

Randomized Controlled Trial of Tailored Interactive Multimedia to Reduce Colon-Rectal Cancer Screening Disparities

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INTRODUCTION

- Currently in the U.S. Hispanics have much lower rates of colorectal cancer (CRC) screening than non-Hispanic whites.
- In analyses of 2001-2005 Medical Expenditures Survey Panel (MEPS) data, we found only 37% of Hispanics were up to date for screening, compared with 57% of non-Hispanic whites (20% difference in screening uptake).
- A language-driven disparity in screening *within* the Hispanic group: only 28% of Spanish-speaking Hispanics were up to date for screening compared with 44% of English-speaking Hispanics (16% difference in screening uptake).
- Interactive multimedia computer programs (IMCPs) show promise as a way of delivering personally tailored (PT) information to enhance cognitive mediators of health behavior and improve patient outcomes. However, it is unclear whether PT IMCPs can be deployed in primary care offices to increase cancer screening uptake and eliminate ethnic disparities in uptake by providing PT information in each user's preferred language.

Study Objective: To develop and evaluate the effects of a Spanish and English language versions of a personally tailored (PT) interactive multimedia computer program (IMCP) aimed at increasing CRC screening uptake overall and reducing disparities in CRC screening uptake between Hispanics and non-Hispanic whites.

HYPOTHESIS

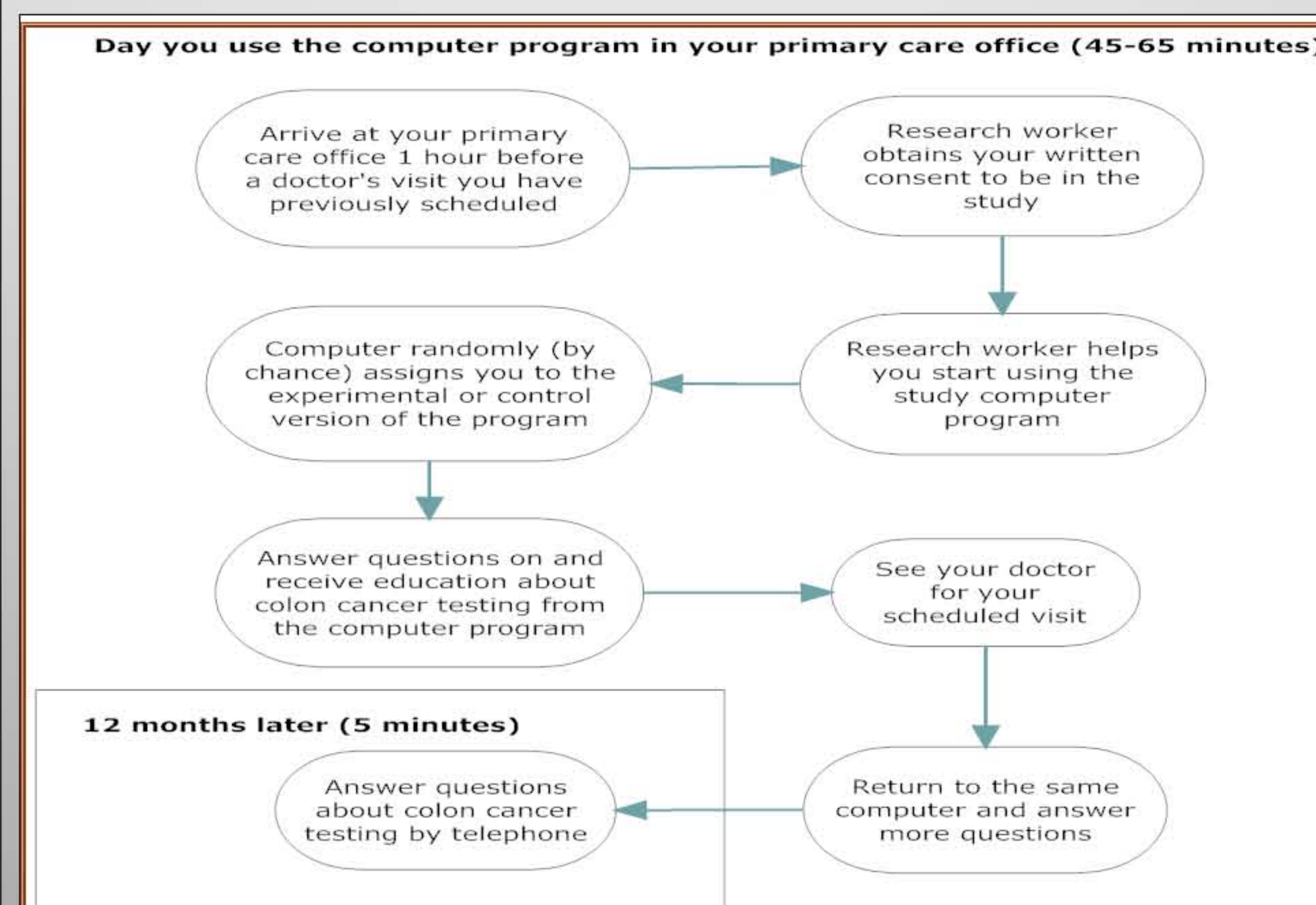
We will compare changes in CRC screening cognitive mediators (self-efficacy, perceived barriers, and readiness) and uptake resulting from an IMCP – PT to enhance the key cognitive mediators and targeted to patients' self-identified ethnicity - with changes resulting from a non-tailored "electronic leaflet" control IMCP. The experimental and control IMCPs will each be offered in English and Spanish versions.

