RESEARCH ARTICLE

Recruiting primary care physicians to qualitative research: experiences and recommendations from a childhood cancer survivorship study

Short running title: Recruiting physicians to qualitative research.

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Key words: primary care, Primary Care Physicians, qualitative research, mixed-methods, recruitment

Abstract word count: 250/250

Main text word count: 2,865/3,500

Tables/Figures: 4

Abbreviations

Abbreviation	Full term
PCP	Primary care physician
ANZCHOG	Australian and New Zealand Children's Haematology Oncology Group
ARIA	Accessibility/Remoteness Index of Australia

ABSTRACT

Background: Primary care physicians (PCPs) are essential for healthcare delivery but can be difficult to recruit to health research. Low response rates may impact the quality and value of data collected. This paper outlines participant and study design factors associated with increased response rates among PCPs invited to participate in a qualitative study at Sydney Children's Hospital, Australia.

Procedure: We invited 160 PCPs by post, who were nominated by their childhood cancer patients in a survey study. We followed-up by telephone, email or fax two weeks later.

Results: Without any follow-up, 32 PCPs opted in to the study. With follow-up, a further 42 PCPs opted in, with email appearing to be the most effective method, yielding a total of 74 PCPs opting in (46.3%). We reached data saturation after 51 interviews. On average, it took 34.6 days from mail-out to interview completion. Non-respondents were more likely to be male (*p=0.013*). No survivor-related factors significantly influenced PCPs' likelihood of participating. Almost double the number of interviews were successfully completed if scheduled via email versus phone. Those requiring no follow-up did not differ significantly to late respondents in demographic/survivor-related characteristics.

Conclusion: PCP factors associated with higher opt-in rates, and early responses, may be of interest to others considering engaging PCPs and/or their patients in cancer-related research, particularly qualitative or mixed-methods studies. Study resources may be best allocated to email follow-up, incentives and personalization of study documents linking PCPs to patients. These efforts may improve PCP participation and the representativeness of study findings.

INTRODUCTION

Primary care physicians (PCPs) are at the forefront of community health service delivery and are crucial for managing ongoing health concerns across many illnesses. As such, they are frequently approached for research participation. However, PCP involvement in studies using even popular methods of enquiry, such as surveys, are often characterized by low response rates (<60%).[1] The cost of participating in research for PCPs is high, given the demanding nature of their profession. Lack of time is a common reason for non-participation, followed by a perceived lack of personal salience of the study.[2,3] Studies of low value to PCPs or of unclear relevance to their practice may discourage participation and surveys or study invitations are often lost amongst other paperwork, or are routinely thrown away.[4] PCPs are

especially difficult to recruit and retain in qualitative studies,[5] potentially due to the face-to-face contact or additional time required, compared with quantitative approaches (e.g. surveys).

There is growing recognition of the role PCPs play in the delivery of childhood cancer survivorship care, making their involvement in research examining their knowledge and attitudes about this aspect of care crucial. Studies with low response rates may represent experiences of a small group of respondents that are systematically different to the wider population, for example in demographic or practice-related characteristics. This may bias study results, or decrease their generalizability.[6] The impact of a range of strategies on PCPs' response rates,[2] and wider participant response rates[7] to surveys is well documented. A recent review identified common approaches to increasing PCP recruitment, including reducing survey length, personalization, offering choice of participation modalities (e.g. online or paper survey), offering incentives, and active follow-up of non-respondents.[2] However, there have been no evaluations of strategies promoting PCP participation in qualitative studies specifically and consequently in mixed-methods research.

