General Considerations for Conducting Online Qualitative Research and Practice Implications for Interviewing People with Acquired Brain Injury

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Abstract

Qualitative methodology is key to understanding the lived experience of people with acquired brain injury (ABI). However, as demonstrated during the global pandemic (COVID-19), face-to-face interviewing is not always viable. This lack of availability has been particularly relevant for people with disability who are at increased risk of contracting the virus and experiencing poorer outcomes. Fortunately, advancing technologies provide increasing opportunities for communicating online, thus it is plausible for qualitative disability researchers to adapt to remote interviewing. People with ABI often experience varying degrees of cognitive and communication impairments and therefore require specific considerations in the planning of research projects. In this paper, we examine learnings from existing literature around online qualitative research, specifically for videoconference, focus groups and email-interviewing methods. The key aim is to map out the practical, ethical and methodological considerations when adapting research to an online environment. As interviewing people with ABI online has received little attention in the literature, learnings from broader disability populations and the general population inform much of the considerations. Thus, the suggestions for practice are likely to be relevant to a broader population, but specific implications for people with ABI are discussed. Overall, we propose that it is viable, and sometimes preferable, to utilize online interview techniques but researchers must take care to consider the practical, ethical and methodological implications of doing so.

Keywords

methods in qualitative inquiry, community based research, focus groups, grounded theory, constructivist GT

Introduction

Traditionally face-to-face interview methods have been used to generate qualitative interview data (Creswell, 2013). However, with the catalyst of the global pandemic (COVID-19), more researchers are being forced to utilize online data collection methods due to social distancing regulations (Lobe et al., 2020). This option is especially important within disability research, as people with disability (PWD) are disproportionately impacted by the public health risk posed by the pandemic and are at higher risk of contracting the virus (WHO, 2020). Furthermore, PWD face inequities in accessing healthcare and experience greater health needs and poorer outcomes. Given the extra vulnerability faced by PWD, social distancing regulations at levels beyond those of the general population are likely to be necessary. Thus, the need for a disability-inclusive response to the social distancing restrictions imposed by COVID-19 is fundamental to ensuring consumer inclusive

research practices facilitate the participation of PWD (Holmes et al., 2020; O'Connell et al., 2020). Accordingly, research methods will be required to follow the same trajectory and it is vital to consider the impact of transitioning to online methods for PWD in order to continue quality disability research.

The internet has transformed everyday communication, workplaces (Greenfield & Davis, 2002) and higher education (Wall & Sarver, 2003). In turn, opportunities have emerged to increase economic and social inclusion for PWD, in line with

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the international rights legislation (U.N. General Assembly, 2007, 2016). Consistent with the social model of disability (Shakespeare, 2006), many barriers to community access and participation are created by the physical environment, thus an online environment offers opportunities to overcome some of these barriers (Deakin & Wakefield, 2014; Easton, 2013; Pang et al., 2018). PWD increasingly utilize the internet for socialization and gaming (Baker-Sparr et al., 2018; van Deursen & van Dijk, 2014), peer support (Alhaboby et al., 2017; Kaplan et al., 2011), as well as a source of health information (Hill et al., 2012; A. J. Synnot et al., 2011).

In this paper, we focus on conducting research interviews and focus groups online with PWD as the result of acquired brain injury (ABI). As we were in the process of a large piece of research involving people with ABI, we were particularly interested in the practical, ethical and methodological considerations that could be informed by existing literature. ABI is a leading cause of death and disability in adults worldwide (Nichol et al., 2011). Survivors of ABI experience a range of cognitive, physical, behavioral and psychosocial impairments of varying severities (Nestvold & Stavem, 2009). Cognitive and communication impairments include problems with processing information, recall, response formulation, and concentration. Such impairments can impact negatively on in-depth interviews due to troubles with event recollection, impaired conversational and narrative discourse, fatigue and distraction (Carlsson et al., 2007; Douglas, 2013; Paterson & Scott-Findley, 2002). Thus, some studies prioritize interviewing close others, or health and rehabilitation professionals about the experiences of people with ABI (Paterson & Scott-Findley, 2002; S. E. Thorne & Paterson, 2000). However, it is increasingly understood that interviewing PWD is critical to gaining authentic meaningful insights into their lived and consumer experience (Kosciulek, 2000; Ottmann & Laragy, 2010; S. Thorne et al., 2002). While there are previously documented challenges to consider when interviewing people with ABI (Carlsson et al., 2007; Douglas, 2013; Liamputtong, 2007; Paterson & Scott-Findley, 2002), this paper focuses on those specific to online methods.

Advancing technologies and the wide-reaching accessibility of the internet are presenting new avenues for qualitative research. However, it is important that the practical and ethical considerations when adapting methods are not overlooked, particularly with vulnerable populations. There is existing literature examining asynchronous methods such as surveys (Barchard & Williams, 2008), forums or text-based focus groups (Dattilo et al., 2008; McNaughton et al., 2014; A. Synnot et al., 2014; Turney & Pocknee, 2005), email-interviewing (Benford & Standen, 2011; Bowden & Galindo-Gonzalez, 2015; Cook, 2012; Egan et al., 2006; Fritz & Vandermause, 2018; Ison, 2009) and the analysis of existing data (Burles & Bally, 2018). This paper explores considerations for online interviewing methods of data collection, such as focus groups and interviews. Synchronous interview environments allow for real-time data collection via video and audio (Berg, 2007; Sullivan, 2012), and therefore overcome some of the barriers faced by asynchronous environments which do not enable live back-and-forth exchange of questions and responses. Previous discussions have been published on the methodological implications of synchronous interviewing via videoconference (Archibald et al., 2019; Deakin & Wakefield, 2014; Gray et al., 2020; Hanna, 2012; Iacono et al., 2016; Janghorban et al., 2014; Lobe et al., 2020; Mirick & Wladkowski, 2019; Namey et al., 2020; Neville et al., 2016; Seitz, 2016; Sullivan, 2012; Weinmann et al., 2012). Additionally, there is evidence suggesting videoconference is a viable medium to provide rehabilitation treatment to people with ABI (Ownsworth et al., 2020; Tsaousides et al., 2014). However, there is a paucity of information in the literature to guide online interviewing with people with cognitive and communication impairments as the result of ABI. Email-interviewing and text-based focus groups have been explored as accessible alternatives for people with ABI and communication impairments (Egan et al., 2006; Hemsley et al., 2008; Ison, 2009; Jamison et al., 2018), and therefore will be further considered in this paper. Largely, the use of online methods with people with ABI is relatively novel, and with the sudden requirement for it in the current climate, an examination of the potential considerations is justified.

