

Using Zoom Videoconferencing for Qualitative Data Collection: Perceptions and Experiences of Researchers and Participants

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Abstract

Advances in communication technologies offer new opportunities for the conduct of qualitative research. Among these, Zoom—an innovative videoconferencing platform—has a number of unique features that enhance its potential appeal to qualitative and mixed-methods researchers. Although studies have explored the use of information and communication technologies for conducting research, few have explored both researcher and participant perspectives on the use of web and videoconferencing platforms. Further, data are lacking on the benefits and challenges of using Zoom as a data collection method. In this study, we explore the feasibility and acceptability of using Zoom to collect qualitative interview data within a health research context in order to better understand its suitability for qualitative and mixed-methods researchers. We asked 16 practice nurses who participated in online qualitative interviews about their experiences of using Zoom and concurrently recorded researcher observations. Although several participants experienced technical difficulties, most described their interview experience as highly satisfactory and generally rated Zoom above alternative interviewing mediums such as face-to-face, telephone, and other videoconferencing services, platforms, and products. Findings suggest the viability of Zoom as a tool for collection of qualitative data because of its relative ease of use, cost-effectiveness, data management features, and security options. Further research exploring the utility of Zoom is recommended in order to critically assess and advance innovations in online methods.

Keywords

videoconferencing, web conferencing, technology, Zoom, qualitative methodology, online research methods, interviews, nurses, health research

“The potential for video conferencing as a research tool is almost unlimited” (Sullivan, 2012, p. 60)

can replicate, complement, and possibly improve upon traditional methods, including in-person interviews and focus groups (Braun, Clarke, & Gray, 2017; Cater, 2011; Deakin &

Background

Advances in information and communication technologies offer new opportunities for interviewing research participants (Kenny, 2005), yet research into the use of digital technologies as data collection tools is still at an early stage. Key advantages of digital technologies for researchers include (a) improved Internet access and increased use of electronic devices worldwide; (b) convenience and cost-effectiveness of online methods compared to in-person interviews or focus groups, particularly when conducting research with participants over a large geographical spread; and (c) the understanding that online methods

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Wakefield, 2014). Similarly, for research participants, online methods may be more attractive than in-person interviews due to features including convenience, efficiency, cost-effectiveness, and flexibility (Hewson, 2008; Horrell, Stephens, & Breheny, 2015). Within many research contexts, these considerations are especially pertinent given the need to engage multiple stakeholder groups and communicate with geographically dispersed individuals in contexts with limited resources. However, it can be challenging for researchers to maintain familiarity with rapidly changing communication technologies, meaning that the potential utility of these platforms as research tools may be underrecognized and underutilized. Given the significant potential of online communication technologies to support qualitative data collection, further research into participant and researcher perceptions and experiences of using online methods and specific technologies is necessary.

Literature on the use of video and conference technology—also known as Voice over Internet Protocol (VoIP)-mediated technologies (e.g., Skype, FaceTime)—for online qualitative data collection is limited (Lo Iacono, Symonds, & Brown, 2016; Sullivan, 2012; Weller, 2017). When discussed, these online methods are often considered jointly with other Internet communication technologies such as instant messaging (IM) services or online focus groups (OFGs; Hesse-Biber & Griffin, 2012; Lo Iacono et al., 2016; Sullivan, 2012). VoIP technologies differ significantly from asynchronous (i.e., communication that occurs at different times) online interviewing methods (e.g., e-mail, IM, OFGs) and synchronous Internet methods (e.g., chat rooms) because they allow for real-time interaction involving sound, video, and often, written text. Such technologies therefore replicate features of face-to-face interviews (i.e., ability to transmit and respond to verbal and nonverbal cues) while providing unique advantages, challenges, and considerations (Lo Iacono et al., 2016).

Despite advantages including convenience and interactivity, qualitative researchers have discussed a number of ethical, practical, and interactional issues associated with the use of VoIP technologies such as Skype (e.g., Seitz, 2016; Weller, 2015). Typical issues associated with using Skype reported in previous studies include dropped calls and pauses, poor audio or video quality, and the inability to read nonverbal cues as a result of inconsistent and delayed connectivity (Deakin & Wakefield, 2014; Weller, 2015). Critically, Skype does not currently offer the ability to record sessions securely and instead requires use of third-party providers (Skype Technologies, 2018). Over time, it is likely that emergent VoIP platforms will address such issues and improve upon current services by offering enhanced performance and functionality, support for compatibility across operating systems, and an expanded suite of features.

