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Perceptions of Addiction, Attempts to Quit, and Successful Quitting in Nondaily and Daily Smokers

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Abstract

We aimed to qualitatively examine differences in perceptions of addiction, attempts to quit, and successful quitting among nondaily versus daily college student smokers. We conducted 16 focus groups with a total of 73 college student smokers from the southeastern U.S. Focus groups were homogenous in terms of gender, smoking status (nondaily, daily), and type of school (2-year college, 4-year university). Questions centered on perceptions of addiction, their own addiction, what constitutes a quit attempt, and successful quitting. Themes that emerged among all smokers regarding conceptualization of general addiction included physiological and psychological dependence and an inability to quit smoking. In terms of their own addiction, nondaily smokers referenced their ability to quit and sense of choice to smoke as factors indicating a lack of addiction, whereas daily smokers reported dependence symptoms and their inability to control their smoking indicating addiction. Nondaily smokers discussed quit attempts in terms of making

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the decision to quit and avoiding situational triggers, whereas daily smokers reported taking more behavioral steps toward cessation (e.g., not buying cigarettes, reducing cigarette consumption). With regard to successful cessation, both groups identified losing the desire to smoke as a hallmark. However, nondaily smokers reported that the decision to quit might constitute successful cessation; daily smokers had more strict behavioral criteria such as abstinence for an extended period of time. The different perceptions of one's own addiction, attempting to quit smoking, and successful quitting suggest the need to improve assessments of these factors, particularly among nondaily smokers.

Keywords

tobacco use; smoking; attitudes; addiction; cessation

Despite the fact that daily smoking in the U.S. is declining (Centers for Disease Control and Prevention [CDC], 2010; Pierce, White, & Messer, 2009), nondaily smoking (smoking on some days but not every day) is increasing (CDC, 2003). Young adults in the U.S. have been particularly affected by the dramatic increase in nondaily, occasional, intermittent, and social smoking (Schane, Glantz, & Ling, 2009), with half of young adult smokers smoking on a nondaily basis (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009). Unfortunately, young adulthood is a critical transition period for cigarette use (Chen & Kandel, 1995; Everett et al., 1999; U.S. Department of Health and Human Services [USDHHS], 1994), often involving escalation in smoking (Orlando, Tucker, Ellickson, & Klein, 2004). While previous longitudinal research indicates that the majority of young adult nondaily smokers do quit, particularly after age 25 or during life transitions such as becoming a parent (Chassin, Presson, Pitts, & Sherman, 2000; Zhu, Sun, Hawkins, Pierce, & Cummins, 2003), there is an important proportion that will continue to smoke or progress to daily smokers (Wetter et al., 2004).

Nondaily smokers suffer significant smoking-related morbidity and mortality compared to individuals who have never smoked (Jimenez-Ruiz, Kunze, & Fagerstrom, 1998; Luoto, Uutela, & Puska, 2000). According to the 2004 U.S. Surgeon General's Report on the health consequences of smoking, individuals exposed to low levels of tobacco are still at risk for cardiovascular disease, lung and gastrointestinal cancers, lower respiratory tract infections, cataracts, compromised reproductive health, and osteoporosis (USDHHS, 2004). A recent systematic review (Schane, Ling, & Glantz, 2010) found nearly the same risk for cardiovascular disease for light and intermittent smoking as daily smoking (Bjartveit & Tverdal, 2005; Pope et al., 2009), and a highly nonlinear dose-response relationship between tobacco exposure and cardiovascular mortality (Pope et al., 2009), such that even very low levels of tobacco use have significant health risks with those risks plateauing at higher rates of consumption. In addition, other research has documented that smoking 5 or more days per month is associated with shortness of breath and fatigue, and smoking at least 21 days per month is associated with symptoms of cough and sore throat (An et al., 2009). However, nondaily smokers may discount personal health consequences (Luoto et al., 2000; Moran, Wechsler, & Rigotti, 2004). Promoting smoking cessation among young adults is especially important given the health consequences of nondaily smoking and given that

individuals who quit before the age of 30 will reduce their chances of dying prematurely by more than 90% (USDHHS, 2004).

