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Lin Fang
University of Toronto

Kevin Barnes-Ceeney
University of New Haven, kbarnesceeney@newhaven.edu

Rebecca A. Lee
Tufts University

John Tao
CUNY Brooklyn College

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Substance Use among Asian American Adolescents: Perceptions of Use and Preferences for Prevention Programming

Lin Fang, Ph.D., MSW[(corresponding author)],

Factor-Inwentash Faculty of Social Work, University of Toronto, 246 Bloor Street West, Toronto, ON M5S1A1, Toronto, ON, Canada

Kevin Barnes-Ceeney, MA,

John Jay College of Criminal Justice, New York, NY 10019, USA

Rebecca A. Lee, BA, and

Wesleyan University, Middletown, CT, USA

John Tao

Brooklyn College, City University of New York, Brooklyn, NY, USA

Lin Fang: lin.fang@utoronto.ca

Abstract

Rarely has substance use prevention programming targeted Asian American adolescents. Using a focus group methodology, we explored perceptions of substance use and preferences for prevention programming among 31 Asian American adolescents in New York City. Participants considered substance use common in the community. Factors contributing to substance use among Asian American adolescents (e.g., peer pressure, pressure to achieve, family factors, and community influence) were identified, and the need for prevention programs tailored for the Asian American community was highlighted. Participants discussed preferred program content, delivery settings, and recruitment and retention strategies. Despite the favorable attitude for family-based prevention programming, participants raised potential issues concerning the feasibility of such a program. Study findings facilitate understanding of Asian American adolescents' substance use behavior and shed light on prevention program development for this underserved population.

Keywords

Asian Americans; adolescents; substance use; prevention; model minority; parents

Introduction

The problem-free “model minority” image, together with the low substance use rates derived from the aggregate data (e.g., Johnson & Larison, 1998; Wallace et al., 2003), often masks substance use problems encountered by Asian American adolescents. Despite low prevalence rates, study has shown that when Asian American adolescents violate abstinence norms, they are much more likely to engage in delinquency and substance use than other ethnic groups (Barnes, Welte, & Hoffman, 2002). The drug treatment data also suggest that more Asian American adolescents are admitted into drug treatment facilities compared to

youth of other racial/ethnic groups (Substance Abuse Mental Health Service Administration, 2002).

Although the need for developing substance abuse prevention programs is high enough to warrant attention, rarely have substance use prevention programs been designed for this population. Of the 133 prevention programs evaluated between 1980 and 1992, only two (i.e., Graham, Johnson, Hansen, Flay, & Gee, 1990; Hansen, Malotte, & Fielding, 1988) reported results for Asians. In recent years, although programs for Asian youths have begun to appear, most of these preventive efforts have focused exclusively on tobacco (e.g., Ferketich, Kwong, Shek, & Lee, 2007; Johnson et al., 2005; Ma, Lan, Edwards, Shive, & Chau, 2004; Unger et al., 2004; Valente, Unger, Ritt-Olson, Cen, & Johnson, 2006), and the program outcomes have not been promising (Kim, Ziedonis, & Chen, 2008).

Understanding substance use among Asian American adolescents and adolescents' program preferences is crucial in developing a relevant and effective prevention program. As such, the purpose of this study is to examine Asian American adolescents' perception of substance use; and to explore preferences of a substance use prevention program, desired program design, and recruitment strategies. Focus group methodology was employed for this study, because it allows participants to contribute interactively and allows for different viewpoints and opinions to emerge (Unrau, 2007). Rich information is drawn from participants, as they reflect upon, and react to each others' expressed ideas and experiences. Such a method of data collection is wholly appropriate for the exploration of sensitive or embarrassing topics (Kitzinger, 1994). Focus groups are also well suited to our research objectives as they help us gain better insights into substance use among Asian American youth, and identify prevention strategies that are appropriate to this community, an area that is not well understood by researchers (Harachi, Catalano, Kim, & Choi, 2001).

