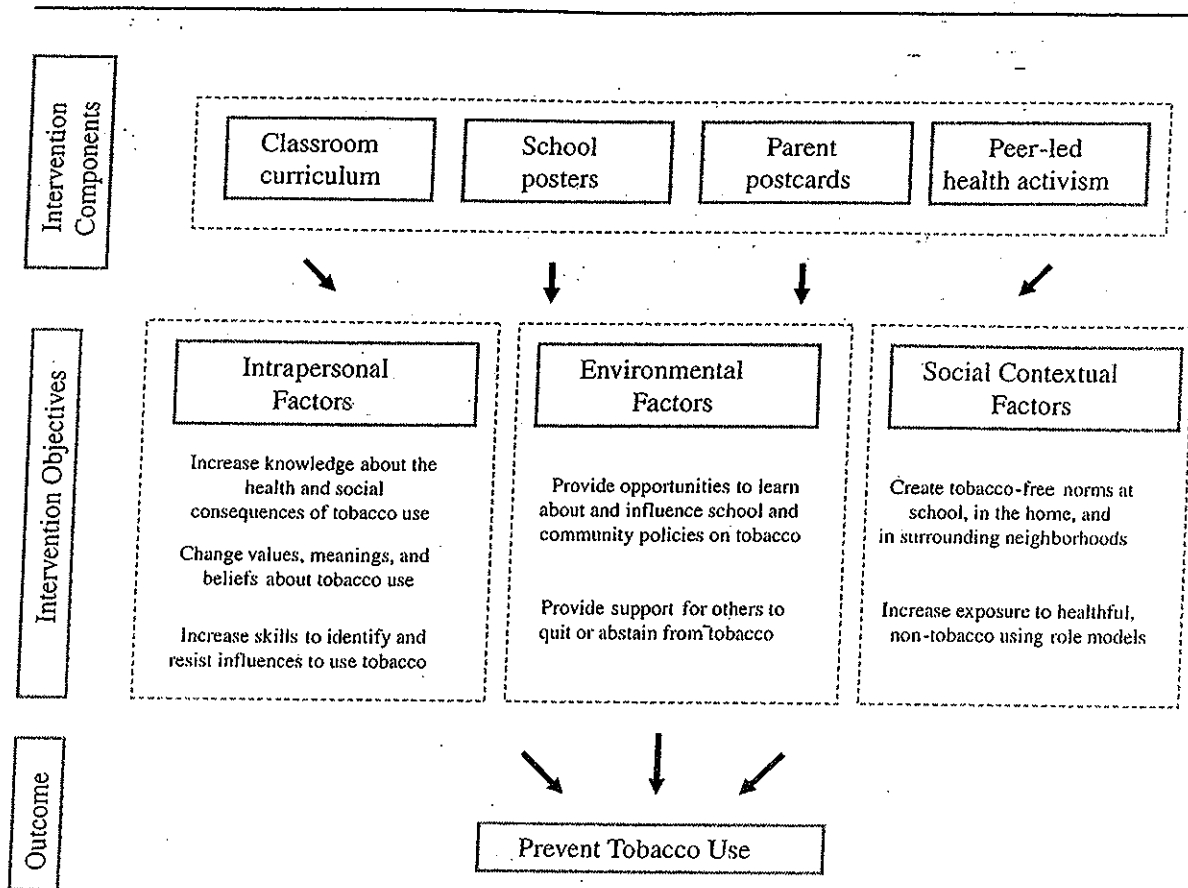


Figure 1. Project MYTRI's (Mobilizing Youth for Tobacco Initiatives in India) intervention model.

tion strategies are likely to work best in the given social context, and how to develop appropriate survey instruments. Such an assessment of specific needs, to identify priority areas for interventions, is required before the formulation of intervention programs (Goering & Streiner, 1996).

Social scientists caution against the use of "researcher-specified categories" or "pre-determined concepts," as they may lack meaning and relevance in a particular social context (Nichter, Vuckovic, Quintero, & Ritenbaugh, 1997). Nichter et al. (1997) have argued that the

focus of much research has been the identification of predictors of risk behaviors to the exclusion of an understanding of the social context in which such behavior is engaged and the degree to which such behaviors are viewed as risky by the adolescents themselves. (p. 285)

They share the concern voiced by others regarding the need for more qualitative research on adolescent health and behavior, so that the "voices of the teenagers are heard" (Harding, 1989; Millstein, 1993; Oakley, Brannen, & Dodd, 1992; Savin-Williams, 1987). Qualitative research helps to extrapolate information, gathered from the participants in a natural setting, with due emphasis to the meanings, experiences, and views of all the participants.