Considering the above, this article aims to map out the potential practical, ethical and methodological considerations when adapting research methods to an online environment, with suggestions for practice when working with adults with ABI. Additionally, a checklist to guide researchers conducting online data generation methods is provided in Appendix A. Learnings from previous studies utilizing or discussing online methods are considered and implications specific to research with people with ABI identified, though much of the content is likely to apply more broadly. By highlighting the potential challenges and providing prospective solutions, it is hoped that PWD can be effectively supported to participate in qualitative research conducted in online environments.

Method

This project grew out of the necessity to better understand what is important to consider when transitioning to online data collection with people with ABI. Due to unprecedented circumstances (i.e., COVID-19), there was limited time for a systematic review. Thus, a rapid narrative review was conducted. Though, systematic reviews are considered gold standard, a narrative review offers breadth of literature coverage at a pace we felt was necessary to inform rapidly evolving research practice (Byrne, 2016).

Targeted search strategies were applied across Google Scholar, MEDLINE, Embase, CINAHL and PsycInfo, complimented by forward and backward reference searching techniques to identify relevant literature. All peer-reviewed literature that could inform qualitative online data collection with people with ABI was eligible for inclusion. Search terms under the headings (1) ABI, (2) online and (3) qualitative interviewing were combined. As this search returned a small yield (n = 158) with very little relevant literature (n = 4), the ABI

concept was changed to all disability types to broaden the scope of the search. As there was still limited evidence available (yield, n = 908; relevant articles, n = 11), the population concept was removed. Without a population concept, the database searches yielded a large number of articles (n = 14,493) and time did not allow for full systematic screening. Thus, Google Scholar and forward and backward reference searching was utilized to search for further relevant references.

The primary author scanned the records retrieved and reviewed the articles relevant to interviewing via videoconference, email or online focus groups. Reference lists from articles specifically addressing either (1) a comparison of online vs. face-to-face methods, (2) online methods with PWD, or (3) online methods with people with ABI were hand searched for further relevant references. Following all searching, 12 ABI specific references, 20 references specific to PWD and 54 references not specific to disability informed the considerations discussed below.

Due to the limited literature focused on online interviewing with people with ABI, the articles reporting on research with broader populations were reviewed within a framework considering: (1) how the practical, ethical and methodological considerations impact our client population (people with ABI), and (2) how can we use these considerations to inform our research practice. Thus, this paper is structured such that the general practical, ethical and methodological considerations are described, each with suggestions for practice with people with ABI. Where the practice suggestions are supported by previous research specific to PWD, or people with ABI, it is made explicit in the text. Where there are gaps in the population-specific literature, practice suggestions will be informed by the general literature and our research and practice knowledge. Table 1 summarizes the references cited within each recommended consideration, illustrating the participant group of the research (PWD, people with ABI or a broader population). In the table, there are characters to denote when the evidence comes from primary or secondary (e.g., reviews, books or commentaries) data sources.

Practical Considerations

An early step in the design phase of a research project is assessing the feasibility of collecting sufficient data to answer the question of interest. Thus, when modifying face-to-face methods to be conducted online, it is critical to first consider the practical elements of online data collection including: (1) *technical difficulties and accessibility*, (2) *the interview environment* and (3) *time and costs*.

Technical Difficulties and Accessibility

Online research requires participants to navigate the platform by which the data is being collected e.g. the videoconferencing tool or email. Although conducting research online removes many of the physical accessibility barriers people with ABI may face (Mann & Stewart, 2000; Sunderland et al., 2015),

researchers must be careful not to exclude based on technological literacy e.g. understanding and knowing how to use various digital devices. Thus, it is the responsibility of the researcher to consider the participant's familiarity with technology (Sedgwick & Spiers, 2009), ensure the platform is as accessible for PWD as possible, and incorporate further support for those less comfortable (Forrestal et al., 2015; Moore et al., 2015). It is important not to assume a level of competency as people with ABI have varying levels of cognitive impairments, such as memory problems or concentration difficulties, which can affect their technological abilities (Egan et al., 2006). Additionally, the ability to attend to a screen is one often taken for granted by the general population, whereas this can be difficult for some PWD. It is therefore recommended that researchers tailor instructions to suit the functional capacity of the participants, which may include step-by-step Easy or Plain English instructions sent to the participant prior to the interview (via email or post), practice sessions and ongoing support (Ownsworth et al., 2020; Vaezipour et al., 2019).

Some technical difficulties will be out of the control of the researcher e.g. internet speed, and sound and video quality (Archibald et al., 2019; Lobe et al., 2020). Practice sessions may help mitigate or at least plan for these difficulties. However, during the interview or focus group, connectivity issues can interrupt the session, making it harder to predict and less responsive than in-person data collection. Losing connection can be frustrating for the participant (Archibald et al., 2019) and may cause them to disengage and lose focus, which is potentially of higher risk with participants with cognitive impairments, or anxiety and low frustration tolerance (Cocks et al., 2014; Ownsworth et al., 2020). Interrupting the flow of the conversation is also likely to influence the rapport between the researcher and interviewee, which is particularly relevant given the aim is to ensure the participant is comfortable to share information. To reduce the burden and potential impact of technical issues, the participant should be provided with accessible guidance on setting up and troubleshooting. It is helpful to inform participants of a contingency plan at the start of the interview should technical difficulties arise and offer to conduct the interview at another time or via another medium if problems persist (e.g., via phone).

