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Telephone reminder calls increased response rates to mailed study consent forms

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Abstract

Background: This study assessed the impact of follow-up reminder phone calls on response rates to a mailed consent form packet.

Methods: Patients with rheumatoid arthritis were invited to enroll in a study by signing and returning consent forms by mail. Patients not returning completed study consent forms were called and reminded to return the signed consent forms.

Results: Among 724 mailed consent form packets, 376 (52%) were returned without further follow-up. Follow-up reminder calls were made to 220 of the 348 patients who did not return signed consent forms. Among subjects contacted by phone, 67 (31% of those called) returned signed consent forms.

Conclusion: Follow-up reminder phone calls raised the overall consent rate of 52 to 61%, suggesting that they can be an effective technique in increasing response rates.

Keywords: Increasing; Mail; Response rates; Rheumatoid arthritis; Telephone calls

1. Introduction

High response rates to mail surveys are necessary to increase sample size and reduce responder bias [1,2]. Studies comparing mail surveys to other methods of data collection, such as telephone surveys and in-home interviews, indicate that mail surveys have lower response rates [3]. Researchers have tried techniques such as preliminary notification, incentives, postage, personalization, anonymity or confidentiality, improving questionnaire appearance, follow-up phone calls, reminder post cards, letters with included duplicate study materials to be completed, deadlines, sponsorship, appeals, prior commitment, and additional mailings to raise response rates to mailed materials [4].

One systematic review identified several methods to increase response to postal questionnaires [5]. The review categorized these methods into eight broad strategies: incentives, length, appearance, delivery, contact, content, origin, and communication. The likelihood of response was more than doubled when a monetary incentive was used (odds ratio [OR] = 2.02; 95% confidence interval [CI]: 1.79, 2.27). However, many other strategies including follow-up contact (OR = 1.44; 95% CI: 1.22, 1.70) and origination from a university (OR = 1.31; 95% CI: 1.11, 1.54) were also effective.

Monetary incentives were used to improve response rates in one study [6] that compared no incentive to $5 and $20 incentives in a mailed survey. Response rates were significantly higher in the incentive groups ($P < .0001$). Response rates for the three groups were 57.9, 72.7, and 84.7%, respectively. In a second study [7], it was found that the inclusion of a $1 incentive was more cost effective than a third postcard reminder mailing. In this study, the response rate in the $1 incentive group was 63% compared to 45% in the group that did not receive any incentives but received two postal reminders.

The current study used only reminder phone calls.

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2. Methods

A previously developed algorithm [8], was applied to the administrative data of a large West Coast insurance company to identify patients with rheumatoid arthritis (RA). Each of the 2,497 patients identified by the algorithm as having RA were mailed (1) a cover letter from the insurance company that introduced the members to the research team; (2) a pamphlet describing the study; and (3) a patient response card (PRC). These materials were sent to the 2,497 potential participants over a 1-week period. The pamphlet describing the study included requirements for participants, that is, participation in two 45-min telephone surveys about the patients' health and use of medical devices, one at baseline and one 18 months later, and release of medical records from an 18-month period. The PRC included five questions about arthritis symptoms. Interested individuals could write in their names, addresses, and phone numbers or indicate whether the PRC had been sent to someone who had moved, passed away, or was too sick to participate. Patients also had the option to return a completed PRC without providing their name, address, or phone number. PRCs were returned over a 10-month period.

People who indicated RA and interest in study participation were sent a consent form packet that included a hand-signed cover letter from the study team with a toll-free number to call with questions, a prepaid business reply envelope for returning the consent forms, a "consent to participate in research" form, a "consent for release of medical records" form, and colored copies of each consent form for the participant to keep. The consent form packets were sent on a rolling basis from July 2000 through April 2001 as PRCs for eligible interested participants were received. The UCLA institutional review board (IRB) approved the study and all study materials.

Patients who had been sent a consent form packet at least 1 month prior to the enrollment deadline but had not returned one or both of the consent forms, *and* had supplied a phone number on the PRC were called using a short script approved by the UCLA IRB to remind them to return the signed consent forms. Patients who could not be reached by phone on the first attempt received up to two subsequent phone calls with reminder messages left at the time of the final call.

3. Results

Of the 2,497 invitation packages sent out, 931 PRCs (37%) were returned. Of the 931 respondents, 774 (83%) indicated they were interested in participating in the study. Among these, 724 (78%) answered questions on the PRC indicating a self-reported diagnosis of RA, making them eligible for study participation. Each of the 724 patients was sent a consent form packet. The average length of time from receipt of a PRC to mailing of a consent form packet was 17 days.

The spontaneous response rate for consent forms within 4 months of mailing was 52%. At the end of the enrollment period and after the reminder telephone calls, the final consent rate was 61%.

Of the 348 patients who did not return a consent form within 4 months, 220 were eligible to receive reminder phone calls. Most (199 of 220) of these patients had not returned either consent form. Among the 220 eligible subjects, 140 were reached on the first call, 78 required a second call, and two subjects required a third and final phone call. Fifteen people who were called indicated that they were no longer interested in participating. Reasons included time constraints (5), too sick to participate (3), did not have RA (2), only interested in participating in a drug trial (1), discontinued insurance coverage (1), stress (1), cognitively unable to participate (1), and unspecified refusal (1). Twenty-nine people who were called requested a second set of consent forms that were immediately faxed or mailed to them. Eighty calls resulted in phone messages being left with either a household member or an answering machine, and additional calls were made in an attempt to reach the participants directly. Thirty-nine people who were reached on the first attempt indicated they had received the forms and would be returning them to the study site shortly. The remaining 57 phone calls were wrong or disconnected numbers.

It took 9 hr to complete 302 calls to 220 subjects over 7 nonconsecutive workdays in a 2-week period. Among these 220 subjects, 67 (30%) returned signed consent forms to the study site. This raised the overall response rate from 52% to 61% (Fig. 1).

4. Discussion

In this study, the response rate increased by nine percentage points after the reminder of the phone calls were completed. This is consistent with other studies that have demonstrated that follow-up improves response rates [9]. In a review regarding mail survey response rates by Asch et al. [10], 113 articles related to follow-up effects on response rates were identified. For nonphysicians, the mean response rate was 68%. Telephone reminders were associated with relative response rates 13% higher than those studies that do not use this technique. The reminder phone call form of respondent contact is expected to increase response rates by reminding nonresponders that they had forgotten to sign and return the study materials, as this is a common reason for nonresponse [11]. In this study, telephone reminders increased response rates by nine percentage points (17% relative increase), which is slightly lower than the mean increase of 13% reported by Asch et al. [10].

Poor response rates to mailed information have been credited to unattractive, unclear, or offensive materials, holidays, language, type of return envelope and postage used, study participants forgetting to return the questionnaire, lack of participant incentives, length of questionnaire, an uninteresting study, and lack of mail or phone reminders, among others