

CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Research on Researchers (RoR)

Working Group Description:

The Research on Researchers (RoR) Working Group is a small collaborative group of individuals with a common interest in learning about the activities and experiences of disaster researchers in social science, public health, engineering, and other fields who are examining social dimensions of COVID-19 in North America. The purpose of the group is to systematically study and document the impacts of the pandemic on this group of researchers by addressing the following four objectives, listed below. Addressing these objectives will afford an opportunity to inform and prepare researchers and society for what to expect in future events.

Priority Research Topics:

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| 1. To illuminate how COVID-19 researchers are drawing upon existing theoretical frameworks and concepts to develop innovative ways to apply existing knowledge as they navigate this new territory; |
| 2. To understand how researchers are collaborating and networking through the current and ongoing situation; |
| 3. To determine ways in which the current and ongoing situation is influencing researchers' thinking about disaster research; |
| 4. To learn about how the COVID-19 pandemic is affecting researchers both professionally and personally. |

Literature Review

While there is substantial research on natural and technological hazards, there is a major gap in understanding how hazards and disasters impact researchers and their research processes. Even still, COVID-19 is not the first pandemic studied by US social science disaster scholars, nor is the present study the first to examine implications of disasters on researchers. There are existing accounts of how Ebola and Influenza have shaped academia in recent years¹⁻². All manner of disasters affect university students and faculty, and university functionality. Systematic documentation of such impacts are not common, but were studied following Hurricane Rita in Louisiana and L'Aquila earthquake in Italy in regard to the response and

preparedness of universities³⁻⁵. Those studies, however, do not consider the impact on research, including access to campus labs. The majority of documented disaster impacts on research were found published within the medical field⁶⁻⁹, which discuss how research and practice are switching to telemedicine approaches for ongoing trials and data collection, and the implications, or bias, this may introduce into the data during the COVID-19 pandemic. Journals are beginning to identify new opportunities in clinical research related to COVID-19 and are writing about the need for shifting research on examining the impact of COVID-19 on research itself¹⁰⁻¹², as well as informing authors as to how they will be working to make the approval process shorter while still maintaining the same standards¹³⁻¹⁵. Systematic analysis is needed to understand how COVID-19 is impacting researchers, including through the need to change methodological approaches, and personal and personnel constraints.

Ethical / Methodological Considerations:

To address our Working Group's objectives, we have developed a qualitative approach that involves conducting telephone or Zoom interviews with individuals from social science, public health, engineering, and other disciplines engaged in North American COVID-19 research. We have compiled a purposive sample of potential participants based on a search of the CONVERGE Virtual Forum videos, NSF RAPID grants listed on the Natural Hazards Center webpage, and an award search on the NSF.gov website (search terms: "RAPID," "COVID," and "Direct for Social, Behav, & Economic Scie") from April 5, 2020, to May 10, 2020. This search returned 102 different studies with 190 researchers. We located additional information on each researcher by reviewing organizational and personal websites, as well as their Curriculum Vitae. We then documented the contact information, institutional affiliation and its geographic location, discipline, job title, year of highest educational degree received, perceived race, perceived gender, and identification as a disaster researcher.¹ As of June 2, 2020, the purposive sample of potential study participants consists of 67 different disaster researchers conducting studies with a social component regarding COVID-19.

Our structured interview guide addresses issues regarding each of our research objectives. Topics covered by the guide range from questions about participants' research backgrounds to the theoretical and methodological approaches they are using in their COVID-19-related research to the ways in which COVID-19 is affecting their professional and personal lives. The interview process will begin in June 2020 and continue through August 2020. Follow-up interviews will take place between March and April of 2021.

The current context of the COVID-19 pandemic and the Black Lives Matter demonstrations associated with the death of George Floyd at the hands of police are important considerations in the conduct of our research.² In light of this, we recognize that we need to be flexible throughout our study, as well as sensitive to the issues that researchers are facing on a day-to-day basis.

Initial Observations:

A review of the initial study population (N=102 studies with N=190 researchers) revealed the following: the range for year of highest educational degree received of 1964-2019; researchers ranging from graduate students to departmental chairs, distinguished professors, and organizational presidents; 71 percent are perceived as white; 51 percent perceived as women; and 36 percent as disaster researchers. With respect to the study sample (n=67 disaster researchers) we found the following: the range for year of highest educational degree received is 1964-2019; researchers range from postdoctoral fellows and lecturers to

^a For the purposes of this study, the category of 'disaster researchers' is defined as individuals who self-identified as disaster researchers, as well as by a review of their prior work and publications deemed as being disaster-related.

² Our study has been approved by the Institutional Review Board at Oklahoma State University (IRB-20-184).

departmental chairs, distinguished professors, and organizational presidents; 78 percent are perceived as white; and 43 percent perceived as women. Additionally, as shown in Figure 1, there was significant geographic diversity across both the initial study population and study sample, with the North West to Midwest regions of the United States being least represented.

