An exploration of the influence of family on cigarette smoking among American Indian adolescents

Michelle C. Kegler, Vicki L. Cleaver and Martha Yazzie-Valencia

Abstract

American Indians have the highest smoking rate of all major racial/ethnic groups in the US, despite significant variation across tribes and regions of the country. Yet, little research has been conducted on smoking initiation among American Indian adolescents. In an effort to identify the mechanisms through which families influence teen smoking, both positively and negatively, 20 focus groups were conducted with 144 non-reservation American Indian teens in Oklahoma. Findings indicated that most of the antismoking messages from family members were given by parents and grandparents, and focused on the long-term health consequences of smoking and addiction. Parental responses to teen smoking varied widely, with some responses sending mixed messages to the teens. Many teens discussed obtaining their first cigarette in a family setting and the teens felt that having smokers in their families influenced them to try smoking. Teens were able to discuss the traditional role of tobacco in their culture and were aware of its presence at Indian events, but felt ceremonial and traditional use was distinct from recreational use. Additional research is necessary to assess whether these results are generalizable to other tribes and regions, and to other racial/ethnic groups.

Introduction

Numerous studies have examined the influence of family on adolescent smoking initiation. This research typically focuses on white and African-American youth (Bauman et al., 1990; Chassin et al., 1990; Johnson and Gilbert, 1991; Botvin et al., 1992; Rowe et al., 1996; Jackson and Henriksen, 1997; Robinson and Klesges, 1997), with a few studies including Asian and Hispanic adolescents (Flay et al., 1994; Hu et al., 1995; Noland et al., 1996; Griesler and Kandel, 1998). To the best of our knowledge, no studies have examined the possible influence of family in smoking initiation among American Indian youth. This is an important research area due to the high prevalence of smoking in many American Indian communities. Although smoking rates vary considerably by tribe and region, national data indicate a smoking rate of 34.1% among American Indians in 1997, in contrast to a smoking rate of 25.3% among whites (Centers for Disease Control and Prevention, 1999a). Similarly, for American Indian high school seniors, the 1990–1994 prevalence of smoking during the previous month was 41.1% for males and 39.4% for females, in contrast to 33.4% for white males and 33.1% for white females (US Department of Health and Human Services, 1998). These findings were recently replicated in Oklahoma, where 40% of American Indian high school students and 34% of white students reported smoking within the past 30 days (Oklahoma State Health Department, 1999).

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The vast majority of research on family influences in smoking among non-American Indian populations examines the relative contribution of parent and peer influences in smoking onset (Bauman et al., 1990; Reimers et al., 1990; Fergusson et al., 1995; Hu et al., 1995; Oygard et al., 1995; Wang et al., 1995; Cowdery et al., 1997; Jackson, 1997; Williams et al., 1997; Distefan et al., 1998; Flay et al., 1998). Overall, the findings suggest that peer influences are stronger, but family influences are significant, particularly in the earlier stages of smoking (US Department of Health and Human Services, 1994). There has also been research on the influence of older siblings on adolescent smoking. These studies have generally found positive relationships between older sibling smoking and youth onset (Johnson and Gilbert, 1991; Botvin et al., 1992; US Department of Health and Human Services, 1994; Dappen et al., 1996).

Researchers have posited a variety of mechanisms for how family members, particularly parents, influence youth smoking. Parental use of tobacco, for example, may contribute to children’s use through direct modeling of smoking behavior (Jackson et al., 1997) or by influencing adolescents’ expected consequences of smoking, including long-term health consequences and short-term punitive consequences (Bauman et al., 1990; Flay et al., 1994). Parental use may communicate the physical and psychological effects of use, as well as convey cigarette smoking as normative (Jackson et al., 1997). Additionally, youth living with family members who smoke may have easier access to cigarettes than those who do not live with smokers. Sibling use of tobacco may influence adolescent use through these same mechanisms, with the addition of direct offers to smoke.

Recent empirical research is beginning to shed light on which of these mechanisms is operating to influence youth smoking. Jackson and Henriksen (Jackson and Henriksen, 1997), for example, studied the relationship between readiness to smoke, smoking onset, parent modeling and several dimensions of antismoking socialization in African-American and white children. They found children’s intentions to smoke and perceptions of easy access to cigarettes increased with exposure to parent modeling. In addition, they found both parent modeling of smoking and the extent of antismoking socialization (how much the parents had talked to the child about not smoking, whether the parents allowed smoking in the house and whether the child believed the parents would know if he/she were smoking) to be associated with smoking onset in children.