Interview Environment

Remote interviewing means the researcher has little control over the external environment surrounding the participant and disruptive environments risk shifting focus from the interview (Deakin & Wakefield, 2014). Such distractions can be especially problematic for people with ABI and cognitive impairments likely to impact executive functioning and sustained attention, as seen when interviewing people with ABI face-to-face (Paterson & Scott-Findley, 2002). Though, during face-to-face interviews the researcher can standardize the environment and more readily create a positive atmosphere (Opdenakker, 2006). However, researchers have posed that a benefit of online methods for people in socially marginalized groups is

Table 1. Summary of Citations for Each Consideration by Research Population.

		Broader Populations (not PWD)	People With Disability	People With ABI
Practical	Technical difficulties and accessibility	Archibald et al. (2019),[a] Forrestal et al. (2015),[a] Lobe et al. (2020),[b] Mann & Stewart (2000),[b] Moore et al. (2015),[a] Sedgwick & Spiers (2009)[a]	Sunderland et al. (2015)[a]	Cocks et al. (2014),e Egan et al. (2006),[a] Ownsworth et al. (2020),[a] Vaezipour et al. (2019)[b]
	Interview environment	Deakin & Wakefield (2014),[a] Hanna (2012),[a] Mann & Stewart (2000),[b] McCoyd & Kerson (2006),[a] Opdenakker (2006),[a] Orchard & Fullwood (2010)b	Bowker & Tuffin (2004)[a]	Egan et al. (2006),[a] Paterson & Scott-Findley (2002)[a]
	Time and costs	Fritz & Vandermause (2018),[a] Granello & Wheaton (2004),[b] Krouwel et al. (2019),[a] Moore et al. (2015),[a] Namey et al. (2020),[a] Neville et al. (2016),[a] Sedgwick & Spiers (2009),[a] Seitz (2016),[a] Shore et al. (2007)[a]	Benford & Standen (2011),[a] Therrien (2019)[a]	Carlsson et al. (2007),[a] Egan et al. (2006),[a] Ownsworth et al. (2020),[a] Seymour (2001)[a]
Ethical	Consent & withdrawal	Janghorban et al. (2014),[b] Kivits (2005),[b] Kaplowitz et al. (2004),[a] Lobe et al. (2020),[b] McCoyd & Kerson (2006),[a] Moore et al. (2015)[a]	Benford & Standen (2011),[a] Ison (2009)[a]	Egan et al. (2006),[a] Paterson & Scott-Findley (2002)[a]
	Privacy and confidentiality	Lobe et al. (2020),[b] Moore et al. (2015),[a] Sullivan (2012),[b] Williams et al. (2012)[a]	Bowker & Tuffin (2004),[a] Liddiard et al. (2018)[a]	Egan et al. (2006)[a]
	Emotional support	Shepherd (2003)[a]		
	Fatigue	McConnon (2020),[b] Pinker (2020),[b] Schwartzberg (2020),[b] Wiederhold (2020)[b]	Benford & Standen (2011),[a] Bowker & Tuffin (2004)[a]	Carlsson et al. (2007),[a] Egan et al. (2006),[a] Paterson & Scott-Findley (2002)[a]
Methodological	Recruitment and sampling	Cater (2011),[b] Cook (2012),[a] Deakin & Wakefield (2014),[a] Granello & Wheaton (2004),[b] Jowett et al. (2011),[a] Keller & Lee (2003),[b] Mann & Stewart (2000),[b] Moore et al. (2015),[a] Oringderff (2004),[b] O'Connor et al. (2008),[b] Seitz (2016),[a] Sullivan (2012),[b] Suri & Patel (2019),[b] Turney & Pocknee (2005)[a]	Alhaboby et al. (2017),[a] Australian Bureau of Statistics (2009,[a] 2011),[a] Benford & Standen (2011),[a] Fox & Purcell (2010),a Helsper (2008),[a] Ison (2009),[a] Scholz et al. (2017),[a] Sunderland et al. (2015),[a] Vincente & Lopez (2010)[a]	Baker-Sparr et al. (2018),[a] Egan et al. (2006),[a] Kilov et al. (2010),[b] Ownsworth et al. (2020),[b] Vaccaro et al. (2007)[a]
	Building rapport	Archibald et al. (2019),[a] Charmaz (2006),[a] Deakin & Wakefield (2014),[a] Fontana & Frey (2008),[b] Joinson (2005),[b] Kivits (2005),[b] Mann & Stewart (2000),[b] Moore et al. (2015),[a] O'Connor & Madge (2001),[a] Orgad (2005),[b] Rowley (2012),[b] Seitz (2016)[a]	Benford & Standen (2011),[a] Bowker & Tuffin (2004),[a] Ison (2009),[a] Liamputtong (2007)[b]	Egan et al. (2006),[a] Ownsworth et al. (2020),[a] Prescott et al. (2018)[a]
	Group dynamics	Bagnoli & Clark (2010),[a] Browne (2016),[a] Carey & Smith (1994),[a] Cater (2011),[b] Duggleby (2000),[a] Farnsworth & Boon (2010),[a] Graffigna & Bosio (2006),[a] Halpern & Gibbs (2013),[a] James & Busher (2009),[b] Mann & Stewart (2000),[b] Moore et al. (2015),[a] Oringderff (2004),[b] Stewart & Williamsa (2005), Turney & Pocknee (2005),[a] Watson et al. (2006),[a] Sweet (2001)[b]	Hemsley et al. (2008),[a] Jamison et al. (2018),[a] McNaughton et al. (2014),[a] A. Synnot et al. (2014)[a]	Tsaousides et al. (2014)[a]
	Data authenticity	Bampton & Cowton (2002),[a] Bargh et al. (2002),[a] Beebe et al. (2008),[b] Busher & James (2012),[b] Charmaz (2006),[b] Cooper (2009),[b] Dillon (2010),[a] Ellison et al. (2006),[a] Forrestal et al. (2015),[a] Fox et al. (2007),[a] James (2016),[a] James & Busher (2009),[b] Joinson (2005),[a] Kivits (2005),[b] McCoyd & Kerson (2006),[a] Scott (2004),[a] Shepherd (2003), Sullivan (2012),[b] Suri & Patel (2019)[b]	Alhaboby et al. (2017),[a] Benford & Standen (2011),[a] Bowker & Tuffin (2004),[a] Curtin & Fossey (2007),[b] Jamison et al. (2018),[a] Liamputtong (2007,[b] 2013)[b]	Egan et al. (2006),[a] Seymour (2001)[a]

