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# CONVERGE Resources for Ethical Reconnaissance

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# Ethics in the Hazards and Disaster Field

- ***Ethics*** broadly refers to a set of **principles, norms, and standards** that guide the conduct of reconnaissance and longer-term research.

The **context** of reconnaissance requires thoughtful attention to our **ethical principles and collective responsibilities**


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# The **context** of reconnaissance requires thoughtful attention to our **ethical principles and collective responsibilities**


## *Time Pressures*

- Rapid data collection

## *Power and Resource Gaps*

- Outside researchers in culturally unfamiliar contexts

## *Emotional Challenges*

- Exposed to widespread damage, destruction, and loss of life
- Witnesses to disproportionate impacts among marginalized populations and newly vulnerable people

## *Coordination Complications*

- Teams must balance the need to collect perishable data while not interfering with emergency response efforts
- Locally-affected colleagues may be *disaster survivors* and *disaster 'first responders'*

We hold a special **responsibility** to ensure that our actions are guided by an underlying set of **ethical principles** that **protect the dignity, rights, and welfare of people**.

**We**—social scientists, engineers, physical scientists, and others who conduct reconnaissance—hold a **special responsibility** to ensure that our actions are guided by an underlying set of **ethical principles** that **protect the dignity, rights, and welfare of people**.


# CONVERGE Training Modules

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Welcome to the CONVERGE Training Modules!

Each module takes 30-60 minutes to complete and features specific learning objectives and detailed lesson plans along with resources for further reading, analysis, and exploration. At the close of the module, you will have the opportunity to take a 10-question quiz. If you get 8 out of 10 questions correct, you will receive a Certificate of Completion for each module. Each completed CONVERGE Training Module is worth one contact hour of general management training through the International Association of Emergency Managers (IAEM) certification program.

converge.colorado.edu/resources/training-modules/

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- Broader Ethical Considerations for Hazards and Disaster Researchers
- Collecting and Sharing Perishable Data
- Conducting Emotionally Challenging Research
- Cultural Competence in Hazards and Disaster Research
- Disaster Mental Health
- Institutional Review Board (IRB) Procedures and Extreme Events Research
- Public Health Implications of Hazards and Disaster Research
- Reciprocity in Hazards and Disaster Research
- Social Vulnerability and Disasters
- Understanding and Ending Gender-Based Violence in Fieldwork


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# Developing an Ethical Toolkit

