

Background

- Adolescents join community youth smoking cessation programs either by volunteering or after being mandated to participate because they violated local possession, use, or purchase ordinances.
- Community youth cessation programs are most often school-based programs. Some are offered as electives within the school day, after-school programs, or through community health agency programs.
- Little is known about the effects of required participation in smoking cessation programs. One study examined all types of restrictions¹, and a qualitative examination of minors in possession has been done².
- We hypothesized that voluntary and mandated participants come into smoking cessation programs with differing expectations and motivations.
- Using data from Phase II of the Helping Young Smoker's Quit (HYSQ) initiative, this paper describes the characteristics of participants that volunteered or were mandated to participate in the youth smoking cessation program.
- A complete description of Phase II of the HYSQ project can be accessed on the HYSQ website (www.HYSQ.org).

Methods

Participants

881 participants from 41 cessation programs completed baseline surveys indicating their daily activities, smoking behavior, and desire to quit smoking. For these analyses, 857 participants provided adequate data to be included.

Procedure

Prior to the first program session, participants completed a paper and pencil questionnaire that was administered by a study coordinator.

Important Measures

- Voluntary vs. mandated question:
Are you participating in this stop-smoking program because you want to or because you are being forced to participate? Voluntary/encouraged and forced/required
- Stages of change: *Considering quit in 6 months, Planning to quit in 30 days*
- Smoker identity: *I see myself as:* a non-smoker, smoke once in a while, regular smoker, an ex-smoker
- *How motivated to quit are you?* (0=not at all to 10= extremely motivated)
- Relative Intrinsic Motivation, Reasons for Quitting scale³, (1=not at all true to 5=extremely true) differential scores for intrinsic relative to extrinsic motivation to quit, higher scores being intrinsic motivation.

Analyses

Descriptive statistics (e.g., frequencies, means) were used first to examine participant's responses. A logistic regression model was developed to discriminate type of participant.

Program Characteristics

- 74% are located in urban counties
- 14% are located in counties with low socio-economic status (defined as >20% living below the federal poverty level)
- 81% offered services in a school-based setting
- 68% voluntary only, 7% mandated only, 24% both

Participant Demographics

Race/Ethnicity

- 1.6% Asian
- 1.6% American Indian/Alaskan Native
- 6% Black/African American
- 13% Latino/Hispanic
- 71.6% Non-Latino White
- 4% 2 or more of the above

Health behaviors

- 56% binge drank in the past month
- 41% trying to lose weight
- 59% exercise \geq once a month
- 26% daily depressive symptoms in the past 2 weeks

Table of Means & Cross-tabulations by Participant Category

	Volunteer	Mandated
Demographics		
Age	16.9	16.4**
Gender (female)	54%	36%**
Race (white)	71%	74%
Smoking behavior		
# of days smoked in last 30	22.2	22.7
# of cigarettes per day in last 30	7.67	7.82
Quit plans		
Considering quit in 6 months	81%	59%**
Planning to quit in 30 days	48%	29%**
Expect to smoke in 5 years	41%	50%*
# times ever tried to quit	3.84	4.24
Problem behaviors		
Any alcohol in past 30 days	71%	63%*
Ever suspended	68%	71%

The above data are adjusted.
**p<.01, *p<.05

Odds of Volunteering for a Smoking Cessation Program

Predictor	B(SE)	Odds Ratio (CI)
Constant	-2.4 (0.55)	NA
Voluntary only vs. Both/Mandatory program	1.86 (0.31)	6.39** (3.47- 11.79)
School vs. other setting	1.61 (0.32)	5.01** (2.68-9.36)
Age in years (centered at 17)	0.10 (0.09)	1.10 (.93-1.32)
Gender (female vs. male)	0.53 (0.18)	1.69** (1.19-2.40)
Race (other vs. white)	-0.01 (0.27)	0.98 (0.58-1.67)
Days smoked in past 30 (in days)	0.002 (0.01)	1.00 (0.98-1.02)
Stage of change		
Pre-contemplation	Reference	.
Contemplation	0.43 (0.27)	1.54 (0.91-2.60)
Preparation	0.42(0.32)	1.53 (0.82-2.85)
Action	2.05 (1.00)	7.78* (1.1-55)
Smoker identity		
Non-Smoker	Reference	.
Once in a while	1.34 (0.44)	3.83** (1.61- 9.11)
Regular smoker	0.56 (0.48)	1.76 (0.68- 4.52)
Ex-smoker	1.73 (0.64)	5.67* (1.62- 19.8)
Motivated (high vs. low)	0.56 (0.29)	1.76* (0.99- 3.1)
Relative Intrinsic Motivation	0.29 (0.09)	1.34** (1.11- 1.61)

A Logistic regression model was used to discriminate between membership in the voluntary versus mandated participant groups. A Generalized Estimating Equation approach for clustered binary data was taken in we took account for students clustered in programs (using Proc Genmod). The number of observations used for the procedure was n=851, due to missing data on the Smoker identity variable.
**p<.01, *p<.05

Summary of Results

Accounting for all relevant variables, **program volunteers** were more likely to:

- be female
- think of themselves as a "once in a while" smoker or an "ex smoker"
- be ready to quit, and be in the "action" stage of change
- report a higher motivation to quit
- have higher relative intrinsic motivation to quit

Discussion

- The most prominent differences between voluntary and mandated participants in community based youth smoking cessation programs were in their **motivation and readiness to quit**.
- Notably, the participants **did not differ in the amount or frequency that they smoked**, in the number of times they had tried to quit, or in problem behaviors such as having ever been suspended.
- This project informs how youth mandated into smoking cessation programs differ in motivation from volunteers, and how **readiness to quit and differing motivations of participants** need to be considered by program designers.
- The next step of this project is to examine **actual quit rates at the end of program and a 12 month follow-up**.
- In the **upcoming longitudinal analyses**, we hypothesize that as volunteer participants have greater intrinsic motivation to quit and readiness to quit, they would have **higher quit rates after 12 months** relative to the mandated participants.

References

1. Wakefield M, Chaloupka F, Kaufman N, Orleans CT, Barker D, Ruel E. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: cross sectional study. *British Medical Journal*. 2000;321:333-337.
2. Loukas A, Spaulding C, Gottlieb N. Examining the perspectives of Texas minors cited for possession of tobacco. *Health Promotion Practice*. 2006;7(2): 197-205.
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Obtain a complete description of HYSQ, a copy of this poster, and other HYSQ findings on our Web site at: www.HYSQ.org