

SMOKING CESSATION PREFERENCES AMONG A PRIMARILY HISPANIC STUDENT POPULATION

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Abstract

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Light, nondaily smoking has been found to be more common in Hispanic populations than in any other ethnic group including non-Hispanic whites (Kandel & Chen, 2000). It has also been found that light smokers are common among college populations (Wechsler, Rigotti, Gledhill-Hoyt, & Hill, 1999).

This study examined baseline cessation preferences and their relationship to quit status at one month follow-up of participants in StopLite, a brief light smoking intervention for university students presenting at the campus health center. Smoking inclusion criteria were at least one cigarette per month but fewer than 10 cigarettes per day. Participants ($N=250$) completed measures assessing demographics and smoking cessation preferences at baseline, as well as smoking related attitudes and behaviors at baseline and a one month follow-up. The average age of participants was 22.54 years ($SD=5.62$), and 90% of the sample was Hispanic. 41.2% smoked at least one cigarette per day and averaged 3.80 cigarettes daily ($SD=4.74$). Results suggest that participants' preference for any cessation assistance was relatively low; however, participants preferred to use self help methods ($M=3.32$, $SD=1.95$), internet programs designed to help quit smoking ($M=2.60$, $SD=1.81$), and one on one counseling sessions at the university health center ($M=2.51$, $SD=1.60$). Behavioral cessation preferences were not associated with one month quit status; however, quitters at the one month follow-up were systematically more likely to rate nicotine replacement use lower than continuing smokers ($p < .05$).

Introduction

- It has been shown that college-aged individuals are more likely to begin and continue smoking (Rigotti, Lee, & Wechsler, 2000), and are more likely than adults to switch between light and daily smoking (Wetter et al., 2004). Individuals between the ages of 18 and 24 are more likely than other age groups to smoke (Centers for Disease Control and Prevention, 2004).
- Both college students and Hispanics have been found to smoke less than the general population, and both groups demonstrate a desire to quit. Hispanics have been found to try to quit smoking more often than their White counterparts (DeBernardo, Aldinger, Dawood, Hanson, & Rinaldi, 1999).
- Smoking cessation efforts frequently exclude light smokers, and this growing population is often overlooked in studies that research the effectiveness of smoking cessation interventions. Understanding how to help light smokers quit smoking is an important public health concern that warrants assessment (Okuyemi, Ahluwalia, Richter, Mayo, & Resnicow, 2001).
- Though for cessation combination counseling and pharmacotherapy strategies are recommended (Fiore et al., 2000), NRT may escalate levels of nicotine in light smokers who often smoke less from addiction than other factors (Sargent, Mott, & Stevens, 1998).
- Other studies have also found that Hispanic smokers often make unassisted quit attempts and have negative views of nicotine replacement (Levinson, Pérez-Stable, & Espinoza, 2004).
- *Clinical Practice Guidelines* recommend the tailoring of cessation interventions to specific populations (e.g., ethnic cultural groups; Fiore et al., 2000); thus, assessing preferences for cessation assistance is needed to develop effective interventions for light smoking and/or Hispanic populations, as such collaborative techniques have demonstrated cessation promotion (Spath, Redmond, & Shin, 2001).

Aims and Hypotheses

- AIM 1)** To assess smoking cessation preferences at baseline in a group of light smokers.
- Hypothesis 1)** Behaviorally based strategies will have higher preference ratings than pharmacologically based ones.
- AIM 2)** To assess the relationship between baseline cessation preferences (both behavioral and pharmacological) and quit status at the one-month follow-up.
- Hypothesis 2)** Those who quit smoking will demonstrate a preference for behavioral interventions compared to those who did not quit smoking one month post intervention.

Method

Participants

250 college students on the university's campus.

- 90% of sample was Hispanic.
- The average age of the participants was 22.29 ($SD = 4.86$).
- The average number of cigarettes smoked daily was 3.80 ($SD = 4.74$).
- 52.8 % male participants; 47.2% female participants.
- 41.2% smoked at least one cigarette per day.

Measures

- Demographics Questionnaire.
- Tobacco Use Behaviors and Attitude questionnaire: Assesses frequency and amount of cigarette use, prior cessation attempts and tools used, as well as tobacco cessation preferences. All questions were on a Likert type scale with "1" being not at all likely to "6" being very likely.

Procedure

- Informed consent was obtained.
- Participants completed surveys and were given a brief light smoking intervention that included carbon monoxide feedback, motivational enhancement, and the promotion of accessing social support.
- Participants received a \$10 online gift card at completion.
- Participants completed all measures with the exception of demographics again at a one-month follow up through e-mail, phone or regular mail.
- After completing the one-month follow up they received another \$10 online gift card.

