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To do or not to do: practical and ethical concerns in online research with children and young people during crises

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Abstract

This article contributes to an ongoing discussion regarding the ethics of online research involving children during a crisis (pandemic). The paper critically reflects on our experience of designing, approving and conducting a multi-country research study utilising an online diary to investigate how social, physical and virtual conditions shape and are shaped by children's everyday experiences during the COVID-19 pandemic. Our reflections identify four key ethical and practical areas of concern induced by the physical immobility of researchers and the need to research at a distance which impacted upon the methods used and success of the study: 1) the ethics of doing and not doing research in times of crisis and rupture (such as the Covid-19 pandemic); 2) impacts of the digital divide and accessibility of tools; 3) ethical issues induced by institutional safeguarding procedure (e.g. issues of trust and rapport because of anonymised data collection) and how these intersect with digital technologies and online platforms; and 4) the ethical issues that arise from breaching the 'social contract' to give voice to those participants who have provided data. We conclude that ethical restrictions and academic standards intended to minimise the harm of using online tools during a crisis can instead have the effect of silencing children and young people's voices. Accordingly, greater consideration and deliberation between researchers and ethics committees is required to find more reflexive ways to conduct research with children and young people during crises.

Keywords: online research, pandemic, children, young people, ethics, digital technology

1. Introduction

The research community produced a rapid response to the challenges of COVID-19 with a slew of papers published in quick succession during the early months of the pandemic in all disciplines (Else, 2020). With the launch of several COVID-19 emergency response funding calls [e.g. UK Research and Innovation (UKRI) Ideas to Address COVID-19 and USDA Rapid Response to Novel Coronavirus Formal and Non-Formal Educational Experience] at the onset of the pandemic, a number of studies have been funded by different bodies to investigate the short- and long-term impacts of the pandemic on children and young people (CYP) (UKRI, 2021). Many of these COVID-19 related studies focused on children's physical/mental health conditions. A number of studies investigated the impact of COVID-19 on children's wellbeing; most notably the Oxford University Co-Space Survey investigating how parents could support children (0-18 years old) during COVID-19 while the 'Diff Diaries' study (7-16 years old) explored children's experiences of lockdown in Cardiff (Wales). However, at the peak of 'COVIDisation', research funders prioritised 'infectious threats of pandemic significance'. As a result, studies explicitly focused on built environment, home environment and access to ICT; well-being of CYP became much less evident. In an adult-dominated world, impacts of COVID or lockdowns on the adult world have taken precedence whilst children's perspectives have struggled to be heard.

This paper draws upon our experiences of initiating a multi-country research study early in the pandemic (June 2020 and ongoing) that sought to investigate how CYP's everyday mobility and access to green and play spaces changed during COVID-19 lockdown and how this affected their everyday experiences and wellbeing. The study focused on 7-14 year olds in the UK, Singapore, Bangladesh and (unsuccessfully) the USA. It used an online structured diary to collect data on CYP's everyday experiences during the lockdown imposed by the Governments in participating countries. In terms of children's geographies and urban planning and design literature, this study was one of the first seeking to investigate the spatial conditions that influence children's lived experiences during a global pandemic. However, the study was largely unsuccessful with a very low response rate across all countries and qualitative data which did not consistently meet our hopes with regard to detail.

As this suggests, the main contribution of this paper is not to report on the findings of this study, but to discuss the practical and ethical concerns that arose in the process of developing the project in the context of pandemic related restrictions and institutional safeguarding. We also critically reflect on the ethical dilemmas that followed the completion of the project as we find ourselves unable to give voice to our participants with too little data generated to enable new insights and journal publication. Accordingly, we focus on four key themes: 1) the ethics of doing and not doing research in times of crisis and rupture (such as the Covid-19 pandemic), 2) impacts of the digital divide and accessibility of tools, 3) ethical issues induced by institutional safeguarding procedure (e.g. issues of trust and rapport because of anonymised data collection) and how these intersect with digital technologies and online platforms; and 4) the ethical issues that arise from breaching the 'social contract' to give voice to those participants who have provided data. The conclusion of the paper offers some recommendations for consideration of ethics in children's geographies research.

1.1 On the ethics of research with children- face to face and online

Many aspects relating to the ethics of conducting research with children and young people have been covered widely in the literature because of the unique ethical challenges that research with this participant group often raises (Thomas and O'Kane 1998; Dockett et al. 2009; Alderson and Morrow 2011; Robson 2018). Some of the ethical issues that arise when researching with children are universal and relevant whether research is remote or face to face (f2f). These include children's consent (Mahon et al. 2007; Dockett et al. 2009); perception of children as 'vulnerable, incompetent or powerless' and disparities of power between adults and children (Morrow and Richards 1996); children's representativeness and who decides the representation of children (Hill 2006; Dockett et al. 2009); the appropriateness of research methods for CYP (Cameron 2005; Fargas-Malet et al. 2010); interpretive frameworks for data analysis and children's control of data analysis (Dockett et al. 2009); and impact of children's participation (Hill 2006; X 2017). However, the use of new technologies has brought about specific ethical challenges related to recruitment [via social media or other internet-based platforms (Gelinas et al. 2017; Hokke et al. 2018)] including risks relating to exclusion of vulnerable subjects in recruitment via social media, informed consent, privacy and confidentiality. The literature also highlights the lack of institutional guidelines from Research Ethics Committees (REC) or Institutional Review Board (IRB) around these issues as such guidance tends to lag behind the technological and methodological cutting edge (Hokke et al., 2018; Cutting and Peacock 2021).