The purpose of this article is to describe the findings of the qualitative research that was conducted via focus group discussions (FGDs) as part of a formative assessment for planning interventions to prevent and control tobacco use among youth in India as part of Project MYTRI. Students were asked questions related to factors that might influence tobacco use among youth and their views on prevention strategies. These included questions on perceived norms, social determinants, effects of tobacco on health, refusal skills, persuasion skills, and the role of agencies such as school and government in tobacco control.

METHOD

Participants

FGDs were conducted in six schools in Delhi, India between November and December 2002. The selection of schools assured representation of diverse factors: types of schools (government and private) and gender (boys only, girls only, and coeducational). The government schools (analogous to public schools in the United States) include students representing social groups with low to middle socioeconomic status (SES). The private schools represent students from middle- to upper-SES groups. Hindi is the principal medium of instruction in government schools, whereas English is used in private schools. Additional criteria, including the cooperation of the school authorities, availability of students, and absence of any previous tobacco-related intervention also guided the selection of schools.

Within each of these schools, FGDs were conducted with Grades 6 (age group 10 to 14 years) and 8 (age group 12 to 16 years). These grades were selected because these are the age groups most susceptible to begin using tobacco products and represent the ages of the cohort in which Project MYTRI will commence intervention. The reason for the wide range in age groups within a grade is due to the fact that students in government schools start their schooling late and some of them repeat grades due to poor academic performance. One class in each grade was randomly selected at each school. The students in the selected class were divided into four groups. Each group had approximately 6 to 10 participants. The total sample size was 435, with 254 males and 181 females. There were 258 students in three government schools and 177 students in three private schools.

Data Collection

Four moderators and four notetakers from the HRIDAY team at Delhi, who are familiar with the study area and the languages (Hindi and English), were responsible for data collection. The moderators and notetakers were trained for 8 hours by a social scientist with expertise in qualitative research. The training involved (a) learning the basics of conducting FGDs; (b) studying and discussing the manual of operations, which explained appropriate methodology for conducting FGDs; and (c) conducting a mock FGD using the FGD questionnaire guide that was prepared for this study based on the principal research objectives.

The HRIDAY research team made several visits to the schools to establish contact with the school authorities (the principals, teacher coordinators, and the concerned class teachers). FGDs were scheduled after finalizing the day, timing, and venue (classroom, lawns, sports ground) during these visits. The research team, with the help of the

school authorities, met the students of one randomly selected section each, of sixth and eighth graders, in each of the six schools. The students were briefed about the purpose of the visit of the research team and the significance of their participation. The day and timing of the FGDs were also confirmed with them. Such initial visits helped establish familiarity with the potential participants. That, in turn, helped facilitate discussion during the FGDs.

Moderators were responsible for introducing the purpose and procedures of the FGD to the students. The note takers were responsible for audiotaping the discussion and taking notes. The moderators took additional note of any nonverbal gestures and communications in the course of discussions. Each FGD lasted about 40 minutes and was conducted in schools during regularly scheduled class time. Classroom teachers were not present during the discussions.

FGD Questions

The questions developed for the FGDs were guided by social cognitive theory and theories of youth health promotion as well as prior research on the etiology of tobacco use among adolescents in North America and Europe (Bandura, 1977; DHHS, 1994; Mayhew, Flay, & Mott, 2000; Perry, 1999b). These theories and this body of research suggest that intrapersonal, environmental, and social contextual factors predict the onset and maintenance of tobacco use among adolescents. The FGDs sought to explore whether and how these predictive factors would be relevant for youth in India. Although guided by these theories and prior research, the FGDs were sufficiently open-ended to allow Indian youth's perspectives on tobacco use and prevention strategies to emerge. Table 1 provides a list of questions discussed in the FGDs.

