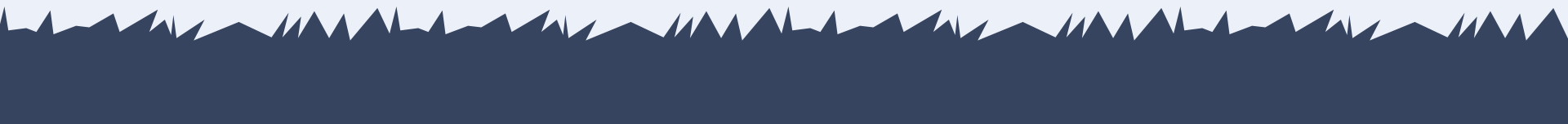


Exploring the Mental Health Impact of Hurricane Beryl on Minorities in Houston, Texas

NSF Quick Response Research Study

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Background & Context

- **Hurricane Beryl struck Houston on July 8, 2024**, causing severe flooding and power outages.
- **Third & Fifth Ward communities**, mostly minorities, were hardest hit.
- **Historic socioeconomic challenges** compound the disaster's mental health impact.
- **Minority voices are underrepresented** in post-disaster mental health research.



Study Objectives

01

Assess trauma and stressors post-Beryl
among minorities.

02

Identify access barriers to mental
health services.

03

Document community coping
strategies.

04

Recommend equitable disaster
mental health responses.



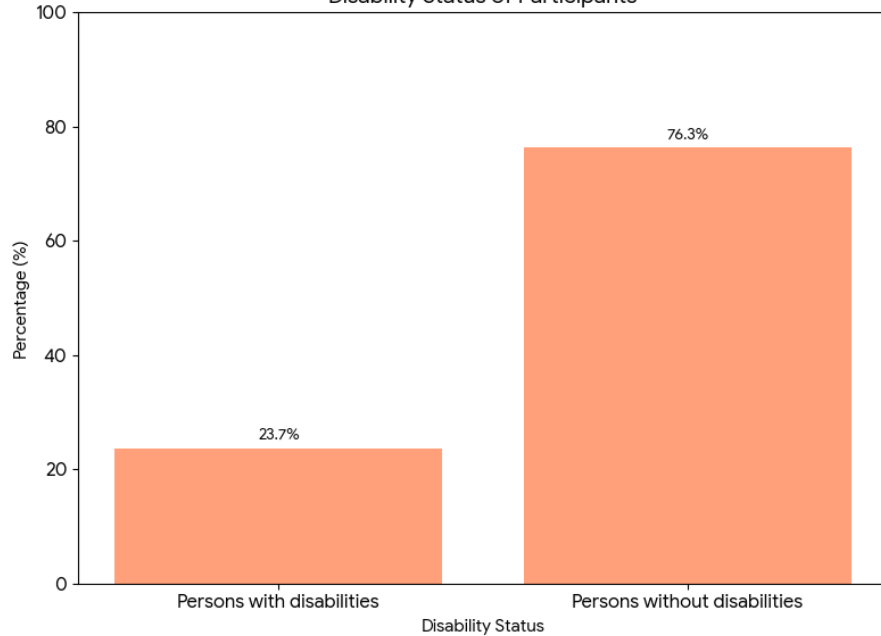
Research Methodology

The research was built on strong relationships with local community organizations, including the Houston Climate Movement, New Liberty Road Community Development Corporation and the Community Care Cooperative