Empirical investigations on the efficacy of recruiting participants via social media remains limited in geography and social sciences but with notable exceptions such as the work of Madge (2007). Social media is promoted as enabling researchers to reach a wider network of population. However, a pilot physical activity intervention study with adolescents (14-18 years old) in the USA (Moreno et al. 2017) suggested that the cost associated with staff time (an average of 1.6 hours of staff time per participant as opposed to 0.75 hours in traditional recruitment), could be significantly more than that of traditional methods. Regardless, internet-based strategies have been successful in reaching people subject to marginalisation and stigmatisation due to disability, sexual orientation or religious preferences (Hokke et al, 2018). However studies globally have reported a digital divide as internet-based recruitment strategies may not reach children from families with lower socioeconomic or educational status who may lack internet access or digital literacy and therefore could pose serious concerns around representativeness of sampling and perceived bias (Hokke et al. 2018; Madge et al. 2007). Facca et al (2020) have argued that recruitment of participants using digital technologies can become more inclusive, particularly if emphasis is placed on ensuring the information or tools are more inclusive for children with physical or learning disabilities.

Obtaining consent from parents and children and young people for their participation in online methods can be 'ethically complex and logistically difficult' (Hokke et al. 2018, p.9). More than a decade ago Moinian (2006) commented on how the internet will be embedded in children's daily lives in coming years and emphasised that children should be perceived as 'agents and not victims of internet-related practices' (p.51). Yet, the age at which a young person can give fully informed consent without parental permission remains subject to debate, in particular regarding who should determine a child's capacity for consent. Some researchers insist on the importance of researchers' individual judgement with regard to each investigation and the validity of their common sense (Sveningsson et al. 2003; Moinian 2006). However, the currency of trust and dialogue between researchers and participants that such approaches rely on are often depleted in the absence of f2f contact. Increased ethical scrutiny by RECs or IRBs – as is the trend in medical research, parents not providing consent, or young people being reluctant to obtain permission could lead to underrepresentation of younger children in research studies (Hokke et al. 2018) and cannot ensure ethical conduct of research in social science contexts.

A serious threat to nagivating ethical considerations and the accountability of researchers is posed by a lack of awareness, availability and confusion over ethical guidelines. A key issue is that Institutional ethics processes developed based on 'medical models' of clinical research assume that researchers will have full prior knowledge of the field along with the risk factors and have been reduced to ‘a series of tickbox forms, paper work, online regulation systems and hoops’(Robson, 2017 p477). This model misses altogether the ethical dilemmas and messiness children’s geographers face while collecting data in the real world (Beazley et al. 2009, Robson 2017). According to Cutting and Peacock (2021), institutional ethics processes and frameworks do not equip researchers to address ethical challenges that arise in the field at different stages of research; assuming instead that all ethical issues can be known and mitigated before a project starts. Robson, Cutting and Peacock further argue that increased ethical scrutiny following trends of medical research cannot ensure ethical conduction of research. Children’s geographers express concern that research with children – f2f or online- may be occurring without suitable guidance and therefore suggest a need for capacity building of researchers to engage in critical ethical reflection (Robson 2017, Hokke et al. 2018, Cutting and Peacock, 2021) and ‘learn from mistakes’ (Robson 2017, p.477). However, given current ethical procedures, even if such reflection takes place in cannot be fed back into the closed loop approach that currently dominates.

1.2 On the ethics of research with children during COVID-19 pandemic

In the context of an ongoing crisis, whilst researchers around the world have responded to the pandemic in thoughtful and creative ways, very little empirical research has thus far been published regarding ethical concerns of researching with CYP during COVID-19 pandemic. Many of the ethical issues reported by researchers thus far have been similar to those previously found, but compounded by the pandemic because of the way restrictions have physically immobilised researchers in relation to participants. The key practical and ethical concerns reported as heightened in research with children during lockdown were accessing participants and representativeness of sample (Gwenzi et al. 2020; Monchuk et al. 2020); reliability, user-friendliness and security issues of online platforms and their offline alternatives (Gwenzi et al. 2020; Monchuk et al. 2020); lack of/ delay in responses. However what may be unique to the pandemic conditions are issues regarding whether the research should be conducted or primary data should be collected at all (Berman 2020); the reduced suite of methods available to researchers (Monchuk et al 2020); increased uncertainty over whether data collection will be successful (Jones et al. 2020); and finally the increased uncertainty and burden on participants in the constantly changing situation (Berman 2020; Monchuk et al. 2020). Moreover, ethical guidance around online research with children from institutional ethical bodies has often been opaque even before the pandemic (Cutting and Peacock 2021), a situation only rendered more complex during the pandemic.