While nondaily smoking may be a transitory pattern between daily smoking and quitting (Evans, Gilpin, Pierce, Burns, & Al, 1992; Okuyemi et al., 2002; Zhu et al., 2003) or a transitional phase to heavier or regular cigarette use (White, Bray, Fleming, & Catalano, 2009), some research shows that nondaily smoking may continue indefinitely (Hassmiller, Warner, Mendez, Levy, & Romano, 2003; Shiffman, 2009). These differing trends in nondaily smoking may be related to perceptions of personal addiction and whether cessation is necessary or even relevant. Nondaily smokers in the young adult population often deny being smokers (Berg et al., 2009; Brown, Carpenter, & Sutfin, 2011), which has been associated with a decreased likelihood of attempting to quit in the past 12 months (Berg et al., 2009). They may also be less likely to consider themselves to be addicted (Gilpin, Cavin, & Pierce, 1997). On the other hand, previous research suggests that compared to daily smokers, nondaily smokers are more likely to be ready to quit in the next month and more confident that they can quit (Gilpin et al., 1997), but have difficulty quitting smoking (DiFranza et al., 2007; Savageau, Mowery, & DiFranza, 2009). While nondaily smokers can abstain from tobacco for days without exhibiting signs of withdrawal (Rubinstein, Benowitz, Auerback, & Moscicki, 2009), other findings indicate that they may experience urges to smoke and have difficulty achieving cessation as a result of physiological addiction (DiFranza, 2011; Rubinstein et al., 2009; Ursprung & DiFranza, 2010). An alternate explanation is that difficulty quitting among nondaily smokers may be due to their smoking being influenced by external stimuli rather than physical symptoms of nicotine dependence such as withdrawal and cravings (Tindle & Shiffman, 2011). These seemingly incongruent findings have important implications for understanding the psychological factors associated with nondaily smoking among the young adult nondaily smoking population.

Traditional models of addiction developed for daily smokers do not explain why nondaily smokers have difficulty quitting. Moreover, our longstanding measures of addiction, attempts at cessation, and abstinence are based on the traditional pattern of regular use of cigarettes rather than the more recent trend of nondaily smoking. Despite the importance of addressing smoking cessation among nondaily smokers, little has been done to qualitatively assess differences in nondaily versus daily smokers with regard to their perceptions of addiction, quit attempts, or successful cessation. Formative research must be done to understand how addiction and the process of cessation is perceived differently among nondaily and daily smokers in order to more appropriately assess addiction, attempting to quit, and successful cessation among nondaily smokers.

Given the importance of understanding how nondaily and daily smokers may differentially perceive factors associated with cessation, the present qualitative study aims to: (1) examine how nondaily versus daily college student smokers define the term *addiction* and perceive their own level of addiction; and (2) examine conceptualizations of “attempting to quit smoking” and “successfully quitting smoking.”

Method

Participants and Procedures

In Spring, 2011, we conducted 16 in-person focus groups. Focus group participants were recruited from a cross-sectional online survey that was conducted in October, 2010 with students from six colleges in the southeastern U.S. (Berg et al., 2011). At each school, 5,000 students randomly selected from the registrar's list were emailed an invitation to complete the survey, which also included an informed statement of consent. Two schools with enrollments of less than 5,000 students were also included; at these two schools all students were invited to participate (total invited $N = 24,055$). Of students who received the invitation to participate, 4,840 (20.1%) returned a completed survey. The Emory University Institutional Review Board approved both portions of this study.