PCP participation in qualitative interviews is poor,[5,8] and shown to be lower than survey or other quantitative methods.[9-12] Qualitative research is an important approach for obtaining detailed data about participants' knowledge, opinions or experiences. While the focus of quantitative research is to summarize phenomena in measurable quantities, qualitative research instead aims to offer broader perspectives through experiences, often characterized as complex and more in-depth.[13] Qualitative research therefore has the potential to capture the complexity of health service provision today, characterized by growing specialization, medical innovations, and diversity.[14]

In response to this increasing complexity, qualitative methods are increasingly favored or used together with more descriptive methods in primary care studies.[15] For

qualitative studies, it may be preferable to obtain a maximal variety sample, making high recruitment rates important.[15] Reliability and validity in qualitative research is best reflected by credible, trustworthy and rigorous qualitative methods of enquiry.[10] The ideal sample is achieved through data saturation; that is, when no new themes or ideas emerge across a diverse group of participants.[11] However, given the typically greater time commitment required for this method of data collection, time-poor PCPs may be less likely to participate. Low response rates can make it difficult to achieve data saturation, potentially hindering researchers' ability to yield rigorous and convincing results.

There is a dearth of literature evaluating PCP participation in qualitative studies and on the quality of their contribution to this type of research. Here, we share the strengths and weaknesses of our team's approach to recruiting PCPs to participate in a qualitative childhood cancer survivorship study at Sydney Children's Hospital, Australia. We aimed to evaluate a) PCP demographic and practice-related factors, or patient-related factors, that influence study participation, b) the most effective mode of follow-up of non-respondents; and c) any differences between early and late respondents, i.e. those who opted in with or without any follow-up. An understanding of the potentially unique factors contributing to PCPs involvement, may inform strategies to encourage PCP participation in increasingly popular qualitative and mixed-methods research, as well as improve the quality of the data that is collected. Based on our recruitment experience, we developed recommendations to improve PCP participation in future research involving interviews and other qualitative methods of data collection.

METHODS

This study was approved by University of New South Wales Human Research Ethics Committee and endorsed by the Australian and New Zealand Children's Haematology Oncology Group (ANZCHOG).

Participants

PCPs were nominated by childhood cancer survivors who completed a questionnaire as a part of the ANZCHOG Survivorship Study.[16,17] PCPs were eligible for the study if they were qualified and practicing in Australia, had provided care at any time for a childhood cancer survivor prior, and spoke English.

Recruitment

We mailed eligible PCPs an invitation letter, participant information sheet, consent form, opt-in/opt-out card, and reply-paid envelope. The invitation letter contained the name of the patient who nominated them, and was signed by a lead clinician(s) at their nominating patient's hospital, accompanied by the clinician's photograph. Interviews were designed to last approximately 15 minutes in recognition of PCPs' busy workloads. We offered an AUD$100 (USD$74.58) voucher to a major shopping outlet as compensation for their time. We provided PCPs with a reply-paid envelope to return opt-in/opt-out cards, and included the study coordinator's contact details. We contacted PCPs who opted-in to arrange a convenient time for interviews, which were offered face-to-face or over the telephone. We anticipated that to achieve a broad sample of PCPs from different geographic locations and levels of experience, we would reach data saturation between 30 and 40 PCPs, forming our target sample size.

Follow-up

If PCPs did not respond within two weeks, we followed-up via telephone, fax, or email using an identical letter for fax or email, and a near identical script for telephone calls. Telephone

follow-up was the first method of follow-up since practice numbers were publically available. If requested by the practice during follow-up, another invitation package was sent using email or fax if preferred. We used email to schedule interviews with PCPs who included their email on the opt-in card, and telephone for the remainder. Follow-up was limited to three calls per PCP, or until a second package was resent at their request during follow-up, whichever came first. Retired PCPs, or those who could not identify their nominating patient in practice records, were deemed ineligible. PCPs were classified as unreachable if they were untraceable after leaving the practice, or if packages were returned due to an incorrect address.

Data collection

Interview scheduling and follow-up methods were recorded by the research officer conducting follow-up. We also recorded details of all contact made, including the date and method of follow-up, and reasons for non-participation. The research officer recorded the date and time of the interview once arranged with the PCP, and noted if the PCP did or did not eventually participate, accompanied by any relevant details in the event of non-participation.