The first and foremost ethical consideration reflected upon in a UNICEF Innocenti discussion paper relates to weighing the harms and benefits of conducting research involving children in the context of COVID-19 (Berman 2020). While the discussion paper is set within the organisation’s position in terms of evidence generation as an imperative to uphold children’s rights and providing services, it advocated delaying any data collection on children’s lockdown experiences in the context of children experiencing trauma, significant restrictions in their freedom of movement, and extremely limited access to services. Hooper and colleagues (2020) argue that researchers need to carefully consider whether the perceived benefit outweighs the potential burden on participants particularly those who are already under pressure. In line with this, some academic institutions would not allow research to be conducted with children at all during the height of the pandemic (Cortes-Morales et al, 2022). Such a stance goes part way, perhaps, in explaining the limited number of studies in children’s geographies and built environment disciplines.

Privacy and security issues and the user-friendliness of online platforms have been reported as a concern by Monchuk et al (2020) in their study with 70 young people (14-18 years old) on experiences of growing up under COVID-19 in Italy, Singapore, Lebanon and the UK. While Yammer was selected as an online platform for supporting community building among young people because of its compliance with General Data Protection Regulation (GDPR) (i.e. it does not require sharing of any personal contact information), many young people were more familiar with applications like Whatsapp and Telegram and therefore were more comfortable in using them or sending information directly to researchers. Such security issues were of concern in both online and offline alternatives of data collection. For example in Gwenzi et al.'s (2020) pan-African study of COVID-19 restrictions in Ghana, Nigeria and South Africa, diaries were sent to wrong email addresses although the consequences were not reported.

Accessing participants and the issue of trust with researchers has been reported by Gwenzi et al in their study of migrant parents in South Africa. Trust building with research participants requires time and is more difficult from a 'distance'. This can also depend on the individual circumstances of participants who may be in fear of exposing their children or being reported to authorities that could be followed by deportation or further marginalisation. Such concerns also intersect with the ethical issue of underrepresentation of children from deprived communities with less or no access to digital technology, or children facing marginalisation and trauma.

One of the major ethical dilemmas faced by Jones et al. (2020) exploring young people's short-term perceptions and experiences of the COVID-19 pandemic in the Middle East and North Africa (MENA) region was the delay in collecting material. While the flexible research design of a combination of methods (a mix of semi-structured phone interviews, digital storytelling and diary writing) may allow CYP to respond at their own pace and time, if participants do not send data or are unresponsive, Mupambireyi and Bernays (2019) reported that it was difficult for researchers to identify whether they required additional support or why there was a delay. Whereas physical co-presence is often used alongside virtual and remote methods to build rapport and assist with the completion of tasks, such complementary strategies are ruled out when researchers are immobilised. The full implications of relationship building through 'virtual places' also remains unexplored (Jones et al. 2020), but is also rendered impossible when anonymised data are collected online to protect participants' identity. Thus whilst delaying data collection is suggested in UNICEF's Innocenti discussion paper, this can lead to issues around rapport, support and recall accuracy.

The burden on participants in the constantly changing situation of the pandemic was a major ethical concern reported by researchers not only in research involving CYP but also in general (Hooper et al. 2020; Monchuk et al. 2020). Weighing whether we should conduct research at all in situations when people are operating in challenging circumstances, requires finding a balance in terms of protecting the most vulnerable whilst also giving them voice. Particularly because these 'vulnerable' voices are perhaps what we must listen to most when considering responses to the pandemic. It is important to note that the studies we have discussed in this section were conducted contemporaneously with ours, and hence many of these challenges have been faced by the researchers at the same time and were not reported for us to reflect upon at the time we undertook our study.

2. Overview of research design: Children's perspectives on activity and resilience during Covid-19 lockdown

The grounding of our study was a desire to understand existing spatial and social inequalities relating to children's activity and mobility in different contexts, and the extent and ways in which COVID-19 related restrictions affected these. Our 'hypothesis' as such was that spatial and social conditions could contribute to how children respond to and adapt to lockdown measures as schools closed, and all except key workers were instructed to stay home in March 2020 (for the UK, slightly different timings for other nations). We chose to focus on children aged 7-14 as these children would have less independent mobility than older children and therefore would likely be more impacted by lockdown measures. The resulting research question that guided the study was: How have CYP's activities, social relationships and wellbeing changed during COVID-19 lockdown and what spatial and social factors most influenced any observed differences within and across national boundaries?

