



Financial versus health motivation to quit smoking: A randomized field study

Jody L. Sindelar^{a,*}, Stephanie S. O'Malley^b

^a Yale School of Public Health, Yale School of Medicine, P.O. Box 208034, New Haven, CT 06520-8034, USA

^b Yale Department of Psychiatry, Yale University School of Medicine, 34 Park Street, New Haven, CT 06519-1187, USA

ARTICLE INFO

Available online 16 October 2013

Keywords:

Smoking
Smoking cessation
Financial incentives
Message framing
Behavioral economics low-income
Disparities

ABSTRACT

Objective. Smoking is the most preventable cause of death, thus justifying efforts to effectively motivate quitting. We compared the effectiveness of financial versus health messages to motivate smoking cessation. Low-income individuals disproportionately smoke and, given their greater income constraints, we hypothesized that making financial costs of smoking more salient would encourage more smokers to try quitting. Further, we predicted that financial messages would be stronger in financial settings where pecuniary constraints are most salient.

Methods. We conducted a field study in low-income areas of New Haven, Connecticut using brochures with separate health vs. financial messages to motivate smoking cessation. Displays were rotated among community settings—check-cashing, health clinics, and grocery stores. We randomized brochure displays with gain-framed cessation messages across locations.

Results. Our predictions were confirmed. Financial messages attracted significantly more attention than health messages, especially in financial settings.

Conclusions. These findings suggest that greater emphasis on the financial gains to quitting and use of financial settings to provide cessation messages may be more effective in motivating quitting. Importantly, use of financial settings could open new, non-medical venues for encouraging cessation. Encouraging quitting could improve health, enhance spending power of low-income smokers, and reduce health disparities in both health and purchasing power.

© 2013 Elsevier Inc. All rights reserved.

Introduction

Smoking is the leading, preventable cause of death. The harms of smoking fall disproportionately on individuals with low education and low income. This occurs both because 1) average smoking rates are disproportionately high among low-education and low-income populations (Agrawal et al., 2008; Flint and Novotny, 1997; Stead et al., 2001) and 2) smoking can be not only a health problem, but a financial drain for low-income individuals. Low-income smokers give up relatively greater proportions of other goods and services to buy cigarettes. A cigarette pack in 2012 can cost over \$8.23 in Connecticut and \$12.50 in New York City (Boonn, 2013; Hickey, 2012). For a pack-a-day smoker paying \$8.23 per pack, quitting could save over \$3000 per year, money which could be used to buy other items (Busch et al., 2004; Wang et al., 2006; Xin et al., 2009).

The combination of lack of access to cessation advice in the medical arena and the important financial aspects of smoking suggests that alternative venues for providing messages to motivate cessation and new ways to make the message more effective are needed. Specifically, we suggest that approaches to make the current and cumulative costs

of tobacco salient might be effective for motivating low-income smokers to quit. In addition, providing the message about the financial costs of smoking in check-writing locations, banks, and even grocery stores, when smokers are concerned about their finances, might enhance the impact of the message. That is, location can 'prime' (to use a term from psychology) smokers to focus on their financial concerns and the costs of smoking which might enhance the effectiveness of a financial message to quit. More effectively encouraging quitting for low-income smokers would not only improve their health, but also enhance their spending power and reduce disparities in both health and purchasing power.

We hypothesized and tested that making the financial costs of smoking more salient would encourage more smokers to consider quitting; and that financial messages to quit would be more effective than health messages, especially for low-income individuals. Further, we hypothesized that financial messages would be even stronger when financial constraints are most salient. Reasons include the following.

Greater immediacy and certainty of financial gain

Smokers, especially low-income smokers, may consider health benefits from quitting too distant and uncertain, i.e., they might, or might not, suffer from future tobacco-related disease. In contrast, financial savings from not purchasing cigarettes are immediate and certain.

* Corresponding author.

E-mail addresses: jody.sindelar@yale.edu (J.L. Sindelar), stephanie.omalley@yale.edu (S.S. O'Malley).

Gains in purchasing power

Poorer individuals have more to gain in relative purchasing power from quitting than wealthier individuals. Spending over \$3000 a year on tobacco can crowd-out spending on necessities for low-income individuals (Busch et al., 2004; Wang et al., 2006; Xin et al., 2009).

Evidence money motivates quitting

Empirical support that financial incentives encourage quitting comes from a variety of studies. Tobacco taxation studies show significant decline in purchases with higher tobacco taxes and prices (Chaloupka and Warner, 2000; Gallet and List, 2003). Contingency management and other studies show that small financial payments can reduce smoking rates (Higgins et al., 2012; Lussier et al., 2006; Sigmon and Patrick, 2012; Volpp et al., 2006, 2009). “Quit-and-Win” contests have successfully used financial incentives to encourage quitting; smokers are eligible to win a monetary prize through lottery drawings if they promise to quit for a specified time, actually quit, and send in their entry form (Hahn et al., 2004; Hey and Perera, 2005; O'Connor et al., 2006). Finally, recent evidence suggests that making opportunity costs of a choice more salient can change behavior (Frederick et al., 2009). While this evidence was tested in other domains, it may generalize to purchasing tobacco.