Zoom as a Research Tool

Zoom is a collaborative, cloud-based videoconferencing service offering features including online meetings, group

messaging services, and secure recording of sessions (Zoom Video Communications Inc., 2016). As with comparable platforms like Skype, Zoom offers the ability to communicate in real time with geographically dispersed individuals via computer, tablet, or mobile device. However, unlike many other VoIP technologies, Zoom possesses a number of additional advantages that enhance its potential research utility. A key advantage of Zoom is its ability to securely record and store sessions without recourse to third-party software. This feature is particularly important in research where the protection of highly sensitive data is required. Other important security features include user-specific authentication, real-time encryption of meetings, and the ability to backup recordings to online remote server networks (“the cloud”) or local drives, which can then be shared securely for the purpose of collaboration (Zoom Video Communications Inc., 2016).

The possibility that VoIP technologies like Zoom can improve researchers’ and participants’ experiences of qualitative data collection is yet to be validated. The merits and shortcomings of VoIP technologies, as well as comparisons with in-person data collection, are typically based on researchers’ subjective assessments of the quality of interview data. However, as Weller (2015) argues, “participants’ experiences and assessments of the process have received far less attention” (p. 6), thus hindering efforts to improve interview quality and explore novel research applications. Further, most of the literature has concentrated on asynchronous online discussion forums rather than synchronous interaction (Fox, Morris, & Rumsey, 2007). Research evaluating the utility of Zoom as a platform for qualitative data collection can guide decisions about its possible application and also inform strategies to overcome context- or platform-specific obstacles to support positive partnerships between researchers and participants.

In this article, we report on researchers’ and participants’ perceptions and experiences of using Zoom for conducting interviews with a geographically dispersed group in Australia. In assessing the potential usefulness of Zoom for qualitative data collection, this study contributes to increasing awareness of methodological options available to qualitative researchers and provides practical recommendations for future applications.

Method

The research is part of a broader study exploring stakeholders’ perspectives on frailty and frailty screening (Archibald et al., 2017), which is the first phase of a 5-year National Health and Medical Research Council funded Centre of Research Excellence (CRE) in Trans-disciplinary Frailty Research. Among the various stakeholder groups selected in the wider research program were practice nurses (i.e., nurses working in general practice) who may be involved in frailty screening administration, care, and treatment. Originally, we intended to recruit between 10 and 32 South Australian nurses who were working in general practice settings to participate in two to four focus groups, to be held either in-person or virtually. Our initial approach was facilitated through local Primary Health Networks (federal

government-funded organizations intended to work closely with health-care providers to increase access to primary care services within the community), to be followed by a “snowball” recruitment strategy using participating nurses.

Initial recruitment progressed slowly, resulting in insufficient numbers for focus groups. As a result, we reconsidered our approach. In order to retain the nurses we had recruited at that point, we began considering virtual one-on-one interviews. We anticipated that by using online communication software, we might be able to replicate the experience of face-to-face interviews. We also anticipated that such technology would allow us to achieve a broader geographical reach by extending our recruitment strategy beyond South Australia. In an aligned project, we had recruited 22 general practitioners to participate in a number of focus groups (two in-person and one virtual, conducted using Zoom), which had given us sufficient reason to believe that Zoom would be a feasible method for interview-based data collection. The Torrens University Higher Research Ethics Committee reapproved our revised recruitment strategy. We also increased a nominal payment to potential participants to reflect the time spent on the interview and promoted the study nationally via a widely distributed primary health-care e-newsletter. We obtained written informed consent from all participants prior to the interview and collected demographic information using SurveyMonkey.