We intended to conduct the study in different social, spatial and political contexts to gather a comprehensive picture of children's geographies and the impact on their everyday experiences. Beyond the UK, Bangladesh and USA, we shared our concerns with colleagues from Singapore and Taiwan where the COVID-19 situation was arguably being managed more effectively by central and local government, and children's lives were far less disrupted. However the countries we would ultimately focus on were dictated not only by our intent to research a range of different rates and intensities of 'lockdown' measures (see Table 1), but also on our networks and our understanding and respect to social norms and values in participating countries. As a result the final study focused on the UK, Singapore, Bangladesh and the USA; our Taiwanese colleagues considered the study would not be successful there because of the additional burden to children and families when regular school activities were continuing largely unchanged.

Table 1: COVID-19 and lockdown measures in participating countries

2.1 Immobility and researching from a distance

The immobility and social distancing measures imposed on us to prevent the spread of COVID-19 posed challenges with regard to the range of methods we might utilise to gather data and led us to rule out any data collection using f2f methods like observation or interviews with children, mapping, photo-elicitation or drawing. Accordingly, we were left questioning how we can 'mobilise method' (Spinney & Jungnickel 2019); an issue that owes a debt to John Law as he posed the question, 'how can we move away from an understanding of method as a normative set of procedures that has to be done correctly in order for 'proper' knowledge to be generated?' (Law, 2004, p. 143). Underpinning this question is the importance of the flux and flow of social life to how researchers think about method.

Given our physical immobilisation, we opted to select from a range of 'virtual' methods, however there were uncertainties around privacy and confidentiality in using some of the tools available. A platform like Zoom can be deemed useful to collect data by applying a digital version of more traditional methods like interview or focus groups. However, during the first lockdown (in spring 2020) there was increased precarity around using Zoom where uninvited guests could 'gate-crash' and 'zoom-bomb' that raised concerns around confidentiality and data protection. There was also the issue that some children may already have been spending a lot of time on such platforms for learning from home. We also ruled out the use of mobile phone surveys because firstly, the age group we would be investigating would be less likely to have their own phones; and secondly, even if they had phones the ethical issues of researchers conversing 1-2-1 with children via phones would be just as, if not be more problematic than with online interviews. The above methods could also mean a longer ethical approval process because contact would need to be established with the research participants requiring additional measures around confidentiality and data protection.

Ultimately, we applied what is best described as an online timeline activity diary as most appropriate to capture the data needed. Diary based methods where participants report regularly and routinely over days/ weeks/ months are popular in research for three main reasons: first, their distinct capacity to capture 'phenomena of interest on a regular basis in context and overtime' (Hyers 2018, p.vii); second, their flexibility and adaptive quality to suit diverse research questions, participants, epistemological frameworks and process of analysis;

and third, the capacity to obtain in-depth data direct from participants. The online diary would also gave the ability for CYP to complete the diary at their own time and pace without coming into contact with the researchers or any other instruments provided by us; therefore social distancing under COVID restrictions could be maintained.

The diary was designed with open ended questions, asking children (aged 7-14) to record activities from the morning, afternoon and evening on each day of one week during lockdown. The diary also asked children to share the feelings associated with those activities captured daily with a scale illustrated with emojis; and overall wellbeing conditions captured by answering 7 questions from Stirling Children's Mental Wellbeing Scale (Liddle and Carter 2015). At the end of the diary, we asked parents to give simple information on their demographics – location, ethnicity, household income and home environment.

Once designed, the survey was translated online using the web-based survey design software Qualtrics, chosen for its advanced design capacity and interactive image-based features which were considered suitable for creating an engaging and interactive online diary for children. Qualtrics also importantly provides technology that ensures compliance with privacy and confidentiality requirements as per General Data Protection Regulation (GDPR) and California Consumer Privacy Act (CCPA): the survey would be hosted on Texas Tech University's Servers. Partner institutes with a subscription to Qualtrics can then access the database which eliminates risks related to data transfer in multi-country studies, particularly from countries where access to a secure system may be limited. This also minimized the risks of personal diary data being sent to the wrong contacts as had occurred in the study conducted by Gwenzi et al (2020).

The diary was piloted with children and parents before launching first in the UK and feedback from children was used to make the diary more accessible. For example, we changed text-based rankings for how children felt about different aspects of lockdown to incorporate emojis based on children's preferences to make the diary 'more fun' (Fig 1). The 'Check Survey Accessibility' tool of Qualtrics was also helpful in determining the accessibility levels of the questions used in the survey.

Figure 1: Interactive question - the emoji scale was integrated based on feedback from piloting the diary.

2.2 Ethics approval

Whilst we were designing our data collecton tool, we were also seeking ethical approval from the lead university at UK - Cardiff. As an institution Cardiff University has two routes through which ethical clearance to be obtained: one is at the school level (School Research Ethics Committee, SREC) where most projects are assessed and the other at the University level. University level clearance is required only when projects are identified to have a higher level of risk at their School level assessments and therefore necessitating further scrutiny. The SREC acts on behalf of the University ethics committee adhering to aims that are common to its formal ethical procedure: to ensure that no harm comes to participants or researchers as a result of the research, and that standards of dignity, rights, welfare, safety and accountability are set and upheld in all cases.

