



Occasional smoking in college: Who, what, when and why?

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ABSTRACT

Introduction: The majority of college students who smoke do so on an occasional basis and generally do not define themselves as smokers. This represents a considerable challenge for public health efforts to prevent escalation of use and to promote cessation. Strengthening such efforts will require further examination of the motivations behind occasional smoking within this vulnerable group.

Methods: Based within a priori identified content areas, we conducted eight focus groups of occasional smokers (N = 53) at two demographically diverse colleges in the southeastern U.S.

Results: Few participants self-identified as a smoker and few had immediate desire to quit. Most identified extrinsic motivations for future quitting, including college graduation and parenthood. Although participants acknowledged smoking-related health risks, they minimized them as being personally irrelevant. Participants highlighted social (i.e., alcohol and other smokers) and stress-related smoking triggers. They also described how they carefully managed the situations in which they would, and would not smoke in order to preserve their identity.

Conclusions: College students who smoke occasionally appear to engage in impression management, taking effort to shape their personal image to not appear as a smoker. They use smoking mainly as a social engagement tool, but also to alleviate negative emotions. They express minimal desire to quit and believe they are immune to the health risks of smoking. Public health messages should address this common pattern of smoking among young adults differently than regular smoking patterns by highlighting the social, emotional, and health consequences of occasional smoking before nicotine dependence has fully developed.

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1. Introduction

Despite recent trends for decreasing prevalence of cigarette use among adults (Centers for Disease Control & Prevention, 2009) and children under 18 (Johnston, O'Malley, Bachman, & Schulenberg, 2010), over one-third of young adults (ages 18–25) are current smokers (defined as any cigarette smoking in the past 30 days) (Substance Abuse & Mental Health Services Administration, 2010). Varying estimates are found within college populations; SAMHSA survey data from 2009 estimate that 27% of college students are current smokers (Substance Abuse & Mental Health Services Administration, 2010) while Monitoring the Future survey data from 2009 estimate the rate to be lower (18%) (Johnston et al., 2010). Many young adult smokers believe they will eventually quit (Hines, Fretz, & Nollen, 1998) and are confident in their ability to do so (Sutfin, Reboussin, McCoy, & Wolfson, 2009). Yet the

mean age for smoking initiation in the United States is 17.5, and for initiation of daily smoking is 20.7 (Substance Abuse & Mental Health Services Administration, 2010), which provides clear evidence that young adulthood is a vulnerable developmental period in which recently initiated smokers are susceptible to long-term dependence.

Young adult smokers, including college students, are diverse in their smoking patterns and range from daily heavy cigarette smokers to infrequent puffers (Sutfin et al., 2009). The most predominant group of young smokers is those who smoke occasionally. For example, 65% of college student tobacco users are occasional smokers (Moran, Wechsler, & Rigotti, 2004). Most college students who smoke occasionally have lower rates of dependence (Ames et al., 2009) and smoke in a narrow range of situational contexts; such as on weekends, while drinking alcohol, and socially around other smokers (Moran et al., 2004; Shiffman, Kirchner, Ferguson, & Scharf, 2009; Sutfin et al., 2009). Several studies demonstrate the potential risks for progressing to more ingrained smoking patterns and chronic nicotine dependence by occasional smoking college students. For example, studies that follow longitudinal trajectories for occasional smokers in college estimate that 25–50% quit, 35–50% maintain occasional smoking patterns long term,

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and 15–25% progress to daily smoking (Kenford et al., 2005; Wetter et al., 2004; White, Bray, Fleming, & Catalano, 2009).

The increasing proportion of college student smokers who occasionally smoke and associated risks of occasional smoking further underscore the importance of understanding the choices behind this pattern of smoking. Population-based survey research has offered a quantitative characterization of the population, including psychosocial correlates and risk factors (Nguyen & Zhu, 2009; Pierce, White, & Messer, 2009; Trinidad et al., 2009; White et al., 2009). One challenge of survey research among occasional smokers is that many do not consider themselves smokers (Berg et al., 2009, 2010; Thompson et al., 2007), which may bias recruiting and subject reporting. This assessment difficulty speaks to the need for a complementary approach to understand who occasional smokers are and what factors underlie their smoking behavior. In contrast to quantitative approaches, qualitative methods offer an opportunity to discern a deeper understanding of the driving forces for occasional smoking, yet few studies have taken this approach.