The interview was designed by a multidisciplinary team, including psychologists, a pediatric oncologist, and a social worker and we piloted the interview with three PCPs before study commencement. The interviewer checked at regular time points if the PCP had time to continue. The interview questions focused on PCPs' satisfaction with specialist communication, information and support needs, confidence in providing cancer survivorship care, preferences for models of survivorship care, and barriers experienced in the provision of care to survivors. These data will be presented elsewhere. Demographic data were collected

for each PCP including sex, years practicing as PCP, practice location, and adult and child cancer survivor patient case load.

Data analysis

Data were analyzed using SPSS 24.0. We used descriptive statistics, correlations and chi-square tests to compare respondent and non-respondent characteristics relating to PCP-related factors (sex, number of years' practicing, practice location) or survivor-related factors (survivor sex, number of years' as PCPs' patient, diagnosis, time since diagnosis/treatment). To identify PCP and survivor factors associated with study participation, we used logistic regressions. PCPs' practice locations were classified using the Accessibility/Remoteness Index of Australia (ARIA), according to their distance from service centers across Australia.[18]

RESULTS

We invited 160 eligible and contactable PCPs by post to participate in this interview study. Without any follow-up, 32 PCPs (20%) opted in. An additional 42 PCPs opted in with follow-up, yielding a total of 74 PCPs (46.3%; See Figure 1). We reached data saturation after 51 PCP interviews. Of the non-participating PCPs, 29% were lost to follow-up, PCPs' secretaries/practice managers declined to pass on the study details (4.7%) or messages were left with secretaries/managers but never returned (17.2%). Six PCPs declined (2.8%) as they were too busy or disinterested. In the majority of cases, follow-up was mediated by the PCP's practice manager or a secretary. Of participating PCPs, 56.9% were male and 64.7% worked in practices located in major cities across Australia. Table 1 further summarizes the invitation, follow-up, and contribution of successfully recruited PCPs.

Factors influencing study participation

Non-respondents were more likely to be male (80.9%, χ^2=6.177, *p=0.013*). There were no differences between respondents' and non-respondents' practice location (*p=0.676,* see Table 2). Survivor-related factors did not significantly influence PCPs' likelihood of participating, including survivors' age (*p=0.586*), sex (*p=0.359*), diagnosis (*p=0.517),* length of time as the PCP's patient (*p=0.801*), time since diagnosis (*p=0.846*), or time since treatment completion (*p=0.786*). The method used to schedule interviews was significantly associated with study participation following opt-in, with more interviews scheduled via email being successfully completed (81.6%) compared with interviews scheduled over the phone (54.3%; χ^2=6.289, *p=0.012*). No PCP or survivor-related factors were significantly associated with PCPs' contribution to the study, measured by the length of the interview in minutes.

Impact of follow-up

Follow-up of PCPs in any form, either through telephone, fax, email or a combination of more than one mode, appeared to improve PCP participation compared with no follow-up at all. More PCPs who were followed-up opted in than those who were not followed-up (56.8% versus 43.2%, χ^2=60.195, *p<0.001)*, although fewer PCPs who needed follow-up successfully completed interviews (37.3% versus 62.7%, χ^2=105.919, *p<0.001*). The most effective mode of follow-up for increasing non-respondent participation rates was by email only, with almost half (44.4%) of PCPs completing an interview if followed-up by email. Using a combination of methods for follow-up, such as a phone call and then email or fax, was moderately successful (24.4% of PCPs participating), as was telephone only follow-up (4.9% opted in). Fax alone was least successful, with no PCPs opting in after being faxed. A larger number of participants lost to follow-up did not provide an email address on their opt-in card (44.4% versus 18.4%).

