

# Factors Associated with Desires to Use Smoking Cessation Medications among Chinese Americans

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## Background

- Use of smoking cessation medications, particularly nicotine replacement therapy (NRT), increases smoking cessation success (Stead et al., 2008).
- Underuse of NRT has been documented particularly among smokers of ethnic minority groups (Fu et al., 2007).
- Population studies have shown that very few (< 4%) Chinese American smokers report using NRT to quit smoking (Carr, Beers, & Chen, 2005).
- Former Chinese American smokers perceived NRT was unhelpful but reasons for such perception are not known (Spigner, Yip, Huang, & Tu, 2007).

## Objectives

- To describe desires to use medications (e.g. NRT) to quit or reduce smoking among Chinese American participants in a smoking cessation trial
- To examine factors associated with the desire to use smoking cessation medications among these smokers

## Methods

- Participants (N=482) were recruited by media ads (TV, radio, newspaper, and Internet)
- Eligibility criteria: ages 18+, CA resident, smoked 5+ cigarettes/day, reads/speaks Chinese or English
- Survey administered by telephone or Internet in Chinese or English between April 2007 and June 2008



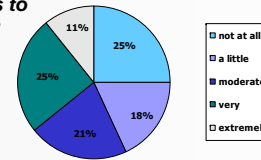
- Variables (from screening questionnaire): Demographics (gender, age, estimated household income, language preference); Smoking rates; Readiness to quit smoking (stages of change); Intention to reduce smoking; recent quit attempts; Use of prescription or OTC medications; and Desire to use medications (e.g., NRT) to quit or reduce smoking
- Data Analyses: Frequencies; Pearson chi-square tests; and Multiple logistic regression analysis to identify factors associated with the desire to use smoking cessation medications
- Participants Characteristics (N = 482)

Female	15%	Used Rx/OTC medications	27%
Age		# cigarettes smoked daily	
	18-24 13%	5-9	32%
	25-44 39%	10-19	38%
	45-59 38%	20+	30%
	60+ 11%		
Household income		Readiness to quit smoking	
	≤ 40K 21%	Precontemplation stage	10%
	40-59K 45%	Contemplation stage	56%
	≥ 60K 34%	Preparation stage	34%
Language preference*		Very motivated to reduce smoking within 30 days	35%
	English 13%	Had at least one 24-hr quit attempt in past year	58%
	Mandarin 59%		
	Cantonese 43%		

\*Participants may indicate preference for multiple languages.

## Results

- Desire to use medications to help reduce or quit smoking (N = 482)



- Characteristics by desire to use smoking cessation meds

row percent	Desire to use medications*		p-value
	Low (n=202)	High (n=280)	
Non-Cantonese language preference	38%	62%	0.03
# cigarettes smoked daily			.09
	5-9 49%	51%	
	10-19 37%	63%	
	20+ 41%	59%	
Stage of change – Precontemplation	65%	35%	<0.01
Contemplation	39%	61%	
Preparation	42%	58%	
Had ≥ 24-hr quit attempt in past year	46%	54%	0.06
Very motivated to reduce smoking	32%	68%	<0.001
Use of Rx / OTC medications	35%	65%	0.08

Note: \*Low = not at all/little vs High = moderately/very/extremely  
The groups were otherwise similar ( $p > 0.10$ , e.g., in gender, age, and income).

- Multiple logistic regression analysis: Factors associated with desire to use smoking cessation medications (n = 454)

Variables	Adjusted Odds ratio (95% CI)
Female (ref: male)	2.4 (1.3 – 4.4)
Age	1.0 (0.99 – 1.0)
Below median income (ref: above median)	1.5 (1.02 – 2.3)
Non-Cantonese preference (ref: Cantonese)	1.9 (1.3 – 2.9)
Smoking rates (ref: 5-9 cigarettes/day)	
	10-19 1.8 (1.1 – 3.0)
	20+ 1.3 (0.8 – 2.2)
Stage (ref: Precontemplation)	
	Contemplation 2.9 (1.4 – 6.3)
	Preparation 2.7 (1.2 – 6.3)
Had ≥ 24-hr quit attempt past year (ref: none)	0.7 (0.4 – 1.2)
Very motivated to reduce smoking (ref: less)	2.4 (1.6 – 3.6)
Use of Rx/OTC medications (ref: no use)	1.5 (0.9 – 2.4)

Note: Model chi-square = 59.9, df = 11,  $p < 0.001$ ; Hosmer and Lemeshow goodness of fit test,  $p = 0.81$ .

## Conclusions

- More than half (57%) of Chinese Americans surveyed desired to use smoking cessation medications.
- Chinese Americans who smoked moderately (10-19/day) or intended to quit / reduce smoking were more likely to desire to use smoking cessation medications.
- After adjusting for smoking-related characteristics, Chinese Americans who desired to use smoking cessation medications were likely to be females, have lower income, and prefer to speak English or Mandarin.
- Smoking cessation interventions targeting Chinese Americans should attempt to increase desire to use smoking cessation medications among Cantonese speakers, men, heavy (>20/day) smokers, and those who were less motivated to quit or reduce smoking.
- Despite low use of NRT among Chinese Americans was documented in previous studies, smoking cessation medications should be made available to those who are motivated to quit (i.e., in contemplation and preparation stages).

## References

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