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that they can participate in an environment conducive to their needs (Bowker & Tuffin, 2004; Mann & Stewart, 2000). For some participants, the home environment may offer more privacy (McCoyd & Kerson, 2006). Nevertheless, for others a private space may be difficult to secure, potentially resulting in participants sharing less information. Additionally, some participants may be more comfortable in familiar settings and therefore be more prepared, or even better able, to talk about their experiences (Hanna, 2012; Orchard & Fullwood, 2010), as shown in studies with PWD (Bowker & Tuffin, 2004) and people with ABI (Egan et al., 2006). In order to minimize potential concentration and attention difficulties, as well as confidentiality breaches, guidance should be provided to the participant as to how to set up a suitable environment in preparation for the interview or focus group. The participant's environment is also important to contextualize their responses. Qualitative researchers are advised to take field notes and employ thick description techniques (Geertz, 1973) to facilitate later interpretation of the data. For example, if the participant was in a noisy environment, the researcher would describe the environment in detail, making judgment statements about whether it impacted the participant's responses. Therefore, although the researcher has limited control over the environment, a record of the participant's external environment and perceived impact on the participant will aid subsequent analysis.

Time and Costs

Largely, online methods are cost and time efficient compared to face-to-face interviewing, due to the elimination of travel (Egan et al., 2006; Fritz & Vandermause, 2018; Krouwel et al., 2019; Namey et al., 2020; Shore et al., 2007) and expansion of recruitment options (Neville et al., 2016; Seitz, 2016). However, there are some exceptions to consider. Although appointments can be arranged more conveniently for the participant (Ownsworth et al., 2020), the perceived ease of scheduling can result in more cancellations and rescheduling. Thus, organizing the interview or focus group can become more time intensive (Sedgwick & Spiers, 2009), and incur financial costs as the result of non-attendance, as well as costs of additional technical support or software (Granello & Wheaton, 2004). A potential reason for increased non-attendance is the researcher appearing more available, or participants perceiving an online appointment as less formal than an in-person appointment (Sedgwick & Spiers, 2009). Correspondingly, Moore et al. (2015) reported high non-attendance for online focus groups due to people forgetting or having technical problems, and Therrien (2019) reported a low response rate to member checking questions following online focus groups with people using augmented and alternative communication. This is especially relevant for PWD, and people with ABI more specifically, who often have memory impairments (Carlsson et al., 2007). The faceless nature of online recruitment, and the length of time between interactions in email-interviewing, may also compromise momentum and in turn increase dropout rates (Benford & Standen, 2011; Egan et al., 2006; Seymour, 2001). Given these

risks, it is recommended that researchers put a process in place whereby participants are reminded of the interview and given the option of cancelling. Frequent contact with participants is important to maintain engagement (Egan et al., 2006; Moore et al., 2015; Seymour, 2001), as well as facilitate a better relationship with the researcher and make it a connected human experience. Specific to email-interviewing, setting clear expectations about the speed of responses is recommended also (Benford & Standen, 2011). Overall, however online interview methods appear to be a cost-effective alternative to in-person interviewing, particularly for hard-to-reach populations (Sedgwick & Spiers, 2009).

Ethical Considerations

Ensuring research is ethical and safe is of particular importance when participants are considered potentially vulnerable (Liamputtong, 2007), as is the case with research with people with ABI. Ordinarily, risks are minimal in interview studies and much of the same ethical issues relevant to face-to-face interviewing will be important for online interviewing (Ess & Hard af Segerstad, 2019; Franzke et al., 2020). However, there are ethical challenges posed by the online nature of interviewing people with ABI which must be considered to ensure strategies are employed to protect the wellbeing of participants. Egan et al. (2006) suggest ethical guidelines to consider when email-interviewing people with ABI, but in this paper we extend on this to include the consideration of videoconference interviewing and focus groups online. The following ethical issues are discussed: (1) *informed consent and withdrawal,* (2) *privacy and confidentiality,* (3) *emotional support* and (4) *fatigue.*

Informed Consent & Withdrawal

Though the process of obtaining consent for online interviewing is similar to face-to-face, it is arguably harder to establish that the participant is sufficiently informed and has fully understood the consent process (Moore et al., 2015). Thus, incorporating sufficient checks with all participants is important, but is of particular importance for people with ABI, who can be more vulnerable to misinterpreting consent forms, or forgetting what they have agreed to (Paterson & Scott-Findlay, 2002). A strategy to assist with the process would be to complete the consent form with the participant in person (Ison, 2009), via videoconference or telephone. Alternatively, the participant could nominate a trusted support person to read the information and consent forms with them and verify that they understand what their involvement means (Egan et al., 2006). Establishing ongoing consent may be of concern also, as the intention of pauses or silences can be ambiguous (particularly for text-based interview methods). The researcher therefore does not know whether a pause or silence is indicative of withdrawal, or due to a technical glitch or merely a moment to consider one's response (Kivits, 2005). Thus, it is the responsibility of the researcher to reconfirm consent at appropriate points, and

ensure the participants are comfortable to discontinue at any time and make a means by which to do so clearly accessible. There are suggestions in the general literature that participants feel more empowered to discontinue online interviews due to reduced social pressures compared to face-to-face interviews (as one can withdraw by clicking a button) (Janghorban et al., 2014; Kaplowitz et al., 2004; Lobe et al., 2020). While reduced pressure to continue may be an advantage of online interviewing in terms of the voluntary nature of participation, it is recommended that researchers set up mechanisms by which participants have a clear option to communicate their reasons for withdrawing. Additionally, it is especially important in email-interviewing people with ABI to continually maintain the participant's awareness of the research function of the interaction and reconfirm consent. Given the ongoing nature of email interaction coupled with the lack of researcher presence, the participant may lose track of the research-related purpose of the interaction and disclose unnecessary information that may have unintended consequences (Benford & Standen, 2011; McCoyd & Kerson, 2006). Benford and Standen (2011), who interviewed people with communication impairments via email, describe a number of useful strategies to maintain participants' awareness of the research nature of the email interaction e.g. carefully wording emails and attaching project information to each email.