The original ethics application was submitted to the SREC on the 24th April 2020. In our proposal we highlighted issues including consent of children; language; general data protection; how diary completion might highlight wellbeing and mental health issues; anonymisation if visual materials were uploaded; and limits to confidentiality in cases of possible harm. Related to this previous point, we had different approaches for online and physical diaries: the online diaries had required tick box agreements with no personal data collected. These were thus anonymous by default which would have also meant that had anything been disclosed it would not have been possible to follow up. If names/ personal details were shared in diaries these were to be redacted. Differently, the paper diaries had paper consent forms allowing anonymisation but also the possibility to re-link submissions should something have been disclosed. In practice no paper diaries were submitted so no personal data was collected at all.

The project was assessed as having low risk of harm to participants and researchers: the main ethical concerns raised from the initial application were around data storage. We expected to collect a large set of data from four different countries and data storage and transfer between institutes required additional safeguarding measures. As data from the survey would be stored at the university based in the USA, we decided to err on the side of caution and not collect any personal data through online diary. To ensure compliance we were required to submit the XXXXX University's data protection policy as part of the revised ethics application to the UK University. Following feedback and these revisions the project was approved on the 9th May 2020.[1]

We were sensitive and respectful that social values and cultural norms around ethics vary in different contexts and due diligence was undertaken to check with partner institutes whether the UK university's policy was sufficient and whether any additional applications/ safeguarding measures were required in addition to confidentiality and data protection. The UK university procedure was deemed to cover any potential ethical concerns raised and did not contravene those of partner institutions, therefore no additional application was made in Bangladesh or Singapore.

However, in order to collect data from participants in USA, we were required to submit a separate ethics application to their IRB. The institutional review process for the US based institutes was more time intensive which caused a delay in data collection in the US. Given the time-sensitive nature of the project and that lockdowns were coming to an end in all countries, we took the decision to focus on the UK, Bangladesh and Singapore and not collect data in the US in the first phase.

2.3 Participant recruitment and obtaining consent

Due to a contingent process of getting project partners in place in different countries and working on survey recruitment and translation, the diary went live at different times in different places: 19th May 2020 to 31st July in the UK; 17th June 2020 to 31st August in Bangladesh and Singapore. Participants were recruited using social media (mostly Twitter and Facebook), through school connections and word of mouth. In each country, our initial hopes were to recruit between 30-50 participants with the assumption that random sampling through social media should ensure an approximately representative split of boys and girls in the sample. We already knew that we would not be able to stratify the sample to fully balance gender, ages, socio-economic backgrounds or housing types through recruitment via social media. We were also very aware that participation could be limited from those with no/ intermittent access to ICT and therefore we offered a paper version of the diary that could be sent out to participants and returned at no cost.

Before accessing the diary consent was obtained from both parents/guardians and CYP. Considering the risks related to contact with physical documents, we opted for a checkbox system in the online diary which would only allow participants to continue to diary completion once it was signed. For parents, information on the project was provided at the start of the diary. This related to the scope and purpose of the project, the types of questions it included,

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[1] We acknowledge that different departmental or institutional ethics boards have had different approaches to approving new application for research with children during the pandemic considering the pertinent ethical issues. Some universities did not approve any social science or geography research with children and young people during the pandemic that were deemed 'not essential' during the crisis.

the use to which results will be put, the dissemination plans, privacy, data protection and data storage. In order to facilitate children's autonomy, engagement and decision making, a child-friendly version of the information sheet was uploaded and linked with the diary which the children could download and read before proceeding with completion of the diary (Fig 2). CYP and their parents had the freedom and opportunity to take as long as they wished to read the material and decide whether to take part. The contact information of the investigators was also made available should participants have any questions related to the project.

2.4 Data collection and response rate

In the first week of rolling out the diary, 35 participants in the UK, 10 in Bangladesh and 10 in Singapore consented to take part in the study. We were therefore optimistic that we would get an acceptable number of responses considering that qualitative detail rather a representative 'n' (sample size in relation to the whole population) was paramount. However, a disproportionately smaller sample fully completed the diaries; only 7 in the UK completed the diary with the level of detail we had hoped to elicit. The situation was worse in Singapore and Bangladesh with only 1 and 3 complete diaries respectively. Reflecting on the low response rate one could argue whether this was an outcome of relying on a solely virtual platform; or an overly cautious approach of collecting anonymised data (meaning no follow up was possible with regard to completion); or asking for too much information – e.g. asking for completing the diary for a whole week.

Figure 2: Child friendly information sheet of the project uploaded on Qualtrics.