Early and late respondents

Without any follow-up, 32 PCPs opted in to the study, and of these early respondents, 62.7% completed an interview. Among PCP-related factors, follow-up (of any type) was significantly associated with a longer number of days from opt-in to interview completion ($\beta=12.480$; $p=0.028$). No survivor-related factors were significantly associated with being an early respondent, nor with the number of days between study opt-in and interview completion. Those who opted-in, but did not complete an interview, did not differ significantly in relation to their sex, practice location, or their nominating survivors' age, sex, diagnosis, number of years as their patient, and time since diagnosis or treatment completion.

DISCUSSION

Evidence regarding strategies for improving responses to qualitative research is scarce, particularly when aiming to recruit PCPs. Our study indicates few PCP or survivor factors influenced PCPs participation or timing (early vs late) of participation, except that non-respondents were more likely to be male. Follow-up improved participation by almost 60%, enabling us to achieve saturation beyond our intended sample size. The most effective method of follow-up and scheduling interviews appeared to be email. When planning future related studies, researchers might anticipate a recruitment period of approximately 34 days from initial mail-out to interview completion. We recommend considering several design features in future research to encourage early PCP participation in qualitative and mixed-methods research, summarized below (see Table 3).

A larger number of male non-respondents, as in our study, is not uncommon in research.[19] However, the proportion of male interviewees in our sample reflects the number of male PCPs practicing in Australia (59%).[20] It is possible that the qualitative method of data collection in our study may have appealed more to female PCPs, than males, consistent with previous research investigating the representation of women in qualitative research,[21] and online survey preferences among males.[22] In some cases, targeted advertising or

oversampling may be necessary to account for underrepresented populations such as male PCPs. Described as purposive sampling in qualitative research, this is commonly used to increase diversity and breadth of the sample, removing the focus from the total sample size achieved.[11]

Alternatively, a choice of different participation modes may be offered to appeal to the preferences of different groups, whilst obtaining a range of opinions. A survey for example could be administered by telephone as a structured interview, with the interviewer recording participants' responses. Although we did not observe any significant differences in our sample between early respondents and late respondents (i.e. those who responded without or with follow-up), targeted sampling may be beneficial in other study samples to encourage early responses, where demographic or other differences may be expected or previously observed. Targeted sampling and offering different participation modes in such populations may, in turn, reduce resources allocated to follow-up of non-respondents by encouraging early opt-in.

An unexpectedly successful factor potentially contributing to PCPs likelihood of participation, was the personalization of study documents (including nominating patients' names in our invitation letter, and Head of Department signatures and photos). Linking PCPs to the nominating childhood cancer patients appeared to have a positive effect on PCP opt-ins, a method shown to improve participation to surveys in similar populations.[23] Personalization appeared to have a positive influence on PCPs and may have helped establish a connection between the PCP, their patient, the treating hospital, and the researcher, potentially increasing the project's relevance and value. Whilst no survivor-related factors were significantly associated with PCPs' likelihood of participating, linking the study to a particular patient did appear to have some influence as reported anecdotally by PCPs and even secretaries. In one instance, for example, one secretary commented that they were

surprised the PCP had agreed to participate as they usually declined all research. Further enquiry revealed that the PCP agreed since their patient had nominated them for the study. This highlights the potential power of including nominating patients in the study design, or personalizing invitations, to encourage PCPs to participate. However further research is required which systematically compares PCPs' likelihood of responding to qualitative studies, compared with non-personalized invitations.

Despite being potentially time consuming, follow-up of non-respondents in our study increased the number of respondents by almost 60%. However, PCPs who needed to be followed-up did appear to take longer to eventually complete an interview, and only 6 PCPs actively declined to participate. This may be a reflection of the fact that these PCPs were already more likely to be slower to participate, due to busier workloads, other priorities, or perhaps less enthusiasm about the study, than early respondents. A longer time from opt-in to interview completion may have also been due to persistent rounds of 'phone-tag' between the study team and PCP. Another hurdle is practice managers or secretaries acting as a 'gate-keepers' to PCPs, filtering communication with the PCP based on whether they believed the PCP would be interested. Others have recommended employing an individual with the title 'Dr' to make contact, as a possible strategy to better engage with PCPs directly.[1] Half of PCPs in our study opted in, and none declined, using the card, instead conveying preferences during telephone follow-up. Resources directed toward follow-up may be equally as important for establishing PCP participation preferences, particularly for opt-ins.

