# Sustaining research and researchers during the COVID-19 pandemic: A dose of the collective method as a strategy

Gonzalo Bacigalupe[1],
Dana M. Greene[2],
Shawna Bendeck[3],
Sonya Cowan[4],
Christine Gibb[5],
Simone H. Goertz[6]

[1] University of Massachusetts Boston, United States

[2] University of North Carolina, United States

[3] Colorado State University, United States

[4] Redwood High School, United States

[5] University of Ottawa, Canada

[6] Chirurgische Privatklinik Düsseldorf, Germany

**Author correspondence:**
Professor Gonzalo Bacigalupe
Email: gonzalo.bacigalupe@umb.edu
Dana Greene
Email: dmgreene@umich.edu

## Abstract

*This inquiry stems from work documenting the role of reflexivity in our research on redefining family during the COVID-19 pandemic. As social science researchers engaging with the collective method on this complex and dynamic pandemic, the tendency to divert our attention away from human behaviour to the topic-du-jour (biology, contagion curves, variants, virology, etc.) was strong. We are scholars who, as survivors, are also insiders. Introducing an autoethnographic lens in the analysis became a necessity; it was unavoidable if we were to recognize our role alongside the most vulnerable. We needed, therefore, to acknowledge that the pandemic – like the climate crisis – dissolved any illusion of being able to reflect as distant outside observers, while still affording us new and emerging opportunities for collaborative dialogue. We chose to entertain reflexivity as a core dimension for research during a pandemic through which to analyse and explore legitimate research questions and not just add a few sentences in the methodological section. The purpose of this paper is to reflect on how the collective method fuels a collective of researchers with 10 unique projects in different locations to conceptualize and operationalize a wide range of projects focused on re-defining family during this pandemic, and how the collective method functions to promote a reflexive research process.*

Navigating the collective method has been difficult since the pandemic has been global, delocalized, boundless, and temporally undetermined. The entire global population was affected and with so many emerging uncertainties we were not able to envision what a post-COVID-19 pandemic landscape would look like. Like in other disasters, as researchers we are not simply studying it, we are also evaluating dynamic changes and secondary and tertiary consequences as a lived experience. Our discussions yielded a significant resolve; namely, we focused on being proactive about what we could learn in the here and now from these lived experiences, in the hope that we would be better prepared for other similar slow disasters in the future.

The pandemic evoked challenging questions for us as researchers, in part because the field of disaster studies has still not fully conceptualized how to position our research or how to place our own lived experiences within the context of an unfolding slow disaster (Haney & Barber, 2013; Henderson & Liboiron, 2019). In this case, we do not have access to a wealth of social scientific disaster research about the flu pandemic (circa 1918) and there is no roadmap to show how to study a pandemic with disaster research methodologies that incorporate researchers as an intricate part of the process. Our group was intentional about intersubjective questions in our individual projects; namely, how might or should our projects shift throughout the pandemic (e.g., in response to political, health, and epidemiological changes, wars, and in some places such as the United States (US) the killing of, and police brutality against, people of colour and mass shootings). How do we evolve the collective method to help each other conduct our individual research projects whilst simultaneously contributing to the disaster field and public policy? How do we bring our research to life in such a way as to help others also conduct research in an environment where its components are dynamic and shifting constantly?

As social science researchers engaging with the collective method during the pandemic, the tendency to divert our attention away from human behaviour to

the topic-du-jour (biology, contagion curves, variants, virology, etc.) was strong. We embraced seeing ourselves as "scholar-survivors" (e.g., scholar-survivors who are insiders; Barber & Haney, 2016, 2013; Pardee, 2015) and asked how a "disaster-affected researcher creates the space for critical reflection to achieve insights beyond the limits of one's own personal experience" (Pardee et al., 2018, p.673) whilst continuing to live through the ensuing slow pandemic (Barnett & Blaikie, 2005; Knowles, 2020). Introducing an autoethnographic lens in the analysis was unavoidable if we were to recognize our role alongside the most vulnerable in any disaster. We needed, therefore, to acknowledge that the pandemic – like the climate emergency – dissolves any illusion of us being able to objectively analyse this disaster separately from what unfolds around us. We aimed at integrating reflexivity as an integral part of our studies and not just as a few sentences in the methodological section. Not only were the challenges of living through the pandemic non-trivial, but the synchrony of conducting disaster research amid that same disaster has been quite unusual. In most disaster research, there has been a unique event or series of events and the researcher analyses the consequences of the disaster after the fact.