Methods

In summer 2007, we conducted three focus groups with a total of 31 Asian American adolescents who lived in New York City. A single category design method was used, until adequate theoretical saturation was reached, and no additional insights were forthcoming (Krueger & Casey, 2009). Youths were recruited through advertisements and flyers with tear-off tabs posted in community-based agencies or in person at community street fairs or events. Potential participants were screened over the phone based on the study inclusion criteria. Adolescents were eligible if they: 1) were aged 15 to 18 years of age; 2) were of Asian descent; 3) could provide written informed consent or assent (if younger than 18 years); and 4) could provide written parental or guardian consent (if younger than 18 years). Adolescents' substance use status was not an enrollment criterion because we were interested in developing a primary prevention program. Although we planned to stratify the groups based on spoken language, all prospective participants except two preferred to attend an English-speaking group. Thus, all groups were conducted in English. Each participant received a \$20 gift card to a local bookstore or a coffee shop for the participation. The study protocol was approved by the university institutional review board. All focus groups were conducted in a community health center in Chinatown, New York City, given its proximity and familiarity to study participants. Staff members of the community health center were consulted with regards to study location, design and sampling strategy. Focus group questions were informed by the literature and the discussions with service providers of local social and health service agencies. Prior to the focus group, each participant completed a short demographic and background questionnaire. All groups included Asian American adolescents of both sexes, and each group was conducted by two trained moderators – one Asian American female, the other Caucasian male – and an Asian American female assistant moderator. The use of complimentary moderators was considered pertinent, given the

gender mix of participants, and that the moderator experienced in facilitating focus group discussion was Caucasian. The two moderators shared responsibility for gently directing the discussion, keeping the conversation flowing, and encouraging inputs from quieter group participants. The assistant moderator provided logistical support, and acting as an additional pair of eyes continuously recorded her observations (Krueger & Casey, 2009). Being knowledgeable of issues concerning substance misuse and prevention programming, the assistant moderator also summarized key points raised, asked additional questions.

The moderators first introduced themselves and addressed the importance of confidentiality to participants. The focus group did not formally begin until all participants agreed and signed a confidentiality pledge. Participants were advised that their opinions and views were central to the study, and were reminded of the value of hearing differing points of view. Each group was audiotaped with participants' permission.

The focus groups were conducted in the context of an exploratory model (Becker et al., 1992), which aided in collecting qualitative information about participants' experience, opinions, preferences, and attitudes. Using a semi-structured moderator guide, the two moderators encouraged participants to expand on responses as appropriate and facilitated group discussion. Sample questions included, "Who or what influences Asian American adolescents to drink alcohol, smoke cigarettes, or use drugs?" or "If you were in charge of a substance use prevention program and wanted to recruit more Asian American adolescents. What would you do?" Moderators adopted the 5-second pause technique, such that a short pause was used after participants' comments to prompt additional points of view or agreement (Krueger & Casey, 2009). Probes, such as "Tell us more," and "Would you explain further?" were also deployed to draw out additional information. Each focus group lasted about 90 to 100 minutes.

The focus group covered questions about participants' opinion on substance use among Asian American adolescents, and their ideas concerning the development and design of a substance abuse prevention program for Asian American adolescents. Based on a validation hermeneutics approach, we sought to portray participant's views as accurately as possible, while actively pursuing disconfirmation (Haverkamp & Young, 2007). Multiple techniques were used during the focus group to seek disconfirmation, including the reflection and summarization of statements, group mind mapping, question reframing, scenario exploration, and direct questions to specific youths in order to elicit varying viewpoints. Such multiple strategies of inquiry minimize the tendency of participants to intellectualize responses (Krueger & Casey, 2009). Attempts were made to reduce implicit moderator bias through the separation of moderators from the initial analysis process, using moderators of varying ethnicity and gender, and recruiting moderators from different disciplines.