Studies that have taken a qualitative approach to examine young adult occasional smoking have demonstrated a wide range of psychosocial influences on smoking behavior, including gender (Amos & Bostock, 2007), ethnic, family, and community influences (Mermelstein, 1999). College smokers in particular report smoking occasionally with the expressed purpose of alleviating stress and/or to increase concentration, clear their mind, reward themselves, and strengthen friendships (Nichter, Nichter, Carkoglu, & T.E.R.N., 2007), but they are also cognizant of how smoking is negatively perceived among others on campus (Thompson et al., 2007) and often do not identify themselves as smokers (Berg et al., 2010). Many of these smokers report pressure to quit smoking (Thompson et al., 2007), yet peer pressure and social affiliation are reported as major reasons to smoke (Amos & Bostock, 2007; Mermelstein, 1999). Such varied and inconsistent motivational influences on occasional smokers are but one example of the complex factors that drive occasional smoking by young adults, and the challenge to understand this pattern of smoking. We sought to build upon the literature of young adult occasional smoking with a focus on the role that smoking plays in daily activities and interpersonal relationships. Utilizing focus group methodology, this study was principally aimed to understand the personal motivations and forces that influence college-level occasional smoking to better inform cessation strategies for this vulnerable population.

2. Methods

2.1. Overview

We conducted eight focus groups at two universities (4 groups each) in the Southeast; School 1 is a moderately sized private university (approximately 4500 undergraduates; 76% Caucasian), and School 2 is a historically black public university (6000 undergraduates; 91% African American). Our intent was not to make institutional or racial comparisons (though we do highlight differences where they exist), but merely to increase sample diversity. Focus groups were held on each campus in a convenient location. Participants were recruited through on-campus flyers and word-of-mouth, and all were reimbursed for study participation (\$50).

2.2. Participants

Participants were eligible if they were: (1) aged 18–25, (2) currently enrolled as an undergraduate student, and (3) reported occasional smoking. No uniform definition of occasional smoking exists (Husten, 2009), which has often led to heterogeneous study samples that complicate cross-study comparisons. In general, however, most research in this area has considered any level of non-daily smoking,

over an extended duration, to be light and intermittent (Shiffman, 2009). Thus, our definition of occasional smoking was fairly broad: a) having smoked 1–29 days of past month (non-daily), b) having done so for a minimum of six months (i.e., to exclude regular smokers who may not have smoked daily in the prior month), and c) not smoking occasionally as an effort to gradually quit. Recognizing that this definition would result in a wide range of smoking patterns, we sub-divided focus groups for participants who were low-rate (arbitrarily assigned as less than 25 cigarettes smoked in the past month) and high-rate (greater than 25 cigarettes smoked in the past month) occasional smokers. As above, our intent was not to make comparisons between groups and instead to capture a wide range of occasional smoking but yet, per focus group guidelines (Krueger & Casey, 2000), keep them homogenous in an effort to foster an atmosphere conducive to open discussion.

2.3. Focus groups

Groups were held over a seven-month period in 2008. Each group consisted of 4–9 participants (Total N=53). Sessions were approximately 60–90 min and were semi-scripted using questions within five predetermined themes: (1) self-identity as a (non)smoker (e.g. Do you consider yourself a smoker?, How do you define the term 'smoker?'), (2) perception of risks (e.g. What are some health risks from smoking?, How relevant are these health risks to you personally?), (3) dependence and quitting (e.g. Do you ever feel like you physically need a cigarette?, Do you have any immediate plans to quit smoking?), (4) situational contexts of smoking (e.g. Are there certain places where you always smoke?), (5) and interpersonal influences (e.g. How do your family members and friends react to your smoking?, Do you feel pressure to smoke?). Two focus group moderators experienced in qualitative methods and focus group procedures were selected and trained on the interview guide. The moderators were generally unfamiliar with the content area of tobacco control so as to not bias the discussion. Sessions were audio-recorded and transcribed for data analysis.