Two researchers (R.A. and M.C.) interviewed the participants via Zoom. All interviews were audio- and video recorded, and participants reaffirmed consent verbally prior to the interviews. Interviews focused on participants’ perceptions of frailty and frailty screening and involved having participants rank order a number of frailty screening tools according to preference. Lastly, participants were asked four open-ended questions about their experience of using Zoom and were asked to assess key technical aspects of Zoom (video quality, sound quality, and lags in live feed) using a 5-point Likert-type response format. Unique identifiers were applied to each participant for referencing purposes and to protect confidentiality. All interview transcripts were professionally transcribed verbatim using a third-party provider to support rigorous analysis. The two researchers also evaluated their experiences of conducting each interview using a standardized assessment form (Supplementary Table 1).

One researcher (R.A.) collated responses to the demographic survey questions and calculated descriptive statistics for the sample. Another member of the research team (M.L.) independently analyzed the four open-ended responses using content analysis and qualitative description (Sandelowski, 2006), conferring with a second researcher (R.A.) to discuss and cross-compare interpretations. Likert-type scale responses were analyzed, and descriptive statistics were produced using Microsoft Excel software.

Results

We conducted interviews using Zoom with 16 nurses between March and August 2017. The interviews lasted between 50 and

Table 1. Participant Demographics.

Characteristic	<i>n</i>	%
Female	16	100.0
Age (years)		
Less than 35	3	18.8
35–44	2	12.5
45–54	11	68.8
Years since graduation		
Less than 5 years	1	6.3
5–10 years	2	12.5
11–20 years	3	18.8
Over 20 years	10	62.5
Location ^a		
Major cities	11	68.8
Inner/outer regional	3	18.8
Remote/very remote	2	12.5

Note. *N* = 16.

^aLocation classified by Australian Bureau of Statistics (ABS) remoteness structure (2016): Locality to remoteness area concordance (ABS, 2018).

Table 2. Researcher (*n* = 2) and Participant (*n* = 16) Ratings of Video Quality, Sound Quality, and Lag.

Quality ^a	Researcher Rating ^b		Participant Rating ^b	
	Median	Range	Median	Range
Sound	4.0	3–5	5.0	3–5
Video	5.0	1–5	5.0	4–5
Lag	1.0	1–5	1.0	1–5

^a“Sound” refers to ability to hear participants; “video” refers to ability to see participants; and “lag” refers to frequency of lags in live feed, audio, or video delay.

^bSpecific qualities were rated using a 5-point Likert-type scale (sound/video quality: able to see or hear: 1 = none of the time to 5 = all of the time; lag experienced: 1 = none of the time to 5 = all of the time).

92 min (*M* = 66 min; *SD* = 10 min). All participants were female, with the majority aged between 45 and 54 years. Most participants had graduated with their nursing degree over 20 years ago. The majority of participants were located within major Australian cities, although there were a number of respondents located within regional and remote areas. Participant characteristics are reported in Table 1. Findings are divided into two main sections, reflecting key advantages and disadvantages of Zoom as perceived by researchers and participants. Researcher and participant ratings of video quality, sound quality, and lag are provided in Table 2.

Advantages of using Zoom. Overall, there was agreement among researchers and participants that Zoom was a useful method for conducting qualitative interviews. The majority of participants (69%) identified Zoom as a preferred method compared to in-person interviews, telephone, or other videoconferencing platforms. Researchers and interviewees frequently reported the following points as key advantages of using Zoom for qualitative interviewing, reflecting impersonal, technical, and

logistical considerations: (1) rapport, (2) convenience, and (3) simplicity and user-friendliness.

Rapport. Many of the participants (69%) found Zoom to be useful in forming and maintaining rapport with the researcher, especially when compared to “nonvisual” communication mediums such as telephone or e-mail. Similar to research examining the use of Skype for qualitative interviewing (Deakin & Wakefield, 2014; Lo Iacono et al., 2016), participants commonly mentioned the ability to see the researcher and respond to nonverbal as an important aspect of establishing rapport, building interpersonal connection, or adding “a personal touch” (P1). Researchers also commonly identified the ability to respond to nonverbal cues such as facial expressions and gestures as important to facilitating engagement, building trust, and promoting natural, relaxed conversation. In some cases, researchers reflected that the ability to see the caller and respond to body language facilitated lively and engaging discussion, particularly when participants were familiar with videoconferencing technology. The researchers reflected that this allowed for rich data to be collected.