COVID-19 emerged globally on January 31, 2020, when the World Health Organization (WHO) confirmed that the virus was transmissible to humans, highly infectious, and likely to produce a high mortality rate. By March 20, 2020, following its European and Asian counterparts, most of the North American continent went into strict lockdowns to control the spread of the virus and not overwhelm healthcare systems. As borders closed, so too did educational and healthcare facilities, businesses, and recreational spaces, among others. In the US, at the onset of the pandemic, the lockdown was initially defined as a temporary 2 week measure which changed to months. It became clear, then, that the pandemic was not a disaster in the traditional sense (with a notable beginning, middle, and end), but a slow disaster with no foreseeable conclusion. For disaster researchers, the onset of the pandemic marked a time when, instead of looking "from the outside in," we, as social researchers, opted to become the subjects of our own research in an autoethnographic process. This process confirmed that it is not simply the carriers of vulnerability who were affected by the ever-changing landscape of the pandemic, and brought into sharp focus the evolving nature of the threat and the need for evaluating previously established metrics.

Natural hazards and viruses are not elements that should be constructed in a negative light. Instead, all the components relating to the disaster under study (hazard, exposure, and vulnerability) are social constructions (Lavell & Lavell, 2020). Following any disaster, how a society or country responds influences how the incident, impacts, response, and recovery are experienced by the affected population (Lavell & Lavell, 2020). Although disasters and risk are social constructions, researchers and the public may forget it as the disaster itself is unfolding. The virus is homologous to a natural hazard and its impact is connected to the level of social vulnerability of the population living in a specific territory. However, COVID-19 has been exceptional compared to other disasters in many ways. The pandemic has affected almost every country in the world and the functioning of the global economic system. Second, unlike many disasters that may cause immediate damage but then allow for a recovery period, COVID-19 has had a prolonged impact; the virus has continued to spread and mutate, requiring ongoing efforts to manage and control it. Third, the health impact associated with the virus has been profound; while some disasters primarily affect infrastructure or property, COVID-19 has had a significant impact on population health. The virus has caused widespread illness and death, and many people who have recovered continue to experience long-term health effects. Fourth, the pandemic had a significant impact on many local economies, with shortages of basic supplies and higher prices than prior to the pandemic for necessities like food, petrol to fuel cars, and healthcare. The pandemic has also led to widespread job losses and financial hardship for many individuals and families. Lastly, the impact of the pandemic on social interactions has been profound. COVID-19 disrupted social and cultural norms in numerous ways as restrictions on gatherings and travel limited social interactions and how people work, learn, and live their daily lives.

In response to the continued lockdowns globally, and in the face of the rising death toll, strain on hospital and healthcare resources, and fear about the unknown, the Natural Hazards Center at the University of Colorado at Boulder issued a call for working groups under their CONVERGE network programme. Our working group was designed to foster inclusive qualitative and quantitative research on "Re-Defining Family during COVID-19". We began meeting with scholars of all levels (professors of all ranks, graduate students, independent researchers, a medical doctor, and a high school intern) to define the projects and linkages to family that

connected our research endeavours. We defined the concept of family loosely, thereby not only including the traditional definition of the nuclear versus chosen family but also extending our working definition to the groups that we were studying. This meant that anyone who was part of, and felt membership to, a cohesive group was also considered a family for the purposes of our research. Focusing on different researchers and research communities around the world, our team used the collective method in such a way as to foster support, understanding, and intellectual, social, and methodological assistance for research projects on re-defining family during the pandemic.

The collective method is a metamethod that transforms the traditional working group experience into a process where one learns from reflection on action (Schön, 1993) but not just as a solo practitioner activity. We know from experience that learning only takes place when we interact with the knowledge that we possess collectively. Specifically, the collective method is defined as:

> an integrated, reflexive process of research design and implementation in which a diverse group of scholars studying a common phenomenon-yet working on independent projects-engage in repeated theoretical and methodological discussions to improve (1) research transparency and accountability and (2) the rigor and efficacy of each member's unique project. (Pardee et al., p. 671)

Since reflection is an essential component of transformative learning, the collective method allows us to work on and apply the concepts we learn as we move through the research process. The main objective is to create an open working group that can help members develop their independent research studies, provide scholarly feedback at each stage of development for that work, and provide a space for completing the often-neglected emotional work for which researchers receive little, if any, training.

The slow and irregular nature of the COVID-19 disaster created a myriad of methodological issues. As such, it became necessary for us to think creatively and in such a way as to re-define what it means to do "adaptive, inclusive, and collaborative" research (Pardee et al., 2018, p. 672; see also: Aldridge, 2014, Browne & Peek, 2014). We discussed regularly (weekly or bi-weekly) our projects to provide methodological, content, and personal support. We asked each other hard questions and held one another accountable for our respective work whilst

simultaneously keeping each researcher grounded in the thematic substance of family during this disaster.

