

Reducing questionnaire length did not improve physician response rate: a randomized trial

Eva E. Bolt^{a,*}, Agnes van der Heide^b, Bregje D. Onwuteaka-Philipsen^a

^aVU University Medical Center, Department of Public and Occupational Health and EMGO Institute for Health and Care Research, VUmc Expertise Center for Palliative Care, Van der Boechorstraat 7, 1081 BT Amsterdam, The Netherlands

^bDepartment of Public Health, Erasmus MC, University Medical Center Rotterdam, P.O. Box 1738, 3000 CA Rotterdam, The Netherlands

Accepted 18 September 2013; Published online 28 November 2013

Abstract

Objectives: To examine the effect of reducing questionnaire length on the response rate in a physician survey.

Study Design and Setting: A postal four double-page questionnaire on end-of-life decision making was sent to a random sample of 1,100 general practitioners, 400 elderly care physicians, and 500 medical specialists. Another random sample of 500 medical specialists received a shorter questionnaire of two double pages. After 3 months and one reminder, all nonresponding physicians received an even shorter questionnaire of one double page.

Results: Total response was 64% (1,456 of 2,269 eligible respondents). Response rate of medical specialists for the four double-page questionnaire was equal to that of the two double-page questionnaire (190 and 191 questionnaires were returned, respectively). The total response rate increased from 53% to 64% after sending a short one double-page questionnaire (1,203–1,456 respondents).

Conclusion: The results of our study suggest that reducing the length of a long questionnaire in a physician survey does not necessarily improve response rate. To improve response rate and gather more information, researchers could decide to send a drastically shortened version of the questionnaire to nonresponders. © 2014 Elsevier Inc. All rights reserved.

Keywords: Questionnaire design; Data collection; Health-care surveys; Physician surveys; Response rate; Questionnaire length

1. Introduction

The use of postal surveys carries the risk of obtaining low response rates, especially in physician surveys [1]. To improve response rates, researchers may decide to develop questionnaires that are as short as possible. Common sense and studies in population-based and patient surveys suggest an inverse relation between questionnaire length and response rate [2–4]. However, evidence supporting an association between questionnaire length and response rate in physician surveys is scarce and contradicting. In 2009, Cook et al. [5] analyzed a sample of postal physician surveys and found no association between questionnaire length and response rate. In two articles, the response rate for different questionnaire lengths within the same study were compared. In 1978, Cartwright [6] described that British general practitioners (GPs) receiving a single-page

questionnaire responded in 90% of cases compared with 78% receiving a four-page questionnaire. In 2005, Jepson et al. found a negative association between word count and response rate for questionnaires counting 849–1,867 words. Response rate was 59% for questionnaires under 1,000 words and 38% for questionnaires more than 1,000 words [7]. It is unknown whether this negative association also applies to longer questionnaires, which are often used in studies on complex subjects such as end-of-life care.

We recently carried out a physician survey about euthanasia and other end-of-life decision-making (ELD) practices, using a four double-page questionnaire. In the preparation, there were concerns about the response rate because comparable studies had yielded moderate response rates (56%, 41%, 34%, and 40%) [8–11], especially among medical specialists (31% and 46%) [11,12]. In a study on ELD practices, Fischer et al. showed that nonresponse can be a cause for bias. Responders differed significantly from nonresponders in their experience with and opinions on ELD practices, although background characteristics were similar [13]. We expected shortening of our questionnaire would improve response rate, resulting in a lower risk of bias, especially among medical specialists. Therefore, half of medical

Conflict of interest: None.

Funding: The study was supported by the Netherlands Organisation for Health Research and Development (ZonMw).

* Corresponding author. Tel.: +31-204445365; fax: +31-204448387.

E-mail address: eebolt@yahoo.co.uk (E.E. Bolt).

What is new?

- In this physician survey, reducing questionnaire length from four to two double pages did not improve response rate.
- We do not recommend reducing the length of a long questionnaire unless drastic reduction in length is possible.
- Some non-responders can be persuaded to participate by providing them with a shorter (one-page) version of a questionnaire.

specialists in our sample received a questionnaire of reduced length. Furthermore, all nonresponding physicians received an even shorter version of the questionnaire.