A number of participants (44%) spontaneously cited Zoom’s screen and file sharing options as notable advantages that facilitated greater engagement and strengthened rapport. Specifically, because the present study required participants to view and assess a series of screening tools, participants mentioned the ability to view PowerPoint slides in real time as highly useful. This benefit was exemplified by Participants 1 and 6, who stated that the ability to bring in slides (P1) and “split your screen” (P6) was particularly useful.

Although a number of participants preferred Zoom to asynchronous telephone or e-mail interviews, several commented that they would have preferred to meet in-person if it had been possible due to proximity but saw Zoom as “the next best thing” (P13) given time restraints, geographical distance, and other logistical considerations. Participants who preferred face-to-face interviews commonly referred to their interest and confidence in digital technologies. As one participant expressed,

... I would possibly come in and talk face to face, but then I’m old school and I like face to face things, but this is the closest thing I can get to face to face. (P11)

Convenience: access, time effectiveness, and cost-effectiveness. Participants and researchers commonly cited convenience, particularly in terms of access to geographically remote participants, cost-effectiveness, and time effectiveness, as a key advantage of Zoom. More than half of participants (56%) identified time effectiveness (“time is a precious moment for everybody... if this works, go this way,” P8) as a major advantage given their remote location, busy work schedule, and the likelihood of noisy or distracting working environments. Participants also identified the possible cost-effectiveness due to reduced travel expenses and the lack of up-front setup costs for basic plans as key benefits of Zoom. Similarly, researchers identified the possibility of greater flexibility in when and

where interviews can be conducted, and the saving costs from reduced or eliminated travel or venue hire expenses as strengths of using Zoom for data collection.

Researchers also identified possible greater reach for recruiting participants from regional and remote areas (nationally and globally) as a major advantage of Zoom over traditional face-to-face methods. Researchers reflected that the possibility of engaging previously inaccessible participants can improve research by increasing the breadth of perspectives represented, thereby maximizing research effort when limited resources are available (e.g., time, money).

Simplicity and user-friendliness. More than half of the participants (56%) mentioned simplicity and user-friendliness as key benefits of Zoom in comparison to webinar and alternative web conferencing platforms such as Skype. In particular, participants and researchers identified Zoom’s ease of connection, intuitive functionality (straightforwardness), and robust but simple privacy and security options (including ability to manage user and call metadata, secure webinar options, and secure recording on local devices or remote servers) as key strengths of the platform. The ease with which many participants securely logged into Zoom using a standard username was frequently compared to difficult experiences when logging into Skype.

Yeah, well it was pretty easy to connect... it seemed to be a bit easier than Skype, we do a lot of Skype here at the practice and there’s always a problem with passwords and everything else. Bit of a nightmare sometimes, so, no, this, no, it’s a pretty good system. (P12)

Zoom seems a lot easier and user-friendly than Skype... I had a lot more technical difficulties getting my Skype to work... like you’ve got to be you know... registered and logged in and those sorts of things whereas here I didn’t have to do as much logging in. (P11)

As we will discuss in the following section, researchers and participants experienced some difficulty initially establishing a connection. A comment from one participant suggests that prior independent trialing of the system may be a way of developing familiarity and competency with the technology, thereby learning how to overcome technical difficulties during recorded interviews.

I went on last night just to have a bit of a look to make sure it all actually worked and checked the sound... So, yeah, very easy... It went straight through, it was fine. Yeah, no, no challenges. Zero challenges. (P4)

Disadvantages of using Zoom. Although a majority of participants identified Zoom as preferred interview method, the following considerations were identified as challenges of the platform, reflecting issues associated with establishing call connection and audio or video reliability and quality.

Difficulty connecting. Despite finding Zoom to be intuitive and user-friendly, a majority (88%) of participants in the study experienced some degree of difficulty in joining the session.

Typical technical difficulties included low Internet bandwidth, outdated hardware, or limited webcam and/or microphone functionality. Participants rather than researchers mostly experienced these difficulties, likely reflecting differences in familiarity with Zoom or access to reliable, high-speed Internet.

