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## Participatory Research Approaches in Times of Covid-19: A Narrative Literature Review

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# Participatory Research Approaches in Times of Covid-19: A Narrative Literature Review

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## Abstract

This review aims to collate and organize the current literature base on the use of participatory research methods within Covid-19 and pandemic contexts. Participatory approaches rely on establishing trust and rapport between researchers and participants and advocate actively involving participants in the planning, implementation and evaluation of a research issue. However, by transitioning such approaches to an online and geographically distributed context, the openness and equitability of participatory approaches may be reduced or lost. By providing an overview of current empirical and guidance literature on the use of participatory approaches within the context of Covid-19, this review not only offers a basis for how a variety of methods may be used and adapted to distanced contexts, but also explicates the challenges associated with the use of these methods and the wider methodological implications posed by the Covid-19 pandemic. Furthermore, this review outlines the issues associated with conducting this type of research more generally, providing implications for how distance-based participatory methods may be used in wider contexts where face-to-face interaction may not be appropriate, or fieldwork may be disrupted due to logistical reasons.

## Keywords

PAR—participatory action research, arts based methods, photo narrative, ethnography, focus groups

## Introduction

In December 2019 the highly infectious coronavirus disease was first identified in Wuhan, China. Since then the spread of the disease has progressed rapidly across large parts of the globe and is considered the most significant threat to health since the 1918 Influenza Pandemic that infected a third of the world's population (Greenstone & Nigam, 2020). By the 30th of January 2020, the World Health Organization (WHO) had announced Covid-19 as a public health emergency of international concern, progressing rapidly to a pandemic by the 11th March (WHO, 2020). By the start of February 2021, there had been over 102 million cases of the virus and over 2 million deaths worldwide (WHO, 2021). To contain the spread of the virus, many countries have implemented lockdown measures including social distancing and mask wearing to avoid transmission of the virus. Social distancing aims to keep people apart and can take various forms such as working from home, limiting trips to public spaces, and keeping a set distance from others when going out.

Social distancing measures have meant that many aspects of human life have undergone substantial alteration, such as those

who found themselves relying on video conferencing technology in place of face-to-face meetings and the closure of schools meaning children have to attend live streamed classes from home. While a degree of normality may eventually resume, the “abrupt enforcement of lockdown has necessitated a change in the way we live, how we interact, how we source our needs, how we look after ourselves and others, [and] how we view the world” (Jones, 2020, p. 4). One area where the effect of lockdown measures has been felt is social research, and most acutely, participatory research which relies heavily on the close bonds and collaboration between researcher and participant (Ruppel, 2020).

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## Participatory Approaches in the Context of Covid-19

Participatory approaches advocate actively involving stakeholders—whether citizens, members of the government or experts, in a collaborative decision-making process which can involve participation in planning, implementation and evaluation of a given topic (Slocum, 2003). In this way, participatory approaches encourage openness and equity in the sharing of knowledge, experience, expertise and ideas and provide diverse perspectives on a research topic.

While it is beyond the scope of this review to provide a full account of all participatory approaches (for extended discussion see Chevalier & Buckles, 2019; Cornwall & Jewkes, 1995), there are various methodologies including participatory action research (PAR) which can be used to improve social practice through a reflexive process of planning, implementing, observing and reflecting (McTaggart, 1989) and community-based participatory research (CBPR) which emphasizes partnership between community members, researchers and organizations (Valdez & Gubrium, 2020). PAR and CBPR may involve a variety of methods alongside focus-groups, interviews, or community events. These include photovoice which allows participants to capture and share expertise, knowledge and experience visually through images, facilitating reflection on community issues and promoting critical dialogue and knowledge exchange (Wang & Burris, 1997), and digital storytelling where participants share short videos encapsulating an important moment or experience (Valdez & Gubrium, 2020).

Participatory research generally involves working closely with participants and communities to co-design and conduct research. As such, participatory approaches depend heavily on building trust and nurturing close collaborations; all things which are now more challenging within the current socially distanced pandemic context. The above is even more salient when the research is being undertaken with marginalized or vulnerable groups. As Warner-Mackintosh (2020) notes there exists “a relationship between material wealth, social capital and the ability to access both healthcare (by and large now delivered digitally) and safe information” (Warner-Mackintosh, 2020, p. 2). As such in the context of this review, marginalized and vulnerable groups refers to participants and communities who experience exclusion, disadvantage or struggle economically, socially, politically, or health-wise. Additionally, while not categorized as vulnerable or marginalized, individuals who struggle with technology use (e.g., some older adults) may experience the negative effects of lockdown and the “digital divide” more acutely (Warner-Mackintosh, 2020, p. 2). With international travel severely limited, fieldwork visits canceled and communities now socially dispersed, participatory research needs to find innovative methods to bridge these divides and maintain the close social ties which allow for participant collaboration and reflection on research issues (Ruppel, 2020).

Currently, the majority of literature entries concerning Covid-19 are in relation to the medical sciences or focus on substantive findings over methodological considerations. Far

fewer entries focus on how participatory research approaches have been and may be adapted to the current social climate, with specific emphasis on how rapport and equity may be maintained from a distance—both digitally and via analogue means. While still very much an emerging field, this review seeks to collate existing literature and provide an overview of how participatory research approaches have been, and are being used, within the context of Covid-19. The focus of this review is predominantly on the effectiveness and challenges of different participatory methods over substantive findings, and as such, the review is organized by method type and topic, providing a wider account of different approaches used to adapt existing research, or within novel research projects, rather than focusing on one specific method. Although far from an exhaustive list, the methods outlined in this review provide implications for how existing and novel research may be adapted in times of social distancing, reduced or disrupted fieldwork or where face-to-face research may not be practical. Furthermore, the particular challenges associated with using these methods both within specific Covid-19 contexts, and more generally, are unpacked with directions for future research expounded.

## Method

A narrative (or semi-systematic) approach was deemed the most appropriate method for reviewing relevant literature as there currently does not exist an extensive literature base on the use of participatory methods within the context of Covid-19. Narrative reviews can be used when the literature reviewed is of a qualitative nature and not suitable for the systematic meta-analysis approach (Baumeister & Leary, 1997). Narrative reviews are “designed for topics that have been conceptualized differently and studied by various groups of researchers within diverse disciplines” (Snyder, 2019, p. 335). The narrative approach can be used for reviews which aim to provide an overview of a research area, synthesis knowledge on a particular topic, and create recommendations for future research (Snyder, 2019).