Privacy & Confidentiality

Transparency about the use and storage of data to participants is critical in all research, however privacy can be at greater risk online due to the requirement of a third-party platform to conduct interviews (Lobe et al., 2020). Online platforms have the potential to record conversations, save data, and track locations and identities (Sullivan, 2012). Thus, it is more onerous on the researcher to investigate the platforms and take extra steps to ensure the platform and connection is secure and communicate risks with the participants (Bowker & Tuffin, 2004; Lobe et al., 2020; Moore et al., 2015; Williams et al., 2012). However, online environments compared to face-to-face can offer more privacy to PWD who would require assistance to leave the home but can participate at home without support (Liddiard et al., 2018). Nevertheless, it must be noted that some people with ABI will require a support person to participate in remote research (e.g., technical or emotional support) which compromises their confidentiality (Egan et al., 2006). It is therefore important that the researcher employs strategies to reduce the need for a support person during the interview (e.g., straightforward technology, practices beforehand, support person on standby), and where necessary, the participant nominates their own support person.

Emotional Support

Reflecting upon and sharing experiences of living with ABI may cause participants to experience emotional distress (Carlsson et al., 2007). While distress is a risk of face-to-face interviews, the remote nature of online interviews prevents the researcher from providing the same emotional support physical presence allows. Further, it may be more difficult for the researcher to interpret the participant's distress, especially in text-based methods (Benford & Standen, 2011; Bowker & Tuffin, 2004; Egan et al., 2006; Shepherd, 2003). Given this potential, strategies must be employed to minimize risk and provide support where necessary. When email-interviewing people with ABI, Egan et al. (2006) ensured participants had a nominated support person available to the participant in the case of emotional stress. Although this is a viable strategy to employ, it must be noted that this will not be appropriate for all participants. As reflected in Egan et al.'s (2006) study, some people may feel patronized by requiring a support person in order to participate. It is therefore recommended that the researcher puts a distress protocol in place. The risk of emotional distress must be clear to the participant before commencing the interview, and they should be given both written and verbal guidance on what to do should they start to feel distressed. The researcher should endeavor to include contact details of someone independent from the research project who is equipped and available to provide support during the interview or focus group. Another strategy is to have a second researcher present during the online interview, to pay attention to the wellbeing of the participant/s. This strategy would be especially useful during focus groups wherein the primary researcher is focused on moderating and capturing the relevant data and therefore may miss subtle cues of distress.

Fatigue

It is important to consider the heightened risks of participant fatigue during online interviewing. Although this is a recognized consideration for interviewing people with ABI face-to-face (Carlsson et al., 2007; Paterson & Scott-Findley, 2002), the exponential increase in use of videoconferencing technology during the COVID-19 pandemic has revealed the tiring nature of communicating via online platforms (Wiederhold, 2020). Communication methods are disrupted by the very slight delay in the interaction (McConnon, 2020), as well as the lack of nonverbal body cues humans rely on to communicate effectively. In the context of the communication and concentration difficulties people with ABI often experience, this phenomenon may well be amplified. Thus, it is important to highlight this risk to participants and encourage them to advise when they are tired, and the researcher should be vigilant to any signs of fatigue and offer breaks where appropriate. It may be preferable to do the interview in multiple sessions for some participants. Additionally, strategies to assist communicating effectively via videoconferencing and help minimize the fatiguing effects of online communications are being increasingly documented during COVID-19 (Pinker, 2020; Schwartzberg, 2020; Wiederhold, 2020). For instance, setting up the camera to ensure the speaker's face and torso is in view to help increase visibility of micro expressions and other non-verbal cues. Appropriate suggestions to minimize fatigue are a valuable

inclusion in interview set up guidance material provided to participants (as suggested above).

Methodological Considerations

The final section discusses potential issues that straddle both practical and ethical elements but are related more closely to methodological challenges posed by the nature of conducting qualitative research online. While methodological issues faced by qualitative researchers have been widely documented (Charmaz, 2006; Denzin & Lincoln, 2008; Irvine, 2010; Lincoln & Guba, 1985; Nind, 2008), in the current paper we reflect on considerations specific to qualitative research in the online space, with particular attention to people with ABI, including: (1) *recruitment and sampling,* (2) *building rapport,* (3) *group dynamics* and (4) *data authenticity.*

Recruitment & Sampling

One of the key advantages of online research is access to a larger, more diverse population of participants (Cater, 2011; Cook, 2012; Seitz, 2016; Sullivan, 2012). Geographical and physical accessibility barriers to face-to-face participation, often faced by PWD, are reduced (Deakin & Wakefield, 2014; Moore et al., 2015; Sullivan, 2012; Suri & Patel, 2019; Turney & Pocknee, 2005). Additionally, online methods can promote inclusivity of vulnerable adults and marginalized groups by minimizing social and emotional barriers (Alhaboby et al., 2017; Mann & Stewart, 2000). However, online research excludes those without access to the internet and a level of technological competence (Jowett et al., 2011), and internet access is not equally distributed across the population (Granello & Wheaton, 2004; Helsper, 2008; Oringderff, 2004). Thus, recruiting for online studies risks a socioeconomic, age and geographical sampling bias (Egan et al., 2006; Keller & Lee, 2003; Moore et al., 2015; O'Connor et al., 2008; Sullivan, 2012; Sunderland et al., 2015). Of particular importance, PWD are disproportionately represented in the population of non-internet users (Fox & Purcell, 2010; Scholz et al., 2017; Vincente & Lopez, 2010). Specifically, people with ABI face barriers when using the internet due to cognitive-communication and behavioral impairments, technical accessibility, internet access and costs (Kilov et al., 2010; Vaccaro et al., 2007). Although evidence suggests the 'digital divide' is decreasing (Australian Bureau of Statistics, 2009, 2011; Baker-Sparr et al., 2018), researchers must consider strategies to minimize sampling biases when recruiting PWD, and in turn, people with ABI. One strategy would be to target recruitment efforts offline (e.g., to relevant groups, by newsletters) as well as online (Ison, 2009), and provide participants with means by which to participate, or offer compensation for the costs incurred. Although this may appear costly, it is likely to be offset by the savings on time and space required to conduct face-to-face interviews. Further, participants should be considered on an individual basis as people with ABI may not have the supports to participate (Ownsworth et al., 2020). Researchers should consider offering participants, particularly those with disability, alternative options by which to participate to avoid exclusion (e.g., email, face-to-face, telephone, conventional mail) (Benford & Standen, 2011; Ison, 2009).