Participants commonly expressed frustration when experiencing technical issues, especially in instances where technical difficulties lasted for several minutes. These frustrations were typically in relation to participants' perceived technical abilities ("I'm just not good at audio, that's all," P15) or the technological demands of the modern era ("You've gotta be a computer genius these days, haven't you, to do anything," P8). Although researchers experienced significant difficulties in establishing call connections with participants, such difficulties did not seem to have a lasting impact on researchers' and participants' satisfaction with the technical quality of the call, as indicated by ratings of sound quality, video quality, and lags in live feed. Rather, researchers found that the technical difficulties experienced often resulted in unintended benefits with regard to establishing rapport, through the protracted joint problem-solving process involved. One participant reflected this sentiment in comments after a lengthy period resolving multiple issues in initializing the session: "We did it. That was a practice run for somebody else" (P8). Comparably, another participant described the interview as a learning exercise and thanked the researcher for the learning opportunity: "It's all good learning . . . it's all stuff that, you know, it's good to know because this is what everyone does. So, thank-you for the opportunity" (P15).

Call quality and reliability issues. After having overcome the initial technical difficulties in establishing the call, some participants (25%) reported issues relating to video or audio quality during the interview. These instances may have been due to unreliable Internet connection or use of older machines or mobile devices, resulting in dropped calls, lost call connection, or lag. Two participants reported muffling of audio, although instances of poor audio quality were sporadic:

There were like, one or two bits where it just got a little bit muffled. (P3)

Just the sound's got a bit muffled every now and again, but I could still understand what you were saying. (P1)

Interruptions were occasionally caused by inadequate home or office setup of the participant. Setup issues included poor webcam functionality, software incompatibility, low device battery, or issues with audio (e.g., sound could not be heard without the use of headphones). Participants who mentioned these issues tended to attribute the problem to their own competence in using Zoom rather than to the technology itself. For example:

The technology was fine, it was just that the lack of computers that actually worked with audio and visual, and actually worked that was the problem, so it was a problem on my end, not the Zoom . . . It was all out of this end. (P2)

Discussion

Consistent with previous research into web conferencing technologies (e.g., Deakin & Wakefield, 2014; Hanna, 2012; Sullivan, 2012), we found that the benefits of using Zoom for data collection significantly outweighed the challenges encountered. A majority of participants did not report common technical challenges described in prior research, including loss of Internet connection (Fox et al., 2007) and poor sound/video quality (Sullivan, 2012; Tuttas, 2015; Williams, Sheffield, & Knibb, 2015), indicating that Zoom may be better suited to data collection than alternative VoIP technologies including Skype and FaceTime. Given the regional and remote location of many participants (31.3%), and the significant difference in Internet access between urban and rural areas in Australia, more technical challenges might have been expected. However, it is possible that recent government initiatives toward improving access to high-speed Internet in Australia may have increased access in certain regions.

Researchers' and participants' general satisfaction with Zoom was a promising indication of its suitability as a qualitative data collection tool that may complement or extend qualitative researchers' existing methodological options. In this study, it is possible that practice nurses' satisfaction with the technology could reflect their prior work-related experience with videoconferencing platforms. In comparison, other groups, such as those outside the health-care sector, may not have been exposed to similar technologies and may therefore experience a greater occurrence of difficulty. Given the diversity of users' experiences and capacities and the continuous innovations in digital technologies, we encourage researchers using digital and online data collection methods to include an evaluation of researcher and participant experiences. Such research can then inform future application of videoconferencing technologies in terms of contextual appropriateness, user satisfaction, and data integrity and quality.

There is some disagreement in the literature regarding the ease of establishing rapport using videoconferencing technology. It has been suggested that it may be more challenging to establish rapport using online platforms when compared to face-to-face interviewing (Cater, 2011). Other studies have found that Skype participants were typically more responsive, and built rapport more quickly, than face-to-face participants (Deakin & Wakefield, 2014; Tuttas, 2015). Although we did not compare interviews conducted using VoIP technologies to face-to-face interviews directly, we did not experience any difficulty in establishing rapport with participants to the extent reported in previous research into Skype interviewing, despite a high incidence of technical issues (e.g., Seitz, 2016; Weller, 2017). Rather, the experience of overcoming initial technical difficulties may have facilitated rapport building via collaborative problem-solving and by lengthening the initial "bonding" period between researcher and participant. Given that good rapport may be associated with higher quality data (Barratt, 2012), we encourage researchers using VoIP technologies for data collection to capitalize on unique opportunities for rapport

building, such as the need to collaboratively problem-solve and troubleshoot technical issues should they arise.