Analysis

The moderators debriefed after each focus group and discussed what was learnt. Subsequently, focus group data were transcribed verbatim, independently coded by two coders and the content was analyzed. To facilitate the transcript-based analysis, a "long-table" approach was adopted, whereby emergent themes were identified, and corresponding quotes and points were coded and grouped together. A comprehensive set of codes relating to key research themes (e.g., substance use, prevention programming) was developed corresponding to the moderator guides and the themes that emerged across and within groups. Intercoder coding agreement analysis was conducted for all focus group data. Where there was a disagreement, the two coders first reviewed the text where they disagreed about the application of a code, discussed how they used the codes, consulted the lead author, and revised the coding strategies as needed. When problematic codes were identified during the coding process, codes were revised or collapsed to improve the intercoder agreement. The

agreement rate concerning the major themes as assessed by independent coders was 100%. Coded data were summarized and interpreted by the research team. In this paper, we present our data based on our two research aims.

Results

Of the 32 adolescents screened, one did not show up on the day of the scheduled focus group. Each focus group was mixed in gender and had 8 to 12 adolescents. Participants had an average of 15.97 years ($SD = 1.32$), and 58% ($n = 18$) were females. Most adolescents identified themselves as Chinese descent (87.1%, $n = 27$), followed by Vietnamese (6.4%, $n = 2$), Korean (3.2%, $n = 1$), and Taiwanese (3.2%, $n = 1$). About two-thirds (67.7%, $n = 21$) were born in the U.S. Among participants who were born outside of the U.S., six (19.4%) came before they were 6 years old, three (9.6%) came between 7 and 12, and one (3.2%) came at age 13.

Because the results were highly consistent across three groups, we summarized the results based on the major themes presented. Table 1 highlights the major findings.

Perceptions of Substance Use among Asian American Adolescents

Study participants overturned the commonly-held belief that Asian Americans do not engage in substance use. A few participants noted that drug use among Asian American teenagers might be less than youth of other ethnic groups, but most others disagreed, noting that substance use among Asians was common. For example, a boy shared, “It’s not true... I know a lot of people that do drugs. They are Asians,” and adding that these were Asians who performed well at school. A girl also commented that her cousin was arrested for using drugs.

Types of Substances Used by Asian American Adolescents

Alcohol, cigarettes, and marijuana were believed to be the most prevalent substances used among Asian American adolescents. Notably, some group members did not think legal substances (i.e., cigarettes and alcohol) were considered drugs, “Cos like cigarettes and alcohol are not really addicting.” In one group, ecstasy was also mentioned as a commonly used drug and a boy commented that getting ecstasy was inexpensive (e.g., \$10 if “you know the person”) nowadays.

Alcohol Use—Early use of alcohol may be related to family drinking habits, with children having their first drink as young as 9 or 10, or around junior high school. A boy commented that “If your family has parties and they drink, you can drink.” However, social drinking was not thought to become common until adolescents turned 14 years. A girl noted, “around that age most people do it as a weekly thing.” Interestingly, participants did not have a favorable attitude toward alcohol abstinence, because “they [adolescents who maintain abstinent] do not get to experience. They get to college, don’t know anything, so that’s when they really get hurt... they should actually experience something.”

Cigarette Use—Participants believed that Asian American adolescents might initiate smoking as early as age 12 or during middle school, noting that youth might begin to smoke when they “hang out” with smoking friends, or when their parents or family members also smoke. Notably, although participants considered cigarettes a commonly-used substance among Asian American adolescents, many of them express a depreciative attitude towards smoking, reporting smoking cigarettes as “disgusting,” and “not cool.”

Marijuana Use—Participants suggested that adolescents in general begin to smoke marijuana around the first year of high school, where they have more access to marijuana. A boy noted, “If you start [smoking marijuana] at a young age, it’s a casual thing.” Another boy stated, “this guy told me to try this weed, . . . he said you want to try it now, so you can experience it, so that you don’t have to feel left out when you go to college.” Notably, marijuana is seen to be used to relieve stress. A girl commented, “If they’re nervous, they can smoke marijuana to feel better.”