Approach to Analyses and Results

- Overall ratings of any type of cessation method were low.
- Self-help methods ($M = 3.32$, $SD = 1.95$) were rated highest followed by internet programs designed to help quit smoking ($M = 2.6$, $SD = 1.81$), and one on one counseling at the university health center ($M = 2.51$, $SD = 1.60$).
- An intent to treat analysis was performed and a 13% quit rate was shown at the one month follow-up.
- Independent t tests were conducted to assess differences between quitters and non-quitters on preferences for behavioral cessation methods and pharmacological methods. Error control was used (.025).
- Behavioral cessation preferences were not associated with one month quit status.
- Quitters at the one month follow-up were systematically more likely to rate nicotine replacement use lower than continuing smokers ($p < .05$).
 - Nicotine gum $t(182) = 2.344$, $p < .025$
 - Nicotine patch $t(182) = 2.596$, $p < .025$
 - Nicotine nasal spray $t(182) = 3.142$, $p < .01$
 - Nicotine inhaler $t(182) = 3.058$, $p < .01$

Figure 1: Cessation Preferences at Baseline

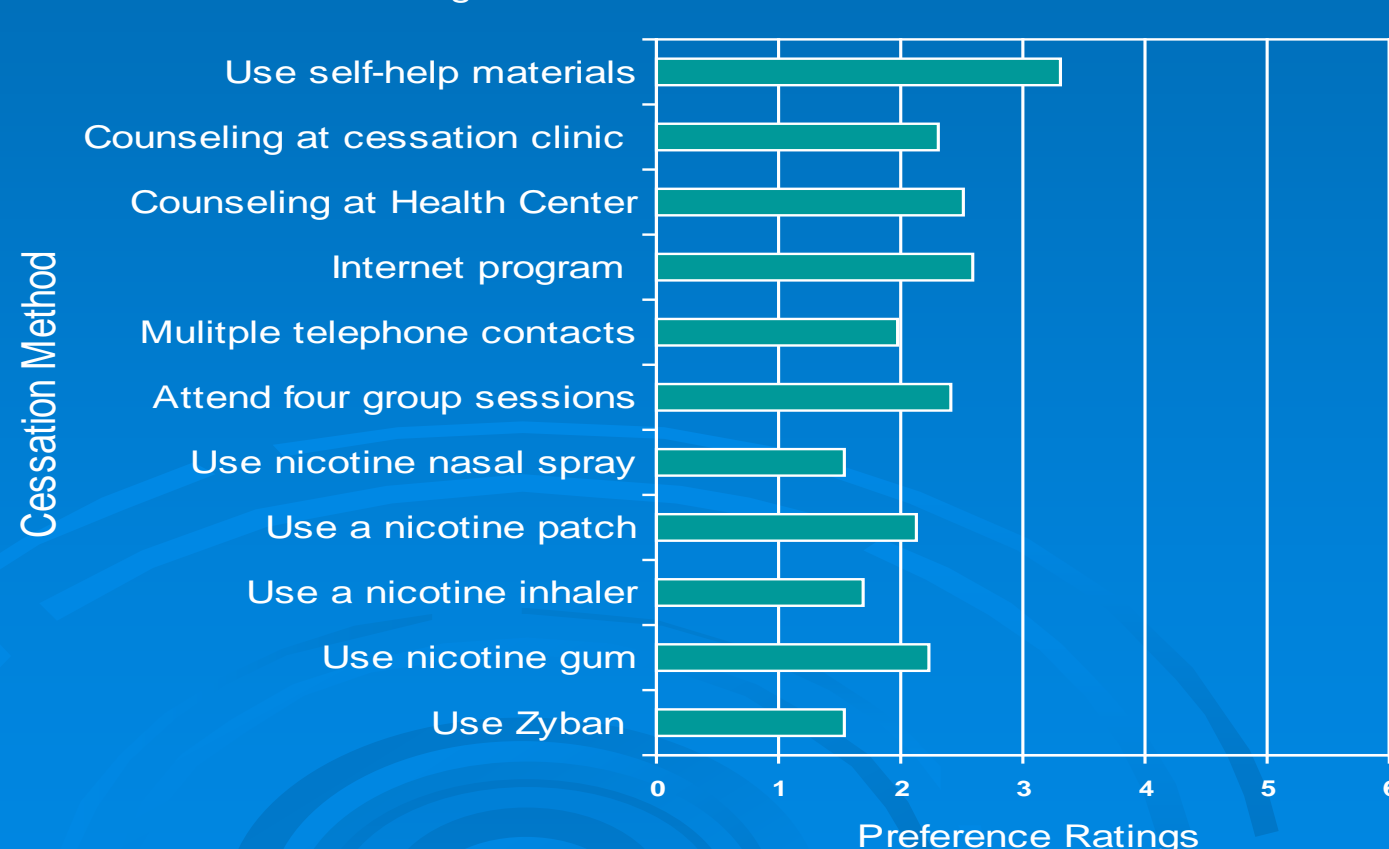
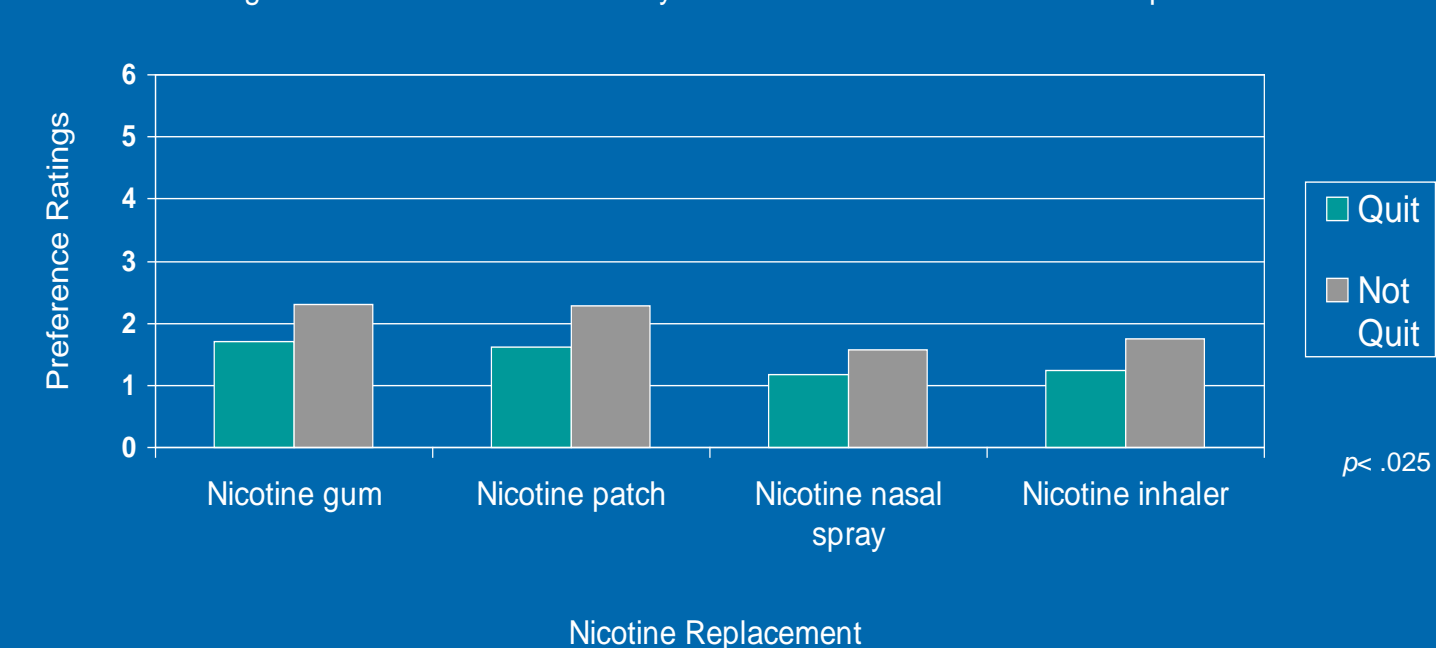