Participants' preference for Zoom was particularly noteworthy given that most were previously unfamiliar with the platform, although many were familiar with other video conference platforms, video-telephony products, and webinar delivery platforms such as FaceTime, Skype, and GoToWebinar. This finding suggests that Zoom is intuitive and user-friendly on first exposure and therefore potentially appropriate for use with a wide range of participants in varying contexts. Although participants experienced technical difficulty, a number of participants attributed such difficulties to their ability to use the technology effectively (i.e., digital literacy) rather than the usability of the Zoom platform. Exploring how and to what extent participants' digital literacy impacts digital qualitative data collection may be a useful avenue for future research.

Although most participants described Zoom as intuitive and user-friendly, we expect that participants' experiences of using the Zoom platform could be improved by providing further information about establishing call connection and equipment setup before scheduled interviews. For instance, a written instruction sheet or checklist outlining common technical difficulties could benefit participants (e.g., ensure webcam is turned on, check audio level), as could a Zoom user guide. Such strategies could help reduce the time spent trying to establish the call connection with participants and improve participant experience, particularly for those participants who lack confidence in using such technology. In addition, investigators of previous studies have advocated sufficient researcher preparation (e.g., acquiring knowledge to troubleshoot if technical issues arise; Tuttas, 2015). We suggest that encouraging participant preparation by partaking in a practice session, for example, might improve the interview experience by developing participants' videoconferencing proficiency and by building confidence. Although practice sessions and resource provision may increase researchers' time investment, preparation can be expected to increase capacity, reduce frustration, and minimize time lost due to technical delays (Seitz, 2016; Tuttas, 2015).

The ability to securely record Zoom interviews is a key advantage for researchers in terms of data management and security. These features also provide opportunities for unique approaches to knowledge generation by allowing multimodal analysis of visual, spatial, and temporal elements including body language (Davitti, 2019). By default, Zoom does not record individual sessions unless the user has previously enabled the setting for automatic recording within their user profile (i.e., specified under personal settings for paid users). Zoom has recently also enabled a feature, currently in beta, that provides a prompt for participants to give consent. With regard to recording storage, Zoom enables users to store recordings directly either on the host's local device with the local recording option (i.e., stored on the users' computer) or on Zoom's cloud using the "Cloud Recording" option, which is available to paying customers only. Recording preferences and location can be set within the desktop or mobile versions of the Zoom

application. However, the recording location option is not currently available when accessing Zoom via a web browser.

Unlike previous studies of web conferencing technologies (e.g., Tuttas, 2015), we did not experience any security issues or privacy breaches due to program features such as the ability to selectively invite participants and control the distribution of meeting access information. However, this same functionality allowed us to share access to the recordings with other members of the research team who were not located at the same site—an advantage that delivers particular benefits to cross-institutional and interdisciplinary research projects. Regarding privacy, Zoom's most recent privacy policy (<https://zoom.us/privacy>) at the time of writing (March 19, 2019) indicates that the platform collects and stores a range of personal information about users who are interacting with its service. This includes personal data (name and contact details, IP address, and device identifiers), user-generated information (meeting title, invitees, participants, call quality measures, messages and files shared between participants), and passive collection of data via the use of cookies and tracking technology (e.g., browser type, Internet service provider, referring/exit pages, operating system, etc.). The audio and video content of the meeting itself is not stored by Zoom unless the user has proactively selected this option via the user settings.

Given this, researchers using Zoom's platform for recording individual or focus group interviews should be aware that they and their institutions are responsible for notifying attendees that the session will be recorded and for obtaining the appropriate participant consents prior to commencement of the session. Those using the cloud-based option for storing recordings should note that the ensuing recording and associated personal data may be stored or transferred to servers located within the United States or to Zoom affiliates worldwide.

Individuals concerned about Zoom's collection and use of their data have a number of options available to them through the privacy policy. These include being able to request access to a copy of the data that Zoom is holding, asking for correction or supplementation of existing data, or requesting restrictions on further processing of data and deletion of existing records. Users may also lodge an objection to the collection and use of their data if appropriate and withdraw their consent at any time after data are collected.