Focus groups are well-suited to explore individual subjective experiences and attitudes, particularly related to concepts or phenomenon that have not been well explored previously (Halcomb, Gholizadeh, DiGiacomo, Phillips, & Davidson, 2007; Kitzinger, 1995; Krueger & Casey, 2000). Thus, this qualitative approach was selected due to the lack of prior research related to perceptions of addiction and how "quitting smoking" is perceived among nondaily smokers. The sample comprised 73 college student smokers (i.e., those who reported any smoking in the past 30 days) drawn from three colleges in the Southeast (two 2-year technical colleges, one 4-year university). We recruited and scheduled 10 to 12 participants for each focus group (participation rate of 42%). Focus groups were homogenous in terms of gender (male, female), school (2-year, 4-year), and smoking status (nondaily, daily smoker). This latter categorization, albeit based on a continuous variable, was developed to reduce the heterogeneity of participants and participant behaviors within the focus groups and also to allow the examination of differences among these potentially qualitatively different groups. Of the 16 focus groups conducted, nine were among nondaily smokers ($n = 46$), and seven were among daily smokers ($n = 27$). Once saturation was reached, recruiting participants for either category of smokers was discontinued as recommended by Glaser and Strauss (Glaser & Strauss, 1967). The range of sample size for the focus groups was three to 12, with a median focus group size of six participants.

Individuals who matched criteria for being a nondaily smoker (i.e., smoked between 1 and 29 days in the past 30 days) or a daily smoker (i.e., smoked every day of the past 30 days) were identified at the three colleges where focus groups took place and were recruited to one of the 16 groups. Research staff e-mailed potential participants and screened them for eligibility (i.e., their current smoking status/level). Eligible participants were scheduled for one of the 16 focus groups. Focus groups were conducted in conference rooms on each of the three college campuses. Prior to the focus group discussion, participants completed the informed statement of consent and a brief survey. They also provided urine and saliva samples for analyses of biomarkers of nicotine exposure and genetic assays, respectively, for secondary research aims. Each participant was compensated with an \$80 gift card for participation.

We designed the focus groups based on Morgan and Krueger's (Morgan & Krueger, 1998) methods for developing focus groups. Two moderators (the lead author and a trained

Masters of Public Health-level staff) guided the groups through a semistructured focus group discussion that lasted approximately 90 minutes. All sessions were audiotaped, observed by a research assistant who recorded field notes, and transcribed by a professional service. After each session, the moderator and research assistant debriefed. No changes were made to the interview guides as a result of debriefing.

Measures

Focus group interview guide—The semistructured focus group interview guide explored perceptions of general and individual addiction, attempts to quit, and successful quitting. Questions about the general perception of addiction included, “What does it mean to be addicted?” Questions about the perception of individual or personal addiction included, “Do you think you are addicted to cigarettes? Why or why not?” Questions about the definition of quit attempts included, “What does it mean to you to try to quit smoking? What steps do you take that indicate you are trying to quit?” Finally, questions about the definition of cessation included, “What would it mean to you to successfully quit? When would you feel like you ‘made it’?”

In addition to open-ended qualitative questions, a short questionnaire assessed demographics and smoking behaviors.

Demographic characteristics—We assessed age, gender, ethnicity, parental educational attainment, marital status, and the presence of children in the home.

Smoking level and indicators of dependence—Participants were asked, “In the past 30 days, on how many days did you smoke a cigarette (even a puff)?” and “On the days that you smoke, how many cigarettes do you smoke on average?” These questions have been used in previous research and are reliable and valid in similar populations (ACHA, 2009; CDC, 1997). Students reporting smoking 1 or more day in the past 30 days were considered current smokers. Those reporting smoking all 30 days were considered daily smokers, and those reporting between 1 and 29 days of smoking in the past 30 days were considered nondaily smokers (ACHA, 2009; SAMSHA, 2006). They were also asked, “On the days that you smoke, how many cigarettes do you smoke on average?” Nicotine dependence was assessed using a single question regarding time to first cigarette (i.e., within 30 minutes of waking vs. after) from the Fagerström Test for Nicotine Dependence (FTND) (Heatherton, Kozlowski, Frecker, & Fagerstrom, 1991). This single question has been shown to be the most robust item in the FTND associated with nicotine dependence (Heatherton, Kozlowski, Frecker, Rickert, & Robinson, 1989).