The term “4/20,” recognized as “National Weed Day” by our participants, was mentioned in all focus groups. Several participants believed that it was legal to smoke marijuana “everywhere” in the U.S. on April 20th and “(T)hat’s why they sell it in public.” Many participants observed that more adolescents use drugs on April 20th. A girl commented, “A lot of people are doing pot, and like they’ll go to the park and like go behind the bushes . . . (and) cut school to go like smoke weed.”

Reasons for Substance Use among Asian American Adolescents

Peers—Peer pressure was regarded as one of the most influential forces associated with substance use among Asian American adolescents. Participants in general believed that many Asian American adolescents begin to use substances during their junior year of high school, when peer influence and “friends,” or “connections” become more apparent. A boy noted, “if you are in junior high school you would have high school friends . . . they would like to smoke, and then you would like to copy them and then in high school you would like to drink because then you’ll have college friends, and then they could get you drinks,” and another boy said, “if you are like at the park playing handball and your friends start smoking, you’re gonna like, wanna try it too.” Other reasons for youth to use substances were to “fit in,” and that “people don’t want to give up their friends.”

Though negative peer influences on substance use were noted in all focus groups, participants also highlighted the potential protective influences of friends. A boy mentioned that his decision not to smoke cigarettes was largely to do with a close friend, who told him “not to smoke.”

The Effect of the Model Minority Image—The idea that Asians were typically well behaved, successful, and issue-free was dismissed by participants. “We have our problems.” Interestingly, the model minority image was considered a stressor that could be associated with substance use. Frequenting the discussion was a feeling of uneasiness dictated by the stereotype that Asian Americans would achieve high academic or career-oriented goals such as getting good grades (“like, 90’s”), going into certain careers (“lawyers,” “doctors,” “accountants”), and generally “staying out of trouble.” The paradoxical nature of the model minority image and substance use was acknowledged by a girl who mused, “Asians kids are pressured into a lot of hardworking and college and stuff . . . but most of the people I know who smoke and drink are Asians.” Indeed, participants in all groups repeatedly acknowledged that intense pressure to achieve often contributed to substance use among Asian American adolescents.

Personal Influences—“Stress,” “depression,” “low-self esteem,” “to get high,” “to look cool,” “to feel good,” and “to lose weight” were listed as reasons associated with substance use among Asian Americans. A sense of invincibility was also noted by some participants. A girl suggested that “I think teenagers around our age usually have the sense of being invincible, we think that we can come out of a lot without consequences.” This comment was confirmed by other participants. For example, “I’ve heard a lot of my friends say, oh you know, I can stop smoking anytime I want, but they never do.”

Self-efficacy was recognized as a key individual strength that protected adolescents from engaging in substance use. Participants noted that when a youth is “determined,” he or she can make the decision not to use drugs regardless of peer, parental, or community influences. A person could live “on the bad side of the street” but still avoid drugs by ignoring outside pressures and making a personal choice to abstain.

Family—Participants underscored the importance of family influences on substance use. A girl stated, “I think they [family] play the most important role, like, ‘cause there are people that live in bad neighborhoods but they have a really good family so they’re like, they refrain from doing all those... bad stuff.” Some participants also recognized that parent-child communication on substance use was critical and helped youth stay away from using substances, although interestingly, many participants reported that their parents rarely spoke to them about substance use. When parents did speak to their adolescent children, little was communicated. A boy’s experience was shared by many others: “Like my parents tell me don’t do it but they don’t really say anything else.” Furthermore, parental substance use was seen as a risk factor. Another boy noted, “If you see your parents smoking then you would think that it’s okay for you to smoke too.” Other factors such as “bad relationship with parents,” “[parents] do not have an early curfew,” and “parents do not know what their kids are doing” were also listed as reasons that might cause Asian American adolescents to use substances.