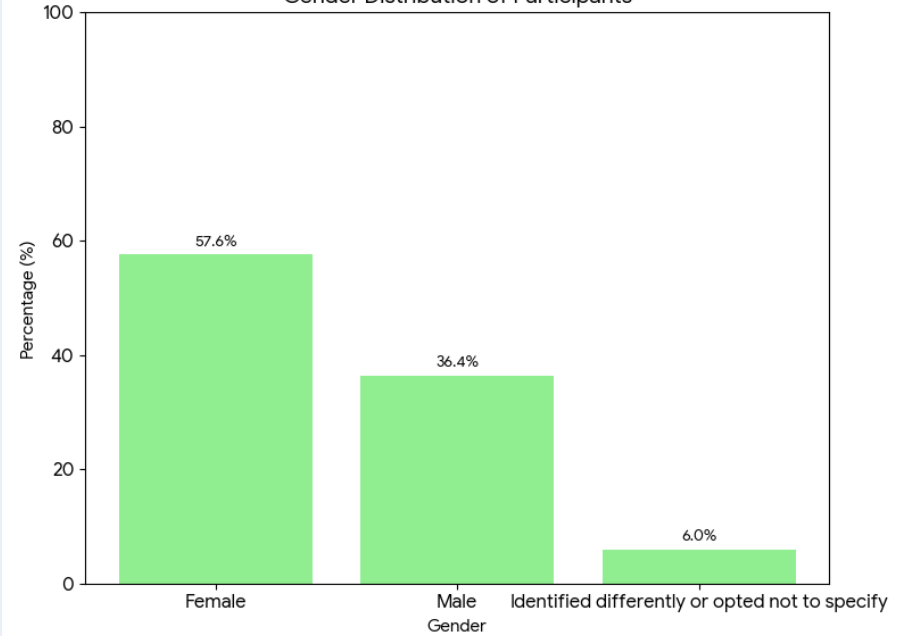
1	Mixed-methods approach: Surveys (n=118), Focus groups (n=34)
2	Study Sites: Third & Fifth Wards of Houston, TX
3	Community partners supported participant engagement
4	Analysis used NVivo & descriptive statistics
5	A purposive sampling method was used
6	The survey was made available in both electronic and physical formats
7	Institutional Review Board (IRB) at Texas Southern University, Houston

