

Puffers vs. Smokers of a Whole Cigarette: Characteristics of Recent Cigarette Use Initiation among Youth



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Methods

- We analyzed data from the 2004 and 2006 National Youth Tobacco Surveys (NYTS)
- The NYTS is a national survey that aims to determine prevalence of youth tobacco use, attitudes and beliefs about tobacco use and the dangers of tobacco use
- Students interviewed are enrolled in grades 6-12 at public, Catholic, and non-Catholic private schools from all 50 states and the District of Columbia
- The sample supports national estimates by school level (grades 6-8 are middle school, grades 9-12 are high school), grade level, gender, and race-ethnicity
- Students identified as Hispanic, Black, or Asian were over-sampled

- In all, 54,971 1,857 students aged 12 to 18 years who participated in the 2004 and 2006 NYTS (n=54,971) started smoking <1 year at the time of the interview (initiates)

Results

- Most (72.7%) of the recent initiates tried a few puffs on a cigarette but did not smoke a whole cigarette (Table 1)
- Among initiates who smoked 1 whole cigarette or more (27.3%), a majority of them reported to have smoked 1 (25.9%) or 2 - 5 cigarettes (36.4%) in their entire lives since they started to smoke for the first time <1 year ago (results not shown). Among these initiates who smoked 1 whole cigarette or more, about 9% of them reported having smoked 100 cigarettes or more, which is the amount of cigarettes widely used to describe an established smoker among adults (results not shown)
- The most important factors that appear to distinguish adolescent puffers from smokers of a whole cigarette were age, sex, having friends who smoke, believing that people who smoke look cool, exposure to pro-tobacco ads and promotions, and the number of nicotine dependence symptoms (Table 2)
- The only non-biological predictor of progression to smoking multiple cigarettes in the year of initiation was having friends who smoke (Table 3)
- The number of nicotine dependence symptoms at interview, which likely has a biological component, also was a predictor of progression to smoking multiple cigarettes in the year of initiation (Table 3)

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
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Background

- In the United States, each year almost a million adolescents try cigarettes for the first time and about half a million start smoking
- Because adolescence is a developmental stage in which young people are vulnerable to initiate smoking, it is important to understand the patterns of use during these initial smoking experiences
- One challenge in understanding the process of initiation is that there is significant variation on how researchers have defined what constitutes smoking initiation
- Understanding the early development of cigarette smoking may be critical to differentiating between those that progress to regular smoking from those who tried a cigarette but did not continue to smoke

Aim

- To estimate to what extent puffers differ from those smoking a whole cigarette in the year of initiation

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Table 1. Descriptive Statistics for Puffers and Whole Cigarette Smokers who Initiated Smoking <1 Year, NYTS 2004 and 2006

VARIABLE	Puffers		Whole Cigarette Smokers	
	Number of participants	Percent*	Number of participants	Percent*
AGE				
- 12-14 years old	504	34.63	138	22.83
- 15-18 years old	831	65.37	384	77.17
SEX				
- Female	709	54.53	211	41.86
- Male	626	45.47	311	58.14
RACE/ETHNICITY				
- Non-Hispanic White	561	61.92	234	62.81
- Non-Hispanic black	279	15.78	94	14.46
- Hispanic	336	13.67	145	15.02
- Other	159	8.62	49	7.71
NUMBER OF NICOTINE DEPENDENCE SYMPTOMS				
- 0 nicotine dependence symptoms			428	81.48
- 1 nicotine dependence symptom	1,313	98.65	57	11.66
- 2 nicotine dependence symptoms	18	1.21	23	4.05
- 3 nicotine dependence symptoms	3	0.11	10	1.71
- 4 nicotine dependence symptoms	1	0.03	4	1.10
TOTAL	1,335	72.73	522	27.27

*Percentages adjusted using SUDAAN.