Quit attempts—Participants were also asked, “During the past 12 months, how many times have you stopped smoking for 1 day or longer because you were trying to quit smoking?” (California Department of Health and Human Services, Tobacco Control Section, 1999). This variable was dichotomized as having made at least one quit attempt in the past year versus not having made an attempt to quit.

Readiness to quit smoking—Readiness to quit was assessed by asking, “What best describes your intentions regarding quitting smoking?” Response options were “never

expect to quit,” “may quit in the future, but not in the next 6 months,” “will quit in the next 6 months,” and “will quit in the next month” (Prochaska & DiClemente, 1984). For the present study, this variable was dichotomized as intending to quit in the next 30 days versus all other responses.

Data Analysis

Focus group interviews were transcribed verbatim. Transcripts were independently reviewed by the lead author (a trained PhD-level psychologist) and two research project staff members, both of whom were Master of Public Health-level staff trained in qualitative analyses. These three coders generated preliminary codes using an inductive process. The research team used an iterative process to develop a master coding structure (Patton, 2002; Miles & Huberman, 1984). Primary (i.e., major topics explored) and secondary (i.e., recurrent themes within these topics) codes were then clearly defined in a codebook that was used to independently code each transcript. Qualitative data was coded and organized using NVivo 9.0 (QSR International, Cambridge, MA). Thematic content analysis was conducted by two independent coders to identify themes, and matrices were constructed to help identify patterns and themes by smoking status (nondaily vs. daily smoker). Coders resolved any discrepancies through discussions. Intraclass correlations for context were 0.92. Themes were then identified and agreed upon between the PI and the coders, and representative quotes were selected.

Descriptive statistics from the short questionnaire were computed using means and standard deviations for continuous variables and frequency and percentage for categorical variables. Bi-variate analyses were computed using *t* tests for continuous variables and chi-square tests for categorical variables. Quantitative data were analyzed according to principles outlined in Morgan & Krueger (Morgan & Krueger, 1998) using SPSS 19.0 (IBM Corporation, Armonk, NY).

Results

Table 1 provides participant demographics and smoking-related characteristics among the focus group participants. In terms of sociodemographic variables, daily smokers were older ($p < .001$) and more likely to attend a 2-year college ($p = .02$), be married ($p = .003$), and have children in the home ($p = .04$) compared to nondaily smokers. Nondaily smokers smoked an average of 9.37 ($SD = 9.58$) days in the past month and smoked an average of 2.26 ($SD = 2.38$) cigarettes on smoking days. Overall, 21.4% of nondaily smokers smoked on 1 day of the past 30 days, 50% smoked on 5 days or fewer, 75% smoked on 17 days or fewer, and 90% smoked on 22 days or fewer. Daily smokers smoked an average of 11.48 ($SD = 7.88$) cigarettes per day. Also, nondaily smokers were less likely to smoke within the first 30 minutes of waking than daily smokers.

Perceptions of Addiction

Table 2 provides an overview of the results of the qualitative research regarding perceptions of addiction, making a quit attempt, and successful cessation. Specific themes that emerged regarding how participants defined general addiction were similar among nondaily and daily

smokers. Specifically, participants alluded to physiological dependence, psychological dependence, and the inability to quit smoking as hallmarks of addiction. However, despite the similarities in their perceptions of addiction in general, nondaily and daily smokers had differing perspectives of their own addiction. The majority of nondaily smokers indicated that, because they felt that they could quit smoking easily if they wanted to, they were not addicted. Daily smokers were far more likely to indicate that they experienced markers of physiological (e.g., cravings) and psychological (e.g., situational triggers, concerns about having cigarettes available) addiction. Both nondaily smokers and daily smokers also highlighted the issue of volition. However, nondaily smokers indicated that they chose to smoke and believed that they could quit, whereas daily smokers indicated that they felt they had no volition due to the habit and addiction to cigarettes.