Community and Environment—Some participants also believed that the community and its environs could play a role in shaping an individual’s substance use. For example, “Someone who was born in a bad part of the neighborhood can’t help it... Because everyone around you is going to be influencing you... like if there are drug dealers, or a lot of crime.” It was also acknowledged by several participants that “your environment, like stuff that happens, people that die” were also significant in changing their perceptions of drug use.

Prevention Programming for Asian American Adolescents

Enthusiasm was observed for a substance use prevention program designed specifically for the Asian American community. Participants suggested that they would be more attracted to programs made specific for Asian Americans but very few such programs exist. The most frequently mentioned locations to hold such a program were schools and the community centers (e.g., health clinics, YMCA). Some participants felt that an online program that targeted the Asian community was also appropriate because “there are not enough Asian based organizations” and the “Internet can reach more people than the organizations [do].”

Participants also highlighted the need to engage parents in a prevention program and valued the idea of family-based programs, noting that “parents don’t know much about drugs,” “[parents] should be educated as well,” and “parents should talk to their kids about drugs, regardless how old the child is.” Some participants further illustrated the need to create programs for Asian families and highlighted the issue of language difficulties. For example, “Sometimes it’s not that they [parents] don’t want to get involved in these things, but, because there’s a lot of things that are English,” and “the information for Asian Americans about drugs doesn’t usually come in their native language... and the research is, err, not as available.” Whereas some participants suggested that a family-based program should target families with children around age “10 or 11,” others felt that such a program could be offered to kids who were even younger, “like 7 or 8.”

Despite a favorable attitude toward a family-based program, participants also underscored potential issues. Some participants noted the lack of parental involvement among Asian parents (e.g., “I hardly see my parents,” and “My parents are not usually around enough to

take an interest in what I do.”), and wondered whether Asian parents would invest time in such a program. Interestingly, whereas some participants were concerned with the lack of interests from parents, others felt skeptical about a family-based program because of the over-involvement of their parents (e.g., “Asian parents are overly protective,” “it’s just too much.”) and the tremendous stresses from their parents (e.g., “[they] push us to get high grades,” “high expectations,” “always comparing me to other kids”) and were worried that parents might be even more anxious and stricter had they gone through a prevention program. Participants also noted that Asian parents tended to be “ordering” when communicating with their children, which in turn generated a negative home atmosphere and tense parent-child relationship. Also frequently mentioned was that Asian American parents were more concerned with their children’s academic performance than with extracurricular activities, so the value of a family-based prevention program might be overlooked by parents.

Preferred Features for a Prevention Program

Participants believe that effective programs should “target Asians,” be “brief and catchy and to the point,” include interactive activities and be delivered in an engaging, interesting fashion. Ideas for program activities included: “pictures,” “videos,” “comic strips,” or “cartoon shows” that depict “Asian people”; games that are “challenging” and “competitive”; facts and statistics that are related to a variety of substances; anecdotal materials from people who have experience with using substances; and “scare tactics” that “shocks you and makes you afraid of [being] them because you don’t want that to happen to you.” Some participants also favored the ideas of online personal blogs where “teens can put on their own blogs or their own pictures,” and “a comment box where like teens can write their opinions or ideas on it and everyone could respond.” The program could include a specific theme each session, covering a variety of issues such as smoking, drinking, safe sex, and HIV/AIDS. Given that some program recipients (e.g. parents or newly arrived immigrants) may prefer their native ethnic language, many participants suggested that the program should be delivered in multiple languages to reach a broader audience.

