

USING COGNITIVE INTERVIEWING TO DEVELOP AN ONLINE SURVEY OF PARENT PERSPECTIVES ON DATA SHARING

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INTRODUCTION

Surveys are a valuable data collection method, but their validity decreases if participants misinterpret or cannot respond to questions. Cognitive interviewing is a qualitative method to identify survey problems. This method can advance survey validity and reliability by incorporating participant perspectives during questionnaire development [1]. Higher response rates can be expected when using this technique [2]. Despite its utility, cognitive interviewing is little used in pediatric and perinatal epidemiology. This paper discusses the use and implications of cognitive interviewing to promote the validity of an online survey of a complex and uncommon topic in the parenting population: secondary data use and research data repositories.

METHODS

Participants were recruited using a participant list from two Alberta birth cohorts: All Our Babies and Alberta Pregnancy Outcomes and Nutrition (APrON). Participants were called randomly and asked to participate in a one-hour interview. Nine individual interviews were completed where participants completed a draft, online questionnaire. Probing questions were used to gauge understanding, survey perceptions, and question appropriateness. Interviews were audio-recorded and detailed notes were taken to capture feedback. The interviewer debriefed after every 2-3 interviews with two team members, which led to iterative probe modification, interview focus redirection and development of alternative questions and information. A matrix was developed to compare and contrast data collected. This information and interviewer experience was used to modify the survey.

RESULTS

The cognitive interviews yielded three major insights for survey improvement. First, the interviewer witnessed varied participant experiences with the survey: some participants enjoyed the process, while others struggled to point of frustration. Reframing the language and adding polar questions aimed to promote comprehension. Second, the topic's complexity revealed the utility of "educational"

questions, which may not provide new information, but would allow participants to think through issues. Third, "educational" questions and sufficiency of background information must be tempered to avoid the survey length being overly-burdensome to participants. The modified survey was distributed to a larger population of parents from both cohort studies in August 2014.

From the following list of **proposed benefits** to sharing research data, please select the benefit that you think is the most important. If you select "Other", please explain.

- The ability to confirm the original research
- Increasing research opportunities
- Increasing the efficiency of the researcher's time, cost and burdens
- Reducing the burden on participants in future studies, especially their time and effort
- Other (please explain)

PROBE:

*What do you think research opportunities are?
What do you think increasing efficiency means?
Do the choices make sense overall? Can you see the difference between them? If they are confusing, how would you rephrase them?*

Figure 1. Sample survey question and cognitive interviewing probes used to elicit information.

CONCLUSIONS

Using cognitive interviewing, researchers can advance the survey validity by witnessing participant survey experiences, and participants' responses to probing questions. By increasing comprehension and lessening frustration, researchers increase the accuracy of data collected from parents on a complex, uncommon topic.

REFERENCES

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