At the end of each focus group session, participants completed a brief survey assessing demographics, current and prior smoking history, risk perception, and alcohol use. These data were gathered as a complement to the qualitative findings only and are presented for descriptive purposes only (no formal analyses conducted given small sample size).

2.4. Analysis

Descriptive statistics of the survey data were performed using means and standard deviations for continuous variables and frequency and percentage for categorical variables. N*Vivo 7.0 (QSR International, Cambridge, MA) was used to code and organize the qualitative data. Each transcript was checked for accuracy against the digital recording and notes taken during each group. Preliminary codes were identified and a coding system was developed based on the broad conceptual categories described above. All focus group transcripts were coded for thematic content using the established coding system; however, the emergence of new codes was allowed (Krueger & Casey, 2000). All transcripts were coded independently by separate authors (MJC, ES) and an assistant who met repeatedly to develop consensus and organize themes. Inter-related themes ('node branches') were identified by consensus. Responses were allowed to be coded for multiple themes. Once themes were identified, representative quotes were selected.

3. Results

3.1. Demographics and smoking history

Sample characteristics are shown in Table 1. Most focus group participants from School 1 were male (60%), average age of 20, white

Table 1
Sample characteristics.

	School 1 (n = 30)	School 2 (n = 23)
Demographics		
Female, n (%)	12 (40%)	18 (78%)
Age, mean ± SD	19.5 ± 1.4	20.4 ± 1.8
Caucasian	25 (83%)	2 (9%)
Smoking history		
Days smoked in past 30 days	8.6 ± 5.2	12.8 ± 7.8
Days smoked in past week	1.7 ± 1.0	2.4 ± 1.4
# Cigarettes on weekday	1.2 ± 1.3	2.6 ± 2.3
# Cigarettes on weekend day	2.6 ± 2.0	3.6 ± 3.0
Age of smoking initiation	16.0 ± 1.9	15.3 ± 2.8
Ever smoked daily	9 (30%)	9 (39%)
Perceived risks		
Moderately/high addicted to smoking	0	5 (22%)
Somewhat/very concerned about personal health	10 (33%)	11 (48%)
Health risks ... compared to daily smoker ^a		
Higher	0	0
Lower	29 (97%)	17 (74%)
... compared to non-daily smoker		
Higher	9 (30%)	14 (61%)
Lower	10 (33%)	6 (26%)
... compared to ex-smoker		
Higher	2 (7%)	8 (35%)
Lower	19 (63%)	5 (22%)
... compared to never smoker		
Higher	26 (87%)	19 (83%)
Lower	2 (7%)	4 (17%)
Triggers for smoking		
Past 30 days, smoked often or always while		
At a party	18 (60%)	15 (68%)
Hanging out with friends	6 (20%)	13 (62%)
After 1–2 drinks	10 (33%)	14 (61%)
After 4 or more drinks	20 (67%)	16 (70%)
Stressed	3 (10%)	13 (57%)
Interest in quitting		
Seriously thinking of quitting		
Yes, within next 30 days	0	2 (9%)
Yes, within 6 months	2 (7%)	2 (9%)
Yes, but not in next 6 months	6 (20%)	9 (39%)
No	22 (73%)	10 (43%)
Nicotine dependence		
NDSS (total)	−2.5 ± 0.3	−1.6 ± 0.8

^a Responses of “about the same” omitted from table.

(83%), and had smoked approximately 25% of days over each of the prior week and month. Focus group participants from School 2 were predominantly female (78%), average age of 20, non-white (91%), and had smoked approximately 40% of days over the prior week and month. Approximately 30% of the School 1 participants had smoked daily in the past versus 40% from School 2. The mean age for smoking initiation was roughly equivalent for participants at both schools (16 vs.15).