Preferred Program Recruitment and Retention Strategies

To effectively recruit adolescents and their parents to a prevention program, participants suggested that the program could be advertised by school or community organizations, online, or in subway trains and buses. The most frequently mentioned location to promote the prevention was at *school* where adolescents received most of their health education. Community organizations such as youth centers or community health centers were also considered an appropriate location to reach out adolescents and parents. Participants also favored advertisements on the social networking sites such as Facebook or Myspace. Whereas radio was not considered an effective method to reach Asian adolescents, participants suggested that it could be a useful channel to reach the parents. Other media outlets such as television and newspapers were also mentioned. In particular, participants thought that promotions in ethnic-language newspapers and their websites could effectively attract Asian American parents, as many participants endorsed that their parents regularly read ethnic-language papers and frequently visited these websites.

The recruitment message needed to be clear, easy to spot, along with a “catchy name.” Across groups, participants favored the idea of incentives and suggested that providing incentives can promote recruitment and retention. Ideas for incentives ranged from recognitions from school (e.g., credits, volunteer hours), “goodies” (e.g., stationeries, mugs), to monetary incentives.

Discussion

In this study, we examined adolescent respondents' perceptions of substance use among Asian American adolescents and perceptions of an effective family-based prevention program. Study findings provide insights for understanding Asian American youth substance use and render important implications for devising prevention programming for the Asian American community.

Literature suggests that the Asian American community tends to minimize the severity of substance use problems (Kuramoto, 1997; Loue, 2003). Results from our study, however, indicate that Asian American adolescents are aware of substance use problems within the Asian American community. Although a few adolescents felt that substance use may be less of a serious issue in the Asian American community, most rejected the common belief that there is no substance use pathology in the Asian American community. Consistent with findings from prior studies (e.g., Ellickson & Morton, 1999; Hahm, Lahiff, & Guterman, 2004; Ma, Shive, Toubbeh, Tan, & Zhao, 2003; Nagasawa, Qian, & Wong, 2001; Nakashima & Wong, 2000; Otsuki, 2003; Yang & Solis, 2002), peer influence, poor relationship with parents, lack of parent-child communication, depression, low self-esteem, poor problem-solving ability and community influence were perceived as key factors associated with Asian American adolescents substance use.

A unique study finding was the relationship between the model minority image and Asian American adolescent substance use. Our adolescents mentioned that the apparent overwhelming concentration on academic excellence and the pressure to live up to the model minority image may be causes of substance use among Asian American adolescents. Future research should further examine the effect of expectations engendered by the model minority image on Asian Americans' substance use. Indeed, a small number of studies have identified that the model minority label may be potentially harmful to individuals, causing depression (Chen, 1995), anxiety (Toupin & Son, 1991), and isolation (Okazaki, 2002). Our findings also suggest that the pursuit of academic excellence depicted in the model minority stereotype does not free Asian American adolescents from using substances. In fact, it is highly possible that the model minority label increases the odds for Asian American adolescents to use substances, as substances may be regarded as an effective way to manage their psychological distress.

Strikingly, many suggestions raised by study participants in developing a substance abuse prevention programs for Asian American adolescents appear similar to recommendations identified by other studies in relation to the general population. Thus the importance of engaging both youth and parents was identified, as was a need for prevention programming to incorporate skills training. Literature has indicated that family-based interventions may be more culturally appropriate than individualistic intervention models (e.g., Heinicke & Vollmer, 1995; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Kumpfer, Alvarado, & Whiteside, 2003). Given the strong collective family orientation among Asian families, family-based interventions may be appropriate for the Asian American community (Chow, 2002; Kim, McLeod, & Shantzis, 1992; Kuramoto & Nakashima, 2000; Su, 1999). In our study, participants noted the protective values of family and endorsed the value pertaining to a family-based prevention programming. Together with the multiple factors associated with substance use, these observations suggest the need for a comprehensive prevention program tailored for Asian American adolescents that involves parents' active participation. Such a program should not only focus on substance use-related consequences and facts, but also address culturally-specific issues at the individual, family, peer and community levels.