Health risks well-known; financial impacts less emphasized

Through cigarette warning labels, public health announcements, and other approaches, smokers are continuously reminded of health risks (USDHHS, 2000). While health messages have been effective, low-income individuals still smoke at above average rates. Emphasis on financial costs of smoking has not been a major part of public messages and thus may have greater impact, especially on those with considerable financial constraints.

Findings from our randomized field study support our hypotheses and in turn suggest ways of expanding the provision and effectiveness of smoking cessation motivation.

Methods

We conducted a ‘message framing’ field study among low-income populations in inner-city New Haven, CT between December 2008 and February 2009. To test the impact of financial versus health messages to motivate smoking cessation, we placed smoking cessation brochures with each message type in three types of settings: check-cashing stores, health clinics and grocery stores. The two message types were rotated across location types. We used location as the prime for receptivity to the message. Our primary outcome measure was how many brochures were picked-up by brochure and location type.

Message

We developed and rotated two sets of two brochures with both visual and written messages to motivate quitting: one set emphasized health impacts of quitting and one emphasized financial impacts. We used two sets of each type to enhance generalizability. Messages were gain-framed—the focus was on benefits of quitting rather than risks of not quitting. Gain-framed messages have been found more effective in reducing smoking (Rothman et al., 2006; Toll et al., 2007, 2010). Health brochures were titled “Quit Smoking and Get Healthy” and financial brochures were titled “Quit Smoking and Save Money.” Each had specific information on either health or financial gains achievable over a day, week, and year.

We followed well-developed methods of message-framing to enhance validity (Rothman et al., 2006; Schneider et al., 2001; Toll et al., 2007, 2010). To ensure that messages were salient for our target populations, we conducted five focus groups (in English and Spanish) to select the most compelling brochures. We also conducted qualitative tests to ensure the final sets were similarly professional, motivating, eye-catching, easy-to-understand, and of comparable impact (Wells and Windschitl, 1999). Our final brochures were

similar in basic design, approach, colors, size, professional printing—except for focusing on either health or finance. Brochures were displayed in English and Spanish. The English versions are provided as Supplementary materials.

Inside each brochure were: informed consent information, an opportunity to request a smoking cessation quitline call, and ‘Quit-and-Win’ contest information.

Sites and sample

Inner-city New Haven is divided into ‘empowerment’ zones, each having poverty rates of over 25%; higher-than-average smoking rates of 31%, compared to the national average of 20% (Community Alliance for Research and Engagement (CARE), 2000, unpublished); and populations with high rates of ethnic and racial minorities, primarily African-American and Hispanic. In each zone, we selected three sites to display brochures, one each: financial (check-cashing stores), health (clinics), and neutral (grocery stores). In grocery stores, people are concerned about both finances and health (e.g. nutrition). Check-cashing stores served as our financial sites; banks were generally not located in these zones. Thus, 12 sites in four zones were equally divided between check-cashing institutions, health clinics, and grocery stores. These 12 sites participated over the eight-week study period, yielding 96 week-site opportunities to collect data.

Randomization

We alternated displays of financial and health message brochures at each financial, health, and neutral site weekly with brochures displayed prominently to ensure greatest exposure to foot-traffic. Displays of message type were randomly assigned with full saturation of the options. That is, we randomized the two matching sets of health and financial messages across the 12 locations over eight weeks. During the eight weeks, each of the 12 sites had each of the four different visuals (two financial and two health) displayed twice, with each display period lasting one week. Randomization was used to ensure similar foot-traffic across message type, location type, and week. By rotating across messages and sites, we exposed populations similar in size and type to both health and financial messages.

Contest

We utilized a “Quit-and-Win” lottery to encourage smokers to quit smoking and to obtain an additional data source. We placed contest information inside the brochures to prevent the contest from contaminating the exterior displayed message. Smokers who entered the contest and quit were eligible to win \$500 if their name was selected; a Breathalyzer CO test was used to confirm smoking cessation for winners.

Outcomes

The primary outcome was the number of brochures picked up by message type. When we replaced brochures weekly in each location (no sites ran out), we counted the number of brochures picked up the prior week by message type and site. This measure proxies for interest in the message, and likely interest in trying to quit. Similarly, picking up a financial message is indicative of greater interest in financial versus health motivation to quit, and vice versa.

We also recorded the number of brochures by message type sent in to participate in the Quit-and-Win lottery, which was our secondary measure.

Results

Over the eight-week period across all locations, 1487 brochures were picked up. Of these, 828 displayed financial messages and 659 displayed health messages. Financial message brochures were picked up more frequently overall—56% were financial, which is significantly different from the health selection rate ($p < .0001$) (see Table 1). This supports the hypothesis that the financial message was more compelling among this low-income population.

As predicted, financial brochures were even more likely to be picked up in financial locations (63%) compared to neutral (57%), or health (52%) locations (see Table 2). Differences between pickup rates of financial and health messages were significant across sites in comparison of financial versus health locations; and health versus neutral locations. However, there were no significant differences across neutral

Download English Version:

<https://daneshyari.com/en/article/6047397>

Download Persian Version:

<https://daneshyari.com/article/6047397>

[Daneshyari.com](https://daneshyari.com)