Perceptions of Making a Quit Attempt

Both nondaily smokers and daily smokers reported avoiding triggers or situations as part of attempting to quit smoking. However, the situations or triggers indicated by nondaily smokers tended to be circumscribed around social factors, alcohol consumption, or negative affect (e.g., stress). Daily smokers were more likely to indicate that terminating the purchase of cigarettes was part of making a quit attempt, suggesting that avoiding cigarette availability rather than the multiple triggers they face was a more feasible option. It is interesting that nondaily smokers indicated that making a quit attempt was simply making the decision to quit, which was not a theme found among daily smokers. On the other hand, daily smokers reported reducing their cigarette consumption as part of making a quit attempt, which was not reported by nondaily smokers.

Perceptions of Successful Quitting

In terms of how smokers defined being successfully quit, both nondaily and daily smokers suggested that no longer having the desire to smoke would be a marker of successful cessation, with daily smokers more commonly using the term *craving*. Nondaily smokers were more likely to describe successful smoking cessation in cognitive terms like *deciding* or *knowing* or making a *mental decision* not to smoke anymore, while daily smokers, on the other hand, were more likely to describe successful cessation in terms of a quantified length of time (e.g., 1 year, 3 months, etc.). Although nondaily smokers did make reference to a length of time, they framed their definition of quitting in terms of not smoking in social situations where smoking might occur for a specific amount of time.

Discussion

The current study is the first to qualitatively examine how young adult nondaily versus daily smokers define addiction, attempting to quit smoking, and successfully quitting smoking. Daily and nondaily smokers shared a similar definition of the general characteristics of addiction, and their perceptions of their own addiction were intuitive. Daily smokers reported feeling less in control of their smoking, whereas nondaily smokers more frequently noted that their smoking was within their volition. More interestingly, their conceptualization of making a quit attempt and of having successfully quit were markedly different. This is a critical finding, as our traditional assessments of quit attempts and

cessation were developed to appropriately address these phenomena in daily or regular smokers. Better understanding these differences in perception can support the development of improved measures to more accurately assess these phenomena in nondaily smokers.

In terms of their perceived level of addiction, daily smokers recognized their physiological and psychological dependence symptoms and reported that they felt out of control of their smoking. This is similar to what you might expect, given their level of consumption and the classic literature on addiction (American Psychiatric Association, 2000; Heatherton et al., 1991). The nondaily smoker sample was quite different. They reported that they were not addicted and justified their assessment by stating that they could quit whenever they want. In fact, our data indicated that the two groups were quite distinct, as average days smoked in past 30 among nondaily smokers was one third that of daily smokers, and their level of smoking on smoking days was one fifth that of daily smokers (2.26 vs. 11.48 cpd). Moreover, 70% of daily smokers endorsed smoking within 30 minutes of waking compared to 2% among nondaily smokers. Thus, this is in line with prior research indicating that they often do not consider themselves to be addicted (Gilpin et al., 1997) and tend to be more confident that they can quit (Gilpin et al., 1997). Unfortunately, the fact that they have difficulty quitting smoking and may demonstrate withdrawal, cravings, and other symptoms of addiction (DiFranza et al., 2007; Savageau et al., 2009; Ursprung & DiFranza, 2010; Ursprung, Morello, Gershenson, & DiFranza, 2011) brings into question whether they, in fact, are addicted. The finding that several of them reported choosing to smoke might indicate that they may have a positive perception of smoking and being a smoker. These phenomena warrant future investigation to inform more appropriate and precise measures of addiction or transition to addiction among nondaily smokers.

In regard to making a quit attempt, the overall differing themes that emerged among the nondaily and daily smokers warrant particular attention, as appropriate assessments of quit attempts among nondaily smokers have yet to be developed. Perhaps because nondaily smokers may have more specific situations in which they smoke and may smoke more due to external stimuli rather than physical symptoms (Tindle & Shiffman, 2011), nondaily smokers in this sample defined trying not to smoke in these circumscribed set of situations as “making a quit attempt.” Daily smokers reported not buying cigarettes during quit attempts, which may similarly be seen as avoiding triggers. However, given the more pervasive nature of daily smoking, avoiding triggers was more likely to entail avoiding having cigarettes available rather than avoiding the multiple inevitable triggers to their smoking. It is interesting to note that nondaily smokers were more likely to report that attempting to quit was a cognitive exercise rather than a behavioral exercise, such that making the decision to quit was the hallmark to a cessation attempt. In contrast, daily smokers reported that making behavioral movements toward cessation, specifically not buying cigarettes and reducing cigarette consumption over time, were markers of a quit attempt.