Data Analysis

Data were analyzed based on the essential principles of qualitative research (Miles & Huberman, 1994; Nichter, 1987; Strauss & Corbin, 1998). The analysis was done concurrently with data collection. This helped to identify issues emerging in one group to be brought back for discussion in subsequent groups, thus enriching the process of data collection. The steps taken to analyze these data included the following. First, individual moderators transcribed the audiotapes verbatim after each FGD was conducted. From the verbatim transcripts (which were mostly conversational), the moderators prepared an account of each FGD, thus providing order to the information. This was aided by contextualizing and integrating the responses that included verbal and nonverbal communication, whispering, simultaneous group interaction, and so forth. Where required, the responses were translated into English. In preparing this account, the moderators excluded the warm-up questions that were asked only to ensure a cordial atmosphere to initiate the FGDs. The notetakers also prepared an individual account of the discussion based on their notes. Both of these sources of information ensured that the FGD notes did not exclude any information or observation shared in a particular FGD. Subsequently, this information was organized into different themes (related to predictive factors in the model). Within each theme, responses were organized according to the specific questions that were asked. Responses to different questions were cross-checked to detect and interpret contradictions, if any. Then, responses were organized by grade and by school. For example, the information that was gathered in all four focus groups for Grade 6 in a government boys school was pooled together at the school level. In the next step, the

Table 1. Focus Group Discussion (FGD) Questionnaire Guide

Predictive Factor	FGD Question
Intrapersonal factors	
Knowledge	What are the consequences of using tobacco? Probe for long- and short-term consequences. What happens to people when they stop using tobacco? Do they benefit from quitting use?
Beliefs and functional meanings	Why do you think people your age start smoking (or using other forms of tobacco)? Do people your age think it is fashionable to smoke (or use other forms of tobacco)?
Skills	Could you refuse to smoke if many of your friends started to smoke? Could you tell an adult (e.g., parent, family member, stranger) not to smoke around you? What do you think people your age could do to prevent young people from using tobacco?
Social contextual factors	
Norms	Out of 100 adults, how many do you think smoke or use other forms of tobacco? Tap into gender differences. Out of 100 people your age, how many do you think smoke or use other forms of tobacco? Tap into gender differences. If a close friend started smoking or using tobacco in other forms, how would you feel about that? If you started smoking or using tobacco in other forms, how would your parents feel about that?
Environmental factors	
Policies	What do you think the school should do to prevent young people from using tobacco? What do you think the government should do to prevent people from using tobacco?

data were analyzed. Although fresh predictive variables did not emerge from such an analysis, each of the themes was enriched with additional insights, which helped to amplify the understanding of the predictive factors. The analysis compared responses across groups, to look for factors that helped explain differences and similarities. Finally, the data were organized and analyzed by type of school (SES), gender, and age. The purpose of these different levels of analysis was to ensure that the information in each FGD was fully explored and integrated into the final results. Apart from similarities and differences within and among different groups, exceptional cases and rare voices were also recognized.

Throughout the data analysis, there was a process of verification checks with other members of the research team in which responses and their interpretations were reviewed. In performing the translation, the HRIDAY research team attempted to preserve the idiomatic tone of the vernacular usage for accuracy to convey not merely the

meanings, but also the choice of words and expressions that are distinct or common among participants based on gender, type of school (SES), and age.

RESULTS

The results are organized into themes that relate to MYTRI's intervention model and were elaborated in the FGDs (see Figure 1). These themes include (1) knowledge about the negative consequences of tobacco use as well as the benefits of quitting tobacco; (2) beliefs and functional meanings regarding issues related to tobacco use; (3) norms concerning tobacco use, including parents' reactions to children's tobacco use; (4) skills for resisting peer pressure, asking adults not to smoke around them, and advocating to prevent and control tobacco use among youth; and, finally, (5) students' perceptions of the role of schools and the role of the government in preventing tobacco use. Under each theme, results are presented in a way that corresponds to the questions asked.

Knowledge

Negative Consequences of Tobacco Use. The students highlighted several negative health consequences of tobacco use. Some of these were the discoloring of teeth, weakening of gums, lung cancer, tuberculosis, kidney damage, heart diseases, and lowering of life expectancy. Some students in private schools did not elaborate on diseases and summed up the consequences of smoking as causing bad health and being a waste of money. Most of the students distinguished between habitual tobacco use and occasional tobacco use, saying that the negative consequences show up only in the case of the former. This is the reason why the students who used tobacco failed to personalize the consequences—because they did not consider themselves addicted to tobacco use.

