



The pitfalls of a qualitative research on psychological perception changes among COVID-19 frontline caregivers

Xiang Gao^{1*}, Nathan J Deming^{1,2}

¹Department of Health and Exercise Science, College of Health and Human Sciences, Colorado State University, Fort Collins, Colorado 80523-1582, U.S.A.

²Air Force Institute of Technology, Wright-Patterson Air Force Base, OH, U.S.A.

Correspondence

Xiang Gao, MD, MPH, PhD student
Department of Health and Exercise Science,
College of Health and Human Sciences,
Colorado State University, 217 E Moby
B Complex, 1582 Campus Delivery, Fort
Collins, Colorado 80523-1582, U.S.A.
E-mail: Xiang.Gao2@colostate.edu
Phone: (812)-558-6585

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Introduction

We enthusiastically read the article titled “A qualitative study on the psychological experience of caregivers of COVID-19 patients” by Sun and colleagues [1]. Although this study shed light on caregivers’ psychological perception patterns of COVID-19 and how those caregivers have changed their perceptions over the COVID-19 pandemic, the limitations that existed in their methodology cannot be ignored.

First, the researchers should have designed the interview questions as short answer threads with prompts that may have elicited more productive information. When the researchers developed interview guiding questions in a short fashion, (i.e., What are your coping strategies?) these short questions may discourage interviewees to fully explore and expand their thoughts toward COVID-19 and how they personally deal with COVID-19 fears, thus leading to closed answers (i.e., I don’t have such COVID-19 coping strategies). Further, the prompts designed in this study are somehow overlapped to the guiding questions. For example, one prompt is asking how the caregivers felt when they participated in COVID-19 related work. This prompt is almost identical to its related guiding question of asking what the feelings of nursing care providers were for COVID-19 patients? Generally, the guiding questions are the topics that interviewers want to deliver during an interview. The prompts are used to elicit participants to explore their perspectives on a topic that is interesting to the interviewers. To better explore caregivers’ perceptions toward COVID-19, future researchers may consider revising the prompts to, “How do you think your chance of suffering mental health disparities (i.e., depression) compared to those caregivers who did not participate in COVID-19

related work?” Additionally, it is unclear whether the interviewers had an in-depth investigation during the interview process as this dynamic conversation of back-and-forth interactions between the interviewers and the interviewees is lacking throughout the study. Therefore, in this particular case, the interviewees may become less motivated and loosely engaged [2]. These issues could have been identified, corrected, or completely avoided if the researchers held the briefing sessions. In such briefing discussions, the researchers can review, discuss, and analyze the difficulty that they encountered during the interview process. Once researchers identify the potential problems, they could then make suggested changes to avoiding such issues in the following interviews.

Second, severe issues may arise when the interviewers perform the interview and/or transcription process in a language in which they are not fluent. The validity and reliability of qualitative research remains questionable if the interviewers carry out the interview process in a language that is not the first language of interviewers, interviewees, or transcriptionists [2,3]. The researchers conducted this study in China, however, the authors did not mention whether they performed the interview process in Chinese, English, or another language. Herein lies a critical problem - when the interviewers speak a second language to interviewees, the interviewees may feel challenged to express their opinions and feelings due to the language barrier requiring them to search for words that truly explain their thinking. Even though the interviewees may convey their thoughts, the interviewers may not understand what they are referring to if English is not their first language. Additionally, the transcription process’ validity will subsequently be compromised due to this second language issue if the transcriptionists are not English speakers or writers, thus leading to misinterpretation of essential information.

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The authors should have addressed these language concerns to ensure that 1) the interviewees clearly understand the conversation; 2) the transcription process is clear and correct; and 3) the interviewers validate the interviewee's contribution and thoughts.

Third, our previous work has shown that the one-by-one interview is less productive to elicit the information than semi-structured interviews [4]. The most prevalent use of one-by-one interviews before conducting semi-structured interviews is to elicit key information from anticipating participants, ultimately leading to better recruitment, reliable interview guided development, and a validated interview process [5]. During a one-by-one interview, the principal investigator only needs to talk to 1 or 2 individuals from each of their key categories to maximize the effectiveness of their full set of interviews [6]. On the contrary, a semi-structured interview is designed to 1) explore and expand the interviewee's opinions, thoughts, and beliefs toward a specific topic like COVID-19; and 2) dive into an in-depth investigation of personal experience [5]. So, a semi-structured interview may have better fit the goal of this study to explore psychological perceptions in COVID-19 caregivers than the chosen one-by-one interview process.

Further, phone interviews used in this study may have impacted the validity of investigating caregivers' true feelings toward COVID-19. One disadvantage of a phone interview is that it lacks social cues [7]. Phone interviewers must pay more attention to the questions and the answers only by the verbal communication while face-to-face interviews allow both interviewer and interviewee to see what the other is saying. By doing so, face-to-face interviewees will give their responses more spontaneously and less deliberately [8]. This phone interview method negated the utility of body language and facial expression. Moreover, conducting successful face-to-face interviews requires an environment where the interviewees are committed to the process without interruption. Compared to these face-to-face interviews, phone interviewers and interviewees may have a less desirable interview environment (i.e., a computer screen or television is on, they are playing a game on their phone, or they are having a fun on the internet, etc.). Finally, phone interviewees can be visible to their employers, making them abruptly end if the interviewee is called away by their employer for other business [8]. Taken together, using a phone interview to collect interviewees' opinions could compromise the accuracy of the data. Conducting face-to-face interviews provides a solution to the disadvantages of a phone interview.

Despite the findings from this study providing a greater understanding of the psychological perception changes toward the COVID-19 pandemic in frontline caregivers, limitations in the author's methodology exist. We believe that our thoughts will improve the qualitative methods used in this study and

bolster future projects and their utilization of interviews to ultimately make more robust conclusions.

Disclaimer

The views expressed are those of the authors and do not necessarily reflect the official policy or position, either expressed or implied, of Colorado State University, the United States Air Force, Department of Defense, or the United States Government.

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Conflict of interest

All authors have no conflicts of interest to declare.

Contribution

Xiang Gao was the primary author of the letter. Nathan J. Deming reviewed, edited, and revised several drafts of this letter. All authors contributed equally to this letter.

Ethical Statement

The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

References

1. Sun N, Wei L, Shi S, Jiao D, Song R, Ma L, et al. A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American journal of infection control*. 2020;48(6):592-8.
2. Arsenaault-Côté D, Morrison-Beedy D. Focus on research methods. Maintaining your focus in focus groups: Avoiding common mistakes. *Research in Nursing & Health*. 2005;28:72-9.
3. MacLean LM, Meyer M, Estable A. Improving accuracy of transcripts in qualitative research. *Qualitative health research*. 2004;14(1):113-23.
4. Gao X, Deming NJ, Cavalier AN. Qualitative research of perceptions toward cancer and tobacco in firefighters. *Safety and Health at Work*. 2021.
5. Longhurst R. Semi-structured interviews and focus groups. *Key methods in geography*. 2003;3(2):143-56.
6. Berry RS. Collecting data by in-depth interviewing. 1999.
7. Novick G. Is there a bias against telephone interviews in qualitative research? *Research in nursing & health*. 2008;31(4):391-8.
8. Opdenakker R, editor Advantages and disadvantages of four interview techniques in qualitative research. *Forum qualitative sozialforschung/forum: Qualitative social research*; 2006.