As participatory approaches are used within a variety of different fields including education, sociology and psychology, a narrative approach provides a broader overview of how these approaches have been used and adapted to study different research topics from a broad range of disciplines. Furthermore, as the narrative approach identifies and synthesizes all relevant research, implications and routes for development of the research topic can be illuminated (Baumeister & Leary, 1997)—namely, how participatory approaches can be adapted to socially distanced contexts.

## Search Terms

The search terms consisted of words to the use of distance methods, words associated with participatory methods and design, with additional associated participatory terms being identified from McTaggart’s (1989) *Sixteen Tenets of PAR* and McIntyre’s (2008) *Participatory Action Research*; both widely

**Table 1.** Search Terms.

Remote Terms	Research Design Terms	Covid-19/Pandemic Specific Terms	Digital Specific Terms	Non-Digital Specific Terms
distance	“participatory research”	Covid-19	digital	analogue
distributed	“participatory design”	coronavirus	virtual	offline
synchronous	“participatory action research”	pandemic	online	
asynchronous	“action research”	epidemic	Internet-mediated	
	“social research”			
	“community research”			
	“collaborative research”			

cited resources for participatory research. Lastly, words were chosen to encapsulate the context in which these methods were used i.e. during epidemic/pandemics. During the course of the literature search other associated words were identified and incorporated into the search parameters. As an extensive range of literature regarding the use of participatory methods during Covid-19 currently does not exist, databases were searched from a higher level using broader search terms. Terms were combined with the OR and AND operators, such as “remote” AND “digital” AND “participatory research” AND “covid-19” OR “coronavirus.” In addition, to include non-digital distance-based methods, the digital specific terms were substituted with non-digital specific terms such as “analogue.” Snowballing was also used to identify relevant documents where references from one piece of literature provided a trail to one or several other documents. See Table 1 for a full list of all search terms used.

### Databases Searched

Search engines used for the literature search were Google Scholar, JSTOR and the Open University library database collection. Google scholar provided the most recent articles written within the context of Covid-19, and has been argued to be a valuable resource of a broad range of literature across different disciplines (Bandara et al., 2011). JSTOR includes over 12 million academic journal articles, books and primary sources across 75 disciplines. The Open University library database collection included the databases of Academic Search Complete (large collection of academic articles across various fields), Education Research Complete (education specific academic articles), ERIC (large collection of education literature and resources) and PsycInfo (academic articles within the field of psychology). Taylor & Francis Online and ScienceDirect were also trialed, however, as the search results consisted predominantly of medical related entries, these databases were not selected for the review.

In addition, the Facebook Group *Innovative Research Methods* was also used to search for recent work on social, participatory and creative methods within the current pandemic context. Due to the emerging nature of the field, many researchers were seeking advice or documenting how they were adapting their current research using remote methods (e.g., via social media or shared documents). The group

provided a valuable and up to date repository of the emerging field and crowd sourced works including Lupton’s (2020) *Doing Fieldwork in a Pandemic* and Middelgouw’s (2020) *Doing Arts Research in a Pandemic* were located via this group.

### Selection Criteria

The majority of literature included were in English and located within the broader fields of social sciences, education and humanities. A significantly greater number of papers related to Covid-19 exist within the medical sciences, however, only one paper was selected from this field due its wider implications for research with vulnerable groups.

The primary focus of this review was to identify documents pertaining to how participatory approaches are being, and may, be adapted to pandemic contexts; with specific attention being given to how core elements of participatory research including interpersonal relationships, interactions and rapport between researchers and participants can be successfully maintained in a remote context. As such, only documents which focused on the methodological insights of conducting participatory research within this context were included (e.g., as opposed to documents which focused on substantive findings over methods).

Originally previous literature concerning how such approaches had been adapted to previous epidemics/pandemics was included in the search. However, as no significant literature was identified concerning the past use of such methods during past epidemic/pandemics, all entries concerned the Covid-19 pandemic and were written in 2020.

Only documents which were written in English were included in the review, with the exception of Witt and Schnabel’s (2020) academic blog entry which had an option to display in English.

## Results

### Participatory Methods Within the Context of Covid-19

In total 38 documents were identified within a timeframe ranging from 14th July 2020 to 20th January 2021 which related to the use of participatory methods within the current context of Covid-19.

Literature reviewed was categorized in terms of method/topic, with secondary categorization in terms of either

empirical or guidance literature. Literature was classified based on format. Academic blog entries were included due to ongoing documentation and works in progress of existing research projects undergoing adaptation to a distanced context.

In total, 21 guidance and 17 empirical documents were identified. These 38 documents comprised of 17 academic blog entries, 14 journal articles, one Master's thesis, two crowd-sourced collections, three guidance contributions, and one other. See Table 2 for overview of included literature.

*Creative methods.* Six entries were identified which focused on the use of creative methods including photovoice (Liegghio & Caragata, 2020; Valdez & Gubrium, 2020), digital probes (Golmohammadi, 2020) and digital diaries (Herbert, 2020; Marzi, 2020). For example, Liegghio and Caragata (2020) in their study on youth resilience in low-income, lone mother households, transitioned from using photovoice and face-to-face interviews to using remote photovoice and interactive video conferencing software. In a remote context, Liegghio and Caragata (2020) found that photovoice provided a means for strengthening the personal and collective resilience of participants and mitigating the adverse effects of the pandemic (Liegghio & Caragata, 2020). Similarly, Marzi (2020) details how the fieldwork for her study on the co-production of knowledge with migrant women in Medellin, Colombia was disrupted due to coronavirus travel constraints. Originally planning on using face-to-face workshops to document and co-produce knowledge, her approach was adapted to use photo and video diaries. To ensure the participatory nature of the research was maintained remotely, the project took part in 5-week cycles where participants filmed and documented their experiences before collaboratively analyzing and editing the materials and deciding themes for the next cycle. Marzi (2020) notes that a specific focus on knowledge exchange and equal power relationships were key to the success of the project within a distanced context, and subsequently, learning how to co-produce knowledge and share diaries collaboratively with the participants online.