Benefits of Quitting Tobacco Use. The moderators had to prompt several times to elicit responses regarding the benefits of quitting tobacco. Most of the students were not sure about the benefits. Although the students cited several sources highlighting the negative consequences of tobacco consumption on health, no reference was made to any source on the benefits of quitting tobacco. Very few students thought that quitting tobacco use would save the lives of the smokers. At the same time, they said that it was very difficult to quit and that smokers should try to quit gradually. The students felt that sudden quitting may further deteriorate one's health because the body is addicted to it. They believed that smoking was like using illicit drugs.

Beliefs and Functional Meanings

Factors That Predict the Onset of Tobacco Use. Most of the students mentioned that family members, particularly parents, play an enabling role in a young person's initiation into tobacco use. The students in the government schools personalized parental influence, whereas most of the students in the private schools clearly perceived the strong influence of family members but did so in a more abstract sense. The following quotations highlight a number of ways that parents can exercise such influence.

My father smokes, I thought let me also try. (Grade 8, government boys school)

We see the elders in the family and neighborhood doing it. The urge to smoke is there at a very early age. One pretends doing it with a stick, then with *bidi* and then cigarette. It is like a rite of passage. (Grade 8, government boys school)

The elders do it, there must be something good in it, let me also try. If they can, why not I? (several boys in Grade 8, government coeducational school)

When parents or family members send us to these shops to buy tobacco for them, it is tempting for us to experiment with it. (Grades 6 and 8 in government boys and government coeducational school).

Most of the students also agreed that their peers are also a potential negative influence and can promote tobacco use. Some students in the government schools shared their own experience to describe the role of the peer group. The following highlight an "unspoken pressure" that the peer group imposes.

My friend smoked *bidi* and chewed *gutkha*. One day he asked me to try *kuber* (a brand of *gutkha*). I did not know what it was and had it. I felt dizzy and felt very unwell. One of the students from our class went and told the teacher. The teacher called the boy and asked him to get his parents to the school. The student never communicated the message to his parents. He was too scared to do that. Failing that, the teacher beat up my friend for his own behavior (consuming tobacco himself) and for persuading others to do the same. (Grade 6, government boys school)

My cousin had come to our house to stay for a couple of days. He was 15 years old. He chewed *gutkha* and initiated my brother, who was of the same age, into the habit. My brother has become addicted now. Despite repeated scolding from my parents, my brother cannot give up chewing *gutkha*. (Grade 8, government girls school)

I chew *gutkha*. I have been smoking since the last 1 month. I started using tobacco because my friend also did that. Both of us now do it together. Sometimes he buys it for me, and some other times I do that for him and we share the tobacco. (Grade 6, government boys school)

The students in private schools highlighted the role of the negative influence of the peer group in the context of "bad company" provoking such undesirable behavior. One boy summed it up by saying, "One rotten apple spoils all other good apples."

Students, particularly in government schools, believed that it was "fun" to smoke with friends. The rings of smoke fascinated them. They referred to the smoking "styles" of the heroes in several Indian films that glamorize the act of smoking. They also mentioned advertisements of different brands of cigarettes and *bidis* in private television channels and cinema halls, which they thought were attractive. The students in private schools viewed smoking that is projected in advertisements as having an image of masculinity with its connotations of bravery, courage, and being powerful. Such projections attract young minds, they thought.

A few students also thought that both a lack of discipline and excessive discipline at home provoke tobacco use among youth. Finally, boys in the government schools also cited personal preference (e.g., individual taste for chewing *gutkha*) as a strong reason for using tobacco.

Norms

Perceived Prevalence of Tobacco Use Among Adults. There was unanimity among the students that use of tobacco by adult males was very common. There were differences

among the students in government and private schools in their views on the forms of tobacco use among adults. The students in government schools believed that more than 70% of adult males smoked or chewed *gutkha*. The students in private schools thought that around 50% of adult males from upper-income groups smoked cigarettes, whereas smoking *bidi* and other forms of tobacco consumption were common among poor people.

The boys in both types of schools shared the view that the use of tobacco among adult females was much less common compared to males. The girls in most of the schools strongly denied any tobacco use among adult female members. The students in the government girls-only school were an exception, as they cited instances of middle-aged women smoking *bidi*, using raw tobacco, and chewing *gutkha* in their families and neighborhood.