Finally, successful cessation was described differently between the two groups. While both indicated that losing the desire to smoke was a significant criterion, daily smokers more often used the word *craving* in this context. This may reflect their recognition of having that particular physiological dependence symptom at a greater intensity than nondaily smokers.

In fact, Ursprung and colleagues (2011) have documented a specific transition from wanting a cigarette to craving a cigarette that tends to occur as smokers increase their smoking frequency and cigarette consumption. Thus, it stands to reason that nondaily and daily smokers differ in their perceptions of their desire for cigarettes. Interestingly, nondaily smokers also reported that simply “making the decision” to quit was successful cessation, whereas this theme was not identified among daily smokers. This might reflect a lack of awareness of the difficulty in quitting smoking, particularly as smoking level and dependence increase. This may also partly explain why nondaily smokers, although more ready to quit and more confident that they can quit than daily smokers (Gilpin et al., 1997), have difficulty quitting smoking (DiFranza et al., 2007; Savageau et al., 2009). While both nondaily smokers and daily smokers alluded to time frames regarding when they would perceive themselves to be successfully quit, nondaily smokers tended to have a more limited time frame, usually framed in terms of specific situational triggers for smoking. On the other hand, daily smokers were more likely to indicate in general that a time frame was a critical factor, and they more frequently defined successful cessation as abstaining from cigarettes for a longer period of time. This may reflect a heightened awareness about the potential for relapse and their lower confidence in quitting compared to nondaily smokers (Berg et al., in press). Understanding how smokers, particularly nondaily smokers, perceive successful cessation is critical in our assessments, interventions, and clinical practice.

Implications for Research and Practice

Given that the definition of attempting to quit and successfully quitting was quite different between nondaily and daily smokers, additional research is needed to ensure that current measures of cessation accurately capture quit attempts and successful quitting among nondaily smokers. Moreover, our findings highlight specific intervention targets for nondaily smokers. Specifically, education about the potential trajectory of increasing smoking level over time and the low cessation rates among nondaily smokers may be effective in increasing their awareness of the difficulty of this process. In terms of practice, assessments of smoking behavior and perceptions of addiction, cessation attempts, and successful cessation must be developed and provided to clinicians. Doing so will allow clinicians to improve their assessments of these factors and more successfully intervene among young adults during clinical encounters.

Limitations

This study has some limitations. First, the survey sample from which the focus group sample was drawn was largely female, Caucasian, and drawn exclusively from Southeast colleges. Moreover, our response rate for the previous survey study from which focus group participants were recruited was 20.1%, which may suggest selection bias. However, previous online research has yielded similar response rates (29–32%) among the general population (Kaplowitz, Hadlock, & Levine, 2004), and a wide range of response rates (17–52%) among college students (Crawford, Mc-Cabe, & Kurotsuchi Inkelas, 2008). Even assuming that our sample does reflect the characteristics of the surveyed school populations, it may not generalize to other college populations. However, participants were recruited for focus groups to represent both genders, the two types of colleges, Black and White students, and nondaily versus daily smoking status. Thus, even though there are some limits to

generalizability of our findings, our sample does represent a breadth of college student smokers on some characteristics. Of important note is that these findings may not generalize to older populations; future research should explore these phenomena among older nondaily smokers. Another concern is our dichotomization of daily (all 30 days in the past 30 days) versus nondaily (<30 days in the past 30 days); however, none of the nondaily smokers smoked more than 25 days of the past 30. Moreover, our sample of daily and nondaily smokers were not perfectly matched on other dimensions (e.g., age, type of school attended) that might have influenced differing perceptions of addiction and cessation. Finally, we monitored reasons for nonparticipation and found that scheduling conflicts were the most common reason, which is common in focus group recruitment.