In focus groups and telephone interviews with white and African-American parents, Clark et al. (Clark et al., 1999) found major racial/ethnic differences in perceptions of parental efficacy in reducing teen tobacco use. White parents were more likely to believe that all kids will try tobacco, that punishing children for trying tobacco is not likely to keep them from trying again and that forbidding teens to use tobacco will make them want it more. Clark and colleagues speculated that these differences in anti-tobacco socialization may contribute to the differences in African-American and white teen smoking rates.

Research on the relationship between household smoking rules and adolescent smoking has produced inconsistent results. Jackson and Henriksen (Jackson and Henriksen, 1997) found that smoking allowed in the home was associated with smoking onset in children, regardless of whether family members smoked. Biener et al. (Biener et al., 1997), in contrast, found no relationship between household smoking rules and smoking in teens. One explanation for this difference may be that household rules about smoking affect age of onset rather than onset per se. Biener and colleagues examined current smoking behavior in teens, whereas Jackson and Henriksen examined smoking onset in children.

The influence of family on tobacco use may be especially complex in American Indian culture for two reasons. First, the extended family has a dominant place in the lives of many American Indian adolescents (Cross, 1997). A typical American Indian family includes extended family members living within a single residence. Grandparents often assume a leadership role in the rearing of...
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children, including their discipline. Children may view aunts, uncles and grandparents as additional parents (Red Horse et al., 1978). Furthermore, terms such as brother, sister, aunt, uncle and cousin are widely applied in Native American families, and may not refer to people related through blood or marriage. Given the importance of the extended family in American Indian culture, investigations of family influences in tobacco use must pay attention to the entire family and not focus exclusively on parents.

Another layer of complexity is added by the traditional uses of tobacco in American Indian culture. For many American Indian communities, tobacco is viewed as a gift from the Creator (Shorty, 1999). Historically, tobacco was used in prayer, as a gift and in making agreements between parties (Shorty, 1999). During powwow celebrations, families of dancers and singers often give cartons of cigarettes to the host drum. Cigarettes are also presented as offerings in prayers, serve a major role in burial services and are used for medicinal purposes in healing ceremonies (Pego et al., 1995). Because of the sacred nature of tobacco and its embeddedness in American Indian culture, conventional tobacco control messages which portray tobacco as entirely negative may be ineffective, as well as culturally insensitive.

A better understanding of the dynamics and processes through which American Indian families influence adolescent smoking requires that attention be paid to the role of the extended family, and possible historical and cultural influences, in addition to the usual mechanisms through which families influence tobacco use. Because this is a relatively unexplored area of research, it is appropriate to begin with qualitative methods which can provide a descriptive understanding of an issue from an ‘insider’s’ perspective (Patton, 1990). The research presented here uses focus group methodology to investigate the ways in which American Indian families influence adolescents both to and not to smoke. Specifically, we wanted to learn:

(1) Who in the family gives antismoking messages and what is the content of these messages?
(2) What do teens view as the family-related consequences of their smoking?
(3) What rules do families establish related to adults and youth smoking in the home?
(4) What opportunities do families create that may inadvertently facilitate experimentation with cigarettes?
(5) What role does family member modeling of smoking have on teens?
(6) How may cultural influences promote or discourage smoking among American Indian teens.

Methods

This research is part of a large, multi-site, qualitative study exploring ethnic and gender differences in adolescent smoking. The larger study, funded by the Centers for Disease Control and Prevention, involves 11 prevention research centers and focuses on white, African-American, Hispanic, Native American and Asian/Pacific Islander youth (Mermelstein et al., 1999). Data presented here are from non-reservation American Indian youth in Oklahoma.

Twenty focus groups were conducted with American Indian teens in Oklahoma between the Spring of 1996 and Summer of 1997. The groups ranged in size from five to 10 participants, and were stratified by gender and smoking status. Eight groups were conducted with teens who reported never smoking (non-smokers), four groups with teens who had tried cigarettes but had not smoked within the past 30 day (experimenters) and eight groups with current smokers, defined as having smoking at least one cigarette in the past 30 days. During the focus group discussions, it was revealed that some of the non-smoking teens had in fact experimented with cigarettes. Despite the blurred boundaries between the non-smoker and experimenter groups, these labels are used in reporting of results. In cases where a non-smoker had clearly tried a cigarette, the quote is labeled non-smoker/experimenter.