Perceived Prevalence of Tobacco Use Among Youth Aged 13 to 17. Most of the students in government schools were of the view that chewing *gutkha* was popular among boys of their age groups (both sixth and eighth graders). The reasons provided by them, for the popularity of chewing *gutkha*, were that it was less visible than smoking, less harmful than smoking, and was more easily accessible. They reported that the market was flooded with a variety of brands that were not available earlier (to their parents' generation) and were now available at a cheaper price than cigarettes. Many boys in government schools admitted to having experimented with chewing *gutkha*.

The Grade 6 students in government schools conveyed that senior students in Grades 10 and 12 smoked cigarettes in their schools. They considered smoking by young boys to be a brave act. Some of the Grade 8 students admitted to having experimented with smoking. They considered themselves in the "senior" category in the school, claiming that an adult-like behavior such as smoking increased their acceptability among peers.

The students in private schools emphasized that use of tobacco by students of their age groups in their schools was rare but thought that smoking *bidi* and chewing *gutkha* were common among boys in government schools. Both of these forms of tobacco, they thought, were cheaper and hence affordable to most of the boys in government schools, who essentially belonged to lower-income groups.

Boys and girls in both types of schools agreed that the use of tobacco among young girls (both sixth and eighth graders) was rare. Tobacco use by young girls is taboo in society, the students said.

Perceptions of Parents' Attitudes Toward Youth Tobacco Use. The boys in both government and private schools anticipated harsh punishments from their parents should they experiment with or regularly use tobacco. They reported that their parents would scold them, get angry with them, beat them up, or lock them inside the house. The students highlighted the fact that even parents who are tobacco users and consider their behavior socially acceptable would seriously object to tobacco use among boys of their age. A number of instances were cited for such beliefs.

My father would say, "I have lived half of my life, you have just begun. So do not indulge in any of these things." (Grade 8, government coeducational school)

My father smokes. If he gets to know that I have experimented with smoking, he would get mad at me. If I tell him that "You smoke, why cannot I?" he would say "How dare you question me?" (Grade 8, government boys school)

Students also felt that parents tended to be defensive and evasive when explaining their own tobacco use. The following two quotes substantiate this view.

My mother takes *Tambakhu* (raw tobacco). I asked her not to do that, because her teeth look dirty and are spoiled. She says that this gives relief to her teeth. (Grade 6, government boys school)

When we were kids, our parents used to tell us that it is medicinal. Now, of course, we know this is merely an addiction. (Grade 8, private coeducational school)

Some of the Grade 6 students in the private coeducational schools refused to anticipate their parents' reactions, saying that such situations would never arise. The students in these schools mentioned that none of their elders in the families smoked or used tobacco in any other form.

The girls in both types of schools, unlike the boys, did not anticipate harsh reactions. They believed that their parents would make them understand the harmful effects of tobacco consumption. Some other girl students thought that their parents would feel sorry about spending money on educating the children if they get into such habits in school.

Skills

Resisting Peer Pressure. The level of confidence in being able to resist offers to use tobacco varied among boys in government schools. Some boys in government schools thought that they could abstain from using tobacco and would try to persuade their own friends to give up such habits. Others, however, admitted experimenting with smoking and chewing *gutkha* under the influence of their friends. The following quotations highlight their own experience in this context.

My friend and I experimented with "dilbag" (a form of chewable tobacco) once. My friend felt dizzy. I did not feel anything. I warned him not to take it again because it was not suiting him. (Grade 6 student, government boys school)

My close friend offered me a "Red and White" cigarette to smoke. I did experiment with it. I felt a bit strange about myself smoking, though I did not mind my friend doing it when he was with other friends. I disapproved of his smoking in the presence of family members and other adults in the neighborhood. (Grade 8, government boys school)

Most of the students in private schools were confident that they would refuse to smoke if many of their friends smoked. They were categorical in saying that good education in schools was meant to enable one to make right decisions for oneself.

The girls in all schools were confident about their ability to refuse to smoke if many of their friends started to smoke. The girls, particularly in Grade 8, expressed confidence not merely in their ability to resist an offer to use tobacco but also in their ability to discourage the same among their peer group.

Asking Adults Not to Smoke Around Them. Most of the students said that they felt irritated when they saw adults smoking around them. Students thought that breathing smoke from *bidis* or cigarettes could lead to many diseases. Some students noted "indirect smoking" (passive smoking) could be more dangerous than active smoking. Some students in a government school emphasized that adults should not smoke in front of children because passive smoking could be more harmful to people of their age than to the adults.