A range of other design factors incorporated in our study, such as offering a choice of data collection method and use of incentives, may have also influenced PCPs decision to participate or not. We have developed a number of recommendations based on literature and our experience in this qualitative study, detailed in Table 3.

CONCLUSION

Factors such as follow-up, incentives, linking the study to specific patients, and careful study design and piloting helped us exceed our target sample size (N=30-40), in order to achieve data saturation. Increasing PCP response rates using these methods was essential to strengthen the quality of findings, and offer breadth in the perspectives obtained. Whilst few physician or survivor factors appeared to significantly predict PCPs' participation in this qualitative study, our results promote the value of follow-up and opt-in cards for PCP recruitment to interview studies. Direct methods of contact for study invitation and follow-up may also be more successful for recruitment, rather than relying on a third party to pass messages on. Efforts to encourage early responses may reduce study resources used, particularly in following-up non-respondents. Anecdotal evidence of linking PCPs to a specific patient who nominated them was surprisingly positive on PCPs' involvement, and further research should evaluate its true impact. We presented additional strategies form the literature and our experience which may also facilitate future recruitment of PCPs to qualitative or mixed-methods research, including personalized invitations, incentives, targeted sampling and careful study design. Implementing these strategies in future studies may improve response rates, and help reduce susceptibility to nonresponse, or late respondent, biases. However further research is still needed which systematically investigates the unique impact of these strategies on PCPs' responses to interviews and other qualitative studies.

Conflict of interest: The authors declare that they have no conflict of interest.

Acknowledgements: We would like to acknowledge the contribution of Ms Tali Foreman, Ms Brittany McGill, and Ms Rebecca Hill who conducted interviews. We would also like to thank the childhood cancer survivors, parents and primary care physicians who participated

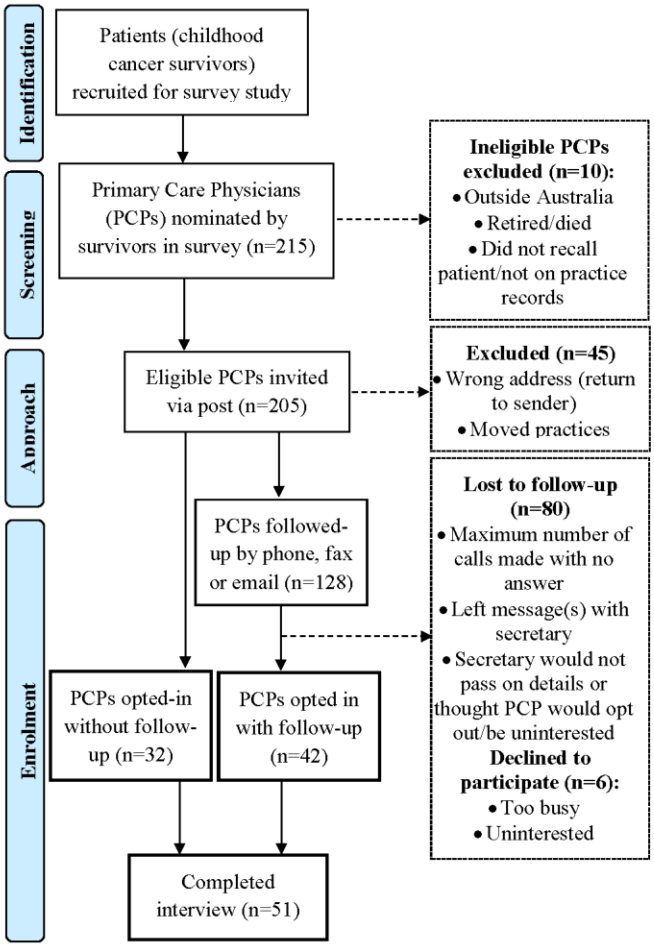
as well as each of the recruiting sites for the ANZCHOG Survivorship Study including Sydney Children's Hospital Randwick, the Children's Hospital at Westmead, John Hunter Children's Hospital, the Royal Children's Hospital Melbourne, Monash Children's Hospital Melbourne, Lady Cilento Children's Hospital Brisbane, Princess Margaret Children's Hospital Perth, Women's and Children's Hospital Adelaide, and in New Zealand, Starship Children's Health, Wellington Hospital and Christchurch Hospital.