Conclusions

While the present findings indicated a similar general definition of general addiction among nondaily and daily smokers, these groups demonstrated qualitatively different perceptions of their own addiction and differing conceptualizations relating to how they define attempting to quit smoking and successfully quitting. The flexibility in how personal addiction, quit attempts, and successful quitting is defined among this population highlights the need to refine our clinic- and research-based assessments for smoking history, status, intentions to quit, and prior quit attempts. Once we are more adequately able to measure how different subpopulations of smokers conceptualize addiction, quit attempts, and successful quitting, we will also be more able to assess these factors in the context of interventions targeting cessation.

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Table 1

Focus Group Participant Characteristics

Variable	Total	Nondaily smokers	Daily smokers	<i>p</i> -value
	<i>N</i> (%) or Mean (<i>SD</i>)	<i>N</i> (%) or Mean (<i>SD</i>)	<i>N</i> (%) or Mean (<i>SD</i>)	
<i>N</i>	73 (100.0)	46 (73.0)	27 (37.0)	—
Sociodemographic variables				
Age (<i>SD</i>)	23.78 (4.60)	23.44 (5.41)	30.44 (10.44)	<.001
Gender (%)				.59
Male	27 (37.0)	17 (37.0)	10 (37.0)	
Female	46 (63.0)	29 (63.0)	17 (63.0)	
Type of school (%)				.02
4-year college	35 (48.0)	25 (56.8)	10 (34.5)	
2-year college	38 (52.0)	19 (43.2)	19 (65.5)	
Ethnicity (%)				.50
Non-Hispanic White	50 (68.5)	32 (69.6)	18 (66.7)	
Black	23 (31.5)	14 (30.4)	9 (33.3)	
Married or living with partner (%)				.003
No	48 (65.8)	37 (80.4)	11 (40.7)	
Yes	25 (34.2)	9 (19.6)	16 (59.3)	
Any children in the home (%)				.04
No	44 (60.3)	33 (71.7)	11 (40.7)	
Yes	29 (29.7)	13 (28.3)	16 (59.3)	
Days smoked in past 30 days (<i>SD</i>)	17.00 (12.57)	9.37 (9.58)	30.00 (0.00)	<.001
Average cpd on smoking days (<i>SD</i>)	5.67 (6.78)	2.26 (2.38)	11.48 (7.88)	<.001
Smoke within 30 mins of waking (%)				<.001
No	53 (72.6)	45 (97.8)	8 (19.6)	
Yes	20 (17.4)	1 (2.2)	19 (70.4)	
Past year quit attempt (%)				.39
No	38 (52.1)	25 (54.3)	13 (48.1)	
Yes	35 (47.9)	21 (45.7)	14 (51.9)	
Ready to quit in next 30 days (%)				.35
No	51 (69.9)	31 (66.7)	20 (74.1)	
Yes	22 (30.1)	15 (33.3)	7 (25.9)	

Table 2

Nondaily Versus Daily College Student Smokers' Conceptualizations of Addiction, Attempting to Quit, and Being Successfully Quit