Furthermore, smoking by adults could have a bad influence on youth. The following quotation illustrates students' views that the consequences of passive smoking can be immediate.

I had seen on TV about a girl whose father smoked. The girl one day went to her father seeking some help in her homework (her father was smoking then). She inhaled the smoke from the cigarette and fell ill. She went to the doctor, who told her father that the daughter's illness was due to passive smoking. (Grade 6, government boys school)

Most of the students in both types of schools cited several instances of telling adults not to smoke around them. The conflict between tobacco use being a personal choice and a socially recognized, undesirable behavior was evident. The students said that the reactions of the adults varied from positive to negative to neutral responses. The students thought it was easier to tell parents/family members than strangers not to smoke around them. The students felt it was difficult to "interfere" with a stranger's behavior. In such cases, personal choice was seen as more important than changing a social norm. One student narrated the following to highlight his experiences, the first with a stranger and the other with a family member:

In the bus there was a sign displaying "No smoking." The driver in the front seat was smoking. I asked him why he smoked despite the smoking warning. He replied that the warning was on the back of the bus, he was smoking in the front. (Grade 8, private coeducational school)

I had once hidden my father's cigarette packet. But when he did not find the cigarette and could not smoke, he coughed and his health deteriorated. I got scared and never did any such thing after the incident. (Grade 8, private coeducational school)

Advocating to Reduce Tobacco Use Among Youth. Most of the Grade 6 students in government and private schools considered themselves too young to be able to discourage/reduce tobacco use among youth. The Grade 8 students were more confident about playing a role in this regard. The Grade 8 students in government schools, even though acknowledging a role for themselves, did not elaborate on ways in which they could accomplish this. In contrast, the students in private schools thought that they could help the school authorities by encouraging students to give up consuming tobacco. They suggested possible roles by saying that they could organize street plays for mass awareness, display posters highlighting the harmful effects of smoking on the school premises, organize workshops, request the authorities of the Residents Welfare Association to make residential areas tobacco-free, and organize student rallies with antitobacco messages.

Policies

The Role of Schools. Most of the students in both government and private schools shared the view that the schools can play an important role in tobacco control, even though they do not currently do so. The students noted that the schools could take strict action against those who consume tobacco within the school premises, educate students on the harmful effects of tobacco consumption on health, organize health awareness programs that highlight the impact of tobacco consumption on health, and invite health professionals to educate students and their parents on the harmful effects of tobacco consumption. The students in private schools also added that teachers should check the

school bags of the students during lunch break to make sure that no one carries any tobacco product.

The Role of Government. Most of the students were enthusiastic about discussing the role of the government in tobacco control and shared similar views. They thought that the government should take drastic measures by sealing all the factories that produce tobacco and arrange alternative employment for the workers in the factories. They said that the government should also promote more antitobacco advertisements and the law on "no smoking in public places" should be strictly enforced. The students believed that the government could also discourage the use of tobacco by promoting medicines that can help consumers quit.

Students were skeptical about the role that the government currently plays. They felt that the government has the potential to make change but does not do anything because it has a vested interest in getting revenue from tobacco sales. They thought political will was missing because the politicians themselves consume tobacco. The ambiguous role of the government was highlighted by students who noted that the government permits advertisements of tobacco products in the media although publicizing negative consequences of tobacco on health through statutory warnings on cigarettes and *gutkha* pouches. Such conflicting messages confused the students regarding the social acceptability of tobacco consumption.

DISCUSSION

Qualitative research was an imperative in the absence of prior etiologic research in India to provide baseline information on the students' own perceptions of issues concerning tobacco use and its prevention. Although several studies have looked at similar themes in North America and Europe, examining the predictive factors for the onset of tobacco use, this has not been done in India. Furthermore, outside India, only a few studies have used qualitative methods to elicit views from the adolescents themselves. The main objective of conducting the FGDs was to help develop survey instruments and design intervention strategies for Project MYTRI, a randomized school-based controlled trial to prevent the onset of and to control tobacco use among young people in India. The results suggest that the main intervention objectives of Project MYTRI (see Figure 1) are indeed relevant to its targeted population, and the multicomponent nature of Project MYTRI's intervention strategy that targets both parents and peers appears justified. Implications of this study in terms of designing intervention and evaluation strategies for Indian youth are discussed below.