3.2. Smoker identity

The majority of participants did not identify themselves as smokers. A “smoker” was primarily defined based on quantity and frequency of smoking (i.e., daily with >1–5 cigarettes/day); e.g., “a smoker is someone who smokes everyday,” and “a pack [a day] is a heavy smoker.” Others defined a smoker as one who is addicted: “if you define smoker as someone who’s addicted to smoking and can’t go without it, I don’t really think that’s us. We’re just smoking.” The definition of addiction was compared to alcohol use: “Occasionally I smoke but I wouldn’t say I’m a smoker; it’s like saying that occasionally I drink versus saying I’m an alcoholic.” Participants broadened the definition of a smoker to include “social”, “stress” and

“occasional” smokers at one end of a spectrum and “heavy”, “chain”, and “addicted” smokers at the other.

3.3. Risk perceptions

As a group, participants recognized the general risk of smoking, but they almost universally minimized personal risk as occasional smokers. Specific comments included “there’s always going to be a risk; I think it’s still worth it” and “very negative health effects, but I don’t feel like those really affect me as much [because I am] an occasional smoker.” Participants varied in their assessment about what the major health risks are for smoking regularly. Similar acknowledgement was given to long-term health risks of regular smoking, including cancer and respiratory damage, and short-term risks, including the development of addiction and damage to physical appearance. The impact of smoking on one’s appearance was described in physical terms, including smell on clothes and staining of teeth and skin. One participant explained, “I don’t smoke everyday because I’m too self-conscious. My whole appearance means a lot to me.” There was also a general agreement with the comment “if I knew there were no health risks, I’d probably smoke a lot more cigarettes.” Much of the emphasis on health risks stemmed from the desire to avoid addiction: “all the health risks of it... I don’t want to become addicted to where I have to smoke many a day... that’s the only reason I don’t smoke as much.”

3.4. Dependence and quitting

A common theme among all participants was the minimization of dependence, either psychological (i.e., craving in response to environmental cues) or physical (i.e., physical withdrawal during abstinence). Dependence was described in negative terms as a trait associated with addiction that was not applicable to occasional smokers: “I don’t think I’m addicted... I can go without smoking.” Situational cravings (e.g., while drinking) were described as common, but controllable in most instances if “you just shift your thoughts.” One participant explained, “I can get through a day without having a cigarette.” However, a small minority of participants reported uncontrollable urges to smoke: “All I know is that if I don’t have it, I know I start getting really angry, and I just know that my body starts tensing up.”

For some, identification as a non-smoker undermined any desire to quit: “I don’t really consider myself a smoker...it’s not a habit so I don’t need to quit.” While few participants expressed current motivation to quit (e.g., “There’s not really a reason for me, at least right now, to stop.”), almost all said that they would eventually quit. Many participants discussed specific extrinsic events or milestones (e.g., graduation, marriage) that would motivate them to quit smoking: “[Quitting is] important to me when I graduate” and “If I have kids, I won’t smoke around them.” There was no discussion of quitting smoking to improve personal health. The most commonly suggested method for quitting was unaided (i.e., ‘cold turkey’), and all participants discounted the need for pharmaceutical assistance (e.g., nicotine replacement therapy (NRT)) with quitting. One participant explained “just keeping yourself busy will help you stop.” NRT was described as potentially helpful for heavier smokers, but had the potential to replace one addiction for another.

3.5. Situational contexts of smoking

Alcohol was the most common trigger for smoking among all focus group participants. Many participants smoked cigarettes exclusively while drinking alcohol: “To the best of my knowledge, I only smoke whenever I drink...it tastes awful to me when I’m sober.” Many participants endorsed the view that smoking is acceptable to peers while drinking, but is stigmatized as an addiction if it occurs during

the daytime and not while drinking. An example was given of a friend commenting that he was not attracted to someone because “she sober smokes—that’s so gross.”

Another common trigger for smoking was the presence of other smokers. One participant cited this as an environmental trigger, explaining, “I don’t think I’m pressured to smoke, but just being around it is an influence.” Smoking was described as an opportunity for bonding or starting a conversation with someone: “smoking builds a connection between people,” “like I almost feel like it’s a community thing.” Some participants felt more comfortable around other smokers and that they fit in better in a social setting when they were smoking, indicating “if it is a social setting, I’ll be happy when I’m smoking.” Smoking also provided an “ice-breaker” with the opposite gender in social contexts. One participant said, “I ask a girl for a cigarette, you know, start the conversation that way. Then you need a lighter, you know.”

