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Original Research Paper

Integrative tobacco cessation: A survey assessing past quit strategies and future interest

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ABSTRACT

Purpose: Tobacco cessation remains a public health priority. Unassisted quits are most common despite evidence for a combination of guideline-recommended strategies. This paper reports findings from a pilot study designed to assess past quit strategies and tobacco users' receptiveness to using an integrative clinic that offers both conventional and alternative treatments for future cessation attempts.
Methods: Participants were recruited from a pool of individuals reporting for jury duty. Paper–pencil surveys assessed smoking, past cessation behaviors, and interest in use of the integrative clinic which offers both conventional and alternative treatments. Current and former smokers ($n = 304$) returned surveys.
Results: Using multivariate logistic regression, past physiological quit strategies, past behavioral quit strategies, and use of multiple quit strategies increased agreement with interest in future use of an integrative clinic option. Additionally, there is support for the notion that if such a clinic were offered, smokers may be inclined to use this resource for a future quit attempt.
Conclusions: An integrative clinic option for tobacco cessation may encourage smokers to try to quit, especially for those who have used varied cessation strategies in the past. Motivating smokers to use a combined approach for tobacco cessation is a potential future direction for tobacco cessation treatment. Developing and testing an integrative approach may support this effort.

What is already known about the topic?

- Tobacco cessation remains a public health priority.
- Despite an increase in available treatment options, most tobacco quit attempts are unassisted.
- Combinations of tobacco cessation treatments, including complementary and alternative approaches, are understudied

What this paper adds?

- Tobacco users have used a variety of options for past quit attempts.
- Integrative treatment options may encourage tobacco users to seek quit assistance.

1. Introduction

Smoking cessation approaches such as pharmacotherapy, structured behavioral intervention, self-help resources, quitlines, and complementary and alternative medicine (CAM) approaches have increased in variety and availability since bupropion was first released in the US in 2000 [1]. Accessibility and cost of treatment options vary by state, however, free telephone quitlines are available in each state [2], and an increasing number of tobacco cessation services are covered by private, state, and federal insurance providers for free or at a lower cost following the inception of the 2010 Affordable Care Act (ACA) [3]. The Centers for Disease Control and Prevention (CDC) reports approximately 20% of the population continues to smoke [4] and there are approximately 400,000 smoking-related deaths each year [4]. Prevalence of smoking is higher in men (21.5%) than women (17.3%), and adults aged 25–44 years have the highest prevalence of smoking among age groups [5]. Large disparities in tobacco use remain across groups defined by race and ethnicity, educational level, socioeconomic status and across regions of the country. Among racial/ethnic populations, non-Hispanic American Indians/

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Alaska Natives had the highest prevalence (31.4%), followed by non-Hispanic whites (21.0%) and non-Hispanic blacks (20.6%) [5]. Smoking prevalence generally decreased with increasing education and was higher among adults living below the poverty level (28.9%) than among those at or above the poverty level (18.3%) [5].

Most smokers (70%) report a desire to quit [6], however, only 40% report a 24-h quit attempt per year [6,7]. Annually, approximately 2–3% of smokers quit successfully, but for those who relapse, almost two-thirds want to try quitting again within 30 days [1]. Despite the increased availability of free or low cost therapies, usage rates are low and relapse rates are high. Hughes et al. [8] report 72% of quit attempts do not use treatment-based approaches, and unassisted quitters typically relapse within 8 days. In the US, a mere 16% of smokers who tried to quit in the past year used cessation medication [9].

The U.S. Public Health Service (PHS) evidence-based practice guidelines for tobacco cessation [1] are periodically updated to maximize clinician delivered intervention efforts. The evidence to date indicates quit attempts increase with practitioner and health provider contacts [1], and a review of 41 studies indicates that abstinence is best achieved with the combined use of pharmacotherapy (e.g. nicotine replacement therapy, bupropion, varenicline) along with 4–8 weeks of behavioral intervention [10]. Transitioning smokers who typically choose unassisted quits, or a "cold-turkey" strategy, toward quitting using combined evidence-based treatment approach remains a challenge [1,9].