Intervention Strategies

Although a number of studies have highlighted gender and ethnic differences in the perceptions of adolescents on issues of tobacco use (Alexander, Allen, Crawford, & McCormick, 1999; Gittlesohn, Roche, Alexander, & Tassler, 2001; Lucas & Lloyd, 1999; Mermelstein, 1999; Mitchell & Amos, 1997), very few have looked at the differences in terms of SES. The present study highlights marked differences between students in low- and high-SES groups in India on issues related to youth tobacco use. The students in government schools shared their perspectives as "consumers," whereas the students in private schools spoke as "commentators." Clearly, it will be most challenging to prevent

tobacco use among students in the government schools (particularly boys) because of the higher rate of experimentation with tobacco in that group. This finding suggests that the intervention programs need to be designed in a way that is suitable to both types of schools. For example, although the content of the intervention programs might be similar for both private and government school students, their delivery could be tailored to suit the requirements of specific schools. Peer leaders (students elected by their classmates to help deliver intervention activities) could be especially helpful in this regard, such that discussions triggered by the intervention activities could become context-specific and relevant to the needs of each particular group. Peer-led intervention programs have proven successful in this regard in several countries worldwide (Perry et al., 1989). In addition, the involvement of the teacher coordinators at each school may also help ensure that the messages are communicated in a manner that is relevant to the specific needs of each SES group.

The results also suggest that adults, particularly parents, have a strong influence on youth tobacco use. The results demonstrate that parents' own behaviors can facilitate or prevent tobacco use among youth. The primary conflict is that tobacco use among adults is socially acceptable, although the same use by youngsters is considered a deviant behavior. This conflict was apparent in the minds of the students. Studies have shown a high prevalence of tobacco use among adults in India, where 65% of all men use some form of tobacco (35% smoking, 22% smokeless tobacco, 8% both). Although the overall prevalence of *bidi* and cigarette smoking among Indian women is only 3%, the use of smokeless tobacco is similar among men and women (WHO, 1997). Moreover, tobacco-free norms at home significantly affected the perceptions of the students toward experimenting with tobacco and parents' reactions to the same. Those who belonged to non-smoking families were confident that they would never experiment with tobacco, and hence there was no reason for anticipating parents' reactions to their tobacco use. The students in the government schools, who were more exposed to a protobacco environment at home and in their neighborhoods, reflected more positive intentions to use tobacco. Among other determinants, education seems to have a major influence on tobacco use among adults in India. In a cross-sectional study on the prevalence and patterns of smoking in Delhi, it was found that men (aged 25 to 64 years) with no education were 1.8 times more likely to be smokers than those with a college education (Narayan et al., 1996). Parental involvement may be critical for tobacco use prevention among youth in India because of the strong role of parents as role models and disciplinarians, even more so than in most Western nations, including the United States.

Students in both government and private schools admitted the strong influence of advertisements of tobacco in Indian films that promote tobacco use. This result affirms findings of other studies that have shown that there is a strong linkage between portrayal of tobacco in Indian films and tobacco-related behavior among youth (WHO, 2003). The students discussed the role of the tobacco industry advertisements only in the context of direct advertisements in private television channels and cinema halls. The students did not refer to a number of other potential ways (sponsoring sports events, entertainment shows, etc.) through which the tobacco industry targets the youth in many developing countries (Seimon & Mehl, 1998). This finding suggests that tobacco-related intervention programs must include advocacy at several levels to inform students, the government, the film industry, and the public about the negative influence of portrayal of tobacco in films.

Chewing *gutkha* is common among sixth and eighth graders in government schools. There is a misconception that chewing *gutkha* is less harmful than smoking. In addition,

the availability of different brands of *gutkha* and the inexpensive nature of this form of tobacco also facilitates experimentation with and use of tobacco. Because more etiological research has focused on smoking, there is a need for additional research on the determinants of chewing tobacco, especially as it has been shown to be popular among youth in India (Gupta, 2002; Kaur & Singh, 2002). Intervention programs in India clearly need to address chewable, as well as smoked, forms of tobacco.