Question	Sample quotations	
	Nondaily smokers	Daily smokers
What does it mean to be addicted?		
Physiological dependence	It is a substance you can't be without. You are out somewhere, and you have to find somewhere to smoke. That definitely is addictive is to me."	"I'd say when you get out of bed and you're in the bathroom using the restroom or brushing your teeth and you're thinking about going downstairs and smoking because you just woke up. I would say that's number one."
	"Yeah, a physical symptom, like if you get a headache because you haven't had a cigarette, then it's clearly a physical tendency."	
Psychological dependence	"Well, if you're doing it routinely, like at certain times of the day, you're almost like oh, I need that cigarette, then psychologically, you're wanting it, you're craving it. It's your brain and your brain is being programmed for that, so that's addiction. Even though you may be able to quit for a while, but then after 2 or 3 weeks you start back, that's addiction."	"I feel that I am, just because in my mind it's something for me to always be doing. It's the going through the motions. It's the calming or soothing effect of it that you become addicted to. It might not necessarily be the nicotine or whatever else is in cigarettes, but it's the feeling that you get from them."
	"I think when your mood changes because you haven't had a cigarette and you become on edge, cranky."	"It's not like I do it consciously, I actually do it subconsciously because it's just like a motion. I know I'm doing it, but I don't have to think about it; the motion is there. That's the addiction."
Inability to quit/lack of control	"When you can't stop, too. I think that's an addiction. You know you can't stop or you want to stop, but you can't. I think that's part of an addiction as well."	"If it controls you, if it tells you when to do something regardless of where you are or the situation you are in."
Do you think you are addicted?		
Ability to quit	"I definitely would have a problem with considering myself addicted because I know it's something I could stop." "I believe I can stop. If I'm addicted, then I believe that it would be hard for me to stop. I can go days without smoking, so it's not like I'm leaning towards always constantly wanting to smoke. I do want to smoke, but I don't believe that I'm addicted because I can stop."	Not mentioned.
Physiological dependence	Not mentioned.	"Because I crave them.... I'm addicted because I'm not satisfied until I have one and then after I have one, I'm satisfied."
Psychological dependence	Not mentioned.	"As crazy as it sounds, seriously, if I have a carton and I know I can't get any more after, when I get down to that last couple packs, I literally panic. If I know I'm not going to have cigarettes I panic. It's bad; it's really bad. You don't want me without cigarettes, I promise you that."
Volition	"I feel like I'm not addicted because I can stop myself at any time. I <i>choose</i> to smoke that cigarette. I can easily just say no, so I don't think I am."	"It kind of controls things, too. I go into panic mode so bad when I know I'm not going to have any that I cannot focus on anything else, other than how am I going to get cigarettes. I hate it, but I love smoking at the same time. It's hard to explain."
What does it mean to "try to quit smoking"?		
Situation/trigger avoidance	"Trying to quit would be not smoking all week and doing something else when I'm stressed. Doing	"Stop purchasing cigarettes. Not smoking them throughout the day, maybe at least trying to make it through the day."

Question	Sample quotations	
	Nondaily smokers	Daily smokers
	something else one day without smoking when I'm stressed is harder."	
	"Pretty much just not hanging around it, because if you put yourself in a situation.... If you go to parties all the time, it's just you're around cigarettes <i>and</i> alcohol and other stuff."	
Making the decision	"It's just a matter of me just deciding, and then being in those social environments where everybody's drinking, or if I have a craving, I just realize it's not worth it."	Not mentioned.
	"If I really wanted to quit, if someone offered me then I'd be no, I just want to stop. I guess learning how to, under situations or pressure, just to say no and not do it."	
Reducing consumption	Not mentioned.	"To try to quit would mean decreasing the amount of cigarettes you normally smoke in a day. Like if you normally smoked ten, smoking five. If you smoke every 2 hours, you're trying to smoke every 4 hours." "There are those little things where you don't even really need the cigarette but you have it. I would have to not allow myself to smoke in the car. That is a big one, especially when I am stuck in traffic all the time. There are those little things where you don't really need it, but the habit is there. I would have to kind of like put that out of my head."
What does it mean to have "successfully quit smoking"?		
No desire to smoke	"I guess just not have the desire and know that you're not going to do it moving forward."	"Not having any cravings. Not feeling the need to smoke."
	"Maybe not wanting to smoke when I'm in situations in which I smoked a lot previously."	
Making the decision	"Yeah, I think once you've made a mental decision that you aren't going to smoke a cigarette again, then you've quit."	Not mentioned.
	"When you just get to that point in your mind that you don't need this whatsoever, it's pointless, then that's when you know that you're not going to do it anymore."	
Time	"Like if I went drinking and I didn't smoke for a year or something. I don't know. I never really thought about that."	"Be smoke-free for a year." "When I get to the end of my life and haven't smoked." "I think a length for me, I think about 3 months. My roommate just quit smoking about 2 months ago. She doesn't feel like she has quit yet completely. I think it would be like more than that. Maybe like 3 or 4 months."