The notion of family was interrogated differently by each member of our working group, and thus our projects reflected the myriad interests held by each respective researcher. Examples of this research included: A participatory journaling methodology to study COVID-19 pandemic experiences of "vulnerability bearers" (cf., Peek, 2019); citizens' access to information during the quarantines in Chile; the experiences of medical professionals charged with diagnostic tests in a laboratory setting, the caring for patients, and vaccine clinical trials in Germany; the role of lived experience of vulnerability and the importance of integrating voices from the field, especially of those in front-line capacity, with precarious employment and/or limited social support; interpersonal communication during the continuous pandemic media coverage; pandemic safety plans in childcare centres; the coping mechanisms of underrepresented minoritized or more socially and geographically isolated groups; the impact of lockdowns among families with children studying; the impact of losing athletic facilities on the perceived mental and physical well-being of athletes; and the impact of the pandemic on intellectually disabled individuals. In sum, all researchers in the working group came together from varied disciplines to define "family" as a group of people engaging in similar social actions or behaviours that bound them together as a unit.

While the collective method has roots in pre-pandemic research (circa Hurricane Katrina), it is appropriate but needs adapting for pandemic research. Such an adaptation is consistent with the CONVERGE protocols and the overall mission of the working group. The CONVERGE mission is to increase knowledge production by encouraging scholars from different disciplines and backgrounds to work together to find solutions to key problems and issues, encouraging disaster researchers to find and share possible solutions that might lead to lessening the impact of an incident on a group of people. In essence, given that this is a paper on how we used the collective method reflexively as a form of knowledge production, our working group interrogated the definition of family in novel ways "transcending disciplinary and organizational boundaries" (Peek et al., 2020, p.1).

Our research exemplifies how the collective method and convergence theory can be used together to encourage, promote, and enhance transdisciplinarity such that we are contributing to the depth, breadth, and integration of knowledge production, a key issue in reflexivity.

Reflexivity is generally understood as awareness of the influence that a researcher has on the people or topic being studied, while simultaneously recognizing how the research experience affects the researcher. It is a fundamental component of inductive processes of research practices in the social sciences (Ben-Ari & Enosh, 2011; Gilgun 2008; Probst 2015). The researcher and the subject shape each interaction in such a way as for both to shape the construction of knowledge (Finlay 2002; Lynch 2000).

COVID-19 has been a disaster within a disaster. The world was confronted with a serious and scary public health issue while also contending with its economic, social, and political ramifications. Life as we knew it came to an abrupt halt as lockdowns, quarantines, and other restrictive measures disrupted all sorts of routines. Researchers became the outsider within (Collins 1986; Simmel 1950). In essence, through our own work observing the social world, not only did we become autoethnographers, but we also became subjects of our own research. Reflexivity requires that researchers reflect upon the research process to assess the effect of their presence and their techniques on the nature and extent of the data collected. The purpose of this paper is to reflect on how the collective method sustained a group of researchers to conceptualize and operationalize a wide range of projects focused on re-defining family during the pandemic and how the collective method functions reflexively to promote the research process. With 10 unique projects and researchers located across the USA, Canada, and Germany, the form and nature of each project was defined and took on additional meaning through online discussion, interaction, and interrogation from fellow working group members.

## Method

Reflexivity addresses personal, interpersonal, methodological, and contextual issues. It involves concrete practices. In our joint effort, we promoted collaboration and reflexivity as an intrinsic dimension from the beginning of research design to manuscript writing (Charmaz, 2011). Methodologically, our aim was to assess the role played by the collective method in the conceptualization and operationalization of our individual projects within the working group. We started writing freely about our individual projects on the topic "Redefining Family During COVID-19" and shared our writings in web conference meetings. Everyone was held accountable for their own projects, as the questions and comments from others strengthened

our commitment to explore and highlight the role of reflexivity in our research. A recurrent question, among others about intellectual rigor in the methodology, was how our existence both as scientists and as survivors of the slow-moving catastrophe/pandemic affected the research questions and analysis.

The primary goal of our research – usually in groups using the collective method – was to translate our data and information on how family has been redefined because of the COVID-19 pandemic into actionable policy and practice recommendations. Each of our discussions focused on justifying our own positions as researchers and focusing our own actions as coordinated co-productions in the research field (Smith, 1987). The collective work examined our own research interactions as empirical texts "grounded in interpretative sociology rather than realism" (Crawley et al., 2021, p. 130), "linking interaction with material and discursive macro-practices" (p. 128). We had to question the multiple roles and viewpoints that we saw emerging, not only in our own projects but also in the work of the other members of the group. This allowed us to better interpret and understand our dual roles as researchers and subjects in a changing landscape. By its very nature, the uncertainty posed by the pandemic played a significant role in our understanding of the realities we observed in our research subjects and environments. Therefore, the anchoring in our own reflective standpoints and their constant definition and redefinition formed an essential core of the work.

As a working group, we aimed to understand the role that our own individual viewpoints played in our research along with the definition of reflexivity with which we were operating. Once we negotiated this critical point, each researcher was asked to return to what had previously been written on the subject and revise their work. As with each of our discussions, the members of the working group asked each other hard questions to encourage more critical thinking, discourse, and explanation of the members' interactions, reports, and analysis.