Funding: The Behavioural Sciences Unit is proudly supported by the Kids with Cancer Foundation. Christina Signorelli and Joanna Fardell are supported by The Kids' Cancer Project. Claire Wakefield is supported by a Career Development Fellowship from the National Health and Medical Research Council of Australia (APP1067501). The BSU's survivorship research program is funded by the Kids' Cancer Project and a Cancer Council NSW Program Grant PG16-02 with the support of the Estate of the Late Harry McPaul.

Legends

Figure 1. Recruitment process flowchart

Recruitment process flowchart



References

1. Mitchell G, Veitch C, Hollins J, Worley P. General practice research: problems and solutions in participant recruitment and retention. *Australian family physician.* 2001;30(4):399.
2. VanGeest JB, Johnson TP, Welch VL. Methodologies for improving response rates in surveys of physicians a systematic review. *Evaluation & the Health Professions.* 2007;30(4):303-321.
3. Senf JH. The Option To Refuse A Tool in Understanding Nonresponse in Mailed Surveys. *Evaluation Review.* 1987;11(6):775-781.
4. Kaner E, Haighton CA, McAvoy BR. 'So much post, so busy with practice--so, no time!': a telephone survey of general practitioners' reasons for not participating in postal questionnaire surveys. *Br J Gen Pract.* 1998;48(428):1067-1069.
5. Thompson WT, Cupples ME, Sibbett CH, Skan DI, Bradley T. Challenge of culture, conscience, and contract to general practitioners' care of their own health: qualitative study. *BMJ: British Medical Journal.* 2001:728-731.
6. Armstrong D, Ashworth M. When questionnaire response rates do matter: a survey of general practitioners and their views of NHS changes. *Br J Gen Pract.* 2000;50(455):479-480.
7. Edwards P, Roberts I, Clarke M, et al. Methods to increase response rates to postal questionnaires. *Cochrane Database Syst Rev.* 2007;2(2):MR000008.
8. McKinn S, Bonner C, Jansen J, McCaffery K. Recruiting general practitioners as participants for qualitative and experimental primary care studies in Australia. *Australian journal of primary health.* 2015;21(3):354-359.
9. Hocking JS, Lim MS, Read T, Hellard M. Postal surveys of physicians gave superior response rates over telephone interviews in a randomized trial. *Journal of clinical epidemiology.* 2006;59(5):521-524.

10. Russell CK, Gregory DM. Evaluation of qualitative research studies. *Evidence Based Nursing.* 2003;6(2):36-40.

11. Wilmot A. Designing sampling strategies for qualitative social research: with particular reference to the Office for National Statistics' Qualitative Respondent Register. *Survey methodology bulletin-office for national statistics.* 2005;56:53.

12. Asch DA, Jedrziewski, M Kathryn Christakis, Nicholas A. Response rates to mail surveys published in medical journals. *Journal of clinical epidemiology.* 1997;50(10):1129-1136.

13. Hamilton RJ, Bowers BJ. Internet recruitment and e-mail interviews in qualitative studies. *Qualitative Health Research.* 2006;16(6):821-835.

14. Pope C, Mays N. Reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ: British Medical Journal.* 1995;311(6996):42.