Building Rapport

Mutuality between the researcher and participant is critical to obtaining rich data in qualitative research (Charmaz, 2006; Liamputtong, 2007). It is important for participants to feel comfortable, particularly when discussing sensitive topics. In rehabilitation research, establishing trust has been shown as a pre-requisite to adults with ABI feeling comfortable disclosing information about their lived experience and allowing the development of a collaborative relationship (Prescott et al., 2018). However, the absence of face-to-face interactions in online research has been shown to compromise the quality of the researcher-participant connection (Fontana & Frey, 2008; Seitz, 2016). Accordingly, it has been argued that interviews online can lose the richness of the interaction (Rowley, 2012), and can be more awkward during emotional exchanges (Seitz, 2016). While being able to see the researcher helps build rapport in videoconferencing methods (Archibald et al., 2019; Deakin & Wakefield, 2014), the impact of online communication on the researcher-participant connection is likely to be exacerbated for people with ABI, who may rely more heavily on nonverbal cues due to verbal communication impairments. Correspondingly, recent research using videoconferencing for rehabilitation purposes with people with ABI has questioned whether communication via videoconference can ever equal face-to-face interaction (Ownsworth et al., 2020). To offset the lack of in-person interaction, the researcher must employ strategies to build rapport and show genuine interest in getting to know the participants (Charmaz, 2014; Liamputtong, 2007). For instance, eye contact can be difficult to achieve via videoconference, but focusing on the camera when speaking rather than the screen can help mimic eye contact virtually (Schwartzberg, 2020; Wiederhold, 2020). Additional communication prior to online interviewing can help establish the researcher-participant connection, as discussed in literature with the general population (Deakin & Wakefield, 2014; Moore et al., 2015; Seitz, 2016) and people with ABI (Egan et al., 2006). During the interview or focus group, allowing time for introductions and small talk is important, making it as similar to in-person interviews as possible. Additionally, as with rapport building in face-to-face interviews, it is recommended that the researcher offers information about themselves to the participant (Bowker & Tuffin, 2004; Ison, 2009; Joinson, 2005; Kivits, 2005; Mann & Stewart, 2000). This demonstration of openness can reduce power imbalances (Charmaz, 2006; Liamputtong, 2007), and assist in encouraging the participant to be open.

The lack of audio-visual cues in text-based interview methods can exacerbate the challenges of building rapport remotely, and the time between asynchronous exchanges may result in a more formal interaction (Mann & Stewart, 2000). Previous

researchers encouraged meeting in-person (Benford & Standen, 2011; Bowker & Tuffin, 2004; Ison, 2009), or exchanging photographs to assist with rapport (O'Connor & Madge, 2001). Additionally, using shared colloquial language and developing informal dialogue are strategies endorsed by Egan et al. (2006), who conducted email interviews with adults with ABI, and by Ison (2009), following email interviews with adults with verbal communication impairments. Furthermore, communicating sensitively and with a non-judgmental attitude was valued by participants in Egan et al.'s (2006) study.

On the other hand, the extended time and repetition of the interaction in email interviews affords time for the researcher to get to know the participant and may in fact lead to stronger relational development (Bowker & Tuffin, 2004; Kivits, 2005). Benford and Standen (2011) point out the risk of development of dependency on the researcher especially with more vulnerable participants. Thus, although rapport is key, researchers need to be careful to maintain a degree of professional distance (Orgad, 2005). Strategies employed by both Benford and Standen (2011) and Egan et al. (2006) when interviewing PWD included being careful with language during more personal exchanges and ensuring closing signals are clear when ending of the interview. Given the complexity of the researcher-interviewee relationship, it is important to consider the needs of individual participants, aiming to strike the balance of personal and professional in order to elicit rich data, but maintaining protection of the participant throughout.

Group Dynamics

Central to the success of focus groups is the dynamic between the individuals participating (Farnsworth & Boon, 2010). The interaction between participants is the fundamental distinction of focus groups from other qualitative research methods (Watson et al., 2006), and group interaction is key to the production of research data (Bagnoli & Clark, 2010). Positive dynamics should encourage participants to share openly and discuss their experiences honestly, but negative dynamics could cause acquiescence or inhibition (Carey & Smith, 1994; Duggleby, 2000). Inevitably, the nature of interaction will change in online environments compared to face-to-face (Sweet, 2001; A. Synnot et al., 2014), and challenges are likely to be exacerbated for people with cognitive and communication difficulties. Productive group dynamics are potentially harder to foster in online settings with the lack of, or reduced, nonverbal cues, natural conversational subtleties and limited time for participants to interact informally (Cater, 2011; Mann & Stewart, 2000; Moore et al., 2015), as people with complex communication needs (Hemsley et al., 2008) and the general population alike (Duggleby, 2000), rely on these non-verbal messages to aid discussion. The more anonymous nature of text-based focus groups could negatively affect group dynamics because people can be less inclined to modify potentially inflammatory language or controversial opinions (Oringderff, 2004; A. Synnot et al., 2014), as seen in other online spaces (Halpern & Gibbs, 2013). On the other hand, however, text-based focus groups

could encourage more authentic disclosure due to the faceless nature of the interaction (Jamison et al., 2018). Participants may feel more anonymous, and this sense of anonymity could in turn reduce social desirability characteristics (Graffigna & Bosio, 2006).

