



Article

Adherence to clinical preventive services guidelines: Population-based online randomized trial

W. Douglas Evans^{a,*}, Paula M. Lantz^b, Katherine Mead^a, Carmen Alvarez^c, Jeremy Snider^d^a The George Washington University, Milken Institute School of Public Health, 950 New Hampshire Avenue, Washington, DC 20052, USA^b University of Michigan, Gerald R. Ford School of Public Policy, USA^c The Johns Hopkins University School of Nursing, 525 N. Wolfe Street, Baltimore, MD 21205, USA^d University of Washington School of Public Health, Box 357660, Seattle, WA 98195-7660, USA

ARTICLE INFO

Article history:

Received 24 June 2015

Received in revised form

17 November 2015

Accepted 17 November 2015

Keywords:

Preventive Services Taskforce

Clinical guidelines

Framing

Message testing

Prostate cancer screening

Cervical cancer screening

ABSTRACT

The Patient Protection and Affordable Care Act (ACA) addresses use of clinical preventive services relative to evidence-based guidelines by mandating that most health insurance plans provide coverage without cost-sharing for services that receive an A or B rating. However, knowledge about and positive attitudes towards guidelines are extremely low.

This study was a population-based randomized experiment to examine beliefs about and intentions to adhere to screening guidelines for the Prostate Specific Antigen (PSA) and Pap tests. The study had two objectives: (1) test reactions to and understanding of guidelines, and (2) experimentally compare receptivity to messages to promote PSA and Pap test recommendations. We first surveyed a population-based sample of (1) US adults age 18 and over, (2) subsample of women aged 65 or younger, (3) subsample of men aged 40 or older. A sample of 2923 completed an initial questionnaire. Next a subset of participants meeting eligibility criteria were recruited from the population-based sample into a message testing experiment: (1) women aged 65 or younger, (2) and men aged 40 or older. Participants meeting these eligibility requirements were randomized to gain, loss, or balanced PSA (men) or Pap test (women) message stimulus conditions and followed for 8 weeks. Data were collected through the GfK Custom Research panel. A total of 2401 were eligible, 2321 completed the baseline, and 1730 completed follow up.

Mixed effect regression models revealed that higher receptivity to messages was associated with greater intentions to seek cancer information and to speak to a Doctor about PSA and Pap tests. The loss frame was associated with higher intentions to speak to friends and family about PSA and Pap tests. Finally, perceived importance and personal understanding of guidelines predicted intentions to seek more information about them.

This study contributes to evidence on how best to inform and engage consumers regarding preventive services.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Both the underuse and overuse of clinical preventive services relative to evidence-based guidelines is of significant public health concern. The Patient Protection and Affordable Care Act (ACA) attempts to address this issue by mandating that most health insurance plans provide coverage of clinical preventive services, without cost-sharing, if they receive an A or B rating and are thus recommended by the United States Preventive Services Task Force

(USPSTF). Confusion has arisen around certain screenings that have been downgraded to a C rating or lower; and consumer charges that the government is rationing health care have become more common since passage of the ACA.

Informed consumers are an important foundation of ensuring the ACA provisions result in both effective and efficient use of preventive care. However, knowledge about and positive attitudes toward evidence-based guidelines developed by the USPSTF for preventive care are extremely low across sociodemographic groups (Wennberg, 2002; Koh & Sebelius, 2010). Given demonstrated low levels of consumer knowledge of and trust in guidelines coupled with the importance of consumer involvement in preventive care decisions, improved consumer education and decision-making supports regarding evidence-based clinical

* Corresponding author.

E-mail addresses: wdevans@gwu.edu (W.D. Evans), plantz@gwu.edu (P.M. Lantz), khmead@gwu.edu (K. Mead), calvarez9@jhu.edu (C. Alvarez), jeremy.snider@gmail.com (J. Snider).

preventive services are greatly needed (Carman, Mauer, & Yegian, 2010).

There are countless health messages delivered through commercial channels, such as pharmaceutical marketing and health plan advertising, and social marketing aimed at prevention and health promotion (e.g., in tobacco, nutrition & physical activity, and HIV/AIDS). Multiple converging messages can lead to information overload and confusion for patients that may be difficult for practitioners to alleviate through brief counseling. At the same time, some evidence-based health recommendations, such as those embodied in the USPSTF clinical preventive services guidelines, can seem counterintuitive and lead to reactance or resistance (Bensing, 2000; Santa, 2013). For example, the guidelines for the Prostate Specific Antigen (PSA) testing and for mammography screening have been controversial and elicited substantial public debate, much of it against the USPSTF guidelines (Squiers et al., 2011). These factors can affect patients' ability to understand their options, behavioral choices, and implications of treatment decisions, and lead to uninformed decision making.