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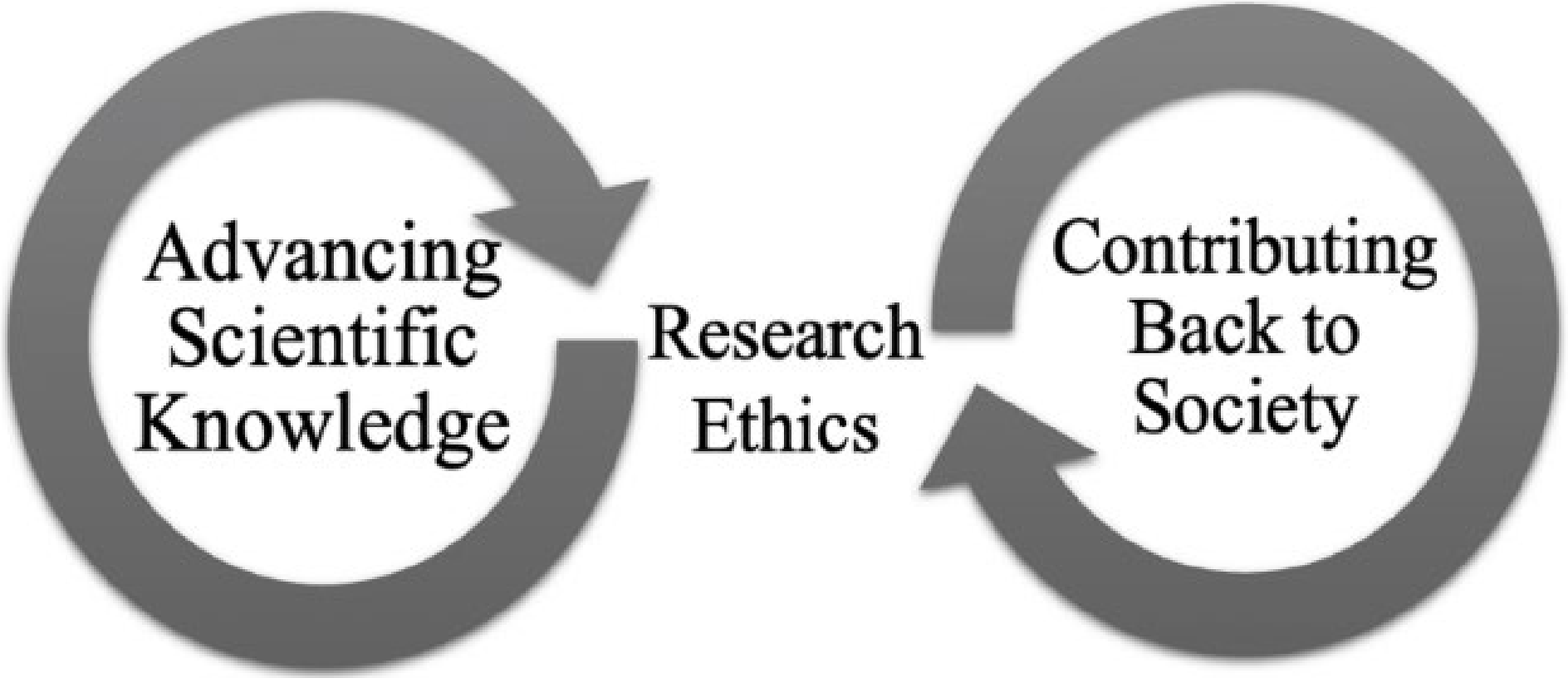
# An Ethical Toolkit for Addressing Dilemmas

- Science and engineering help us to understand and characterize what ***is*** in the world.
- An ethical toolkit can help guide what we ***ought*** to do in light of what we know or have experienced.

# An Ethical Toolkit for Addressing Dilemmas

- **Beneficence:** *Maximizing benefits of participation in research and practice.*
- **Fidelity:** *Maintaining fidelity to an implicit or explicit promise.*
- **Reparation:** *Making amends for a previous wrongful act.*
- **Gratitude:** *Expressing gratitude for participation and contributions.*
- **Justice:** *Treating participants, collaborators, and others fairly and equitably.*
- **Non-Maleficence:** *Minimizing harm from participation in research or other related activities.*
- **Self-Improvement:** *Improving one's own condition in respect of virtue or of intelligence.*


Advancing
Scientific
Knowledge
Research
Ethics
Contributing
Back to
Society

# Additional CONVERGE Resources

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# Additional CONVERGE Resources

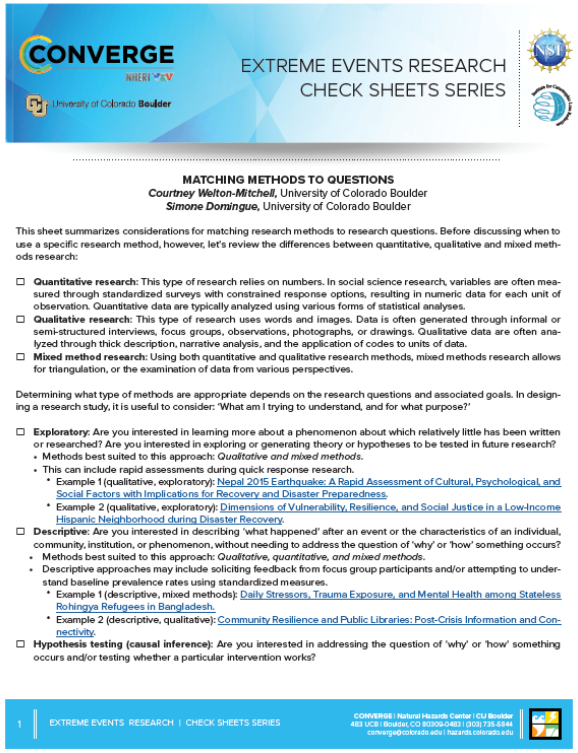
**Reciprocity in Hazards and Disaster Research**

This Training Module focuses on the reciprocal relationship between researchers and disaster affected communities, with an emphasis on providing mutual benefits for both the people involved with and affected by hazards, as well as those participating in disaster research.