3. Emerging themes related to ethics of research in a pandemic

Having outlined the processes and outcomes of research design and ethical clearance, in the following section we will reflect on some of the ethical and practical concerns related to online diary research with children during a pandemic. Clearly some issues arising in the conduct of online research with CYP (e.g. recruitment of participants via social media as potentially exclusionary; informed consent and privacy; confidentiality and anonymity etc) apply whether there is a pandemic or not, whereas some factors were intensified due to the pandemic. These are the issues we focus on in the next section.

3.1 Risk of exclusion due to the digital divide and inaccessibility of online survey tools

A we have already noted, a key concern when using purely online based methods during a pandemic is the likelihood of the 'digital divide' effecting the data collected as they may be inaccessible to people from lower socio-economic groups and those who lack digital competency. Our study was initiated to investigate how different social and spatial (both physical and digital) conditions were shaping children's everyday experiences and their resilience which ideally requires a range of insights from different strata in society, and more importantly those who often are excluded due to pre-existing inequalities. The recruitment of participants through schools and social media theoretically could yield a representative sample, however, we understood at the outset that we were likely to get a disproportionate number of children from higher income quintiles completing the diary, which posed the risk of preclusion of children from low-income families. Recruitment of children via parents on social media platforms (mostly Twitter and Facebook) could also raise the issue of getting responses from children with similar familial backgrounds (e.g. in the case of Bangladesh children from middle and high income families where either of the parents may be from an architecture/design profession, because Bangladesh-based co-investigators have a background in Architecture). Attempting to mitigate this to some extent, a pdf version of the diary was sent to parents on request via email where they wanted to minimise the screen time of their children or had limited access to the internet/ internet enabled devices. However, despite sending out a number of these, we did not receive any completed paper diaries.

Whilst the online structured diary appeared the best compromise to us, it still posed a number of challenges and problems in design and implementation. Generally diary methods are most effective when utilised in conjunction with other methods to overcome potential limitations regarding legibility and poor expression (Jones et al 2020; Gwenzi et al. 2020; Monchuk et al. 2020). We were also aware that there could be reluctance in completing the diary due to the time involved, increased screen time during the pandemic, and issues relating to privacy for some children who may not feel comfortable relating their lived experience where parents may be able to view it.

While we were sensitised to and considered all these in the process of development of the online diary tool, it was challenging to maintain the accessibility guidelines established by the Web Content Accessibility Guidelines (WCAG) standards. Some interactive questions, for example the graphic slider where children could drag a bar on an emoji to indicate their enjoyment of an activity (Fig 1) did not meet the WCAG standards as they may not be accessible by children with visual impairments. Therefore, despite the best intentions to make the diary child friendly and inclusive, it fell short in some aspects and did not fully mitigate issues relating to digital divides.

3.2 Issues of trust and rapport as a result of physical immobility of researchers and institutional safeguarding

Building trust and rapport with research participants is understood as a key factor in developing effective research relationships and facilitating good response rates and high quality data; declining trust can result in low response rates and challenges in engaging participants (Nunan 2020). Accordingly, building rapport and trust is even more important when using online platforms for the recruitment of participants and data collection.

A key issue that clearly affected our collection of data was the 'distant' research approach taken; the corresponding participant anonymity and our resulting inabililty to build a rapport with research participants and check in on their progress. Early in the project we had taken the decision not to require or store any personal data from our participants. The corrollary of this was that we were unable to check in with participants to establish rapport; either to check in on the wellbeing of participants and their families; to encourage diary completion if it looked like it had stalled; to go back to parents/children to ask for clarifications where things were unclear in a diary entry; or seek an explanation of points that could aid additional detail and insight to children's narratives. Such challenges were similar to those faced by Mupambireyi and Bernays (2019). Ahmed et al. (2019) suggest that engagement strategies with research participants should be 'premeditated' (prior to research), 'reactive' (during and post research) and 'adaptive'; suitable opportunities should be there to make participants feel empowered. This indicates that a continuing relationship with research participants should ideally be established to facilitate meaningful data collection and to make sure that as many voices as possible are captured in as much detail as possible (Ahmed et al. 2019; Fernandez et al. 2020). Whilst we would have liked to be able to adopt flexible approaches and check in with participants, the pandemic related restrictions and institutional safeguarding procedure for engaging CYP guided our decision not to collect personal data at any point. We suspect this may have been the single biggest factor that impacted both quantity and quality of data collected.