Once group members submitted their revised writing, we began the process of qualitatively coding each submission to highlight the role of reflexivity in both our individual and collective work. Given that the mission of the collective method is to encourage critical thinking about a common theme that runs through our research projects (redefinition of the family during the COVID-19 pandemic), along with the mission for this scholarly work (reflexivity in disaster work), the process of defining the categories into which our writings were coded became

a source of significant discussion, definition, and then redefinition. At the end of our negotiations and discursive polling of coding options, we agreed to code each writing based on the following critically defined categories: (1) The salience of our individual identities, social locations, and experiences with the choice of our COVID-19 research topic; (2) The impacts of learning from other working group members on our individual studies; (3) The social and emotional support system woven into the working group process; and (4) Continuous reflexivity, uncertainty, and the ongoing nature of disaster as part of the research process. Each of these themes shaped the adaptation of the collective method used by the working group during this pandemic.

## Results and Discussion

Our use of the collective method stimulated theoretical, methodological, and analytical forms of triangulation, expanded the transdisciplinary implications of the work, and positioned the research within a disaster risk reduction framework. The ability to sustain reflexive thinking on the researchers' part(s) was significant because the COVID-19 slow disaster required (and continues to require) careful attention and adaptation to several issues that unfolded simultaneously. Foremost, the balancing of work and family life was particularly complex for research participants and researchers because of mandated and voluntary quarantines and other restrictive measures. The collective method did not bury the question of asking what we were doing or what was desirable. It is tempting to address the research question and to settle into the assumption – sometimes emerging from marginal thinking and denial – that we were in a post-disaster stage rather than struggling with the slow disaster as we continue to carry out our research projects. Moreover, this disaster pushed us into axiological questions about values and not just epistemology. Some of the reflexivity-related themes that emerged from our individual free-writing were shared by all members of the working group, while others were important to only a few members. The following section presents and discusses each of the main themes, illustrating them with excerpts from our writing.

### The Salience of our Individual Identities, Social Locations, and Experiences with the Choice of our COVID-19 Research Topic

The choice of a research topic is necessarily personal or linked – even tangentially – to our identities, social locations, and/or past experiences. As the spread of

COVID-19 quickly shut down options for in-person and travel-based research, we, like other researchers across the disciplinary spectrum, focused more acutely on aspects of our own lives in determining our revised and reconstructed research agendas. In our working group, different members foregrounded their individual identities such as scholar-athletes, scholar-activists, or mothers of school-aged children in shaping their initial research topics.

This reflexivity is illustrated in Greene's identity as an athlete. As she struggled with the challenging restrictions imposed by the pandemic, she began forming her research questions:

> When COVID-19 hit, all athletic facilities closed forcing athletes to pause their training, and then recreate it, often using makeshift technologies and implements (cans of soup or bottles of laundry detergent instead of hand weights, team meetings, running or biking instead of swimming, etc.). Every time that we were told that athletic facilities would re-open "with restrictions," something would shift so that reopening would be delayed. Athletic equipment was in high demand and, often, either on backorder or subject to supply chain issues; thereby, making purchasing it a challenge. As a competitive athlete, myself, I found myself grounded in my daily workouts during the lockdown but yearned for a return to a new normal. This yearning prompted me to study athletic adaptations during the COVID-19 lockdown/ pandemic, and to categorize my primary focus (athletes) as a family.

Gibb's personal experiences at home with her daughter during lockdown instigated her own research project, as she reflected on in this excerpt from her writing:

> My study began in mid-March 2020 with a simple question to my then 7-year-old daughter, "do you want to keep a journal about your life in COVID?" Over the following months, this invitation grew into a full-fledged study examining the pandemic experiences and mobilities of children, teens and older adults in Canada and the United States.

Yet, there always remained some tie-ins with our earlier research interests and expertise. As Bendeck explains, it was the coupling of her intimate connection to children with learning and developmental disabilities and her academic experience with vulnerability and disaster that shaped the origins of her project:

> This project was motivated by my personal experience with the pandemic, as a doctoral student and instructor,

and as a mother of school-aged children with learning and developmental disabilities. My prior studies in social vulnerability and disasters along with my experiences with school shutdowns and quarantine led me to question the strategies being implemented by the education system and its impacts on children with disabilities and their families.

Given that researchers in the social sciences can never be divorced from personal and positional biases, the principles of standpoint theory and reflexivity came into play in both our research projects and in our interactions as a working group. Indeed, it was acknowledging our own biases and perceptions within the ever-changing COVID-19 landscape that served to strengthen our individual projects and collaborative efforts. While the principles associated with a reflexive standpoint can be acknowledged prior to embarking on a project, the process of truly acknowledging our own reflexive positionality within our research necessarily occurred after the fact. As the above referenced excerpts suggest, our conversations were informed by certain urgency. Making sense of the uncertainty could have been constructed as a research question as much as resolving some of the challenges we were facing in our apparently distinct personal, professional, and political lives.