**Release Date:** November 2021

**Authors:** West, Jocelyn, Heather Champeau, Jessica Austin, Candace M. Evans, Rachel M. Adams, and Lori Peek

**Funding Support:** U.S. Geological Survey and National Science Foundation



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EXTREME EVENTS RESEARCH CHECK SHEETS SERIES

**MATCHING METHODS TO QUESTIONS**

***Courtney Welton-Mitchell,*** University of Colorado Boulder
***Simone Domingue,*** University of Colorado Boulder

This sheet summarizes considerations for matching research methods to research questions. Before discussing when to use a specific research method, however, let's review the differences between quantitative, qualitative and mixed methods research:

- ☐ **Quantitative research:** This type of research relies on numbers. In social science research, variables are often measured through standardized surveys with constrained response options, resulting in numeric data for each unit of observation. Quantitative data are typically analyzed using various forms of statistical analyses.
- ☐ **Qualitative research:** This type of research uses words and images. Data is often generated through informal or semi-structured interviews, focus groups, observations, photographs, or drawings. Qualitative data are often analyzed through thick description, narrative analysis, and the application of codes to units of data.
- ☐ **Mixed method research:** Using both quantitative and qualitative research methods, mixed methods research allows for triangulation, or the examination of data from various perspectives.

Determining what type of methods are appropriate depends on the research questions and associated goals. In designing a research study, it is useful to consider: 'What am I trying to understand, and for what purpose?'

- ☐ **Exploratory:** Are you interested in learning more about a phenomenon about which relatively little has been written or researched? Are you interested in exploring or generating theory or hypotheses to be tested in future research?
  - Methods best suited to this approach: *Qualitative and mixed methods.*
  - This can include rapid assessments during quick response research.
    - Example 1 (qualitative, exploratory): Nepal 2015 Earthquake: A Rapid Assessment of Cultural, Psychological, and Social Factors with Implications for Recovery and Disaster Preparedness.
    - Example 2 (qualitative, exploratory): Dimensions of Vulnerability, Resilience, and Social Justice in a Low-Income Hispanic Neighborhood during Disaster Recovery.
- ☐ **Descriptive:** Are you interested in describing 'what happened' after an event or the characteristics of an individual, community, institution, or phenomenon, without needing to address the question of 'why' or 'how' something occurs?
  - Methods best suited to this approach: *Qualitative, quantitative, and mixed methods.*
  - Descriptive approaches may include soliciting feedback from focus group participants and/or attempting to understand baseline prevalence rates using standardized measures.
    - Example 1 (descriptive, mixed methods): Daily Stressors, Trauma Exposure, and Mental Health among Stateless Rohingya Refugees in Bangladesh.
    - Example 2 (descriptive, qualitative): Community Resilience and Public Libraries: Post-Crisis Information and Connectivity.
- ☐ **Hypothesis testing (causal inference):** Are you interested in addressing the question of 'why' or 'how' something occurs and/or testing whether a particular intervention works?

1 | EXTREME EVENTS RESEARCH | CHECK SHEETS SERIES

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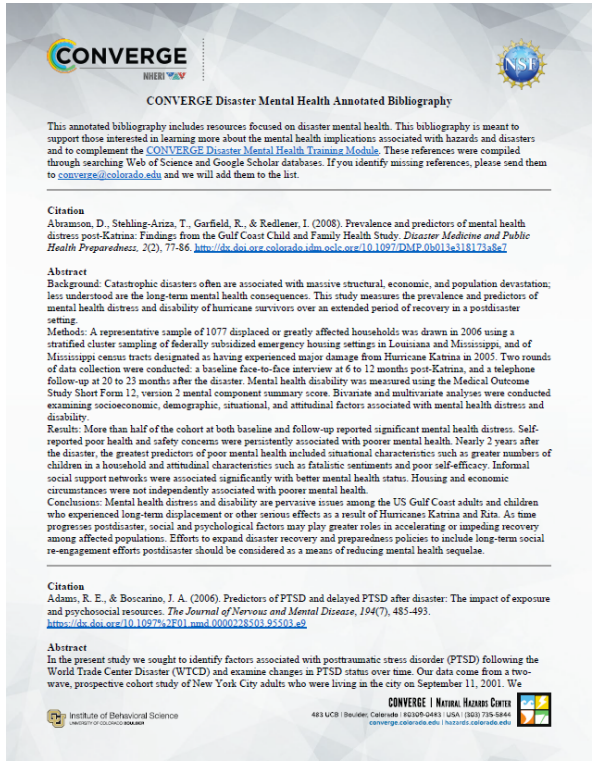