Figure 2: Baseline Preferences by Quit Status at One Month Follow-up



Discussion

- Consistent with hypotheses, behavioral cessation assistance methods were ranked more highly than pharmacological forms of assistance. This finding is consistent with past studies suggesting mistrust and reticence of NRT use on the part of Hispanics (Levinson et al., 2004) and is also consistent with past studies in this population (Rodríguez, Johnson, Venegas, & Cooper, 2006).
- Of surprise, all methods of cessation assistance were rated relatively poorly, indicating that participants may be less likely to proactively seek cessation services, whether behavioral or pharmacological. It may be that light smokers' tendency to not self identify as smokers (Rodriguez et al., 2006) leads to the perception that assistance with cessation is not only unwanted but unnecessary.
- Also inconsistent with hypotheses, one-month quitting was not associated with behavioral cessation preferences; rather quitting at the one-month follow-up was associated with poorer ratings of NRT compared to continuing smokers. One possible explanation is that light smokers who express poor ratings of nicotine replacement are more motivated to quit smoking via a behavioral program to avoid the possible necessity of future NRT use.
- Alternatively, it may be that exchanges during the intervention regarding the inappropriateness of NRT use for light smokers may have prompted recognition in participants to quit smoking before use rates escalate.
- Future interventions with light smokers should take into account reticence of use of any cessation assistance, as well as the possibility that resistance to using pharmacotherapy may be a potential health education / motivational tool to encourage cessation.

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Acknowledgements

- This research was supported A Smoke Free Paso del Norte grants: 26-8112-66 and 26-8112-75
- Portions of this work were supported by the NIMH M-RISP Grant No. 5 R24 MH47167-15.