### The Impacts of Learning from Other Working Group Members on our Individual Studies

The working group was organized such that there were opportunities to learn from each other through our regular meetings that included writing together. As noted earlier, we are scholars of various academic ranks, we work in different types of academic, research, and practitioner institutions, we are trained in different disciplines, and we live and work in different locations around the world. These differences enriched our discussions about research design, methods, data collection, analysis, and other emerging issues. Having the group as a sounding board shaped the contours of our individual projects. Greene described this process of dialogue and its impact on her study design:

Sharing my ideas and receiving feedback from others provided me with important considerations for selecting a population and sample. For example, I had considered focusing on the experiences of people living with two or more disabilities. It was helpful to hear from others in the group, some of whom had research experience with disabled populations, share their experiences and cautioned against the possibility

of being both too broad and too narrow in terms of defining the population.

Bacigalupe described how the collective method informed his research design and positionality of his work:

The collective method stimulated theoretical, methodological, and analytical forms of triangulation, expanded the transdisciplinary implications of the work, positioned the research within a disaster risk reduction framework, and sustained the thinking during times in which the push is for accomplishing the task that the disaster imposes on those committed to make sense of what it is unfolding.

Bendeck described how the collective method and constructive process with other working group members enabled her to expand the scope of her research topic and develop a more robust methodology:

Knowles' concept of the slow disaster concept helped frame my study and developed the purpose, methods, and theory. The purpose of the study evolved from being primarily a study of educational and developmental outcomes, to being focused on the experiences of families as they were cut off from friends, family, co-workers, and educators. As this study took shape, the working group analyzed the data collection methods critically and made suggestions for improvement. Aspects of sampling, data collection tools, recruitment strategies, and interview protocols were improved throughout this collective method as I reflected on the group's feedback and made critical changes. In addition to qualitative interviews, it became clear to me that social network analysis was needed to understand how networks were interrupted or enhanced during the pandemic and how families-built resilience through use of these networks. This method was added to the study design following many discussions with the working group.

Reflecting on the peer review process, Gibb describes how her own work and reflexivity were impacted by the accountability provided by the working group:

Being in conversation with a larger cohort of social science disaster researchers, each pursuing their own COVID-19 pandemic studies, added a whole new layer of depth/complexity to the reflexivity I apply to my own work. In our meetings, we give short updates on our projects, then share our thoughts, reactions, and questions about each other's projects. Feedback from other group members has been particularly important in determining strategies for navigating research ethics

approvals as my project targets often vulnerabilized populations, as well as for understanding some of the emerging trends in how different groups of people are navigating the pandemic.

As described above, the working group offered both proactive and reactive peer review and accountability to individual projects. Disaster research is at the core an interdisciplinary effort and the push for integrating frameworks and defining a research agenda "together" is highly valued. Pursuing a collective team research methodology may support not only the "sharing" of knowledge but also fulfil the need for a transdisciplinary effort.

### *The Social and Emotional Support System Woven into the Working Group Process*

The importance of social and emotional support was integral to our working group process and emerged as another theme that was notably critical to people around the world during the pandemic (el-Zoghby et al., 2020). This support was operationalized through a variety of coping strategies. The working group process *as a supportive family unit* paralleled the research topic that brought the working group members together.

Greene wrote reflexively about the sense of belonging she experienced as a working group member:

Athletes met with significant uncertainty and disconnection from "families of choice" during the pandemic. Being a part of this working group enabled me to have a sense of belonging and connect meaningfully with other social science scholars.

Bendeck discovered similarities between the modes of connection her study participants made during the pandemic to connect with family and the similar methods used by the working group to establish their own supportive family unit:

Many families stayed in contact through video platforms and texting apps, creating new traditions of connection via virtual pathways. Similarly, as a working group, we used web conferencing software regularly for critical discussions, check-ins, social hours, and community writing sessions. The continuity and consistency of these virtual meetings formed a supportive system that encouraged members of the group in their research projects and in their personal lives. While many academics felt cut off from their departments and project teams during the pandemic, the collective method of the working group was situated in a way that it created a sense of family and support.

Gibb further expounds on this process and how her own research findings regarding coping strategies matched a characteristic of her experience with the working group:

We discuss the challenges we're facing, and how aspects of our non-professional live bleed into our research projects - for better or for worse… Curiously, or perhaps obviously in hindsight, there are parallels between the topics in my individual study and my engagement with the working group. For example, my study investigates the coping strategies of children, teens, and older adults in navigating the pandemic. My desire to connect meaningfully with other researchers during the pandemic is threefold. One, it stems from a motivation to construct rigorous and relevant scholarly work. Two, it acknowledges that professional networking and advancement remain important during the pandemic. Three, it reflects a personal motivation and curiosity of how other disaster researchers are thinking through the merging of their professional lives and expertise with the wider global context. Coping strategies have thus become both object-of-study and method.