In terms of novel projects conducted during the pandemic (e.g., not adaptations of existing research), Lazarte et al. (2020) stresses the importance of “creative, sensitive and therapeutic methods” (Lazarte et al., 2020, p. 3) in facilitating reflective insights and ensuring research is pandemic-friendly. They detail the use of audio diaries in conjunction with a metaphor drawing task to examine a small group of researchers' experiences of social confinement during the pandemic. The audio diaries encouraged participants to describe and reflect on their experiences and understandings of the pandemic, while the metaphor drawing task at the end of the 6-week study period provided an overall perspective of their experiences and was accompanied by short narratives on the meaning of the metaphor and why it mattered to the participants.

On a similar note, Golmohammadi (2020) used digital probes alongside online creative workshops to investigate experience of loneliness during the pandemic. Digital probes are an adaptation of Gaver et al.'s (1999) cultural probes where

participants are mailed tasks designed to provoke inspirational responses which are then returned to the researcher. Due to pandemic restrictions on sending material packs, participants had to suffice with their own materials. As Golmohammadi (2020) notes, some participants found this limitation to be conducive to their creativity as they could use and customize their own objects and materials, providing greater autonomy and control over the task. However, others may struggle with the lack of resources and, as such, moving to an online and digital format may provide challenges for equal engagement with the research task and highlight inequalities for those who do not have materials readily available (Golmohammadi, 2020).

*Ethnographic methods.* Five entries concerned the use of ethnographic approaches during the pandemic context. For example, Nelson (2020) and Hu (2020) document experiences of adjusting to living with social distancing regulations. Nelson (2020) documents the emergence of the “digital stitch” community (sewing groups transitioning to an online context) in response to the pandemic. Nelson (2020) found that engaging in both conversation and sewing simultaneously detracted from her awareness of the computer screen as a barrier to communication, and furthermore, how the physical engagement counteracted the anxiety she felt from being on video conferencing for extended periods of time. Nelson's (2020) findings suggest that activity led discussions may prove beneficial to participants who are uncomfortable with online discussions or who suffer from anxiety. Hu (2020) details how a campus-based virtual community in Canberra, Australia was created and maintained during lockdown. Hu (2020) argues that Covid-19 has made virtual communities more exposed and accessible to the public, and that having a shared understanding of the common challenges associated with the pandemic encourages compassion, collaboration, collegiality and solidarity among community members.

Jones (2020) and Roy and Uekusa (2020) detail the use of auto-ethnographic approaches as a means for “qualitative researchers [to use] their own first-hand experience of navigating the pandemic as a rich source of data” (Roy & Uekusa, 2020, p. 384). For example, Jones (2020), who used an auto-ethnography to document the adaptation of her own life to the pandemic context, argues that social media (e.g., Twitter, Facebook), cross-platform messaging applications (e.g., WhatsApp, Facebook Messenger) and Voice over IP services can provide a valuable platform for social debate, knowledge exchange and participatory culture during the pandemic. Taking the autoethnographic approach one step further, Roy and Uekusa (2020) argue that individual researchers can combine their auto-ethnographies in the form of a collaborative auto-ethnography (CAE) to create richer data from multiple sources. In this way, CAE facilitates a sense of community in investigating shared stories and allows individual narratives to be considered in relation to wider collective experiences (Roy & Uekusa, 2020). However, conducting this form of research during a time of great uncertainty and stress may lead researchers to be more subjective and selective in their analysis than

**Table 2.** Participatory Approaches Within the Context of Covid-19.

Topic/Method	Author	Type	Format	Key Points
Creative Methods	Golmohammadi (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Digital probes may serve as prompts for participants to explore tactile experiences, memories and associations. Probes allow participants to utilize materials or objects which have specific personal value. However, some participants may find the lack of resources a difficulty (Golmohammadi, 2020).</li> </ul>
	Herbert (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Combined video diaries and drawing task allow participants to recount and reflect on experience encountered during a specified timeframe and provide a visual metaphor of lockdown experience (Lazarte et al., 2020).</li> </ul>
	Lazarte et al. (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Photovoice method may mitigate the adverse effects of pandemic and strengthen participant ties while interactive video conferencing software provides collaborative space for participants to discuss and share important experiences, images and ideas (Liegghio &amp; Caragata, 2020).</li> </ul>
	Liegghio & Caragata (2020)	Empirical	Journal Article	<ul style="list-style-type: none"> <li>Focus on knowledge exchange and equal power relationships key to maintaining participatory nature remotely through photo and video diaries (Marzi, 2020).</li> </ul>
	Marzi (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Adaptation of community-based participatory research (CBPR) using photovoice, digital storytelling (DST), semi-structured interviews and a community forum (Valdez &amp; Gubrium, 2020).</li> </ul>
	Valdez & Gubrium (2020)	Empirical	Journal Article	<ul style="list-style-type: none"> <li>In using secondary data there may be ethical issues around “public” versus “private” data (Jowett, 2020).</li> </ul>
Ethical Implications	Jowett (2020)	Guidance	Academic Blog Entry	<ul style="list-style-type: none"> <li>More attention should be paid to research design to reflect its necessity and social researchers should consider whether they can use pre-existing and secondary data first (Jowett, 2020; Pacheco &amp; Zaimağaoğlu, 2020).</li> </ul>
	Pacheco & Zaimağaoğlu (2020)	Guidance	Academic Blog Entry	<ul style="list-style-type: none"> <li>For participatory research where researcher becomes part of the community they study (e.g., visiting places of work, experiencing atmosphere of subjects) it may be impossible to replicate online (Ruppel, 2020).</li> </ul>
	Ruppel (2020)	Guidance	Academic Blog Entry	<ul style="list-style-type: none"> <li>Previous ethics may no longer be justifiable during a pandemic context (Witt &amp; Schnabel, 2020).</li> </ul>
	Witt & Schnabel (2020)	Guidance	Academic Blog Entry	<ul style="list-style-type: none"> <li>If research is postponed circumstances may have evolved by the time research goes ahead e.g. in time critical research (Witt &amp; Schnabel, 2020).</li> </ul>
				<ul style="list-style-type: none"> <li>When researcher cannot enter the field, local research partners could be given more responsibility and scope for action (Witt &amp; Schnabel, 2020).</li> </ul>
Ethnographic Methods	Hu (2020)	Empirical	Journal article	<ul style="list-style-type: none"> <li>Virtual environment facilitates connecting to other individuals/groups e.g. through webinars and online conferences (Hu, 2020).</li> </ul>
	Jones (2020)	Empirical	Other	<ul style="list-style-type: none"> <li>Social media, cross-platform messaging applications and VoIP provide platform for participatory culture and social debate during pandemic times (Jones, 2020).</li> </ul>
	Marciano et al. (2020)	Empirical	Journal article	<ul style="list-style-type: none"> <li>Focus on knowledge exchange and equal power relationships key to maintaining participatory nature remotely (Marciano et al., 2020).</li> </ul>
	Nelson (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Engaging in creative task and conversation simultaneously detracted from computer screen as a barrier to communication and counteracted anxiety of being on video conferencing (Nelson, 2020).</li> </ul>
	Roy & Uekusa (2020)	Guidance	Journal Article	<ul style="list-style-type: none"> <li>Collaborative autoethnography (CAE) can be used to collect a wide range of data, including researchers interviewing and observing each other providing dialogue and reflective insight on experience of a topic (Roy &amp; Uekusa, 2020).</li> </ul>

