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No difference demonstrated between faxed or mailed prenotification in promoting questionnaire response among family physicians: a randomized controlled trial

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Abstract

Objective: Achieving high survey participation rates among physicians is challenging. We aimed to assess the effectiveness of response-aiding strategies in a postal survey of 1,000 randomly selected Australian family physicians (FPs).

Study Design and Setting: A two × two randomized controlled trial was undertaken to assess the effectiveness of a mailed vs. faxed prenotification letter and a mailed questionnaire sealed with a label marked attention to doctor vs. a control label. At the time of our final reminder, we randomized remaining nonresponders to receive a more or less personalized mail-out.

Results: Response did not significantly differ among eligible FPs receiving a prenotification letter via mail or fax. However, 25.6% of eligible FPs whose questionnaires were sealed with a label marked attention to the doctor responded before reminders were administered and compared with 18.6% of FPs whose questionnaires were sealed with a control label ($P = 0.008$). Differences were not statistically significant thereafter. There was no significant difference in response between FPs who received a more vs. less personalized approach at the time of the final reminder ($P = 0.16$).

Conclusion: Mail marked attention to doctor may usefully increase early response. Prenotification letters delivered via fax are equally effective to those administered by mail and may be cheaper.

Keywords: Postal questionnaires; Response rate; Family physicians; Randomized controlled trial; Prenotification prompts; Message

1. Introduction

Postal surveys are widely used in public health and epidemiologic research [1−4]. Questionnaires may be used to describe characteristics of populations and collect outcome data for epidemiologic studies and randomized controlled trials. Random selection of study participants ensures adequate representation of the population from which the sample was drawn [5]; however, selection bias may still occur if a high response rate is not achieved. Further, larger samples increase the power of statistical analyses, reducing the likelihood of type II errors occurring.

Surveys of physicians provide insights into their knowledge, attitudes, and self-reported practices about clinical issues (e.g., [6−9]). Surveys may provide important information about gaps or deficiencies in current practice and guide the development of interventions designed to bridge those gaps. Physicians, including those engaged in general or family practice, are traditionally viewed as difficult to recruit into survey research [3,9−12]. A lack of time, inundation with requests to respond to surveys, and insufficient remuneration for research participation are possible reasons family physicians (FPs) do not reply to questionnaires [3,9,11,12].

Prenotification of a questionnaire mail-out via a letter, postcard, or phone call is proven to increase response rates among physicians [4,13−16]. Advance letters appear to be just as effective as phone calls and are easier to administer as they do not require direct contact with intended participants [15,16].

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What is new?

Key findings

- Faxed prenotification letters alerting family physicians (FPs) to the imminent arrival of a questionnaire are just as effective in promoting response as mailed prenotification letters.
- Marking mail attention to the doctor increases early response rates.
- Personalizing a mail-out to promote response at the time of the last reminder letter does not increase response rates.

What this adds to what was known?

- The effect of faxed prenotification letters on physician response rates has not been previously evaluated, and we found these are just as effective as mailed prompts and may be cheaper to administer.
- Marking mail attention to doctor as a ''teaser'' has not been previously evaluated and is a cheap method for improving early response.
- Attempts to increase response at a late stage of data collection may not prove effective.

What is the implication, what should change now?

- There is now evidence that phone, faxed, and mailed prenotifications of a survey mail-out to FPs are equally effective. Researchers may select the least costly method, depending on their circumstances.
- Marking mail attention to doctor should be considered when first mailing questionnaires to FPs.
- Reminder letters remain essential response-aiding strategies to promote participation.
- Implementing strategies to increase response rates at a late stage of data collection should not be attempted without further evaluation.

Advance letters can be mailed, faxed, or e-mailed. A recently updated systematic review of response-aiding strategies suggests that trials of advance letters or postcards have only tested the effectiveness of mailed and not other modes of delivery [4]. Mailed letters may be visually more appealing than faxed letters, and physicians may also appreciate the extra effort that is required to prepare and mail a formal letter. On the other hand, faxed letters are likely to save costs on postage and packaging. We are unaware of any head-to-head comparisons of mailing, and faxing advance prompts to physicians.

Including a ''teaser'' message to arouse curiosity about the contents of a letter promoted a higher response rate in members of the general public [17]. To reach FPs, incoming mail must pass through practice staff, who may act as ''gate-keepers'' to filter and dispose of mail that may seem unimportant and outside a doctor's core business [3]. Marking mail as attention to the doctor may, therefore, increase the likelihood that surveys are delivered to the doctor. It is possible that such an attempt to gain attention for a nonclinical or nonconfidential matter could be perceived as relatively trivial and be counterproductive. There are a limited number of studies evaluating ''teaser messages'' and, to our knowledge, have yet to be trialed in health professionals [4].

Personalizing mail has been shown to increase response rates [4] and can be achieved by including a stamp attached reply paid envelope as opposed to a business reply paid envelope [4,18−20] and hand-signing cover letters [4]. In addition, researchers have varied the color of envelopes [4,21−23] with variable success. According to the most recent systematic review, none of these strategies appear to have been trialed with physicians. Stamps on outgoing envelopes were trialed in several studies in the 1970s in nonclinician samples [4]. This strategy did not increase response, although it may be worth reconsidering this approach in a modern study, as stamps are now less commonly used than franked envelopes and may be seen as more distinctive. It is unclear if combining several methods would amplify response rates beyond what can be expected if these methods are used singly.

We carried out a national survey of Australian FPs about their management of nonvalvular atrial fibrillation [24,25], incorporating a trial to assess the effectiveness of response-aiding strategies, including a prenotification letter that was either faxed or mailed to all FPs. At the time of mailing questionnaires, we sealed envelopes with a label that either did or did not include a message marked attention to the doctor.

When the final reminder was due, we evaluated the effectiveness of a more personalized approach that differed from our previous approach. We hypothesized that nonresponders who received a combination of more personalized approaches would be significantly more likely to reply to the survey than FPs who received mail that looked similar to that previously sent.

2. Methods

2.1. Participant selection

As previously reported [24,25], we obtained the names, practice and preferred mailing addresses, and phone and fax numbers of 1,000 randomly selected FPs known to be in current practice. The commercial database compiles details of practicing doctors within Australia deriving