Promisingly, there are studies confirming that online focus groups, text-based and videoconference, can foster cohesive bonds between participants (Stewart & Williams, 2005; Turney & Pocknee, 2005; Watson et al., 2006). Key to the success of focus groups is the skill of the moderator (Hemsley et al., 2008; James & Busher, 2009; Oringderff, 2004). Moderators need to guide the group in line with the research topics without disrupting the flow of interactions (Moore et al., 2015). Different moderating styles will be appropriate depending on the group and topic (Graffigna & Bosio, 2006), but the researcher is central to fostering a respectful, permissive atmosphere (Mann & Stewart, 2000). Specific to focus groups with people with complex communication needs, the moderator must be proficient in the use of a variety of communication strategies and actively clarify unclear messages, as demonstrated in face-to-face focus groups with people using augmented and alternative communication (Hemsley et al., 2008). Moderators can employ further strategies used in face-to-face settings, such as allowing time for group members to develop rapport (Watson et al., 2006), and using humor where appropriate (Browne, 2016). Correspondingly, participants with ABI who participated in group treatment via videoconferencing suggested allowing time for informal conversation as a strategy to make it more similar to face-to-face and make people feel comfortable (Tsaousides et al., 2014).

Maximizing interaction in text-based focus groups, or focus groups with participants with complex communication needs, may be more challenging (Hemsley et al., 2008; Stewart & Williams, 2005; A. Synnot et al., 2014), but successful strategies have been documented. Allowing time for participants to introduce themselves and incorporating activities to find commonalities between participants will help build connections between participants (Hemsley et al., 2008; McNaughton et al., 2014; Moore et al., 2015). Additionally, Moore et al. (2015) used a virtual interactive whiteboard to encourage participants to converse with one another, resulting in richer data. However, it must be noted that the whiteboard format was seen as too structured for some groups, highlighting the importance of considering the particular group and topic at hand. Online focus groups can therefore facilitate productive group dynamics, but additional strategies may be required. Going forward, it is anticipated that videoconference interactions will continue to be utilized as a common form of communication, meaning research participants are likely to be comfortable communicating via this medium.

Data Authenticity

The quality of qualitative research is largely dependent on the authenticity of the data. Fundamental to eliciting authentic data is the rapport between the researcher and participant, and a

comfortable interview setting, both of which will facilitate open dialogues (Busher & James, 2012). Thus, applying additional strategies to increase rapport and comfort for the participant, as previously discussed, is also important with reference to data authenticity. With videoconference data collection, researchers still have some access to nonverbal cues, which aids in determining the authenticity of data (Beebe et al., 2008; Sullivan, 2012). Yet, it has been suggested that the removal of non-verbal cues and need for transcriptions in email-interviewing and text-based focus groups could reduce the researcher bias during interpretation, thus yielding a more authentic representation (Bampton & Cowton, 2002; Jamison et al., 2018; Seymour, 2001). Additionally, it has been implied that more authentic narratives can be seen in text-based online research due to the sense of anonymity in online interactions (Alhaboby et al., 2017; Bargh et al., 2002; Ellison et al., 2006). The relative anonymity of text-based methods arguably encourages disclosure (Egan et al., 2006; Jamison et al., 2018; Joinson, 2005; Shepherd, 2003), and therefore text-based methods may be better suited to discussing sensitive topics (Forrestal et al., 2015; McCoyd & Kerson, 2006). Further, the presence of the researcher and other participants (in focus groups) is less apparent in text-based interviewing, making it a less daunting environment particularly for those who are naturally reticent in face-to-face contexts (Fox et al., 2007; Scott, 2004). Moreover, responses pertaining to social desirability are less likely with visual anonymity (Dillon, 2010; Suri & Patel, 2019), further increasing authenticity.

Nevertheless, it has also been argued that with time to construct answers in asynchronous text-based methods (e.g., email-interviewing), participants have more control over presentation of self, in turn decreasing authenticity (Cooper, 2009). Considering the cohort of interest however, text-based interview techniques may be more likely to increase the authenticity of the data than for the general population. The opportunity to consider questions at one's own pace is particularly valuable to people with ABI, as often cognitive and communication impairments restrict the capacity to retain questions and immediately generate a considered answer. Text-based interviews give time for participants to think more deeply, which in turn should increase the authenticity of answers (Benford & Standen, 2011; Egan et al., 2006; James, 2016; James & Busher, 2009). Email-interviewing also affords more time for researchers to learn the communication style of the participant and adapt interview questions and probes accordingly (Benford & Standen, 2011; Bowker & Tuffin, 2004). Further, in line with qualitative methods (Charmaz, 2006), the length of time between interactions enables concurrent data analysis to inform ongoing interviews (Bampton & Cowton, 2002). The opportunity to consider data is valuable for reflection, allowing the researcher to incorporate new questions in response to the emerging data and verify the authenticity of the data (Benford & Standen, 2011; Kivits, 2005). To assist with the verification of authenticity in synchronous online methods, researchers could employ strategies to triangulate data (Curtin & Fossey, 2007). Such strategies could include verifying online interactions offline (e.g., member checking following interviews) (Bowker & Tuffin, 2004; Liamputtong, 2013), or conducting part of the data collection online (e.g., text-based focus groups) and following up with offline face-to-face interviews.