(continued)

**Table 2.** (continued)

Topic/Method	Author	Type	Format	Key Points
General Guidance	Adom et al. (2020)	Guidance	Journal Article	<ul style="list-style-type: none"> <li>Provides review of alternative approaches to traditional research methods, including secondary data, text-based and telephone interviews (Adom et al., 2020; Graber, 2020).</li> <li>Educators should focus on fears and anxiety related to the pandemic and provide a space for students to freely express their feelings (Assante, 2020).</li> <li>The longer program of learning is paused, the more likely individuals will no longer see themselves as learners (Buckler et al., 2020).</li> <li>During times of societal crisis, community involvement in the development of research protocol is essential for increasing participation from black, indigenous and people of color (BIPOC) in the research. Researchers should ensure there is high transparency, share resources and frequently check in with community partners (Edwards et al., 2020).</li> <li>Large collection of resources and advice for researchers on how to adapt qualitative methods to distanced contexts, in addition to covering a wide variety of secondary data and quantitative methods as alternatives (Garcia &amp; Barclay, 2020).</li> <li>Digitization of communication and associated challenges put additional emphasis to act on non-verbal signals and active listening (Greeff, 2020).</li> <li>Researchers should think about a remote field and concentrate on nurturing meaningful connections with research partners on the ground who can relay observations. We should look to "slow science" and building a different awareness of challenges and situations (Hussain, 2020).</li> <li>Crowd-sourced collection detailing a large collection of distance and digital social research methods along with further resources (Lupton, 2020).</li> <li>Crowd-sourced collection detailing a range of distance-based creative and collaborative research methods for arts/humanities research along with details on Covid-19 adaptations of existing projects (Midgelow, 2020).</li> <li>Negative effects of pandemic may be mitigated with brief amounts of direct and reciprocal eye contact, even via remote methods, which can be effective in mobilizing biological connection responses in the brain (Nicol et al., 2020).</li> <li>Covid-19 has meant "the ability to use the internet has literally become a matter of life and death" (Warner-Mackintosh, 2020, p. 1) making existing digital inequalities more pronounced. Initiatives should not only provide devices to those experiencing digital disadvantage but also the relevant skills to keep connected (Warner-Mackintosh, 2020).</li> <li>Researchers should recognize privilege of social distancing which may not extend to community partners in under-resourced communities (Warner-Mackintosh, 2020; Wells et al., 2020).</li> </ul>
	Assante (2020)	Guidance	Journal Article	
	Buckler et al. (2020)	Guidance	Academic Blog Entry	
	Edwards et al. (2020)	Guidance	Journal Article	
	Garcia & Barclay (2020)	Guidance	Guidance	
	Graber (2020)	Guidance	Contribution	
	Greeff (2020)	Guidance	Guidance	
	Hussain (2020)	Guidance	Contribution	
	Lupton (2020)	Guidance	Academic Blog Entry	
	Mhlanga & Moloi (2020)	Guidance	Crowd-sourced collection	
	Midgelow (2020)	Guidance	Journal Article	
	Nicol et al. (2020)	Guidance	Crowd-sourced collection	
	Warner-MacKintosh (2020)	Guidance	Journal Article	
	Wells et al. (2020)	Guidance	Academic Blog Entry	
		Guidance	Journal Article	

(continued)