Limitations and Future Research

This research was conducted with a relatively small sample of female practice nurses with a high level of education and professional experience and lacked a preinterview assessment of participants' perceptions of Zoom. Given this, we were unable to conclude whether participants' level of comfort and self-perceptions of their ability to use the technology either significantly increased or decreased after using Zoom. This is of interest given that we found that 88% of participants experienced some degree of difficulty joining the session. Future research could include a baseline assessment of participants'

perspective to determine whether confidence scores improve after interacting with the platform.

The professional background of our sample likely influenced the way nurses approached the “task” of the interview, as well as with how they handled technical setbacks, which in turn may have impacted their experience of using Zoom. Participant groups with diverse professional experiences and sociodemographic characteristics (e.g., people with low English proficiency, groups from nonprofessional backgrounds, professionals working in rural and remote locations, people with low levels of education) can be expected to have different capacities and interview mode preferences (digital vs. face-to-face). Diverse participant groups may therefore require tailored strategies to support confident use of technology and optimize data quality. Further research could compare the suitability of Zoom for various types of users, potentially informing the design of tailored strategies to increase confidence and improve digital literacy.

Although we did collect information regarding technical issues experienced by participant and researchers during the interviews, we did not conduct a formal usability analysis of the platform nor did we collect data on computer literacy skill levels from users. Limited published information is available on Zoom’s usability; in a recent study of a web-based group intervention for survivors of ovarian study, the authors report successfully switching to Zoom part way through the study to resolve connectivity issues experienced on an alternative videoconferencing platform (Kinner et al., 2018). Future studies could explore how computer literacy and platform usability impact on frequency and intensity of any technical issues reported.

Given that we assessed participants’ experiences and perceptions of Zoom through individual interviews, we are unable to make claims about the degree of consensus or dissent regarding advantages and disadvantages among the sample. Future studies in this area could consider using OFG methods to explore user perceptions and experiences of Zoom and comparable emerging videoconferencing technologies. This research could offer further insight into the usability of Zoom in multi-party synchronous online interaction (e.g., in online case conferences, research meetings) and examine differences in data quality, as well as methodological considerations in sampling and recruitment for instance, between one-on-one and group interview sessions. Further, comparing the challenges and benefits associated with using Zoom for multiple participants concurrently (e.g., OFGs) versus one-on-one interactions could be informative. Other potential research applications might include using Zoom to facilitate emerging research networks and collaborations, thereby enhancing reach and project viability, and potentially inform strategies to support digital literacy—a pertinent consideration given the rapid rate of technological advancement (Archibald & Barnard, 2018).

Conclusions

Researchers and practice nurses in this study commonly described Zoom technology in positive terms owing to its

convenience, ease of use, security, interactivity, unique features (e.g., screen sharing, video record option), and its ability to facilitate personal connections between users. These results suggest that Zoom may serve as a highly suitable platform for collecting qualitative interview data when compared to other commonly used VoIP technologies. Although initial difficulties in establishing the call were frequently encountered, such issues did not seem to impact the perceived quality and experience of the interview from either the participant or researcher perspective. We suggest that the incidence of technical difficulties may be reduced through the provision of written instruction before the interview and/or practice sessions.

To our knowledge, this study is the first to explore the suitability of Zoom for qualitative data collection and among the first to explore the experiences of web conferencing technology concurrently from the perspectives of researchers and participants. Further research is needed to guide decisions about how such technology can be successfully leveraged to complement and augment existing qualitative methods. However, given the capacity of videoconferencing to offer greater flexibility and widen participation while preserving data quality, Zoom and similar technologies are likely to make important contributions to the conduct of qualitative research in the future.

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Supplemental Material

Supplemental material for this article is available online.