Bacigalupe reflected on his personal experience as part of a collective research process and how the process mirrored his own use of social media as a preferred mode for keeping connected:

It is difficult to embrace research and activism without the support of a collective. Activism can be absorbing and extremely demanding. The work I was doing included members of the public who respond to Tweets and other social media and traditional media to enable triangulation. The collective method is both mobilizing not only a form of knowledge creation but also facilitating the bridging of science and politics and of embracing axiological and ontological questions (not just epistemology).

We confirmed the power of an interdisciplinary and geographically distributed set of researchers to provide the depth of understanding and support as well as the accountability required to complete the inquiries. This grounding helped us address one of the most emotionally excruciating dimensions of the pandemic and the subject of the next section: uncertainty.

### Ongoing Reflexivity, Uncertainty, and the Ongoing Nature of Disaster Become part of the Research Process

When COVID-19 emerged, there was a great deal of uncertainty around the virus itself, including how it spread, how long it could survive on surfaces, and how effective different measures were in preventing and treating the disease. This led to changing recommendations from health authorities and a constant need for new research and data. The pandemic created significant economic instability, with many businesses forced to close or operate at reduced capacity due to lockdowns and other restrictions. There was significant fluctuation in opinions of how long the pandemic would last, how effective government stimulus measures would be, and how quickly the economy could or would recover. Socially, the pandemic disrupted social norms and led to confusion around what was safe and permissible in terms of gatherings, travel, sports, education, and other activities. There were also questions around how long social distancing and masking measures would be required, and how people's social and mental health would be impacted in the long term. The pandemic highlighted political and policy uncertainties, including differences in approaches to managing the virus between different countries and regions. There was also uncertainty around the effectiveness of government responses and the long-term political impact of the pandemic.

Overall, the COVID-19 pandemic created a high level of uncertainty in many areas of life, leading to anxiety and stress for many individuals and communities. The nature of the pandemic compelled our working group to consistently revise our individual research foci. The questions we asked about the experiences of research participants were also part of our own lives and became integrated into the research process. They served to inform not only the questions that we asked, but also the ways in which we analysed the responses. The pandemic is a disaster that is unlike other events in its category; namely, while there is a well-defined beginning, there is no clear end. Certainly, the way that we used the collective method to highlight reflexivity in our research enabled us to recognize more fully our own unique mixed and intergenerational academic ranks and brought critical insights into our discussions of research design, methods, and emerging issues throughout the pandemic, all while focusing on and living in different geographical locations around the world. These issues became key in our acknowledgement of how reflexivity played a role in our making sense of the uncertainty and ongoing nature of the COVID-19 pandemic.

Bendeck describes how the uncertainty of the pandemic influenced discussions with working group members and led to changes in the framing of her research project:

> As the pandemic wore on, it became clear within the working group that the concept of the slow disaster must be adopted to better understand the ongoing paradigm in which we and our research participants are living and how this impacts further outcomes on education, development, and wellbeing. Through reflexive conversations with the group, the slow disaster concept took on a more prevalent role in my own research and ways of thinking about the experiences of my study's population.

Gibb's quote below explains how the working group helped her to manage the ever-changing landscape of the pandemic and the constant uncertainty to which she was exposed while living and working within the pandemic context:

> Right from the start, reflexivity has been a recurrent theme in our research team meetings as we deliberated over the ethical, practical, and strategic implications of pursuing questions, methods, populations, research partner organizations, etc., and navigating the hiccups that transpired over multiple waves of COVID-19 outbreaks and restrictions. Within my small research team, the continual critical examination of the research process strengthened our collective endeavor, in terms of the quality of our methodology and analyses as well as our commitment to each other's personal and professional successes.

Bacigalupe reflected on how his research topic and methods were influenced by the uncertainty of the pandemic and led to changes in his process:

> Collaborative research that also intends to exert change is a complex endeavor, doing so while a disaster unfolds adds another layer of complexity as the pandemic cycles of illness and death added existential angst. It is possible to define a focused research subject, but it may seem futile as shared assumptions are questioned repeatedly. We think we know what we are pursuing one week and the next, but things change and/or while we expect that they will change again. At the start of the pandemic, I intended to study its impact on the most vulnerable families since my work in disaster risk reduction and environmental decay was with public schools

and communities exposed to natural hazards in coastal and mountain communities in Chile (Watson et al., 2020). As mobility restrictions became more permanent, and long quarantines were implemented, schools didn't open, my research work not only engaged with larger national audiences through traditional and social media, but also started to shift from the more traditional long term community building process to advocacy and dissemination of information related to COVID. The shift reflects how uncertainty also became part of the research process. Further, uncertainty remains ever present as we attempt to get back to our life before the beginnings of this slow disaster.