**Table 2.** (continued)

Topic/Method	Author	Type	Format	Key Points
Video & Telephone Methods	Abrahamsson & Ollander (2020)	Empirical	Master's Dissertation	<ul style="list-style-type: none"> <li>Inspiration and motivational activities of higher importance in virtual setting (Abrahamsson &amp; Ollander, 2020).</li> </ul>
	Ali et al. (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Telephone interviews allow participants greater autonomy and control over when they are surveyed and provide a medium which is easier to talk than f2f for some participants; however, lack of bodily cues can cause difficulty in gauging participant's experiences (Strong et al., 2020) and it may be harder to build rapport (Ali et al., 2020).</li> </ul>
	Dodd & Hess (2020)	Empirical	Journal Article	<ul style="list-style-type: none"> <li>Telephone interviews may be susceptible to challenges such as network dropout, interrupted calls, participants not answering or not completing interview (Ali et al., 2020; Masri &amp; Masannat, 2020).</li> </ul>
	Lobe et al. (2020)	Guidance	Journal Article	<ul style="list-style-type: none"> <li>Online video focus groups may be easier to manage in relation to group dynamics and social anxiety of participants, and provide benefits for researchers in regard to being less demanding in terms of traveling to a location, and ease of recruiting participants in wider geographical area (Dodds &amp; Hess, 2020).</li> </ul>
	Mani & Barooah (2020)	Guidance	Journal Article	<ul style="list-style-type: none"> <li>Considerations should be given to specific privacy concerns of video conferences such visibility of participants' background and possible personal identifiers when in group interviews (Lobe et al., 2020).</li> </ul>
Text-Based Focus Groups	Masri & Masannat (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>When conducting phone surveys in developing countries during the pandemic researchers should consider additional aspects such as whether distress caused by the pandemic has affected a subject's ability to give consent and whether compensation can be given as many in developing countries have lost their jobs (Mani &amp; Barooah, 2020).</li> </ul>
	Strong et al. (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>Software should easily run on participants browsers and not require installing any external programs (Masri &amp; Masannat, 2020).</li> </ul>
				<ul style="list-style-type: none"> <li>Telephone interviews allow participants with both smart phones and older technology to take part (Strong et al., 2020).</li> </ul>
	Dube (2020)	Empirical	Journal article	<ul style="list-style-type: none"> <li>Challenges of conducting WhatsApp focus groups included unequal access to devices, issues of network access, expense of internet access, lack of IT literacy and closure of internet venues (Dube, 2020).</li> </ul>
	Woodward et al. (2020)	Empirical	Academic Blog Entry	<ul style="list-style-type: none"> <li>WhatsApp affords previous chat material to be easily referenced and slower speed to text affords greater reflection and broader participation than f2f workshops (Woodward et al., 2020).</li> </ul>
				<ul style="list-style-type: none"> <li>When conducting phone surveys in developing countries during the pandemic researchers should consider additional aspects such as whether distress caused by the pandemic has affected a subject's ability to give consent and whether compensation can be given as many in developing countries have lost their jobs (Mani &amp; Barooah, 2020).</li> </ul>
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				<ul style="list-style-type: none"> <li>WhatsApp affords previous chat material to be easily referenced and slower speed to text affords greater reflection and broader participation than f2f workshops (Woodward et al., 2020).</li> </ul>



normal. Additionally, there is the issue that researchers may be in a more privileged life situation (e.g., economically, socially, health-wise, etc.) which is not always representative of experiences of the wider population, and in this way, CAE may not always be able to give voice to marginalized and vulnerable groups who do not possess the same access to resources (Roy & Uekusa, 2020).

**Video & telephone methods.** Six entries were identified which detailed the use of video and telephone methods including interviews (Abrahamsson & Ollander, 2020; Masri & Masannat, 2020; Strong et al., 2020) and focus groups (Dodds & Hess, 2020). For example, Strong et al. (2020) investigated the relationship between men, masculinities and post-coital pregnancy avoidance in Accra. They adapted their existing research project comprising of co-located focus groups and interviews to use telephone interviews as it allowed participants with smart phones and older technology to take part. Similarly, Masri and Masannat (2020) noted issues around variability of participant devices and technological aptitude, pointing to the need to ensure the conferencing software used does not require participants to install or set up an external program thus mitigating any compatibility issues. Dodd and Hess (2020) identified various benefits from shifting to online video conferencing focus groups including participants being more comfortable taking part in their own surroundings and a reduction in fatigue and travel distances for researchers. The private chat function of video conferencing software may also provide benefit for a secondary research to provide comments and further probes to the interviewer, ensuring additional relevant information is covered (Dodds & Hess, 2020).

However, as Strong et al. (2020) note, some participants who preferred face-to-face contexts to build rapport with the researcher through sight were reluctant to be interviewed remotely. Ali et al. (2020) and Mani and Barooah (2020) suggest that the need to build trust over the phone is magnified, and that interviewers should take time to establish rapport by explaining the project and data collection process to participants. Other challenges associated with conducting research in this manner included the lack of face-to-face cues making it problematic to ascertain if the questions are causing participant's distress, and Strong et al. (2020) advise interviewers "check-in" with participants and remind them they are in control of the interview. Additionally, when conducting focus groups over video conferencing software, it is necessary to have a good internet connection to handle the multiple sound and video feeds (Dodds & Hess, 2020), and when conducting telephone interviews to ensure sound quality is good enough for transcription purposes (Greeff, 2020); something which may prove an issue for participants in areas with poor connectivity.

In terms of novel research during Covid-19, Abrahamsson and Ollander (2020) used a multiple case study approach to examine the transition of co-located teams to an online and socially distanced context via Zoom and Microsoft Teams. They found that team members experienced an increase in anxiety from the transition and the overall pandemic

environment, and that an increase in activities which promoted inspiration and motivation were of higher importance than within a co-located context. Furthermore, proactive engagement is required from both team members and leaders—engaging members in the co-production of leadership activities and for members to inform leaders of what is required to endure and impact changes (Abrahamsson & Ollander, 2020).

**Text-based focus groups.** Two entries were identified which used text-based focus groups to facilitate discussions between participants. Text-based focus groups have been argued to provide greater confidentiality than other digital formats (e.g., video/telephone) as participants are able to use pseudonyms which do not reveal information about the participant and, as such, may facilitate discussion of more sensitive topics (Hinkes, 2020). Both Dube (2020) and Woodward et al. (2020) examined the transition to distance-based learning in Africa during Covid-19 following a PAR approach and using WhatsApp to conduct workshops with learners. Both Dube (2020) and Woodward et al. (2020) found that using research questions or themes as focal points helped guide and add structure to the WhatsApp discussions. Woodward et al. (2020) argues that using the slower medium of text-based discussion (e.g., rather than video or audio) gave participants time to reflect on the issues under discussion and supported broader participation. Furthermore, the technological affordances of WhatsApp such as being able to directly reference previous comments and posting short summaries of discussions allowed participants to easily reference and revisit past material. While Woodward et al.'s (2020) study was an adaptation of an existing learning initiative, Dube's (2020) study was a novel project conducted during the pandemic context. To this end, Dube (2020) notes that the WhatsApp groups afforded successful socially distanced discussions despite the lack of prior researcher rapport.

There are issues with conducting focus groups using synchronous text-based mediums including multiple participants replying at once (as opposed to waiting their turn in a f2f setting) and those who are fast at typing dominating the discussion (Hinkes, 2020). Furthermore, as participants and researchers are unable to see or hear each other during the focus groups, there is the possibility that participants may use search engines to identify information to post to the group. This creates issues if participants copy/paste material which is then used in the analysis and findings of the research, or do not inform other members of the focus group where the information originated (Hinkes, 2020). However, while there are mixed views on whether it is more challenging to build rapport within synchronous text-based mediums, it has been suggested that the relative anonymity afforded to participants may encourage engagement, confidence and honesty, and that allowing participants to respond from the comfort of their own environment provides greater ecological validity (Colom, 2021).

