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Title

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Journal

Contemporary Clinical Trials, 33(4)

ISSN

1551-7144

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Publication Date

2012-07-01

DOI

10.1016/j.cct.2012.03.004

Peer reviewed

Published in final edited form as:

Contemp Clin Trials. 2012 July ; 33(4): 624–627. doi:10.1016/j.cct.2012.03.004.

A Randomized Trial to Assess the Effect of a Research Informational Pamphlet on Telephone Survey Completion Rates among Older Latinos

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Abstract

Purpose of the study—To assess the effects of receiving a research informational pamphlet produced by the federal Office for Human Research Protections on telephone survey participation rates of older Latinos, and illustrate the feasibility of nesting recruitment studies within other funded studies when stand alone funding for recruitment studies is limited.

Design and Methods—Latino patients aged ≥ 50 with ≥ 1 visit during the preceding year ($N=1,314$) were sampled from three community clinics and a multi-specialty medical group. Patients were randomly assigned to receive or not receive a pamphlet that contained information on research participation in the initial mailing for the telephone survey study. Survey participation rates were compared between the pamphlet and no pamphlet groups.

Results—In a multivariate model, women ($OR=1.4$; 95% CI 1.1, 1.8), and those with public insurance (vs. no insurance; $OR=1.7$; 95% CI 1.1, 2.5) were more likely to participate, while those age 65+ (vs. age 50–54; $OR=0.6$; 95% CI 0.4, 0.8) were less likely to participate; there was no significant difference by pamphlet group ($OR=0.8$; 95% CI 0.7, 1.1). Nesting of the randomized trial of the recruitment pamphlet within the funded study required minimal additional resources.

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Conflicts of Interest: The authors have no financial or other conflicts of interest to disclose.

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Implications—Recruitment methods that are more intensive than a pamphlet may be needed to enhance survey participation rates among older Latinos. Nesting recruitment trials within funded studies is a promising and efficient approach for testing recruitment strategies.

Keywords

Latinos; Hispanics; randomized trial; response rate; research participation

1. Introduction

Increasing the participation of ethnic minorities in clinical research is necessary to ensure findings are applicable to these groups. There are few randomized trials comparing the effectiveness of recruitment methods, especially among ethnically diverse groups [1–5]. The recruitment literature consists predominantly of descriptive, observational studies. The federal government has invested in promoting participation in clinical research through the development and distribution of an informational pamphlet by the Office for Human Research Protections (OHRP) titled, “Becoming a Research Volunteer: It’s Your Decision [6].” This pamphlet was designed to address a commonly cited need among diverse populations for more information on research [7,8].

Clearing up misconceptions by providing comprehensible information facilitates an informed decision about research participation. When awareness and opportunity to participate exist [10], minority groups participate in research, including clinical trials, at rates that are comparable to mainstream populations [11]. Distributing information on the nature of research with an invitation to participate in a specific study may be a cost-effective way to enhance participation of underrepresented groups, especially among Latinos who tend to be less familiar with research, but who also tend to be less likely than Whites to refuse to participate once they are better informed [11,12].

An efficient way to build evidence on the efficacy of recruitment methods is to conduct nested studies of these methods within funded studies. The purpose of this study is to: 1) test the effect of the OHRP informational pamphlet on participation in a telephone survey of colorectal cancer (CRC) screening among older Latinos; and 2) demonstrate how health disparities researchers can nest recruitment trials within their funded studies.

2. Material and Methods

2.1 Sample

A randomized trial testing the OHRP brochure’s effect on response rates was nested within a cross-sectional telephone survey study of cultural factors and CRC screening [13]. The sampling frame was derived from electronic databases from four clinics. Inclusion criteria were: 1) self-reported Latino ethnicity; 2) age 50 or older; 3) English- or Spanish-speaking; 4) ≥ 1 primary care visit in the preceding year; and 4) no personal history of CRC.