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**CONVERGE Disaster Mental Health Annotated Bibliography**

This annotated bibliography includes resources focused on disaster mental health. This bibliography is meant to support those interested in learning more about the mental health implications associated with hazards and disasters and to complement the CONVERGE Disaster Mental Health Training Module. These references were compiled through searching Web of Science and Google Scholar databases. If you identify missing references, please send them to converge@colorado.edu and we will add them to the list.

**Citation**

Abramson, D., Stehling-Ariza, T., Garfield, R., & Redlener, I. (2008). Prevalence and predictors of mental health distress post-Katrina: Findings from the Gulf Coast Child and Family Health Study. *Disaster Medicine and Public Health Preparedness, 2*(2), 77-86. http://dx.doi.org.colorado.idm.oclc.org/10.1097/DMP.0b013e318173a8a7

**Abstract**

Background: Catastrophic disasters often are associated with massive structural, economic, and population devastation; less understood are the long-term mental health consequences. This study measures the prevalence and predictors of mental health distress and disability of hurricane survivors over an extended period of recovery in a postdisaster setting.
Methods: A representative sample of 1077 displaced or greatly affected households was drawn in 2006 using a stratified cluster sampling of federally subsidized emergency housing settings in Louisiana and Mississippi, and of Mississippi census tracts designated as having experienced major damage from Hurricane Katrina in 2005. Two rounds of data collection were conducted: a baseline face-to-face interview at 6 to 12 months post-Katrina, and a telephone follow-up at 20 to 23 months after the disaster. Mental health disability was measured using the Medical Outcome Study Short Form 12, version 2 mental component summary score. Bivariate and multivariate analyses were conducted examining socioeconomic, demographic, situational, and attitudinal factors associated with mental health distress and disability.
Results: More than half of the cohort at both baseline and follow-up reported significant mental health distress. Self-reported poor health and safety concerns were persistently associated with poorer mental health. Nearly 2 years after the disaster, the greatest predictors of poor mental health included situational characteristics such as greater numbers of children in a household and attitudinal characteristics such as fatalistic sentiments and poor self-efficacy. Informal social support networks were associated significantly with better mental health status. Housing and economic circumstances were not independently associated with poorer mental health.
Conclusions: Mental health distress and disability are pervasive issues among the US Gulf Coast adults and children who experienced long-term displacement or other serious effects as a result of Hurricanes Katrina and Rita. As time progresses postdisaster, social and psychological factors may play greater roles in accelerating or impeding recovery among affected populations. Efforts to expand disaster recovery and preparedness policies to include long-term social re-engagement efforts postdisaster should be considered as a means of reducing mental health sequelae.

**Citation**

Adams, R. E., & Boscarino, J. A. (2006). Predictors of PTSD and delayed PTSD after disaster: The impact of exposure and psychosocial resources. *The Journal of Nervous and Mental Disease, 194*(7), 485-493. https://dx.doi.org/10.1097%2F01.nmd.0000228503.95503.e9

**Abstract**

In the present study we sought to identify factors associated with posttraumatic stress disorder (PTSD) following the World Trade Center Disaster (WTCD) and examine changes in PTSD status over time. Our data come from a two-wave, prospective cohort study of New York City adults who were living in the city on September 11, 2001. We