CYP are classified as 'high risk' and consequently regardless of the methods used to engage them in research, ethical approval procedures often require greater detail and time. Cutting and Peacock (2021) argue that the binary classification of formal ethical procedure, i.e. 'low risk' vs 'high risk' and 'ethically approved' vs 'not ethically approved' only determines a project’s risk and approval status rather than ‘how ethical a project is’. Although anonymity, confidentiality and safety of participants are integral parts of the formal ethics procedure, the primary focus of such procedures is arguably safeguarding the institute (Maglio and Pherali 2020). As researchers we will always encounter new challenges during the course of research which are generally beyond what institutional ethical guidelines ask researchers to do (Maglio and Pherali 2020; Cutting and Peacock 2021). Maglio and Pherali go on to lament the ‘inadequacy’ of ethical guidance based on research methods in ‘stable’ situations to inform the ethical dilemmas raised in crisis contexts. These inadequacies are further highlighted by Madge (2007), Robson (2017) and Cutting and Peacock (2021) in terms of preparing social researchers for online research with CYP. ‘Checklist’ approaches in institutional ethical review inevitably restrain the range of actions researchers can take to address the ethical dilemmas that arise as the research progresses. Our experiences lead us to support the findings of Cremin et al. (2021) who suggest that institutional ethical committees should come away from a ‘legalistic mindset’ and allow room for review of ethics and risk throughout the process so that researchers can approach ethics boards for support during the course of the research. For our study, such a flexible approach would have allowed us to revisit the decision to anonymise and potentially gain more responses and greater detail by checking in with and working more closely with children to build greater rapport. As it stands, in order to revisit such a central issue under current procedures would mean completely new ethical approval application with pauses in data collection that would likely outweigh any potential gains.

3.3 The ethical dilemma of doing or not doing research during a crisis

The onset of the pandemic encouraged us, like many other researchers, to rethink the meaning and purpose of the research we were conducting that was not directly related to curing COVID-19. We were driven by a conviction that giving voice to children living in different social, spatial and political contexts was more important than ever since any pre-existing inequalities would likely only be exacerbated by the pandemic. At the same time, the complexity and dilemmas of research with CYP could clearly be intensified in online research during a crisis: CYP may have had parents or guardians who were quite ill with COVID, home life could be more disrupted and anxieties increased; parents could be frontline workers. Accordingly, we must acknowledge the degree of uncertainty that exists with regard to ethics of research with CYP during crises that could lead to the fundamental question whether this research should have been undertaken at all.

In late 2020, some scientists expressed the concern that ‘COVIDisation’ of research may negatively impact research fields as funding bodies prioritised studies that responded to the emergency situation (Adam 2020). The urgency to implement studies prompted by a crisis might not allow enough time for ‘reflection’ resulting in substandard research; this could therefore lead to less ethical outcomes and increase ‘the risk of honest error as well as misconduct’ (Bramstedt 2020). As of the end of July 2021, 19 published articles and 14 preprints about COVID-19 had been retracted, withdrawn, or had an expression of concern issued against data falsification, methodological fallacies, misinterpretation of data and conclusions, and violation of participant privacy (Bramstedt 2020, p.803). While the published research studies were mostly in the field of epidemiology, infectious diseases and public health, such ethical concerns are relevant to all fields.

Conducting research during a pandemic adds to the ‘unpredictability’ that we mentioned in the literature review section. While there are always risk inherent to both participants and researchers in the conduct of research, and in this project we tried to enumerate the scale of risk factors to participants and researchers, we could not fully assess the risks associated with the ‘pandemic’ itself. ‘In a global pandemic, anyone may become vulnerable – researcher and participant alike – and this shifts the power balance in research relationships’

(Kara and Khoo 2020, p131)**.** As researchers, we were dealing with personal trauma and losses of family and friends from the very onset of the pandemic. Muntazar lost his father-in-law in September 2020 due to COVID-19 related complications. Later in the year, in December 2020, he lost a very close colleague to COVID-19 in his department. Matluba's family struggled as several members contracted coronavirus at different times and she herself became ill with COVID-19 twice – the first time as the first phase of data collection was completed and second time while revising this paper. All of these issues hampered our ability as researchers to continuously engage with the process of conducting research.

We share the concern of Hooper et al. 2020 on whether we should conduct research at all when a crisis strikes, and clearly ethical standards and procedures designed to protect all involved must not be circumvented in any way. However, we remain convinced that not conducting research on these issues would mean children's voices would remain unheard creating a potentially greater ethical issue. We acknowledge that we were researching at a unique time, trying to investigate children's everyday routine when many routines were being reconfigured. We were therefore constantly dealing with the ethical dilemma of whether to burden CYP (and parents) with more work (also more screen-time with an online diary) who may have already been struggling with pressures related to studying/working from home. However, by not conducting research at all we presume and therefore disregard children's agency without ascertaining their ability and preferences of being listened to. The more ethical route we argue is to be sensitive to the needs of children as the research progresses, an approach that links back to our previous point in as much that participant anonymity at source may be unhelpful when considering other aspects of ethics.