Currently, it is unclear how often single quit strategies or combinations of strategies are used during quit attempts [11], and whether CAM is or is not included along with conventional cessation approaches. CAM treatments for smoking cessation have been investigated with mixed results [12,13], however, there is very little information about whether or not adjuvant use (e.g. massage for stress relaxation) is used during a quit attempt. Quit attempt history-taking in research studies typically queries how many, if any, quit attempts were made in the past year or more, but we have not uncovered any literature describing whether or how often tobacco users change strategies from one quit attempt to the next.

Given the evidence that combined treatment strategies are the most promising for prolonged tobacco cessation, there is a need to deliver integrated, individualized treatment options. Within a clinical setting, physicians are trained to deliver brief interventions (e.g., 5 A's) to smokers within their practice. Integrative clinics could provide cessation and relapse prevention services, combining conventional medical and behavioral options, and potentially include supportive CAM options, such as massage for stress-reduction. Prior to launching these enterprises, it is important to assess how receptive tobacco users' will be to an integrative tobacco cessation approach, what factors are related to their interest, and determine whether this opportunity might increase motivation for a quit attempt in current smokers. The purpose of this pilot study was to assess past tobacco cessation strategies and interest in utilizing an integrative tobacco cessation clinic in a sample of current smokers.

2. Method

2.1. Participants

Adults selected for jury duty in a southwestern county in Arizona during a one-month period in 2006 were eligible and thus recruited for the study. Study staff attended several morning and afternoon jury calls over the course of several days. Participants were asked to complete a one-page survey (paper–pencil) asking about past smoking behavior, cessation attempts, and attitudes toward future treatment options. They filled out and returned the survey while in the main waiting area of the jury pool reporting room. The survey took approximately 5 min to complete, however due to court activity, some people could not return the survey before they were called to service. Data was entered by study staff at the end of data collection. The study was approved by the University of Arizona Institutional Review Board as an anonymous survey. A total of 423 people returned the survey to research staff. Each session had an average response rate of 33% per court session, with sessions ranging from 10–73% completion.

2.2. Measures

Demographics (age, education, gender, race), current smoking status and quit attempts in the past year were self-reported. Participants were asked to indicate if they previously used 28 specific strategies to quit or cut down on smoking in the past, and whether or not they agreed or disagreed with four questions regarding an integrative clinic that used "both conventional and alternative/complementary quit smoking treatments". The questions asked if an integrative clinic were available, would they be "more likely to quit", "would choose that type of clinic", and if their "use would depend on cost". Participants indicated if they strongly disagreed, disagreed, agreed, or strongly agreed with each statement.

Past quit strategies were divided into five pre-determined categories: physiological, behavioral, CAM, multiple strategies, and no strategy. Participants could also select they quit or cut down 'on their own' and not endorse any of the listed strategies. Physiological strategies included aversion therapy, bupropion, and nicotine gum, inhaler, lozenge, nasal spray and patches. The data collection was conducted prior to FDA approval of varenicline for smoking cessation. Behavior focused strategies included cessation counseling, stop smoking classes, telephone quitlines and other self-help materials including stop smoking web sites. CAM strategies included acupuncture, Ayurveda, biofeedback, chelation, chiropractic, dietary supplements, energy healing, folk medicine, herbs, homeopathy, hypnosis, massage, meditation, naturopathy, and yoga. 'Multiple strategies' indicates if a participant listed two or more of the above categories. The 'no strategy' category indicates the participant selected none of the 28 treatments to quit or cut down in the past. In total, six categories were analyzed: on their own (only), physiological, behavioral, CAM, multiple strategies, and no strategy. Categories are not mutually exclusive, thus each was analyzed separately.

2.3. Analysis

Data were summarized and comparisons between current and former smokers were made using appropriate Chi-square and *t*-tests. Multivariate logistic regression models using Stata 12.1 (StataCorp, College Station, TX) were used to determine the characteristics associated with interest in trying an integrative treatment approach in the future for tobacco cessation. The three integrative clinic questions (likely to quit smoking, choose that kind of clinic, use would depend on cost) served as the dependent variables. Responses were converted to a binary format (agree/disagree) from the 4-point scale to use in the logistic regression, enabling us to compare answers from those who agree with the statement, to those who disagree with the statement (referent group). Demographic variables (age, gender, race, education), type of smoker (current or former), and previous cessation strategies were included in the model. Of the demographic variables, age was continuous, gender was coded "1" for male and "0" for female, race was coded "1" for Caucasian and "0" for other race and ethnicity, and education is coded "1" if participants report attending at least some college and "0" for a high school education or less.