In this article, we describe the effect of shortening a postal physician questionnaire from four to two double pages and the effect of giving nonresponders the opportunity to fill out a short questionnaire of one double page. Characteristics of responders to the original and short questionnaires were compared.

2. Methodology

The questionnaire was designed for the study and largely similar to the questionnaire used in a comparable study in 2005 [11]. Anonymity was guaranteed by the use of unnumbered anonymous questionnaires. Questionnaires were mailed to 2,500 physicians, including 1,000 medical specialists (250 internists, 150 cardiologists, 150 intensive care physicians, 150 neurologists, 150 pulmonologists, and 150 surgeons), 1,100 GPs, and 400 elderly care physicians (ECPs). No a priori sample size calculation was performed because studying the response rate was not the main goal of the study. Physicians not working in patient care in one of the described specialties in the previous year and those who were not traceable were excluded. Data collection took place in 2011–12.

The original questionnaire consisted of four double pages (2,727–2,891 words, 54–58 questions, depending on specialty). The 1,000 medical specialists were randomly assigned to receive the four double-page questionnaire (2,730 words, 54 questions) or a shorter version consisting of two double pages (1,471 words, 27 questions) in which in-depth questions and questions about the most recent request for euthanasia were omitted.

All physicians were asked to return a response card stating whether they would participate, and if not, they were asked for their reason for not participating. After 1 month, physicians who had not returned this card received a reminder package containing the same questionnaire and a letter with a link to a questionnaire online. The online

questionnaires were identical to the postal questionnaires (created with NetQuestionnaire). After 3 months, the remaining nonresponders received a reminder package containing a one double-page questionnaire (852–872 words, 18 questions). This questionnaire contained only key questions and left no space to clarify answers. It was accompanied by a letter emphasizing both our understanding of the physician's time constraints and our effort to facilitate their participation by shortening the questionnaire.

3. Results

3.1. Response

Of the 2,500 physicians, 231 were not traceable or not working in patient care in one of the included specialties. Of the 2,269 eligible physicians, 1,456 (64.2%) returned a questionnaire. The response rate was 49.4% for medical specialists ($n = 461$ of 933), 72.4% for GPs ($n = 708$ of 978), and 80.2% for ECPs ($n = 287$ of 358). Some nonresponders returned a response card ($n = 269$ of 813). Main reasons for not responding were lack of time ($n = 161$) and lack of experience with (requests for) euthanasia ($n = 53$). In Fig. 1, the time course of returned questionnaires is shown. After 1 month, the overall response rate was 40.7%, and nonresponders received a reminder. They were given the option to fill out the questionnaire online; 17 respondents made use of this opportunity. After 3 months, 1,203 questionnaires were returned (response 53.0%). At that time, the number of questionnaires still being returned was negligible.

3.2. Long vs. short questionnaire

The response rate among the 466 medical specialists receiving the four double-page questionnaire was 40.7% ($n = 190$, five filled out online). Among the 467 medical specialists receiving the two double-page questionnaire, the response rate was 40.9% ($n = 191$, three filled out online; Fig. 2). Relative risk to respond to the two double-page questionnaire compared with the four double-page questionnaire was 1.01 [95% confidence interval (CI): 0.86, 1.17].

3.3. Sending a shorter reminder questionnaire

After 3 months, all physicians who had not returned the response card ($n = 1,117$) received a second reminder package containing a one double-page questionnaire. Of these, 188 physicians informed us that they had already filled in the original questionnaire without returning the response card. Another 22 physicians proved ineligible. A total of 222 physicians filled in the one double-page questionnaire, and another 31 physicians returned the original longer version of the questionnaire (10 using the online version). In total, 27.9% of eligible physicians receiving the second reminder responded, improving response rate by 11.2% from 53.0% to 64.2% ($n = 1,203$ –1,456).

Download English Version:

<https://daneshyari.com/en/article/10513955>

Download Persian Version:

<https://daneshyari.com/article/10513955>

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