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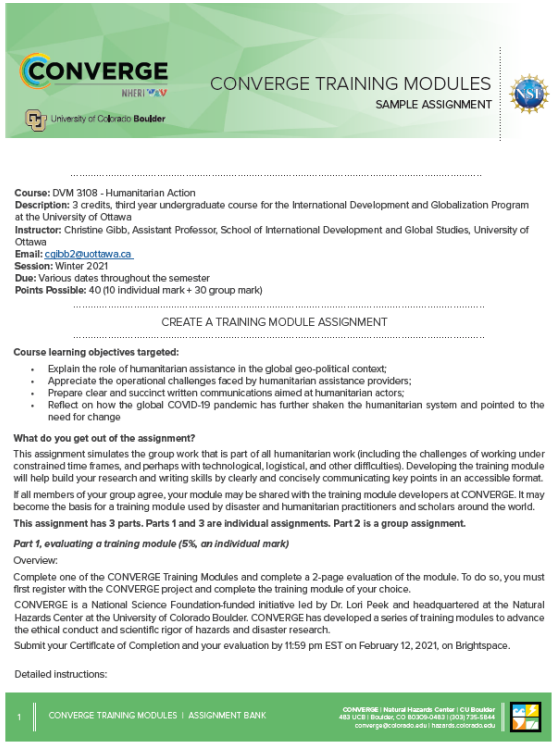

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CONVERGE TRAINING MODULES
SAMPLE ASSIGNMENT

**Course:** DVM 3108 - Humanitarian Action
**Description:** 3 credits, third year undergraduate course for the International Development and Globalization Program at the University of Ottawa
**Instructor:** Christine Gibb, Assistant Professor, School of International Development and Global Studies, University of Ottawa
**Email:** cgibb2@uottawa.ca
**Session:** Winter 2021
**Due:** Various dates throughout the semester
**Points Possible:** 40 (10 individual mark + 30 group mark)

CREATE A TRAINING MODULE ASSIGNMENT

**Course learning objectives targeted:**

- Explain the role of humanitarian assistance in the global geo-political context;
- Appreciate the operational challenges faced by humanitarian assistance providers;
- Prepare clear and succinct written communications aimed at humanitarian actors;
- Reflect on how the global COVID-19 pandemic has further shaken the humanitarian system and pointed to the need for change

**What do you get out of the assignment?**

This assignment simulates the group work that is part of all humanitarian work (including the challenges of working under constrained time frames, and perhaps with technological, logistical, and other difficulties). Developing the training module will help build your research and writing skills by clearly and concisely communicating key points in an accessible format.

If all members of your group agree, your module may be shared with the training module developers at CONVERGE. It may become the basis for a training module used by disaster and humanitarian practitioners and scholars around the world.

**This assignment has 3 parts. Parts 1 and 3 are individual assignments. Part 2 is a group assignment.**

***Part 1, evaluating a training module (5%, an individual mark)***

Overview:

Complete one of the CONVERGE Training Modules and complete a 2-page evaluation of the module. To do so, you must first register with the CONVERGE project and complete the training module of your choice.

CONVERGE is a National Science Foundation-funded initiative led by Dr. Lori Peek and headquartered at the Natural Hazards Center at the University of Colorado Boulder. CONVERGE has developed a series of training modules to advance the ethical conduct and scientific rigor of hazards and disaster research.

Submit your Certificate of Completion and your evaluation by 11:59 pm EST on February 12, 2021, on Brightspace.

Detailed instructions:

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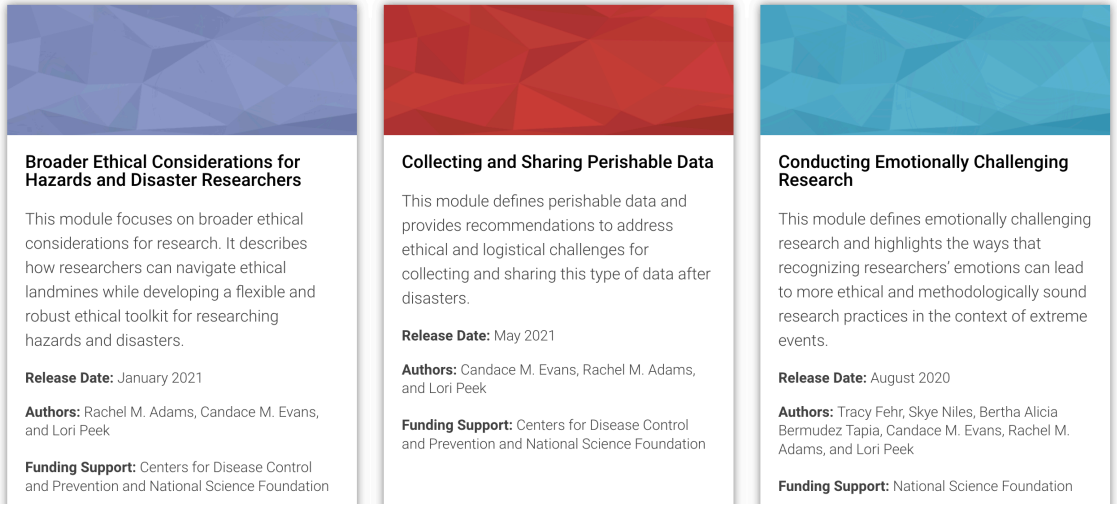
# Further Reading

Evans, Candace M., Rachel M. Adams, and Lori Peek. "**Ethical Considerations for Hazards and Disaster Research**." Under review for the edited *volume Reducing Risks: A Reference on Preventing and Mitigating Disasters and Dangers.*

# Training Modules



**Broader Ethical Considerations for Hazards and Disaster Researchers**

This module focuses on broader ethical considerations for research. It describes how researchers can navigate ethical landmines while developing a flexible and robust ethical toolkit for researching hazards and disasters.

**Release Date:** January 2021

**Authors:** Rachel M. Adams, Candace M. Evans, and Lori Peek

**Funding Support:** Centers for Disease Control and Prevention and National Science Foundation

**Collecting and Sharing Perishable Data**

This module defines perishable data and provides recommendations to address ethical and logistical challenges for collecting and sharing this type of data after disasters.

**Release Date:** May 2021

**Authors:** Candace M. Evans, Rachel M. Adams, and Lori Peek

**Funding Support:** Centers for Disease Control and Prevention and National Science Foundation

**Conducting Emotionally Challenging Research**

This module defines emotionally challenging research and highlights the ways that recognizing researchers' emotions can lead to more ethical and methodologically sound research practices in the context of extreme events.

**Release Date:** August 2020

**Authors:** Tracy Fehr, Skye Niles, Bertha Alicia Bermudez Tapia, Candace M. Evans, Rachel M. Adams, and Lori Peek

**Funding Support:** National Science Foundation

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**Chapter**

**Ethical Considerations for Hazards and Disaster Research**

Candace M. Evans, Rachel M. Adams, and Lori Peek[a]

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Research ethics encompass a set of principles, standards, and norms that guide the research process from study design to the dissemination of results. Engaging in ethical research has the potential to promote the rigorous production of knowledge while offering reciprocal benefits for academic communities and the people and places being researched. Institutional review boards and other ethics committees are helpful for advancing the ethical design and conduct of research. As this chapter argues, however, there are a number of broader ethical challenges outside the purview of ethics committees related to the unique nature of hazardous environments and disasters that researchers must understand and be prepared to address. Considering research ethics is especially critical in disaster-affected settings, where populations have experienced widespread disruption and harm. It is therefore important for researchers to not only understand *what* research ethics are, but *how* to conduct ethically-sound research in disasters. This chapter draws on a systematic literature review and examples from several geographic and cultural contexts to explore different ethical concerns at each stage of the research cycle. We conclude with a discussion of strategies that can help inform ethical decision-making.

## 1. Introduction: Research Ethics

"We were literally bumping into them in some of the trailer parks there. You know, we would just—we'd literally be seeing another team out in the field, and we'd figure out who they were. A lot of times, they were medical service providers, social service providers.

[a] Acknowledgements: This research was supported by the National Science Foundation (NSF Award #1841338) with supplemental funding from the Centers for Disease Control and Prevention (CDC). Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF or CDC. The authors would also like to thank our colleagues at the CDC and Natural Hazards Center who reviewed earlier drafts of the materials upon which this article is based, including the CONVERGE Broader Ethical Considerations for Hazards and Disaster Researchers Training Module.

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# THANK YOU

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