Communicating and promoting health behavior changes are often easiest when there is solid clinical and scientific evidence to support the argument for change. For example, the evidence for health benefits of smoking prevention or increased fruit and vegetable consumption or condom use are clear-cut (Fitzgibbon et al., 2007). In these cases, practitioners can add value to patient decision making by providing a trusted source of additional information that can motivate behavior change (Evans, 2006). However, in cases where scientific information about health behavior is lacking or uncertain, practitioners' advice may seem contrary to consumers' expectations or desires. Many medical decisions are probabilistic (i.e., outcomes are not certain and there are benefits and risks associated with prevention and treatment options) and thus require knowledge acquisition and informed decision-making rather than behavior change in response to persuasive social marketing messages (Jimison & Sher, 2000). Clinical preventive services, where the medically recommended decision in some cases may be counterintuitive (i.e., to not obtain a PSA test), are a prime example of such decisions. Identifying the best information to communicate, and in what manner, becomes essential in order to promote informed and well advised patient decision-making (Evans & McCormack, 2008; Grimshaw, Shirran, & Thomas, 2001).

Lantz, Evans, Mead, Alvarez, and Stewart (2016) conducted a national survey of consumers to understand individual-level factors that may be useful in the design of communication strategies to increase knowledge and positive attitudes about evidence-based guidelines for clinical preventive services (including the USPSTF), and to reduce uncertainty among patients when guidelines change or are controversial (Lantz et al., 2016; Steinman, Bero, & Chren, 2006; Evans, Uhrig, Davis, & McCormack, 2009). This study found that 36.4% of adults knew that the Affordable Care Act requires insurance companies to cover proven preventive services without cost sharing but only 7.7% had heard of the USPSTF. Most respondents agreed that research/scientific evidence and expert medical opinion are important for the creation of guidelines, and that clinicians should follow them. However when presented with patient scenarios in which a physician made a guideline-based recommendation against a cancer screening test, less than 10% believed that this recommendation alone was sufficient for patient decision making. Clearly, different kinds of information, as well as new and more persuasive means of message presentation, are needed to assist patients in making informed decisions and choosing to follow guidelines in their care.

In order to design more effective messages to promote patient adherence to clinical preventive service guidelines, more research is needed on the *framing* of messages and on how to increase

message receptivity (O'Keefe & Jensen, 2007; Evans, Davis, Umanzor, Patel, & Khan, 2011). Framing represents the manner in which messages are presented, the salient information presented, and the depiction of benefits or consequences of acting or not acting on the message (Rothman, Bartels, Wlaschin, & Salovey, 2006; Gallagher & Updegraff, 2012). Framing has been found to be important because messages presenting nearly identical information but in different frames can have variable effects on health behavior (Gallagher & Updegraff, 2012). For example, consider the difference between the benefit, or gain-framed, message that "preventive services can make you healthier" and the consequence, or loss-framed, message that "preventive services can prevent negative health effects." These messages convey much the same information but have different frames.

Message receptivity (MR) is a construct that represents rational and affective reactions to messages (Dillard, Shen, & Vail, 2007). Health communication studies have established measures of "receptivity" to public service advertising that capture audiences' subjective appraisals of message persuasiveness, believability, and other aspects of cognitive processing (Biener, McCallum-Keeler, & Nyman, 2000; Palmgreen, Lorch, Stephenson, Hoyle, & Donohew, 2007). These measures have been shown to predict changes in attitudes toward the subject matter of advertisements (Evans, Yan, & Datta, 2012; Niederdeppe, Davis, Farrelly, & Yarsevich, 2007). The current study used these same measures, based on a validated scale from the lead author's previous research (Evans et al., 2011, 2012).

The present population-based study was a randomized experiment conducted online to test reactions to messages intended to promote the importance, understanding, and adherence to preventive services screening guidelines. The specific guidelines tested were for the PSA and Pap test screening. The study had two objectives: (1) General testing of reactions to and understanding of USPSTF guidelines, and (2) a randomized controlled experiment in which a sub-sample of eligible participants were randomized to a specific message condition, completed a baseline questionnaire, and were followed up 8 weeks later to test reactions to messages to promote PSA and Pap test preventive services recommendations. The overall goal was to experimentally test which message frames about specific guidelines generate the most receptivity between a baseline and 8-week follow up and best encourage people to form intentions to follow guidelines in their own health care.

Methods

Overview

The overall target population consisted of the following: (1) non-institutionalized adults age 18 and over residing in the United States, (2) a subsample of women aged 65 or younger, (3) and a subsample of men aged 40 or older. Data were collected by GfK Custom Research, an online research panel. Current members of the panel meeting criteria were randomly selected and recruited to participate in the study, as described in detail below.

In order to qualify for the research, participants were presented with a consent form and asked whether they agreed to participate. If they consented to participate, they were then shown the questionnaire. Those who chose not to participate (selecting "no" to the consent) were excused.

Sample and data collection

We recruited a total of 5032 members of the GfK panel. Of these, 3119 responded (62.0% completion rate) and 2923 were

Download English Version:

<https://daneshyari.com/en/article/1092379>

Download Persian Version:

<https://daneshyari.com/article/1092379>

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