Greene shared how uncertainty impacted her research participants and led to innovation in athletics. Reflecting on these changes led her to key findings in her work:

> Interacting with other scholars who had different experiences in their daily lives prior to the pandemic expanded my thinking and research practices in such a way as to examine more critically key social networks that came into play of athletes navigating an uncertain world of practice, training, competition, and interactions with coaches. Moving some aspects of workouts online and adapting to outdoor "facilities" with makeshift weights and apparati also emerged. What struck me most is the innovation and creative thinking with which athletes found ways to continue training despite the lockdown restrictions and prepare for an uncertain competitive season (were organized competitions happening or not?) together with how scholars in my area of disaster sociology encouraged expanding disaster research into the realm of athletics.

Greene later reflected on her own experience with uncertainty during the pandemic. She acknowledged the positive role that the working group played on her ability to cope with these challenging times, both as a researcher and in her personal life:

> I felt detached and considered that others likely did, as well, and thus was content throwing myself into my work. I needed the working group as a means of community and critical like-mindedness, as well as the sense of belonging in a world that made little sense suddenly. The working group grounded me in the critical research process whilst simultaneously working together to do and disseminate critical research on how non-familial "families" formed during the pandemic lockdown. The research connections within our working group and the family of scholars

that we assembled remain critical to my work today as we learn to live with COVID-19 in the same way in which we learned to live with influenza and HIV/AIDS.

## Conclusion

The use of the collective method to conduct our individual research projects enabled the working group to interrogate both our individual and collective research data collection, analysis, and write ups in a more cohesive, coherent, and reflexive manner. Our discussions afforded us the opportunity to question deeply how we approached our research questions, our subjects, and our reflexive positionality within our own research projects as concomitantly researchers and subjects. Through "in-depth discussions over issues of our own, and our participants', positionality, intersectionality, and the applied ethics of post-disaster field research" (Pardee et al., 2018 p. 672) we produced collaborative, reflexive, and intersectional informed research studying the effects of the pandemic on family lives.

The impacts of learning from other working group members on our individual studies, the social and emotional support system woven into the working group process, and the ongoing reflexivity and uncertainty of the disaster became part of the research process. The uniqueness of the social isolation that the pandemic required created different discussions for our working group, thereby enabling more rigorous analyses. Applying the collective method not only produced improved and reflexive work but also provided the working group members with a socio-emotional support system throughout the research process. As researchers battled the uncertainty and social isolation of the pandemic in their own lives, they were able to support each other personally and professionally.

Research communities are important to improve the quality (rigor, trustworthiness, etc.) of the research (process, product) and to ensure the wellbeing of disaster researchers, especially in prolonged disaster situations. The collective method operates as one way to sustain a research community with researchers located in multiple locations and disciplines and with diverse social science disaster research projects. Like other researchers across the globe, the pandemic forced us to innovate regarding how to conduct research as well as build research communities. Working as a team, the collective method provided a roadmap to make sense of a constantly shifting research environment. Despite

the geographical distance, the pandemic had us living through the "same" disaster we were studying. While this situation might create some methodological and epistemological conundrums, we understand there is no such thing as value-free research. The collective method enables us to make sense of doing research when the direction of that research changes constantly. Indeed, as the pandemic continued, public health preventive measures and vaccination became increasingly politicized and, as we navigated a "new normal", we recognized a common existential angst regarding the significance of our research. Instead of looking "from the outside in," we, as social researchers, also became the subjects of our own research in an autoethnographic process. This autoethnographic process showed us that it is not simply the most vulnerable in society who are affected, disparately and differently, by the ever-changing landscape of the pandemic. It also showed us the critical role of dialogue and why these terms are dynamic and require continued re-examination and negotiations of the social and individual. Finally, we note that a similar process took place as we revised this manuscript based on the critical feedback provided by peer reviewers.

We joined other social scientists who tracked the pandemic to uncover, analyse, and share data, and were intentional in writing for more than just academic audiences. Furthermore, some of us challenged authorities and policymakers by advocating for decisions based on either an ethics of care, the precautionary principle, or evidence-based medicine models for making decisions, and others in the back and forth. These aims and perspectives shaped the content and process of our working group and the ways in which we adapted the collective method to the pandemic context. The initial research projects were contextualized within those frameworks but the isolation and necessity of resolving individually the challenges of daily living during a pandemic made us de-emphasize how privileged we are as research scholars. We prioritized the need to advocate and recognize that this disaster, like others, impacted the bearers of vulnerability. The discourse centring on the biological characteristics of the virus and its modes of contagion could have served as a distraction from our greater goal of understanding the significance of human behaviour, as influenced heavily by concomitant social, structural, and political determinants, on defining COVID-19 as a disaster. In sum, the collective method allowed us to interrogate our individual research projects and counteract depoliticized discourses.

## Authors' Note

## References

Aldridge, J. (2014). Working with vulnerable groups in social research: Dilemmas by default and design. *Qualitative Research, 14*(1), 112-130. https://doi.org/10.1177/1468794112455041

Barber, K., & Haney, T.J. (2016). The experiential gap in disaster research: Feminist epistemology and the contribution of local affected researchers. *Sociological Spectrum, 26*(2), 57-74. https://doi.org/10.1080/02732173.2015.1086287

Barnett, A., & Blaikie, P. (1994). AIDS as a long wave disaster. In A. Varley (Ed.), *Disasters, development and environment* (pp. 139–62). Wiley.