Emotions were also described as a trigger for smoking. Negative moods (e.g., stress, anger, frustration) were endorsed as a stronger trigger than were positive moods (e.g., happy, excited). The emphasis on negative mood-induced smoking was more prominent among School 2 participants than School 1 participants. Smoking provided a way to avoid conflict by “going outside and just chilling and being by myself instead of letting anger out.” One participant indicated that smoking was strictly for negative situations: “I don’t think about smoking when I’m happy or nothing’s bothering me; it’s just something that triggers it that makes me smoke.”

3.6. Interpersonal influences

Interpersonal influences were heavily cited reasons for initiating smoking. Participants gave various reasons, but among the most common were peer pressure, curiosity, and family influence. Compared to School 1 participants, School 2 participants more frequently cited family influences, both direct (e.g., sibling giving them a cigarette) and indirect (e.g., sneaking a cigarette from a parent).

Friends and family were cited as predominantly anti-smoking influences on participant smoking: “I don’t want them to know I smoke and think bad about me, and then have to hear what they have to say about it.” Participants were cognizant of and careful to avoid the stigma of being a smoker. Many were selective about when, where, and with whom they smoked. Smoking was mostly limited to occasions around other smokers because “to people that already smoke, they’ll think I’m still cool, but people that don’t smoke will think differently about you.” The stigma associated with smoking was described as “a really big difference in the type of image that you give off if you’re walking across campus smoking than if you’re in a party smoking.” Many participants agreed that they did not smoke around non-smoking friends and family members “not because I care what they think, but because I would have to deal with their attitudes.” Participants from School 1 expressed a fear of punishment from parents, while those from School 2 were more afraid of parents being disappointed in finding out they smoke.

Consistent with concerns of image above, many participants agreed they would not date a daily smoker, but would date an occasional smoker. Both male and female participants from School 2 considered it less attractive for females to smoke than males, and explained, “some people don’t think you’re a lady [if you smoke].”

4. Discussion

The purpose of the present study was to further examine, using a qualitative approach, self-identity and motivational forces for occasional smoking by college students. Our findings are similar to the few existing qualitative studies of young occasional smokers

regarding their self-identity as smokers and opinions on occasional smoking (Berg et al., 2010; Thompson et al., 2007). Novel findings of the current study include the degree to which occasional smokers engage in impression management, and the underlying internal conflict regarding smoking that they endorse.

Many students were careful about when, where, and with whom they smoked. Smoking was favorably viewed in some contexts, but clearly stigmatized in others. This suggests a strong degree of impression management that guides smoking behavior among occasional smokers. The literature in this area is scant, but one previous study reported higher levels of self-monitoring and perceived success in impression management among high school students that occasionally smoke compared to their regularly-smoking or non-smoking peers (O’Callaghan & Doyle, 2001). Clearly this is an area for future research, particularly given the importance of social identity as a determinant of smoking behavior within young smokers (Kobus, 2003). The active, conscious decision to smoke vs. not suggests a possible internal tension regarding self-portrayal in various social situations. There also seems to be a deliberate effort to avoid “becoming a smoker.” This finding is worthy of further study. If supported, such tension could serve a clinical purpose in at least two ways. First, some research suggests that smokers experience a period of dissonance over their smoking and that such dissonance remains dormant until a cue to action (West & Sohal, 2006). Presenting cues to action in a meaningful way to occasional smokers may serve a catalyzing purpose to advance quit behavior, though it remains to be studied what cues would motivate occasional smokers in particular. Second, the public health community could try to capitalize on and heighten this tension through specific messaging, such as: “worried that you are beginning to smoke too much?” or “are you starting to smoke in places you never wanted to?” There is danger in such messaging however, as it could falsely convey a safe level of smoking.