**Guidance literature.** In terms of literature falling into the guidance category 12 entries detailed how participatory methods

may be adapted to pandemic context. Adom et al. (2020) and Graber (2020) provide general advice for conducting social research at a distance, while Greeff (2020) covers maintaining community engagement, rapport and informed consent during online research in South Africa. Method collections included Lupton's (2020) crowd-sourced document detailing over 30 distance methods applicable to the current context. The majority of methods detailed are online such as mobile probes (Albrechtsen et al., 2017), WhatsApp focus groups (Chen & Neo, 2019) and digital diaries (Volpe, 2019). Also included are methods such as Gaver et al.'s (1999) cultural probes and epistolary interviews (Debenham, 2001, 2007; Ferguson, 2009) which could be conducted in an offline and analogue manner. Similarly, Middelgouw's (2020) method collection documents how arts and humanities research may be (and is being) adapted, with a specific focus on creative and participatory approaches. This includes short accounts detailing adaptations of current research projects, such as through the use of photo-voice in a digital context (Arrietta & Miller, 2020), using WhatsApp to for researchers and participants to share images and videos (Haas, 2020), and using online tools such as Google slides, Padlet and Canva for successful online collaboration (Rapsey & Curam, 2020). The majority of entries in Middelgouw's (2020) crowd-collection *Doing Arts Research in a Pandemic* detail the adaption of existing projects and as such, participants and researchers may have already established a level of rapport which may not be the case in novel projects.

While the above focus on general guidance for distance methods, Nicol et al. (2020) considers how geriatric action research may be conducted at a distance. While the only entry included from the medical sciences, many of the points made would be applicable to distance-based research with vulnerable groups in general. For example, it is argued that social distancing can have a proportionately negative impact on older adults in terms of the mental and physical adverse effects of social isolation and that even brief instance of undivided, direct and reciprocal eye contact, even done remotely, may help mitigate some of these effects (Nicol et al., 2020). On this note, frequent emails or video conferencing calls could help in keeping research participants engaged and informed, especially when vulnerable populations are involved.

Finally, providing guidance with a focus on educational research, Buckler et al. (2020) suggests ways in which participants may be engaged and supported from afar. They argue that marginalized learners are the most likely to permanently leave school, and that the amount of time learning is paused corresponds to how likely an individual will self-identify as a learner (e.g., the longer it is paused the less likely to identify as a learner). As such, it is of central importance to maintain relationships between learners, their peers and teachers through mobile-messaging mediums such as WhatsApp or forms of asynchronous communication such as email. Aspects of education may need to be refocused such as more attention being directed to supporting learners with the negative effects of lockdown and reflecting on different (and past) approaches of keeping learners connected and engaged. Furthermore, Assante

(2020) stresses the importance of recognizing the specific fears and anxieties created by the Covid-19 pandemic. By allowing learners to freely express these feelings, a secure and collaborative environment can be created which may increase the focus on the educational content (Assante, 2020).

### *Challenges Associated With Distance Participatory Methods*

The reviewed literature describes how participatory research approaches have, and are being, adapted to remote contexts. In addition, the literature also describes wider challenges with regard to conducting research during the Covid-19 pandemic context, and with regard to using distance-based methods more generally. This section will provide an overview of a) the particular challenges posed by the Covid-19 pandemic, and b) challenges of using distance-based methods in a wider context.

#### *Covid-19 specific challenges in conducting participatory research*

*Ethical implications.* Most notably are the ethical implications of engaging participants in research during what is already a highly stressful and uncertain time when normal routines are disrupted (Lupton, 2020). However, as Lupton (2020) points out, while lockdown restrictions may result in people feeling confined, bored or restless, they may welcome the opportunity to be part of a research project. As such, social research during global pandemics should consider methods which "demonstrate an awareness that we are asking more of our participants than ever before" (Pacheco & Zaimağaoğlu, 2020, p. 1). Researchers should consider the use of methods which provide benefit to participants, such as creative methods or activities which promote reflection, psychological wellbeing and can serve as therapeutic mechanisms in their own right (Lazarte et al., 2020; Pacheco & Zaimağaoğlu, 2020).

There are further ethical challenges in requesting participants to take part in social research during or shortly after Covid-19, especially if those participants are in low-income countries which are still experiencing the effects of the pandemic (Ruppel, 2020). Wells et al. (2020) argue that in times of crisis it is critical to establish shared goals, discuss adaptations to research protocols and focus on community priorities in design, content and communication. Furthermore, when conducting participatory research with marginalized groups in a distanced manner there is the question of whether the researcher can truly be immersed in the research context if they are sitting safely at home in front of their computer (Ruppel, 2020), and more acutely, whether this may put the equity such research is built upon at risk. As such, researchers should consider the necessity of details of the research design such as whether interviews or surveys need to exceed a certain length or whether participants are required to turn on their cameras (Pacheco & Zaimağaoğlu, 2020). In some cases, it may be better postpone the research project altogether (Jowett, 2020; Ruppel, 2020).

However, on the reverse, if a research project is pre-existing and community ties are already established, there is the issue

that postponing or even canceling the planned research may have a negative impact upon those already involved (and may have already invested a significant amount of time) such as local research partners and participants (Witt & Schnabel, 2020). Additionally, in time sensitive research such as investigating a particular community event, circumstances may have changed considerably by the time the research proceeds, meaning it may be impossible to collect important empirical material (Witt & Schnabel, 2020).

Looking at the ethical implications of Covid-19 on social and participatory research from a wider perspective, Ruppel (2020) argues that the pandemic context will have lasting effects on how we live, work, and ultimately what we may choose as future research topics. Research involving close collaboration between researchers, research partners and participants may be unfeasible in some developing countries heavily hit by the negative effects of the pandemic, and where there are issues with groups who have no network access (Ruppel, 2020). Witt and Schnabel (2020) suggest that switching to digital exchange formats may be applicable to research where full immersion in research field not of central importance. Alternatively, local research partners could be given greater responsibility and scope for action such as engaging communities and identifying alternative methods of fieldworks (Witt & Schnabel, 2020). As Hussain (2020) points out, “now more than ever, participatory research and equitable partnerships come to the fore where we are to imagine and visit the field through the eyes/minds of those that have direct access” (Hussain, 2020, p. 3). When fieldwork may not be possible an alternative could be to use secondary data such as policy documents and media content (Adom et al., 2020; Jowett, 2020). However, content generated by the public such as in the form of forums, blogs and vlogs may pose ethical challenges in relation to what is considered “public” or “private” (Jowett, 2020).