Table I presents descriptive information on the
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Table I. Demographic characteristics of focus group participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Non-smokers</th>
<th>Experimenters</th>
<th>Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (N, %)</td>
<td>71 (49.3)</td>
<td>73 (50.7)</td>
<td></td>
</tr>
<tr>
<td>Age mean (SD)</td>
<td>14.4 (1.09)</td>
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</tr>
<tr>
<td>Range</td>
<td>11–17</td>
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<tr>
<td>Grade (N, %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>11 (7.6)</td>
<td>11 (7.7)</td>
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<tr>
<td>7</td>
<td>19 (13.2)</td>
<td></td>
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<tr>
<td>8</td>
<td>40 (27.8)</td>
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<tr>
<td>9</td>
<td>62 (43.1)</td>
<td></td>
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<tr>
<td>10</td>
<td>11 (7.6)</td>
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<td></td>
</tr>
<tr>
<td>11</td>
<td>1 (0.7)</td>
<td></td>
<td></td>
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<tr>
<td>Tribal enrollment (N, %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>152 (92.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>11 (7.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live in Indian community (N, %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>59 (41.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>84 (58.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of smokers in the home (N, %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>30 (21.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>41 (28.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>37 (26.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3+</td>
<td>34 (23.9)</td>
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</tbody>
</table>

Of the 144 participants, 73 (50.7%) were female and 71 (49.3%) male. Mean age was 14.4 and all of the participants were in Grades 6–11. Seventy-nine percent of the participants lived with at least one smoker. Table II shows the smoking status of family members living with the teens by teen smoking status. Eighty-seven percent of the smokers lived with at least one family member who smoked and 88% of the experimenters lived with at least one smoker. Among non-smokers, 68% lived with at least one family member who smoked.

A focus group discussion guide was developed collaboratively with the CDC-funded prevention research centers and covered several broad research areas. Sixteen of the focus groups were conducted using this discussion guide. Because of the strong emergence of family-related issues as a theme among the American Indian teens in Oklahoma, four more focus groups were conducted to explore family influences in greater depth (Kegler et al., 1999).

A trained facilitator and observer moderated each discussion, which lasted approximately 90 min. The discussions were structured using a set of open-ended questions outlined in the focus group discussion guide. The moderator would pose a question to the group, then the teens would take turns answering it, building upon each other’s comments. For example, the moderators asked, ‘Think back to the first time you thought about whether or not to smoke. Where were you and who were you with?’ The moderator would then
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probe for additional detail, using follow-up questions such as ‘What made you want to try it? What did you like about it? How did you get the cigarette?’.

All of the discussions were audio-taped, then transcribed verbatim. The research team verified transcripts by listening to the original tapes. A qualitative data analysis software package, NUD*.IST, facilitated the analysis. A coding scheme was developed jointly by the prevention research centers and additional codes were added to capture themes from site-specific questions. Each transcript was coded by two independent coders. The codes were then compared and discrepancies resolved through discussion and consensus. Following coding, text retrievals on specific codes or combinations of codes were completed. These retrievals enabled content analysis of particular topics, which was followed by displaying the data in a series of matrices to facilitate the identification of similarities and differences in themes by gender and smoking status.

Results

The major focus of this investigation was the exploration of family influences in adolescent smoking among non-reservation American Indian teens. Six general topics are reported here: messages from family members about smoking and not smoking, expected family-related consequences of smoking, household smoking restrictions, opportunities for experimenting with cigarettes in family settings, modeling of smoking by family members, and possible cultural influences promoting or discouraging teen smoking. Themes related to each of these topics will be presented along with illustrative quotes.

Messages from family members

The vast majority of verbal messages from adult family members were antismoking in content. Parents were the most likely to talk to the teens about not smoking, but many teens also described conversations with their grandparents. The messages were most often related to the negative health effects of smoking. Sometimes the messages were general, such as ‘smoking can kill you,’ but they were often personalized stories about a relative who suffered from a smoking-related illness. Addiction was another strong theme in these antismoking messages. Parents talked to the teens about how addictive cigarettes were and the strong likelihood of becoming addicted if one starts smoking.