Alcohol use and social settings were the most common contexts for smoking, but negative emotions were also acknowledged as a reason for smoking. These findings are generally consistent with prior reports that suggested that low rate smoking is often stimulus-specific (Shiffman et al., 2009; Shiffman & Paty, 2006). For the most part, contextual influences on smoking were consistent across schools in our study. The one noteworthy difference was the influence of negative emotional states as a trigger for smoking. Participants from School 1, a smaller private institution (83% Caucasian and 40% female within our sample) gave little indication of smoking when stressed or under emotional distress. The predominant contextual influence on smoking within this group conformed to the literature’s description of ‘social smoking’ (Moran et al., 2004; Shiffman, 2009) and was primarily limited to smoking while drinking at parties. In contrast, participants from School 2 (91% non-white and 78% female within our sample) reported smoking at parties but gave equal recognition to the influence of feeling emotionally stressed or upset. This finding corroborates on the complexity of occasional smoking among young adults (Edwards, Bondy, Kowgier, McDonald, & Cohen, 2010) and could indicate either cultural or gender differences in their smoking. It also suggests the need to further examine if the trajectory of smoking progression is any different among young adults whose smoking is socially vs. emotionally driven.

As with prior studies (Berg et al., 2010; Thompson et al., 2007), few participants identified themselves as smokers because of their low frequency and amount of smoking, and few had any desire to quit smoking in the near future. Low rate smoking among young adult smokers is commonly associated with decreased motivation to quit (Levinson et al., 2007), as was the case within our study sample. Identifying young adult occasional smokers who do not even identify themselves as smokers will remain a challenge for public health prevention efforts. Further research will need to examine the optimal message(s) and method to engage these vulnerable smokers in the

cessation process. One strategy might be a broad approach of general health screening, assessing a concrete behavior such as smoking at least one cigarette in past week/month; the narrower tactic of recruiting self-identified “smokers” in research would likely miss many.

While participants acknowledged health risks associated with smoking, these risks were perceived as inapplicable to occasional smoking and generally reserved for older adults who have been smoking heavily for years. The short and long term risks of occasional smoking are well-established (An et al., 2009; Bjartveit & Tverdal, 2005; Stoner, Sabatier, Black, & McCully, 2008), and the public health community needs to identify better strategies to convey this information. Moreover, many young adult smokers discount any possibility that they will progress to regular smoking. It would appear that they do not recognize that they may be nearing dependence. While only 15–25% of young adults who occasionally smoke eventually become regular smokers (Kenford et al., 2005; Wetter et al., 2004; White et al., 2009), occasional smoking is one of the strongest predictors of subsequent dependence (Doubeni, Reed, & DiFranza, 2010) and the progression to daily smoking (Patton et al., 1998). Knowledge of these risks among young people would begin to challenge the perception that smoking occasionally “doesn’t count as smoking” and is safe from health risks and developing more entrenched dependence.

Some limitations of this study are inherent to qualitative research. While we attempted to broaden representation by including different schools, the ability to generalize our results to a larger population is restricted by our small sample size. Qualitative research is often considered hypothesis-generating and is not intended to be representative of the larger population. Also, focus groups carry the risk of highlighting the views of a few participants and missing those of less vocal participants. We minimized this risk by training focus group moderators to balance discussions. Finally, the heterogeneity of occasional smoking in our sample was both an asset (broadening our sampling) and a liability (increasing variance). The literature would benefit from a common definition of occasional smoking. Our definition of occasional smoking was fairly broad; it is unclear if it was overly so.

Occasional smoking is a decisive period before daily smoking. Young adults who smoke occasionally are a vulnerable population that has a high risk of progressing to daily and potentially lifelong smoking. However, this population also represents a malleable group of smokers for whom public health efforts to intervene are particularly warranted. This critical window of opportunity may be that last stage in which nicotine dependence has yet to fully transition users into heavy smoking. Blanket prevention strategies that emphasize avoidance of cigarette experimentation are unlikely to have any meaningful effect. Rather, targeted strategies to identify and engage occasional smokers will be critical to any tobacco control effort. Tapping into an apparent tension might be one viable approach for doing so.

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Contributors

Drs. Carpenter and Sutfin designed the study and wrote the protocol. Dr. Sutfin conducted data collection. All authors performed data analysis. Amy Brown wrote the first draft of the manuscript. All authors contributed to and have approved the final manuscript.

Conflict of interests

All authors declare that they have no conflicts of interest.

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