*Closure of venues for network access.* As Dube (2020) notes in their study, participants in marginalized and rural communities may be reliant on venues such as internet cafes for network access. Due to lockdown restrictions such venues may be closed and as a result, participants will be unable to access online participatory mediums. In the case of Dube’s (2020) study, this also meant that online learning became a challenge for those who relied on internet cafes. Moreover, with the closure of schools resulting in a shift to online learning, internet cafes which remained open could become overcrowded with learners who did not have network access at home, and as such, prices could increase, rendering the use of such cafes unaffordable by many poorer learners (Dube, 2020).

*General challenges associated with distance participatory methods.* While there are specific challenges associated with conducting research during pandemic contexts, there are various issues associated with conducting participatory research at a distance more generally.

*Access to network and devices.* In cases where participants are older or in marginalized/rural communities there may be issues of equal access or shortage of devices such as mobile phones, laptops and tablets (Dube, 2020; Mani & Barooah, 2020; Warner-Mackintosh, 2020; Woodward et al., 2020). Unavailability of network access in rural areas may also prove problematic in accessing shared and collaborative online spaces (Dube, 2020; Mhlanga & Moloi, 2020; Ruppel, 2020). This is especially evident when using methods which rely on smartphone technology such as WhatsApp (Dube, 2020; Strong et al., 2020; Woodward et al., 2020) or video conferencing which relies on participants having a capable device.

*Cost of data.* As Dube (2020) found the cost of internet data proved to be a barrier to facilitating effective online learning, something which was exasperated due to the parents of learners losing their jobs due to Covid-19. Initiatives such as community buy-ins and deals with data providers may help in providing devices and reducing data costs. Furthermore, ensuring communications are concise and shared files are as small as possible may also aid in bringing the cost of data bundles down further (Buckler et al., 2020).

*IT literacy.* There are potential problems around IT literacy, with those who are accustomed to face-to-face settings and unfamiliar with participatory technologies finding a switch to an online and distanced context challenging (Marzi, 2020; Masri & Masannat, 2020; Warner-Mackintosh, 2020; Woodward et al., 2020). For example, Warner-Mackintosh (2020) notes that many older adults may not have devices, or the IT literacy required to use communication technologies such as video conferencing. Dube (2020) suggests one way around this could be to conduct initial workshops to equip participants with the knowledge and skills required to handle online participatory technologies. For example, Marzi (2020) details using training sessions and tutorial videos on how to use smartphones for filming videos with her participants. Alternatively, as in the case of Masri and Masannat (2020), a custom video conference application was used which could be accessed directly from participant’s browsers, negating the need for participants to install and set up any software.

*Researcher control.* There are also issues in relation to lack of control on the part of the researcher. This can include instances such as participants entering discussions late, participants sharing confidential material, or participants using search engines to compensate for their lack of knowledge on a topic (Hinkes, 2020). As Marzi (2020) notes in the case of visual participatory methods, guidelines may need to be created to avoid risk to participants, ethical dilemmas and disappointment in cases where material is unable to be published despite participants wishing it to. However, on a positive note, while a lack of control may pose challenges it also provides a means to equalize power-relationships and ensure equity between researcher and participant (Marzi, 2020).

*Equal opportunities for engagement.* Equity and openness are key factors in participatory research, however, there are

challenges when it comes to those who may have disabilities which inhibit them from engaging fully with online participatory technologies. As Woodward et al. (2020) found, those who were disabled with visual or hearing difficulties may struggle to engage fully in online discussions. In these cases, the type of technologies and/or activities may need to be given greater consideration to ensure equality between participants.

*Maintaining social relationships at a distance.* Moving to a distanced format for participatory research may create challenges in relation to creating and maintaining interpersonal relationships. In addition, research which requires access to gatekeepers to build rapport within a community may be made more challenging if researchers cannot access the field (Greeff, 2020). Participatory approaches depend heavily on how “researchers understand things and includes the relationship between the researcher (the person who wants to learn) and the people in the field (the people that know the insights of the field)” (Ruppel, 2020, p. 2). When we are unable to engage with communities in their natural milieu and instead opt for planned exchanges over a distanced medium, are we still able to create the same depth and richness of communication required to create and maintain lasting relationships? As Abrahamsson and Ollander (2020) found, teams mainly engaged in task-related interactions as opposed to spontaneous interactions common in face-to-face contexts. It has been argued that spontaneous interactions can enhance collaboration (Pauleen & Yoong, 2001), and as such, establishing a means of virtual communication which can allow spontaneous interactions to prosper is key to creating a shared space for collaboration and community (Abrahamsson & Ollander, 2020).

*Privacy issues.* Lobe et al. (2020) note that when switching to an online context, researchers should investigate the privacy, confidentiality and data collection policies of the platforms used. For example, when using Skype or Zoom for interviewing, participants should be sent invitations requiring them to sign into the interview individually possibly along with password protection. All personal identifiers should be removed to ensure data confidentiality to prevent any linkages between data collected and participant’s email addresses. Furthermore, when conducting interviews and focus groups via video conferencing there is the potential for background visibility in participants surroundings. While some participants may find this irrelevant, for others it may be disturbing and researchers should advise participants to use internal options to blur/mask the background if required (Lobe et al., 2020).

As Masri and Masannat (2020) found another privacy issue with conducting video and telephone interviews is more household members may be present in the home resulting in difficulty in discussing sensitive and personal topics with the researcher. As they note in their study, this resulted in a large number of participants cutting the phone call or refusing to answer the questions. As such, in some contexts “digital platforms do not replace the comfort of face-to-face interactions, especially when interviews cover difficult, personal subjects” (Masri & Masannat, 2020, p. 2).