Discussion

Though online methods open up a range of possibilities for qualitative researchers, there are a number of practical, ethical and methodological considerations to take into account. This exploration has contributed to the existing literature contemplating the benefits and challenges of qualitative research online, with specific focus on interviewing people with ABI. People with ABI experience a range of impairments likely to be impacted by the adaptation of interview methods to an online space e.g. attention and communication difficulties. Text-based methods have discernible differences from face-to-face interviewing and present their own range of challenges, and researchers must be vigilant to the differences between in-person and videoconferencing interviewing also. While videoconference interviewing permits a similar style of interview to face-to-face, there are indisputably marked differences, particularly when interviewing people with ABI. Though it is not an exhaustive list of considerations, this paper provides insights into criteria to consider when adapting research methods to an online space. The importance of each consideration will vary depending on the nature of the project, as well as the individual participant. Additionally, it is anticipated that online research will continue to evolve beyond the life of the pandemic (i.e., COVID-19), as many work spaces including universities and industry research partners have transformed traditional working practices. Thus, with the possibilities offered by online research evident more broadly, different challenges and considerations are likely to emerge. While the majority of the literature cited, and therefore most of the considerations described, are relevant to a broader population than people with ABI, this is the first manuscript explicitly collating considerations for interviewing people with ABI online.

With support from the limited ABI-specific literature, along with our practice experience, we argue that while some considerations have been deduced from the general population, they are all of critical importance to the conduct of research with PWD, and in particular people with ABI. The considerations discussed impact the interface between cognition, communication and psychological wellbeing, and while these domains can vary within the general population, they are at particular risk following an ABI. Thus, we recommend assessing the needs and preferences of the individual participant, while being alert to the cognitive, communication and psychological domains, and applying the considerations accordingly.

Ethical considerations should be at the forefront when researching participants potentially considered vulnerable (Liamputtong, 2007). Thus, researchers must incorporate strategies to ensure online alternatives to interview methods do not compromise the safety and comfort of the participants. Though

many of the same ethical considerations are relevant to in-person interviewing, as discussed, the challenges present in different ways in an online space. Thus, it is imperative that ethical guidance and ethics review boards keep up with the rapidly evolving methods.

Attention to the issues discussed can enhance not only the delivery of the research but also the quality of research outputs. Given qualitative research is often focused on the subjective lived experience of participants, quality is largely evaluated in terms of the rigor and trustworthiness of the data (Charmaz, 2006; Lincoln & Guba, 1985). As many of the factors discussed impact the authenticity of the data, quality of data can be at risk. For example, both the interview environment and the rapport between the researcher and participant are crucial in encouraging participants to disclose honest and open accounts of their viewpoints and experience (Charmaz, 2006). Similarly, group dynamics in focus groups need to be comfortable in order to be productive and yield authentic data. Further, the resonance of the findings to the population of interest is highly regarded in qualitative research (Charmaz, 2006), and therefore sampling the appropriate participants is vital. Thus, to ensure the research is of high quality, it is recommended that researchers assess the impact of the changes to data collection methods against the quality criteria relevant to their theoretical stance before commencing data collection.

Limitations and Future Directions

Given the time constraints imposed by the need to inform our research practice in response to the global pandemic (i.e., COVID-19), we did not have time to invite the perspectives of PWD. However, in recognizing the importance of the voice of people with lived experience and the need for the perspective of people with ABI on this topic, we are conducting a primary data study to gain insights into online qualitative interviewing from the perspective of research participants with ABI and researchers. Another limitation of this project, also due to time restraints, is that it is not a systematic review. Though a rapid narrative review offered the opportunity to gather a breadth of literature and inform our rapidly evolving research practice, with the exponential growth of online studies due to necessity, there is likely to be an increasing number of papers published utilizing online methods in the coming months. Thus, a full systematic review incorporating learnings and implications for research practice feels timely.

Conclusion

The possibilities offered by online research are invaluable in enabling studies to continue despite unforeseen circumstances. It is anticipated that the online methods discussed will continue to be of great value following the global pandemic, as the strengths of online methods become more evident. However, with new methods come challenges researchers may not have contemplated previously. It is therefore important that researchers are careful to consider each project and participant

on a case by case basis. Being aware of the potential complexities with interviewing people with ABI online should enable researchers to plan strategies to overcome challenges accordingly. It is hoped that the guidance and suggestions offered in this paper will assist researchers to deliver best practice research while protecting the welfare of participants with ABI, and more generally.

Appendix A: Online Interviewing Checklist

A list of considerations to guide the conduct of online interviews with people with ABI

ONLINE INTERVIEWS: GENERAL CONSIDERATIONS

Pre-Interview Preparation (*I have* ...)

- ☐ targeted recruitment efforts offline as well as online
- ☐ checked the accessibility of the online platform and provided instructions
- ☐ made technical support available and offered practice sessions
- ☐ discussed the participant's interview environment and provided guidance for set up
- ☐ screened for the participant's communication capacity and preferences
- ☐ offered to do the interview over multiple sessions or options (phone/video/email)
- ☐ offered compensation for costs incurred or acknowledgment of participation
- ☐ where necessary, engaged support staff or a close other to support participation
- ☐ scheduled reminders for the interview

Establishing Consent *(I have ...)*

- ☐ discussed the e-consent with the participant and confirmed they understand
- ☐ planned to reconfirm consent and remind the participant of their right to withdraw
- ☐ provided guidance on how to withdraw and communicate reasons, if they wish

Minimizing Risks *(I have ...)*

- ☐ checked the connection is secure and communicated security risks
- ☐ checked the confidentiality agreement with the third-party platform e.g. Zoom
- ☐ a detailed distress protocol in the event the participant becomes distressed
- ☐ provided guidance on what to do should the participant feel distressed
- ☐ ensured someone independent is equipped and available to provide support
- ☐ communicated the risk of fatigue and provided suggestions to minimize fatigue

Building Rapport *(I have . . .)*

- ☐ employed strategies to build rapport with the participant
- ☐ considered the appropriate communication style to use with the participant

Maximizing Quality *(I have . . .)*

- ☐ employed data triangulation strategies

FOR FOCUS GROUPS ONLY *(I have . . .)*

- ☐ ensured the focus group moderator is skilled to facilitate effectively
- ☐ employed strategies to increase rapport between participants

FOR EMAIL-INTERVIEWING ONLY *(I have . . .)*

- ☐ set clear expectations about the speed of responses
- ☐ planned to remind participants of the purpose of the interview in each email

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Supplemental Material

Supplemental material for this article is available online.

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