Study findings also indicate that skills training promoting resistance to peer pressure to use substances, mood management, coping-skills, problem-solving, and self-esteem may be needed for Asian American adolescents. Life Skills Training (Botvin, Schinke, Epstein, Diaz, & Botvin, 1995; Spoth, Randall, Trudeau, Shin, & Redmond, 2008) that promotes healthy alternatives to substance use behavior through activities designed to assist adolescents to resist social pressures to smoke, drink, and use drugs; correct erroneous misperceptions and norms concerning substance use; help adolescents to develop greater self-esteem and self-confidence; and to enable adolescents to effectively cope with anxiety may be particularly relevant to Asian American adolescents. Future research should investigate how such programs can be moderated and made culturally appropriate for Asian American community.

Participants preferred messages which vividly portray the harmful consequences of substance use consumption and the use of testimonials from people who have suffered from substance use. Although Asian adolescents are more likely to use alcohol, cigarettes, and marijuana than other substances, substance use prevention programs should include a wide variety of substances, and discuss facts and information specifically to each substance. Whereas participants considered an abstinence approach for illicit substances as appropriate, they suggested that alcohol use among Asian Americans may be viewed as normative, and an abstinence approach to adolescent drinking may be ineffective.

Concerning Asian American parents, our participants suggested that an effective prevention program that involves parents should target families with children who are preteens or early teens. Program efforts should be made to engage Asian American parents and promote their awareness of adolescent substance use. Many Asian parents are often less familiar with the U.S. culture than their children (Zhou, 1997). As a result, they may be less informed and hold misconceptions concerning adolescents' exposure to and use of substances. It may also be important to involve parent groups, service providers, community leaders, and the ethnic-specific mass media to develop tailored strategies to reach out to Asian American parents, to help them to recognize substance use issues among Asian American adolescents, and to stir their interests in taking part in the prevention programs. Study findings also suggested that the program should specifically address the parenting style pertaining to Asian American parents, and aim to enhance parental involvement, adequate parent-child communication, and general parenting. Asian parents often structure their lives primarily around three goals – “to live in your own house, to be your own boss, and to send your children to the Ivy League” (Zhou, 2009). They juggle work and household responsibilities that devour most of their waking hours, regard education as the sole means to success, and unyieldingly pressure their children to excel. When children find it too difficult to meet the high expectations of their parents, and lack an outlet for their frustration and anxiety, they tend to become alienated (Zhou, 2009). Incorporating strategies which address such expectation anxiety in prevention programming may mitigate alienation. Furthermore, it may be appropriate for prevention programs to include parenting components (e.g., Ying, 1999) that aim to improve intergenerational relationships, increase a parental sense of parenting responsibility and sense of coherence, and enhance parent-child communication.

The study highlighted a range of strategies that may have implications for substance use prevention among Asian American community. Suggestions for engaging and effective programming included the use of colloquial, direct, and clear language, interesting and interactive activities, and the use of visuals and graphical elements. The program should be designed for the Asian American community, such as including videos and photos of Asian teens and their families. Furthermore, it is critical to address the language barriers – programs should be provided in ethnic languages and bilingual materials and bilingual staff members may be necessary for the success of the program.

Our participants also suggested mediums to deliver a prevention program such as school, community organizations, or online. Existing literature (e.g., Kuramoto, 1997; Sasao, 1999; Ying, 1999) also confirm that Asian American parents and adolescents may support programs sponsored by schools or community agencies. Partnering with schools and well-known community organizations that represent or serve Asian American populations may also enhance program recruitment. Participants also showed enthusiasm for a web-based program. Although web-based programs have existed for some time, rarely have they been implemented in the Asian community. Given that Asian Americans are highly computer literate, with 73% of Asian homes in this country having computers and over 90% of Asian American students using computers and the Internet (Day, Janus, & Davis, 2005), web-based programming holds promise for Asian American families. Given that Asian American adolescents are typically uncomfortable with self-disclosure in groups, or with therapists and counselors (Yen, 1992), computer-delivered interventions may be particularly suitable for Asian American adolescents and parents. Moreover, combining features of mass communication and functions of interpersonal communication, web-based programs allow interactivity, provide high levels of convenience and flexibility (Copeland & Martin, 2004; Patten et al., 2006), and can deliver program content tailored to the Asian American community and individual user's particular characteristics (Copeland & Martin, 2004). The increased use of different media such as text, audio, and graphics may also appeal to multimedia savvy youths (Borzekowski & Rickert, 2001).