15. Britten N, Jones R, Murphy E, Stacy R. Qualitative research methods in general practice and primary care. *Family practice.* 1995;12(1):104-114.

16. Fardell J, Wakefield C, Signorelli C, et al. Transition of childhood cancer survivors to adult care: The survivor perspective. *Pediatric Blood & Cancer.* 2016.

17. Vetsch J, Fardell JE, Wakefield CE, et al. "Forewarned and forearmed": Long-term childhood cancer survivors' and parents' information needs and implications for survivorship models of care. *Patient Education and Counseling.* 2016.

18. Information and Research Branch of the Commonwealth Department of Health and Aged Care. Measuring Remoteness: Accessibility/Remoteness Index of Australia (ARIA). Canberra: Australia, 2001.

19. Smith G. Does gender influence online survey participation?: A record-linkage analysis of university faculty online survey response behavior. *ERIC Document Reproduction Service No. ED 501717.* 2008.

20. Australian Institute of Health and Welfare. Medical workforce 2012. Canberra: AIHW, 2014. (AIHW Cat. No. HWL 54; National Health Workforce Series No. 8.) http://www.aihw.gov.au/publication-detail/?id=60129546100 (accessed Oct 2016).

21. Ashmos Plowman D, Smith AD. The gendering of organizational research methods: Evidence of gender patterns in qualitative research. *Qualitative Research in Organizations and Management: An International Journal.* 2011;6(1):64-82.

22. Sax LJ, Gilmartin SK, Bryant AN. Assessing response rates and nonresponse bias in web and paper surveys. *Research in higher education.* 2003;44(4):409-432.

23. Moss VD, Worthen ER. Do personalization and postage make a difference on response rates to surveys of professional populations? *Psychological reports.* 1991;68(2):692-694.

24. Sudman S. Mail surveys of reluctant professionals. *Evaluation Review.* 1985;9(3):349-360.

25. Thorpe C, Ryan B, McLean S, et al. How to obtain excellent response rates when surveying physicians. *Family practice.* 2009;26(1):65-68.

26. Heijmans N, van Lieshout J, Wensing M. Improving participation rates by providing choice of participation mode: two randomized controlled trials. *BMC medical research methodology.* 2015;15(1):1.

27. Gendall P, Leong M, Healey B. The effect of pre-paid non-monetary incentives in mail surveys. Paper presented at: proceedings of ANZMAC 2005 Conference, December2005.

28. Young JM, O'Halloran A, McAulay C, et al. Unconditional and conditional incentives differentially improved general practitioners' participation in an online survey: randomized controlled trial. *Journal of clinical epidemiology.* 2015;68(6):693-697.

29. Robertson J, Walkom EJ, McGettigan P. Response rates and representativeness: a lottery incentive improves physician survey return rates. *Pharmacoepidemiology and drug safety.* 2005;14(8):571-577.

Table 1 Summary of the invitation, follow-up, and contribution of recruited PCPs

PCP factors	N (%)
PCP elected means of opting-out	
Opt-out card returned	6 (100.0)
During telephone follow-up	0 (0.0)
Type of respondents	
Early (opted-in without any follow-up)	32 (43.2)
Late (opted-in after follow-up)	42 (56.8)
Method of follow-up	
No follow-up	32 (20.0)
Telephone	106 (66.3)
Fax	12 (7.5)
Email	9 (5.6)
Two or more of the above methods	41 (25.6)
Method of scheduling interviews	
Telephone	36 (51.4)
Email	38 (48.6)
Proportion of scheduled interviews that were completed	51 (71.6)
PCP elected mode of participation	
Telephone	51 (100.0)
Face-to-face	0 (0.0)
Time of interview	
Before 9am	4 (7.8)
9am – 11am	8 (15.7)
11am to 2pm	27 (52.9%)
2pm to 6pm	10 (19.6)
After 6pm	1 (2.0)
	Mean (SD)
Days from invitation to opt-in	22.2 (21.0)
	7-96
Days from opt-in to interview completion	12.4 (10.5)
Range	1-64
Length of interview (in minutes)	19.9 (7.2)
Range	11-41