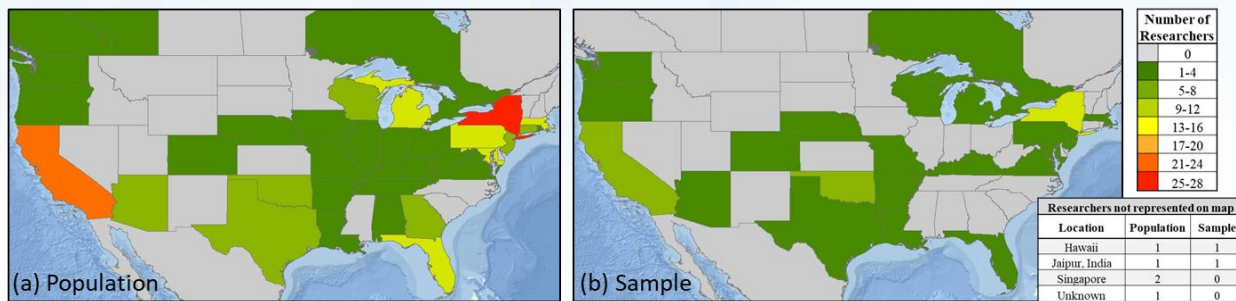


Figure 1. Geographic Distribution of Researchers doing Social Science COVID19 Research (a) Population; (b) Sample

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References:

1. Page, M., Almond, N., Rose, N., & Schneider, C. (2020). Diagnostics and the coronavirus: don't let the standards slip. *Nature Biotechnology*. DOI: 10.1038/s41587-020-0558-4.
2. Van, D., McLaws, M., Crimmins, J., MacIntyre, C., & Seale, H. (2010). University life and pandemic influenza: Attitudes and intended behaviour of staff and students towards pandemic (H1N1). *BMC Public Health*, 10:130.
3. Beggan, D. (2010). The impact of Hurricane Rita on an academic institution: lessons learned. *Disasters*, 34(1): 93-111.
4. Beggan, D. (2011). Disaster recovery considerations for academic institutions. *Disaster Prevention and Management*, 20(4): 413-422.
5. Di Pietro, G. (2015). The academic impact of natural disasters: evidence from L'Aquila earthquake. *Education Economics*, 26(1): 26-77.
6. NASEM (National Academies of Sciences, Engineering, and Medicine). (2017). Strengthening the Disaster Resilience of the Academic Biomedical Research Community: Protecting the Nation's Investment. Washington, DC: The National Academies. Press. <https://doi.org/10.17226/24827>.
7. Garcia, P. & Curioso, W. (2008). Strategies for Aspiring Biomedical Researchers in Resource-Limited Environments. *PLoS Negl Trop Dis*, 2(8): e274. DOI: 10.1371/journal.pntd.0000271.
8. Bulck, L., et al. (2020). Impact of the COVID-19 pandemic on ongoing cardiovascular research projects: considerations and adaptations. *European Journal of Cardiovascular Nursing*, 0(0): 1-4. DOI: 10.1177/1474515120926629.

9. Eke, O., Morone, C., Liteplo, A., & Shokoohi, H. (2020). Non-Covid-19 clinical research in the era of pandemic. *The American Journal of Emergency Medicine*. DOI: 10.1016/j.ajem.2020.05.013.
10. Erren, T., Lewis, P., & Shaw, D. (2020). The COVID-19 Pandemic: Ethical and Scientific Imperatives for "Natural" Experiments. *Circulation*. DOI: 10.1161/CIRCULATIONAGA.120.048671.
11. Landsness, E., Agner, S., Bettegowda, C., & McArthur, J. (2020). Pivoting Research to COVID-19. *Annals of Neurology*. DOI: 10.1002/ana.25784.
12. Omary et al. (2020). The COVID-19 pandemic and research shutdown: staying safe and productive. *The Journal of Clinical Investigation*. DOI: 10.1172/JCI138646.
13. Hofbauer, L., Rivadeniera, F., Westendorf, J., & Civitelli, R. (2020). Scientific Editing in the COVID-19 Era - Personal Vignettes from the JBMR Editors. *Journal of Bone and Mineral Research*, 0(0):1-4. DOI: 10.1002/jbmr.4050.
14. Corbera, E., Anguelovski, I., Honey-Roses, J., & Ruiz-Mallen, I. (2020). Academia in the Time of COVID-19: Towards an Ethics of Care. *Planning Theory & Practice*. DOI: 10.1080/14649357.2020.1757891.
15. Civil, I. & Giannoudis, P. (2020). Research and Publishing in the COVID-19 Pandemic. *Injury*, 51. DOI: 10.1016/j.injury.2020.04.008

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