The challenge to recruit and retain Asian American participants has been well documented (e.g., Alexander, Chu, & Ho, 2000; Han, Kang, Kim, Ryu, & Kim, 2007; Kuramoto, 1997; Murthy, Krumholz, & Gross, 2004). Based on the suggestions from our participants, we suggest a multi-method approach to reach out to Asian American adolescents and their parents. Such an approach should include: 1) written materials such as Internet postings, advertisement in newspaper and mass transit system; 2) media sources (e.g., radio or TV announcements); 3) nonprofessional referral sources, such as health fairs, community centers, or churches; and 4) partnership with agencies or schools. In addition, recruitment messages should be age and language appropriate, developed specifically for adolescents and for parents.

Limitations

The findings of the study should be interpreted in the context of study limitations. Most of the participants were of Chinese descent, and thus the information obtained from the focus group may reflect the perspectives of Chinese Americans, rather than those of Asian Americans. Participants were drawn from the New York City area, and therefore practice and program implications may not be transferable to less urban populations. Although skilled and trained moderators were used to facilitate open discussion, some participants may have still felt uncomfortable discussing issues relating to substance use.

Conclusion

Notwithstanding limitations, findings from this study have useful implications for future substance use prevention efforts for Asian Americans. The present study serves as an initial attempt to understand the perceptions of substance use and the preferred program designs of substance abuse programming among Asian American adolescents. Our data suggest that substance use among Asian American adolescents is a multi-faceted and culturally influenced behavior, indicate the need to have culturally-relevant prevention program available for Asian communities, and call for the adaptation of existing efficacious prevention programs. Whether delivered through school, in community settings, or online, prevention programs for Asian American adolescents may be more effective if they target Asian Americans, adopt culturally sensitive and linguistically responsive strategies to

engage their parents, involve skills training that assist youth to manage psychological stresses and resist peer influences, and promote the protective role of family.

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Table 1**Key Focus Group Findings**

1	Types of Substances Used by Asian American Adolescents <ul style="list-style-type: none"> • Alcohol • Cigarettes • Marijuana
2	Factors Associated with Substance Use among Asian American Adolescents <ul style="list-style-type: none"> • Risk factors: peer pressure; stress related to the model minority image; personal factors that are related to mood management, low self esteem, stress, and stress relief associated with the use of substances, sense of invincibility; family use of substances, poor parent- child relationship, and low parental monitoring; deprived neighborhoods • Protective factors: peer influence; self efficacy; parents communicating with children on substance-related issues
3	Prevention Programming for Asian American Adolescents <ul style="list-style-type: none"> • Targeted and tailored for Asian American community • Hold programs at school, at community centers, or online • Programs should engage parents, though prior to involving parents, programs need to address issues such as language, lack or excess of general parental involvement and parents' lack of interests
4	Preferred Features for a Prevention Program <ul style="list-style-type: none"> • Messages should be brief and catchy • Include interactive activities and be engaging and interesting • Highlight the adverse effects of using substances • Individualized feature such as personal blogs • Deliver in English and other ethnic languages
5	Preferred Program Recruitment and Retention Strategies <ul style="list-style-type: none"> • Advertise by school or community organizations, in subway trains and buses, or through mass media, or online social networking sites • The recruitment message needed to be clear, easy to spot • Provide material or monetary incentives to promote recruitment and retention