My grandma tells me about smoking because my grandpa had lung problems because of that and he died a couple of years ago because mostly of smoking cigarettes all the time because he used to smoke all the time constantly and she tells me about that. She says you don’t want to end up like your grandpa smoking all the time and stuff like that. [Experimenting girl]

They tell me not to do it because it’s bad and you could get addicted or something like that and you could die from it, just give me examples of different things and they tell me like if you want to go to college and stuff and smoking you could die and you couldn’t get to finish all your goals and stuff. [Experimenting girl]

Family-related consequences of smoking

Many of the teens told stories about what their parents did when they found out the teen had been smoking. Parental responses varied widely. One of the strong themes emerging from these discussions was the parent not wanting the teen to smoke behind his or her back. There was a desire on the behalf of some parents to know what their teens were doing rather than have them hiding their behavior. A related theme was parents admitting to their teens that they could do nothing to stop them from smoking:

My parents told me they can’t stop me from smoking so they’d rather me do it to where they know instead of behind their backs. [Smoking girl]

My dad said if you want to come smoke, then you come and cough and hack on my cigarettes. He said don’t ever do it behind my back. [Experimenting boy]
I didn’t have to worry about being caught because my mom told me if I was going to do it to tell her, that way she would know and I wouldn’t have to do it behind her back. [Smoking girl]

Other parental responses which may have sent mixed messages to the teens included telling the teen not to smoke around the parents, telling the teens they must support their own habit, and telling the teens not to get caught or get in trouble because of smoking. Other teens spoke of parents not saying anything to them about their smoking.

My parents told me I could smoke just as long as I wasn’t around them and if they caught me I was going to be in deep trouble. [Non-smoking girl]

But she won’t give me the money to buy them. She said I have to buy my own. [Smoking girl]

My dad just said like you can do it because I can’t stop you, just don’t get in trouble by the police for it. [Smoking girl]

I know she knows I smoke, but she don’t say nothing. [Smoking boy]

They don’t say nothing about it. [Smoking boy]

At the other end of the spectrum are the parents who more actively try to stop their teens from smoking. Many of the teens, both non-smoking and smoking, related stories of their parents getting mad about their smoking. Others spoke of their parents talking to them about not smoking. Parents appeared to use grounding and yelling as the most frequent punishment for smoking; hitting, forced smoking and forced eating of cigarettes were also mentioned by the teens.

He’d (father) probably have a long talk with me like he did to my sister. [Experimenting girl]

Well the last time they caught me with a cigarette (I got) grounded for like a week. [Non-smoking/experimenting girl]

Got yelled at and grounded. [Non-smoking/experimenting girl]

They made me smoke a whole carton of cigarettes. I was kind of sick. [Non-smoking/experimenting girl]

My mom made my brother eat his (cigarette). [Smoking girl]

**Household smoking restrictions**

Family rules about smoking in the home ranged from total smoking bans to unrestricted smoking in the home. Lenient family rules about adult smoking in the home appeared to be the norm. For the most part, parents did not want teens to be smoking in the home. Most teens described their parents not wanting them to smoke anywhere or at least not wanting them to smoke in front of the parents. As discussed earlier, however, there were some parents who preferred their teens smoked in front of them rather than behind their backs. A few of these teens were allowed to smoke in or around the home.

My relatives, like the older ones—not any young kids, are allowed (to smoke in the home), but my mom and my dad, and my uncles and stuff come over and smoke. [Experimenting girl]

My mom (smokes in the house) and sometimes my aunts and them come over and smoke. [Experimenting boy]

My dad says I know that cigarette is for you, because I’l go in the kitchen to light it because we usually never have a lighter, and I’ll just go in the bedroom and smoke because I can’t smoke in front of him and my mom. [Smoking girl]

I’m allowed to smoke outside, but I’m not allowed to smoke inside because I’ll leave cigarette butts in the ashtray. So they told me to smoke outside. [Smoking girl]

My mom said, you want to smoke, smoke outside. [Experimenting boy]

**Access to cigarettes in family settings**

Another way families influence teen smoking is by providing access to cigarettes. Some of this is
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indirect such as leaving cigarettes around the house and the teens stealing them:

I used to steal packs from my parents because I couldn’t buy them and none of my friends could. [Smoking girl]

I was at my grandma’s house and I was with all my cousins and my grandma had went to sleep and she’s a heavy smoker and she has cigarettes so we tried it and it didn’t really taste that good. [Experimenting girl]

Family members also play more direct roles in teen smoking. For example, siblings and cousins give teens cigarettes, and older relatives sometimes buy cigarettes for the younger teens. In most cases, it is not the parents who are buying cigarettes for the teens, but uncles, older cousins or siblings.