Table 2. Factors Associated with Puffing on a Cigarette Rather Than Smoking a Whole Cigarette among Initiates Ages 12-18 Years, NYTS 2004 and 2006

Correlate	OR	95% CI	p value
Age (years)			
- 12-14	1.00		
- 15-18	1.92	1.42-2.58	<.0001
Sex			
- Female	1.00		
- Male	1.73	1.29-2.32	<.0001
Race/ethnicity			
- Non-Hispanic White	1.00		
- Non-Hispanic black	0.94	0.65-1.36	.761
- Hispanic	1.04	0.75-1.46	.809
- Other	0.77	0.50-1.20	.249
Lives with a smoker?			
- Yes	0.97	0.72-1.31	.826
- No	1.00		
Missed school in past 30 days?			
- Yes	1.30	1.00-1.69	.053
- No	1.00		
Friends smoke cigarettes?			
- Yes	1.99	1.59-2.60	<.0001
- No	1.00		
Parents told him/her not to smoke?			
- Yes	1.00		
- No	0.91	0.71-1.16	.422
Thinks smoking makes you look cool?			
- Yes	2.21	1.53-3.19	<.0001
- No	1.00		
Exposure to pro-tobacco ads and promotions			
- Not at all or low	1.00		
- Moderately exposed	0.60	0.39-0.91	.016
- Highly exposed	0.66	0.44-1.00	.052
Number of nicotine dependence symptoms	7.64	4.84-12.04	<.0001

Note, OR, odds ratio.

Table 3. Factors Associated with Smoking 1 Whole Cigarette Rather Than 2 or More Whole Cigarettes among Initiates Aged 12-18 Years, NYTS 2004 and 2006

Correlate	OR	95% CI	p value
Age (years)			
- 12-14	1.00		
- 15-18	1.49	0.86-2.60	.157
Sex			
- Female	1.00		
- Male	1.03	0.63-1.66	.911
Race/ethnicity			
- Non-Hispanic White	1.00		
- Non-Hispanic black	0.92	0.50-1.70	.800
- Hispanic	1.02	0.61-1.72	.941
- Other	0.80	0.30-2.11	.647
Lives with a smoker?			
- Yes	0.89	0.56-1.42	.629
- No	1.00		
Missed school in past 30 days?			
- Yes	0.85	0.51-1.44	.545
- No	1.00		
Friends smoke cigarettes?			
- Yes	1.93	1.10-3.40	.023
- No	1.00		
Parents told him/her not to smoke?			
- Yes	1.00		
- No	0.88	0.56-1.37	.557
Thinks smoking makes you look cool?			
- Yes	0.73	0.42-1.29	.283
- No	1.00		
Exposure to pro-tobacco ads and promotions			
- Not at all or low	1.00		
- Moderately exposed	0.67	0.32-1.38	.277
- Highly exposed	0.72	0.36-1.46	.359
Number of nicotine dependence symptoms	2.21	1.27-3.83	.005

Note, OR, odds ratio.

Findings

- The influence of peers has been posited as the single most important factor in determining when and how cigarettes are first tried
- Puff topography studies, which measure the smoking inhalation patterns, have shown that an initial reaction to the first cigarette may be influential in promoting transitions to regular smoking
- Our data complement these studies in showing that peers also play an important role as well, thus highlighting the critical bio-psycho-social nexus that needs to consider multiple levels of influence in the etiological understanding of smoking

Recommendations

- Several programs and interventions have been implemented to prevent smoking initiation and to prevent triers to become regular cigarette smokers, among them mass media programming, cigarette counter advertising, and community-wide programs
- Interventions such as higher cigarette price increases, bans and penalties on sales of tobacco products to minors, bans or strong restrictions on cigarette advertising, sponsorship, and promotions (i.e., point of sale, smoking in the movies) that target or have an effect on youth, implementation of large pictorial warning labels on cigarette packs (warning labels on top of the pack, front and back, font size, color, rotation) as part of a larger comprehensive tobacco control initiative shall be effective to reduce youth and young adults' smoking initiation