2.2 Materials

The OHRP launched a public campaign promoting research participation, which included distribution of the pamphlet titled, “Becoming a Research Volunteer: It’s Your Decision.” We elected to test the pamphlet’s effect on survey response rates because it offered a low-cost tool that might enhance participation in the parent study. Also, despite the significant investment in the production and distribution of the pamphlet, it had never been formally evaluated. The pamphlet covers what research is, its role in prevention, diagnostic, and treatment advances, and questions for potential participants to ask researchers to enable an

informed decision about participation. It uses simple language, has photos of ethnically diverse individuals, and is available in English and Spanish.

2.3 Procedures

Stratifying by site, we randomized half the sampling frame to receive a standard initial mailing (control group) and half to receive the standard mailing plus the English and Spanish versions of the pamphlet (experimental group). The standard mailing included: 1) a bilingual letter inviting them to a telephone survey about CRC screening; 2) a bilingual, low-literacy study information sheet; and 3) a postage-paid opt-in/out postcard. Participants received \$25 for completing the survey. University of California San Francisco's and a hospital's Institutional Review Boards approved the study.

2.4 Measures

Experimental condition (pamphlet or no pamphlet) was the main predictor. Sociodemographic variables included gender, age, type of health insurance, and clinic site. No other demographic variables were available on the sampling frame.

A dichotomous outcome measure indicated whether or not patients completed the telephone survey. Those receiving the pamphlet were asked four questions: 1) "Did you receive a pamphlet with the letter? The pamphlet was called "Becoming a Research Volunteer" (yes or no); 2) "Did you read the pamphlet?" (yes or no); 3) If "yes" to #2, "In what language(s)?" (Spanish and/or English); and 4) "How much did the pamphlet influence your decision whether or not to participate in the phone survey?" (none, a little, quite a bit, or a lot).

2.5 Statistical Analysis

We compared gender, age, and health insurance characteristics of experimental and control groups using chi-square analysis. We examined the effect of the pamphlet and sociodemographic factors on survey completion using chi-square analyses. Multivariate logistic regression analysis assessed the independent effects of the pamphlet and sociodemographic characteristics on survey completion. Persons who were ineligible, deceased, or for whom we had an incorrect address ($N=88$) were excluded. An additional 36 individuals were dropped due to missing data on health insurance, leaving a final sample of 1,190.

3. Results

Of 1,314 letters mailed to potential participants, 504 completed the survey, for an overall response rate of 38%. The denominator includes patients who were never reached (31%), refused (24%), or were ineligible (7%). Sixty-four percent of participants were women, 30% were age 65 or older, and 44% had no health insurance (Table 1).

There were no differences between the pamphlet and no pamphlet groups on gender ($p=0.62$), age ($p=0.79$), health insurance ($p=0.54$), or clinic site ($p=0.71$). There was no significant difference in survey completion rate between the pamphlet (39%) and no pamphlet group (43%). Latinas were more likely (44%) than Latino men (35%; $p<0.01$) to complete the survey. Latinos age 65 and older were less likely (36%) to complete the survey than those age 55–64 (45%) or 50–54 (42%) ($p<0.05$). Latinos with private health insurance were less likely (35%) than those with no insurance (46%) ($p<0.01$) to complete the survey.

In multivariate analysis, the pamphlet was not associated with survey completion (OR = 0.8; 95% CI 0.7, 1.1). In the total sample, controlling for pamphlet group and other covariates, women (OR=1.4; 95% CI 1.1, 1.8) and those with public insurance (vs. no insurance; OR=1.7; 95% CI 1.1, 2.5) were more likely to complete the survey, while those aged 65+ (vs. aged 50–54; OR=0.6; 95% CI 0.4, 0.8) were less likely to complete the survey (Table A. 1).

Among those receiving the pamphlet, only 47% (n=116) remembered it, substantially less than the proportion that recalled receiving the letter (69%; n=172). Women were more likely (55%) than men (33%) to remember the pamphlet ($p < .001$); those age 65 and older (37%) were less likely than those age 55–64 (45%) or age 50–54 (59%) to remember the pamphlet ($p < .05$). Among those who remembered the pamphlet, women (79%) were more likely than men (47%; $p < 0.01$) to indicate that the pamphlet had influenced their decision to participate quite a bit or a lot (versus a little or not at all).