My cousin smokes and we were like driving around and he lit up and everything. He asked me if I wanted one. [Non-smoking girl]

My sister had a pack and I asked her for one and she said get one so I did. [Smoking boy]

You have your brother or somebody buy it for you. [Smoking boy]

Go to the store with my uncle and he buyin’ it. [Smoking boy]

My sister-in-law buys them for me. [Smoking girl]

My grandpa gives me a carton every time I go down there. GPCs and Marlboro Mediums. [Smoking girl]

Modeling of smoking behavior

The teens were quite articulate in explaining how having smokers in their family influenced them to try smoking. Some spoke of being curious because so many people in their family smoked, others talked of how it seemed inevitable that they would smoke since so many of their family members smoked.

I started because of my dad and everybody I looked at was smoking. So when I first tried it and then after a while started getting used to it and started smoking regularly. [Smoking girl]

I think it has to do with how you’re brought up. Some people don’t smoke because their parents don’t smoke or their friends don’t smoke. If you grow up with parents and older sisters or brothers that smoke then you smoke. [Smoking boy]

My mom did it, why can’t I? [Smoking boy]

My mom and all the other family, I mean I don’t know anybody in my family that doesn’t smoke. They all smoke and I thought it would be cool and I tried it and I got sick. [Non-smoking/experimenting girl]

My parents have smoked ever since I can remember and I always wondered what it was like and everything. [Non-smoking girl]

Cultural influences on cigarette smoking

The traditional use of tobacco did not emerge on its own as a reason for cigarette smoking among American Indian teens. Only when prompted for a possible explanation for the relatively high prevalence of smoking among American Indians did some of the youth explain that tobacco was traditional in Indian culture. The teens understood the difference between smoking for ceremonial purposes and recreational cigarette smoking, and many were able to articulate traditional uses of tobacco. They discussed how their families would not mind if their smoking ‘had to do with tribal stuff’. Some of the teens also mentioned noticing a fair amount of smoking at Indian events, such as pow wows, stomp dances and sun dances.

...it came down from family to family. [Smoking girl]

I think that if mine (her parents) caught me smoking like something that had to do with tribal stuff then I don’t think they’d care as much. [Non-smoking girl]
They have the pipes and they go smoke it with their grandpas. \textit{[Experimenting girl]}

I don’t really know if it’s traditional, but like when my dad gives his grandpa stuff, or like whoever helps him, they give him like usually a carton of cigarettes. \textit{[Experimenting girl]}

In general, teens seemed aware of the role of tobacco in their culture, but felt that was quite separate from their own experimentation with cigarettes.

\textbf{Discussion}

This study used qualitative methods to explore the ways in which families may influence adolescent smoking from the perspective of American Indian teens. By developing a more thorough understanding of how families influence tobacco use, and variations in these mechanisms across ethnicities, we may gain insight into how to design more effective interventions. This research is particularly important for American Indians due to the high prevalence of smoking in some tribes and the expanded role of family in American Indian culture.

One of the topics explored in this study was the source and content of antismoking messages in American Indian families. These messages were usually from parents and grandparents, and focused on the negative health effects of smoking. It is interesting to note that family antismoking messages emphasized the long-term problems arising from tobacco use over the short-term consequences (bad breath, bad smell, decreased athletic ability and the negative effect of environmental tobacco smoke on others). Additional research is needed to determine whether consistency between messages emanating from family, which focus on long-term consequences, and mass media campaigns, which often focus on short-term consequences, would prove beneficial. It is possible that antismoking messages from family would be more effective if they covered both short and long-term consequences of smoking.

Another insight gained through this research is the important role grandparents play in transmitting antismoking messages to American Indian teens. This finding supports the premise that family-based smoking prevention programs for American Indian teens should target the extended family. A promising intervention strategy may be to emphasize the harmful effects of environmental tobacco smoke on the entire family, from infants to grandparents. It also suggests the need to educate grandparents and aunts and uncles, in addition to parents, to provide antismoking socialization to young people in their families.

Many youth reported parental actions consistent with low perceptions of parental efficacy in reducing teen tobacco use. Although we did not include parents in our study, based on these focus groups, it appears that American Indian parents may be more similar to white than African-American parents in terms of their approaches to teen smoking (Clark \textit{et al.}, 1999). Additional research is needed to learn whether improved antismoking socialization in American Indian families, or families of any race/ethnicity for that matter, would decrease teen smoking.