Ben-Ari, A., & Enosh, G. (2011). Processes of reflectivity: Knowledge construction in qualitative research. *Qualitative Social Work, 10*(2), 152-171. https://doi.org/10.1177/1473325010369024

Browne, K.E., & Peek, L. (2014). Beyond the IRB: An ethical toolkit for long-term disaster research. *International Journal of Mass Emergencies and Disasters, 32*(1), 1-41. https://doi.org/10.1177/028072701403200105

Charmaz, K. (2011). Grounded theory methods in social justice research. In N.K. Denzin & Y.S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 259-380). SAGE.

Collins, P.H. (1986). Learning from the outsider within: The sociological significance of black feminist thought. *Social Problems, 33*(6), S14-S32. https://doi.org/10.2307/800672

Crawley, S.L, Whitlock, M., & Earles, J. (2021). Smithing queer empiricism: Engaging ethnomethodology for a queer social science. *Sociological Theory, 39*(3), 127–152. https://doi.org/10.1177/07352751211026357

el-Zoghby, S.M., Soltan, E.M., & Salama, H.M. (2020). Impact of the COVID-19 pandemic on mental health and social support among adult Egyptians. *Journal of Community Health 45*(4), 689–695. https://doi.org/10.1007/s10900-020-00853-5

Finlay, L. (2002). "Outing" the researcher: The provenance, principles, and practice of reflexivity. *Qualitative Health Research, 12*(4), 531-545. https://doi.org/10.1177/104973202129120052

Gilgun, J.F. (2008). Lived experience, reflexivity, and research on perpetrators of interpersonal violence. *Qualitative Social Work, 7*(2), 181-197. https://doi.org/10.1177/1473325008089629

Haney, T., & Barber, K. (2013). Reconciling academic objectivity and subjective trauma: The double consciousness of sociologists who experienced Hurricane Katrina. *Critical Sociology, 39*(1), 105-122. https://doi.org/10.1177/0896920511415713

Henderson, J., & Liboiron, M.. (2019). Compromise and action: Tactics for doing ethical research in disaster zones. In J. Kendra, S.G. Knowles, & T. Wachtendorf (Eds.), *Disaster*

*research and the second environmental crisis* (pp. 295–318). Springer. https://doi.org/10.1007/978-3-030-04691-0_15

Knowles, S.G. (2020). A slow disaster in the Anthropocene: A historian witnesses climate change on the Korean Peninsula. *Daedalus, 149*(4), 192–206. https://doi.org/10.1162/daed_a_01827

Lavell, A., & Lavell, C. (2020). *Covid-19: Relaciones con el riesgo de desastres, su concepto y gestión*. 1. 10. Entrevistas. www.desenredando.org/public/2020/Lavell_2020-07_Covid-19_y_Desastre_Final.pdf

Lynch, M. (2000). Against reflexivity as an academic virtue and source of privileged knowledge. *Theory, Culture & Society*, *17*(3), 26–54. https://doi.org/10.1177/02632760022051202

Pardee, J.W. (2015). Trauma survivor as author: Method as recovery. In J. Haubert (Ed.), *Rethinking disaster recovery* (pp. 139-151). Lexington Books.

Pardee, J.W., Fothergill A, Weber, L., & Peek, L. (2018). The collective method: Collaborative social science research and scholarly accountability. *Qualitative Research, 18*(6), 671-688. https://doi.org/10.1177/1468794117743461

Peek, L. (2019) *The vulnerability bearers.* Natural Hazards Center, University of Colorado Boulder. https://hazards.colorado.edu/news/director/the-vulnerability-bearers

Peek, L., Tobin, J., Adams, R.M, Wu, H., & Mathews, M.C. (2020). A framework for convergence research in the hazards and disaster field: The natural hazards engineering research infrastructure CONVERGE facility. *Frontiers in Built Environment*, *6,* 1-19. https://doi.org/10.3389/fbuil.2020.00110

Probst, B. (2015). The eye regards itself: Benefits and challenges of reflexivity in qualitative social work research. *Social Work Research*, *39*(1), 37-48. https://doi.org/10.1093/swr/svu028

Schön, D. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.

Simmel, G. (1950). The stranger. In G. Simmel (Ed.), *The sociology of Georg Simmel* (pp. 402-408). Free Press.

Smith, D.E. (1987). *The everyday world as problematic: A feminist sociology*. University of Toronto Press.

Watson, M. F., Bacigalupe, G., Daneshpour, M., Han, W.J., & Parra-Cardona, R. (2020). COVID-19 interconnectedness: Health inequity, the climate crisis, and collective trauma. *Family Process*, *59*(3), 832-846. https://doi.org/10.1111/famp.12572