References

- Archibald, M., Ambagtsheer, R., Beilby, J., Chehade, M., Gill, T. K., Visvanathan, R., & Kitson, A. (2017). Perspectives of frailty and frailty screening: Protocol for a collaborative knowledge translation approach and qualitative study of stakeholder understandings and experiences. *BMC Geriatrics*, 17, 87.
- Archibald, M., & Barnard, A. (2018). Futurism in nursing: Technology, robotics and the fundamentals of care. *Journal of Clinical Nursing, Special Issue Fundamental Care—Original Article*, 27, 11–12.
- Australian Bureau of Statistics. (2018). 1270.0.55.005—*Australian statistical geography standard (ASGS): Volume 5—Remoteness*

- structure, July 2016. Canberra, Australia: Australian Bureau of Statistics.
- Barratt, M. J. (2012). The efficacy of interviewing young drug users through online chat. *Drug and Alcohol Review*, 31, 566–572.
- Braun, V., Clarke, V., & Gray, D. (2017). Innovations in qualitative methods. In B. Gough (Ed.), *The Palgrave handbook of critical social psychology* (pp. 243–266). Basingstoke, England: Palgrave Macmillan.
- Cater, J. (2011). SKYPE—A cost-effective method for qualitative research. *Rehabilitation Counselors & Educators Journal*, 4, 10–17.
- Davitti, E. (2019). Methodological explorations of interpreter-mediated interaction: novel insights from multimodal analysis. *Qualitative Research*, 19, 7–29. doi:10.1177/1468794118761492
- Deakin, H., & Wakefield, K. (2014). SKYPE interviewing: Reflections of two PhD researchers. *Qualitative Research*, 14, 1–14.
- Fox, F., Morris, M., & Rumsey, N. (2007). Doing synchronous online focus groups with young people: Methodological reflections. *Qualitative Health Research*, 17, 539–547.
- Hanna, P. (2012). Using Internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research*, 12, 239–242.
- Hesse-Biber, S. N., & Griffin, A. J. (2012). Internet-mediated technologies and mixed methods research: Problems and prospects. *Journal of Mixed Methods Research*, 7, 43–61.
- Hewson, C. (2008). Internet-mediated research as an emergent method and its potential role in facilitating mixed-method research. In S. N. Hesse-Biber & P. Leavy (Eds.), *The handbook of emergent technologies in social research* (pp. 525–541). New York, NY: The Guildford Press.
- Horrell, B., Stephens, C., & Breheny, M. (2015). Online research with informal caregivers: Opportunities and challenges. *Qualitative Research in Psychology*, 12, 258–271.
- Kenny, A. J. (2005). Interaction in cyberspace: An online focus group. *Journal of Advanced Nursing*, 49, 414–422.
- Kinner, E. M., Armer, J. S., McGregor, B. A., Duffecy, J., Leighton, S., Corden, M. E., . . . Lutgendorf, S. K. (2018). Internet-based group intervention for ovarian cancer survivors: Feasibility and preliminary results. *JMIR Cancer*, 4, e1.
- Lo Iacono, V., Symonds, P., & Brown, D. (2016). Skype as a tool for qualitative research interviews. *Sociological Research Online*, 21, 12. doi:10.5153/sro.3952
- Sandelowski, M. (2006). What ever happened to qualitative description? *Research in Nursing & Health*, 23, 334–340.
- Seitz, S. (2016). Pixilated partnerships, overcoming obstacles in qualitative interviews via Skype: A research note. *Qualitative Research*, 16, 229–235.
- Skype Technologies. (2018). *How can I record my Skype calls?* Retrieved from <https://support.skype.com/en/faq/FA12395/how-can-i-record-my-skype-calls>
- Sullivan, J. R. (2012). Skype: An appropriate method of data collection for qualitative interviews? *The Hilltop Review*, 6, 54–60.
- Tuttas, C. A. (2015). Lessons learned using web conference technology for online focus group interviews. *Qualitative Health Research*, 25, 122–133.
- Weller, S. (2015). *The potentials and pitfalls of using Skype for qualitative (longitudinal) interviews*. Southampton, England: National Centre for Research Methods.
- Weller, S. (2017). Using internet video calls in qualitative (longitudinal) interviews: Some implications for rapport. *International Journal of Social Research Methodology*, 20, 613–625.
- Williams, S., Sheffield, D., & Knibb, R. C. (2015). “Everything’s from the inside out with PCOS”: Exploring women’s experiences of living with polycystic ovary syndrome and co-morbidities through Skype™ interviews. *Health Psychology Open*, 2, 1–10.
- Zoom Video Communications Inc. (2016). *Security guide*. Zoom Video Communications Inc. Retrieved from <https://d24cgw3uvb9a9h.cloudfront.net/static/81625/doc/Zoom-Security-White-Paper.pdf>