We hypothesize that, compared with the appropriate control condition (English, Spanish, or both combined): (1) the English version of the PT IMCP will enhance the cognitive mediators of CRC screening behavior for English-speaking Hispanics and non-Hispanics; (2) there will be similarly favorable changes in these mediators for Hispanics using the Spanish version of the PT IMCP; (3) deployment of the PT IMCP will provide evidence of elimination of disparities in CRC screening between Hispanic and non-Hispanic subjects via its relative impact on the cognitive mediators in these groups; and (4) the PT IMCP (English and Spanish combined) will increase CRC screening uptake in Hispanics and non-Hispanics (considered separately) via changes in the cognitive mediators

MATERIAL and METHODS

- Study Design:** The study is a randomized controlled trial of a new computer program, viewed by patients in their doctor's office prior to a scheduled appointment, designed to help people who are potentially interested in colorectal cancer screening to actually undergo screening
- Methods:** Randomized controlled trial of 2 groups, comparing a PT (to the cognitive mediators) CRC screening IMCP offered in both English and Spanish versions and deployed before a primary care office visit with a non-tailored "electronic leaflet" CRC screening IMCP (control) also offered in both English and Spanish. Screening methods targeted will be fecal occult blood testing, flexible sigmoidoscopy, and colonoscopy.
- Primary Outcome:** Primary outcomes will be CRC screening uptake, self-efficacy, perceived barriers, and readiness
- Setting/Subjects:** Sites: University of California at Davis, Rochester, City College of New York, Denver and San Antonio. This study will enroll approximately 1344 people in the study altogether, recruited at 5 different study sites in the United States. **A total of 247** study participants in this randomized controlled trial will be enrolled in San Antonio Texas.
- Inclusion Criteria:** Eligible subjects will be derived from a convenience sample of self-selected adult patients who meet the following criteria: Receive primary care at one of the participating outpatient offices
 - Age 50-75
 - Able to read and speak English and/or Spanish
 - Adequate vision, hearing, and hand function to use an IMCP running on a laptop computer via a touch screen interface
 - Have an active telephone

PATIENTS PATH:



WHERE WE ARE?

We started
February 2010

6 Clinics enrolled
4 PCP
2 Community Centers

106 patients enrolled

LEARNING LESSONS

In average: 45 minutes pre-test and 20 minutes post-test

Patients have not previous experience on using computers even though many of them reported having computer in home.

Some activities that help patients during their participation:

- Having a person from the research team in the same room with the patients is recommended to increase confidence from them on how to use computers and to help them to understand complex terms.
- Having some snacks such as water, juices, cookies are helpful because many patients come to the appointment fasting .

Some barriers that keep patients from participate:

- In many cases patients depend on family members for transportation.
- In many cases patients go to see the doctor during their working hours; therefore, their do not have time to participate in the study.

Patients appreciate gift cars

Staff are happy to participate

At the end of the encounter, the majority of the patients express that it was a positive experience to participate in this study

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**Acknowledgements: This study is supported by the National Cancer Institute.

Grant number: 1R01CA131386-01A