3.4 The social contract of giving voice to participants

Despite a concerted effort to recruit participants and 110 particpants in total consenting to take part in the study our diary method garnered only 10 eligible responses. This posed us with a unique challenge of how we give voice to children in the context of 'authentic research' that gives power to child participants and lends insights to their subjective world (Grover, 2004; p.81). One aspect not covered in existing discussions is that giving voice to participants is not just an exercise in data gathering, analysis or corroboration; if that data is not published, then just how much power or voice has been given? Here, we argue that there is an implicit 'social contract' between researcher and researched in 'authentic' research whereby it is 'agreed' that data is freely given by participants on the understanding that the insights generated from it will be made available in the more or less 'public' domains of academia and policy where they have the potential to make a difference and catalyse change.

The ability of researchers to honour this social contract is complicated by academic norms and standards regarding what counts as sufficient data to tell a story. In some disciplines, only the aggregation of hundreds of stories is sufficient to provide insight into the 'truth' of a matter. In some others, particularly those that value case studies and detailed qualitative accounts, much smaller samples are generally required to meet the standards required for publication where the validity of a story is ascertained less by its generalisability and more by its sample composition, 'authenticity' and detail (Vasileiou et al. 2018, p2).

Complicating matters further, norms and standards regarding what constitutes sufficient and valid data are often tacit, differing and uncertain. Sandelowski for example suggests that qualitative sample sizes need to be large enough to enable 'new and richly textured understanding to emerge (cited in Vasileiou et al 2018, p2). Morse emphasises the importance of detail and richness stating that smaller sample sizes are acceptable when more useable (rich and detailed) data are collected (cited in Vasileiou et al 2018, p2). There are however no clear boundaries regarding sufficiency and the researcher will often not know if their data is sufficient with regard to sample size/ data richness until they try and piece together a story in relation to existing literature to understand the level of insight they can generate.

With this in mind, qualitative geography/built environment researchers attempt to ensure validity by maximising detail, using triangulation or multiple data sources and gathering as many responses as is practical given time/ resource constraints. Despite these efforts, sample sizes can be small but shortcomings here can be mitigated if data is very rich. However, in our sample, we failed to reach saturation (Nelson 2016), or the level of detail and texture we wanted and expected, meaning we are left with a choice that impacts directly on our duty and desire to give voice to our participants: attempt to publish a study that may have limited additional insight but give some level of voice to our participants, or not publish at all. It strikes us that the latter of these, in light of what constitutes authentic research, would be the least ethical approach and would effectively mean we as researchers are not keeping our side of the social contract.

The ethical dilemma arises here because of a tension between a duty to represent individual voices, and scientific criteria which prioritise the collectivisation of voices to generate convincing interpretative accounts. We are still grappling with the implications of this and are currently exploring different avenues that would enable publication. These include collecting more data from one or more study locations, using secondary freely available data collected at the same time in other contexts, or publishing the data via non-academic sources (e.g The Conversation).

4. Conclusions

In this paper, we have reflected on the ethical challenges that we faced conducting online research with CYP during the COVID-19 pandemic and tried to unpack some specific issues related to conducting ethical research in crises. Our research has perhaps posed more questions than answers but we believe this may benefit other researchers who have faced or may yet face similar issues.

A key issue that we have highlighted is the way in which immobilisation of us as researchers led to a number of decisions that affected the design, implementation, conduct and outcomes of the research. Immobilisation firstly led to a completely ‘virtual’ approach being taken. Alongside stringent ethical considerations regarding the collection of personal data, one salient outcome of this was us not ‘knowing’ or being able to establish rapport with the children taking part. This led to shortcomings in the conduct of the research as we were unable to check-in, support and encourage children and parents to engage in the research. This in turn contributed to a small response rate and an ethical dilemma around what to do with the data from participants who had made the effort to take part: clearly we have a duty to make children’s voices heard but in this instance conflicts with academic publishing standards regarding saturation, generalisability, and the level of new insight generated.

Researching with children particularly when using digital technology comes with uncertainty and an increased ethical scrutiny (Facca et al, 2020). This uncertainty was compounded in pandemic conditions due to immobilisation and subsequent distance between the researcher and the researched. We had missed the opportunity of developing an ethical relationship with CYP opting for anonymity at source. However we also suggest that an ethical partnership/relationship is also to be established with the REC/IRB as there is no ‘clear-cut’ solution to the ‘challenging, dynamic and ever-changing’ range of ethical issues (Hopkins and Bell. 2008, p.6) children’s geographers face while doing research in the field- f2f or online. An increased ethical scrutiny following trends in clinical research and ‘no research at all’ approach on part of academic institutes in disciplines like geography and planning during crises (where the research is not directly related to health or finding a cure to the disease) may serve only to further silence the voices of the unheard who we were trying to protect.

Formal ethical procedures are absolutely essential to address the uncertainty of online research, more specifically research in crisis and to minimise harm to children and young people. However we argue that these procedures should be an ongoing collaborative process that can respond to issues and circumstances, and allow dialogue, opportunities for critical reflection [including 'learning from mistakes'(Robson. 2017, p.477)], and adaptation of research methods to address issues raised in practice rather than more linear processes of 'signing off'.

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