Household smoking restrictions are another indicator of anti-tobacco socialization. Although lenient household rules about adult smoking appeared to be the norm among American Indian families in our study, teens themselves were usually not allowed to smoke in the home. Studies of household smoking restrictions show that home smoking bans are becoming more common, but vary by smoking status, number of friends who smoke, presence of children, age, race and household income (Norman \textit{et al.}, 1999).

Families may also influence teen smoking by providing access to cigarettes. The youth in our study did not discuss easy access as an explicit reason for their experimentation with cigarettes. However, many of the teens obtained their first cigarette from an adult relative—usually taking one without permission. Others described relatives giving them cigarettes. This relatively risk-free access to cigarettes may contribute to earlier first tries than if a young person lives in a home with limited access to cigarettes. Because the age at which a child first tries a cigarette predicts regular
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smoking later in life (Chassin et al., 1990; Fergusson, 1995), any intervention which delays smoking initiation may lead to lower prevalence of smoking. Our research lends support to the need for intervention research on restricting access to tobacco in the home.

This study has several limitations. Descriptions of parent communication about smoking and parental responses to teen smoking were obtained only from the teens themselves. Obtaining parental perspectives on their communication with teens about smoking would provide a more balanced, and perhaps different, view of the role of parents in adolescent smoking. Due to the non-random selection of focus group participants, it is not advisable to generalize findings from this type of research (Kreuger, 1994). This is particularly true for this study, because participants were non-reservation American Indian teens from a large number of Oklahoma tribes. This, combined with the relatively high prevalence of smoking among American Indian youth in Oklahoma, may limit the extent to which these findings are applicable to American Indian youth in other parts of the country. It is also possible that the findings here have little to do with race and ethnicity, but rather, are common across families where smoking prevalence is relatively high.

Some of the implications for future research stem from the limitations of this study. Additional qualitative research is needed to identify the full range of antismoking message content, as well as the range of parental responses to smoking. It is unknown to what extent the preventive efforts of American Indian families parallel efforts of other families. It would be helpful to replicate the current research with youth from other ethnic/racial groups, and with American Indian youth from other tribes and regions of the country. As mentioned earlier, it is also important to explore family influences on youth tobacco use from the perspective of other family members, including parents and grandparents. This should be done with both American Indian and other cultures.

Additional quantitative research is needed to assess whether certain family-based interventions are more effective than others in delaying the onset of smoking, disrupting the experimentation process, or preventing any use of tobacco. For example, should parents emphasize short-term consequences of tobacco use in addition to or instead of long-term consequences? Does restricting access to cigarettes in the home delay the onset of smoking? Do youth who know their parents disapprove of smoking exhibit different experimentation patterns than youth who receive ambiguous messages from their parents? Knowing the answers to these questions would help guide interventions to reduce teen smoking.

This research also has implications for practitioners. Much of the recent effort to prevent teen smoking focuses on building individual resistance to social influences, changing peer norms, counter-advertising and restricting youth access to cigarettes through public policy initiatives (Lynch and Bonnie, 1994; US Department of Health and Human Services, 1994; Centers for Disease Control and Prevention, 1999b; Glantz, 1996). Our research suggests a complementary strategy would be to focus on the family and smoking in the home. Families appear to play important roles in teen smoking by modeling the behavior, providing access to cigarettes, influencing norms, creating short-term consequences and educating teens about long-term consequences. Our research also suggests that parents do not want their children to smoke, but could benefit from an intervention to help them socialize their children against smoking.

The role of the extended family is also highlighted in this research. Grandparents are a fairly common source of antismoking messages for American Indian teens. Relatives such as cousins, siblings, aunts and uncles appear to provide cigarettes to teens and could be an appropriate target for intervention. Finally, interventions that promote smoke-free homes may have numerous benefits. In addition to reducing exposure to environmental tobacco smoke, it would restrict youth access to cigarettes, reduce modeling of smoking and send clear messages about parental disapproval of smoking. In summary, this research demonstrates the various ways in which families influence youth
smoking, from the perspective of the youth themselves. It appears clear that family-based interventions have the potential to be an important component of comprehensive efforts to battle the complex and multicausal public health problem of adolescent smoking among American Indians, and quite likely, all populations.

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