Finally, while video conference software provides easily accessed recording features for researchers, there is the possibility that participants may also find a way to record focus groups on their devices, giving rise to the possibility that the recording may be shared with outsiders. As such, when this may be a concern, researchers should include a statement which specifies that confidentiality cannot be guaranteed in group settings, and make sure to reinforce the need for confidentiality during introductory instructions (Lobe et al., 2020).

## Implications

This review included literature which provided considerable focus on the methodological implications and challenges presented by conducting participatory research during the Covid-19 pandemic. As such this review provides implications for those wishing to undertake research during times of pandemic crisis or using distance-based methods more generally.

Firstly, the review may serve as a compilation of resources for those wishing to adapt their research to a distanced medium. The review provides an account of how research is presently being adapted and while the methods covered are contextualized within the current pandemic environment, they provide some pointers for how distance-based methods may be used successfully in general. For example, to maintain the participatory nature of research at a distance, there are a number of factors to consider such as ensuring equal power relationships are maintained online (Marzi, 2020), ensuring discussions remain on topic through focusing on set questions/issues (Dube, 2020), and supporting participants with the negative effects of lockdown (Woodward et al., 2020) and social isolation (Nicol et al., 2020). As such researchers who are in the process of adapting their research may wish to look to some of the literature covered in this review as a form of guidance.

Secondly, this review provides an overview of the challenges of conducting distance-based participatory research specifically during the Covid-19 pandemic, and of the challenges posed by distance-based methods in general. For example, there are context-specific ethical implications to consider including whether the research may cause undue stress in an already highly stressful situation for many participants (Ruppel, 2020), and, more generally, whether conducting participatory research using digital methods may exclude those who do not have access to technologies. As such, when conducting participatory research during times of pandemic crisis, researchers may need to consider aspects such as whether the research is completely necessary at times of great uncertainty and stress (Jowett, 2020; Ruppel, 2020), whether it can be postponed and the implications of doing so (Witt & Schnabel, 2020), what participatory methods can ensure equal collaboration between participants and researchers (Woodward et al., 2020), whether research can be adapted to include creative methods which provide therapeutic benefit to participants (Lazarte et al., 2020; Pacheco & Zaimağaoğlu, 2020), how spontaneous interactions can be maintained in a remote setting (Abrahamsson & Ollander, 2020) and how those in

marginalized and rural communities, or without sufficient IT literacy, may still participate if they do not have consistent network access or devices (Buckler et al., 2020; Dube, 2020; Mhlanga & Moloi, 2020; Ruppel, 2020; Warner-Mackintosh, 2020).

### Limitations and Future Directions

This review was conducted from July 2020 to January 2021 and due to the rapidly emerging state of the field findings may be drastically different in several months' time. As such, one potential direction for future work could be to conduct a similar review a year or two on from the coronavirus pandemic using the same search terms to ascertain how the field has developed in that time. For example, are there more empirical studies, and if so, are there any overarching methods used by these studies? And which methods are the most successful in maintaining the equitable nature of participatory research from a distanced context? Similarly, this review did not identify any research which had used, or was using, distanced analogue methods such as analogue epistolary interviews (Lupton, 2020) or cultural probes (Gaver et al., 1999). While in most instances digital methods may have advantages in terms of ease and time, in some contexts their use may not be applicable (e.g., areas with limited or no internet access). As such, future research may wish to examine the particular benefits and challenges of analogue distance methods, especially during climates of uncertainty such as the Covid-19 pandemic.

An additional limitation for this review is that the majority of empirical literature detailed the adaption of existing studies to a distanced context. Due to pre-existing relationships between researchers and participants, transitioning to a distance context may have been easier. As such, this review may not provide a full account of the challenges associated with conducting research native to the Covid-19 context. On this note, one direction for future work could be to investigate more fully the specific challenges associated with conducting novel research during the pandemic context. For example, can the true nature of participatory research be established and maintained in projects entirely native to a distanced pandemic context? And, considering the increase in uncertainty and anxiety that Covid-19 has created, does rapport between researchers and participants build as easily in distanced mediums during pandemic contexts as distanced mediums in non-pandemic research contexts?

### Conclusions

This review has provided an overview of literature concerning the use of participatory approaches during the Covid-19 pandemic, with substantive focus on the methodological implications and the challenges of using distance-based methods. The majority of empirical entries detailed the adaptation of existing research projects (e.g., Marciano et al., 2020; Marzi, 2020) and as such pre-existing social ties between researchers and participants may have already been established which

could make the transition to a distanced setting easier. However, research such as Dube (2020) suggests that participatory research can be conducted effectively solely from a distance even in projects which are novel ventures.

While there are a range of challenges associated with conducting participatory research within a distanced medium, Covid-19 and pandemic contexts add additional issues to consider such as ethical implications (e.g., Pacheco & Zaimağaoğlu, 2020; Ruppel, 2020) and barriers to pre-existing means of network access (Dube, 2020). These challenges may point toward potential solutions such as ensuring forms of teaching and guidance are in place on how to use participatory technologies effectively (Dube, 2020; Liegghio & Caragata, 2020), using software that does not require a high level of technological aptitude (Masri & Masannat, 2020), the possibility of community led device buy-ins and deals with data providers to reduce costs (Buckler et al., 2020), a shift to lower-tech methods for developing countries such as asynchronous forms of participation (Debenham, 2007; Ferguson, 2009) and analogue creative methods such as cultural probes (Gaver et al., 1999) or analogue photovoice (Wang & Burris, 1997). Considering these areas as points of reflection or directions for change can therefore support researchers in innovating their research both during and, perhaps more importantly, beyond the pandemic.

### Summary

This narrative literature review included a total of 38 documents relating to how participatory approaches have been used within the context of the Covid-19 pandemic. Digital approaches such as text-based focus groups, digital ethnography and digital creative methods may provide a valuable means of capturing participants' experiences from afar while mitigating some of the adverse effects of the pandemic. In addition to the more general challenges of maintaining equity and interpersonal relationships from a distance, additional considerations need to be taken into account during the pandemic context. One key consideration is to reflect on whether data collection is absolutely necessary during what is arguably a highly stressful and uncertain period in many people's lives, and if so, ensuring the methods used provide positive psychological and wellbeing benefit to participants.

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