The nested recruitment study involved minimal additional resources, specifically 21 staff hours (four hours to randomize the sampling frame, three hours for data entry, 10 hours for programming, and four hours to review and synthesize results); no additional postage costs were incurred.

4. Discussion

In this randomized trial of a pamphlet nested within a study of CRC screening, its inclusion in the initial mailing had no effect on response rates among older Latinos. About half of the people to whom the pamphlet was mailed recalled receiving it, mostly women and younger Latinos. Latinas were also more likely than Latino men to indicate that the pamphlet had influenced their decision to participate in the survey. Nesting of the recruitment study within a funded study was possible with minimal additional cost.

Mass mailing of brochures has been shown to be successful in the recruitment of Whites and African Americans [9,14]. Our findings, however, suggest that using pamphlets to recruit Latinos into a telephone survey may be ineffective, although Latina women tended to be more receptive than Latino men. Similarly, two studies that used enhanced mailings (ethnically tailored letters) found that they did not significantly increase recruitment rates among Latinos [1,12,15].

Although direct mailing can be cost-effective for recruiting participants to prevention trials [1,14,16], our findings are consistent with many studies demonstrating that personalized recruitment approaches are necessary to achieve racial/ethnic equity in research participation [4,17,18]. In our study, substantially more people recalled receiving the letter than the pamphlet. The mailing served as an introduction to the follow-up telephone contact in which trained culturally competent interviewers facilitated recruitment by conveying information and addressing low-literacy issues that may be more prevalent among older Latinos [15,19,20].

Similar to other studies, we found that Latinas were more likely to participate than Latino men [2,21]. Gender disparities in labor force participation may explain the higher rates of participation among women [22,23]. Monetary incentives may also be more of an inducement for Latinas who are less likely than Latino men to be working outside the home [12, 24–26].

To eliminate health disparities, much more research is needed on effective strategies for increasing minority enrollment. In the absence of targeted funding, nesting recruitment studies is a useful interim strategy. However, nested studies may only be feasible for low

intensity recruitment methods, such as the one tested in this study. Comparative effectiveness research on more intensive recruitment methods for diverse populations will require dedicated funding and the commitment of researchers.

Acknowledgments

This work was supported by the National Cancer Institute (grant numbers R21CA121176, U01-CA86117); and the Resource Centers for Minority Aging Research program of the National Institute on Aging, the National Institute of Nursing Research, and the National Center on Minority Health and Health Disparities (grant number P30-AG15272). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Cancer Institute, National Institute on Aging, the National Institute of Nursing Research, and the National Center on Minority Health and Health Disparities or the National Institutes of Health.

We are indebted to the staff and patients at Marin Community Clinics, St. Jude Heritage Medical Center, and St. Jude Neighborhood Health Center who made this study possible.

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Table A.1

Correlates of Telephone Survey Completion among Older Latino Primary Care Patients.

	Total N=1,190	No Survey Completed N (%)	Survey Completed N (%)	p-value	Adjusted Odds Ratio for Survey Completion (95% CI) ^a
Experimental Group					
No Pamphlet	620 (52)	353 (57)	267 (43)	0.168	1.0
Pamphlet	570 (48)	347 (61)	223 (39)		0.8 (0.7,1.1)
Gender					
Men	428 (36)	277 (65)	151 (35)	< 0.01	1.0
Women	762 (64)	423 (56)	339 (44)		1.4 (1.1, 1.8)
Age					
50–54	371 (31)	216 (58)	155 (42)		1.0
55–64	459 (39)	254 (55)	205 (45)	0.05	1.1 (0.8, 1.5)
65+	360 (30)	230 (64)	130 (36)		0.6 (0.4, 0.8)
Health insurance					
None	528 (44)	287 (54)	241 (46)		1.0
Public	326 (27)	193 (59)	133 (41)	< 0.01	1.7 (1.1, 2.5)
Private	336 (28)	220 (65)	116 (35)		0.8 (0.5,1.4)

^aAdjusted for health care site.