Experience as PCP (in years)	28.3 (11.7)
Range	8-60

Table 2 Comparison of respondent and non-respondent characteristics

	Demographic	Respondents	Non-respondents	P value
PCP-related factors	**Sex,** N (%)			*p=0.013*
	Male	29 (19.1)	123 (80.9)	
	Female	22 (34.9)	41 (65.1)	
	Practice Location, N (%)			*p=0.676*
	Major city	48 (32.9)	98 (67.1)	
	Inner regional	14 (35.0)	26 (65.0)	
	Outer regional	12 (41.4)	17 (58.6)	
Survivor-related factors	**Sex,** N (%)			*p=0.359*
	Male	34 (46.6)	75 (53.2)	
	Female	39 (53.4)	66 (46.8)	
	Age			*p=0.586*
	Mean (SD)	22.3 (9.4)	21.6 (9.4)	
	Diagnosis, N (%)			*p=0.517*
	Leukemia	27 (37.5)	64 (45.7)	
	Lymphomas	8 (11.1)	19 (13.6)	
	Brain cancers	8 (11.1)	11 (7.9)	
	Other	29 (40.3)	46 (32.9)	
	Years as PCP's patient			*p=0.801*
	Mean (SD)	10.9 (7.7)	11.3 (8.5)	
	Years since primary diagnosis			*p=0.846*
	Mean (SD)	16.7 (7.7)	16.5 (8.8)	
	Years since treatment completion			*p=0.786*
	Mean (SD)	14.7 (7.8)	14.1 (8.2)	

Table 3 Recommendations for future qualitative studies in primary care

Recommendation	Details
Interview design and piloting	• Engage a team of clinicians and researchers relevant to the research topic, to guide the development of the interview. Their unique perspectives may help balance the reliability and clinical relevance of the findings, particularly important to translational research
Consumer engagement	• Consider involving PCPs in the initial study design. Engaging PCPs early, to inform the study design based on their preferences, may enhance the reach, relevance, and potential participation
Recruitment strategies	• Consider the chosen method of data collection, and if needed implement targeted sampling to ensure scope of responses and representativeness

	• Include opt-in/opt-out cards, to promote trust in the researcher, and potentially participation
Personalization	• Incorporate participant names and specific patient(s) (if applicable) names to increase the relevance and value of the study to participants • Include photos of researchers/clinicians involved in the study, logos of supporting institutions, and sign off by a "Dr" to create link between the patient, physician and researchers • Highlight the relevance of study participation to PCPs, and translation of results in future practice, in study documents
Methodology choice	• Offer a choice of participation methods to appeal to a range of participants. Researchers should collect and record data in a similar way to ensure data is still comparable (e.g. recording responses on a survey during whilst conducting a telephone interview) • Keep method as concise as possible, to reduce the potential burden on already time-poor PCPs. Semi-structured interviews can offer the flexibility to prompt for detailed responses, or keep to a succinct schedule if needed. Regular time checking (asking participants if they are okay to continue, and letting them know how much is left to go) can help establish expectations early on, and reduce the likelihood of unfinished interviews
Follow-up	• Follow-up PCPs directly where possible, and preferably by email to encourage responses in their own time
Incentives	• Consider providing monetary incentives for participants, ideally before participation

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Title:
Recruiting primary care physicians to qualitative research: Experiences and recommendations from a childhood cancer survivorship study

Date:
2018-01-01

Citation:
Signorelli, C., Wakefield, C. E., Fardell, J. E., Thornton-Benko, E., Emery, J., McLoone, J. K. & Cohn, R. J. (2018). Recruiting primary care physicians to qualitative research: Experiences and recommendations from a childhood cancer survivorship study. PEDIATRIC BLOOD & CANCER, 65 (1), https://doi.org/10.1002/pbc.26762.