Peers seem to have a strong influence on the onset of tobacco use, particularly among students in government schools. The students in private schools are more confident of possessing skills to resist peer group influence. Such differences may be related to quality of teaching and the socializing environment (at home or school) or less exposure to peers who actually use and offer tobacco. Apart from the differences in terms of SES, the gender differences were also marked. The girls in all schools sounded confident of resisting such influences, because they considered use of tobacco by young girls unacceptable in the society. The proscriptive norms concerning tobacco use by young girls were clear to both boys and girls, although both seemed unclear about such norms being applied to boys. Although many studies recognize the role of peer pressure, the influence of SES and gender in conditioning the response to peer pressure is evident from this study. Tobacco-related interventions in this age group need to involve the peer group by helping them create tobacco-free norms in the school and beyond and to exert positive peer influence to not use tobacco, among both boys and girls (Komro, Perry, Veblen-Mortenson, & Williams, 1994).

Students from both government and private schools could not differentiate between short-term and long-term consequences of tobacco use. They considered all consequences to be long-term and applicable to addicted tobacco users and not to those who used it occasionally. Furthermore, the students either did not know or sounded unsure of the benefits of quitting tobacco. To fill this knowledge gap, there is a need for simultaneous publicity of the negative health consequences of tobacco and the positive consequences of benefits of quitting tobacco. This lack of knowledge was more pronounced than has been found in studies in the United States (DHHS, 1994) and suggests that a foundation of knowledge may be particularly important to intervening with young people in India, whereas it plays a more minor role in interventions in the United States.

The students agreed that the school does not currently play any role in promoting tobacco control but can do so through discouraging the use of tobacco by students on the school premises and educating the students about harmful consequences. The role of the government in creating a supportive environment by strictly enforcing antitobacco legislation, banning the sale of tobacco, and sealing of tobacco-producing factories was emphasized. The fact that the students recognize that there is a potentially powerful but as yet unfulfilled role both for the school and the government in promoting tobacco control would guide the development of further intervention programs. This would be in conformity with the recognized value of school-based efforts and policy changes, which have also been successful in other countries (DHHS, 1994; Perry et al., 1990, 1992).

Evaluation Methods

The results of the FGDs are also helping us develop a qualitatively grounded student survey instrument, the language and the content of which should be relevant to the target population. The FGD data helped to structure the questions, provide relevant options, and suitably scale the measurement of responses in the survey instrument (Nichter, Nichter, Thompson, Shiffman, & Moscicki, 2002). For example, the FGD results suggest that

chewable tobacco (e.g., *gutkha*) is more common than smoking among Indian youth. Consequently, the survey instrument will include separate sections on both chewable tobacco and smoking (e.g., patterns of use, intentions to use, and social norms about use). Similarly, smoking *bidis* was common among low-SES groups, whereas smoking cigarettes was more common among middle- and upper-SES groups. The survey instrument, therefore, will include separate sections on the use of *bidis* and cigarettes to tap the dynamics of tobacco use among students belonging to these different SES groups.

The FGDs were the first step in developing the survey instrument. In the next step, the FGDs were supplemented with key informant interviews, conducted with both tobacco users and nonusers, to provide more detailed information on individual behavior concerning tobacco use. The survey instrument, which was developed principally on the basis of the FGD results, required only minor modifications after the key informant interviews were conducted. The survey instruments will be piloted to check the length of the instrument, language, quality of questions, and so forth in both private and government schools. More specific details regarding this process of development, including more information about key informant interviews, will be communicated in a separate publication.

IMPLICATIONS

The FGDs provided important insights into the perceptions of students in India on several aspects concerning the predictive factors for the onset and maintenance of tobacco use. These insights inform the formative phase of development that is important for designing intervention and evaluation strategies that can appropriately target the needs of young adolescents in India.

The findings of the FGDs indicate a need for a multicomponent intervention that seeks to change norms regarding the acceptability of tobacco use, emphasizes skills to identify and resist influences to use, involves parents in the intervention and also encourages them not to use tobacco themselves, incorporates peer leadership in the instruction and in interventions for policy change, and includes changes in the environment to support the nonuse of tobacco. This will be especially challenging in government schools where young boys and girls are at a higher risk for tobacco use. It is hoped that Project MYTRI (which means friendship in Hindi, the official language of India) will be able to address the major issues raised in the FGDs and to provide further reports on efforts to change the most potent factors predictive of tobacco use among young adolescents in India.

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