Key Findings — (1) Background details of respondents

Disability Status of Participants

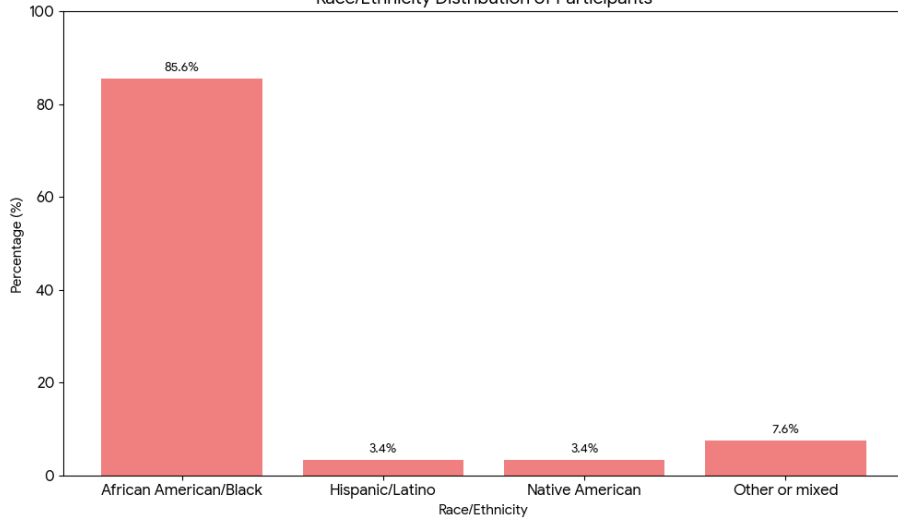


Gender Distribution of Participants

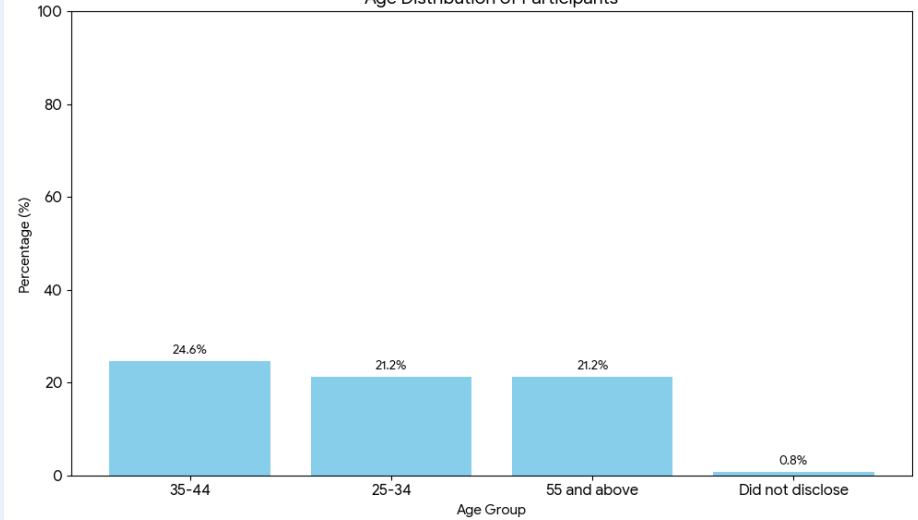


Key Findings — (2) Background details of respondents

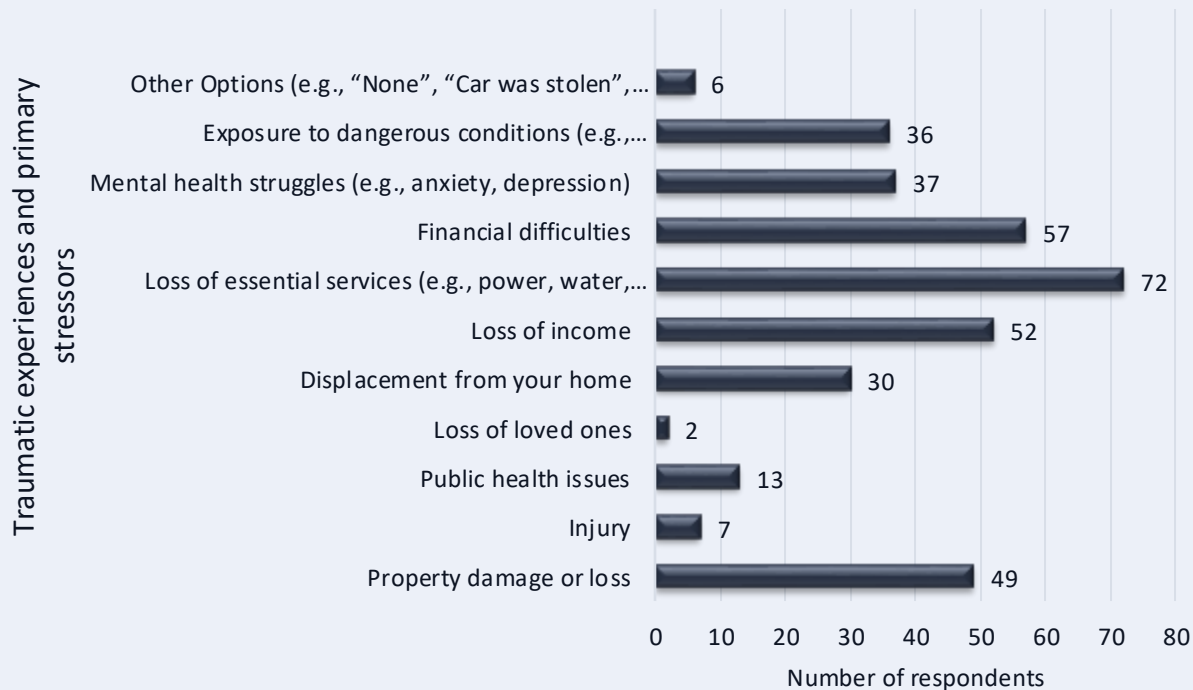
Race/Ethnicity Distribution of Participants



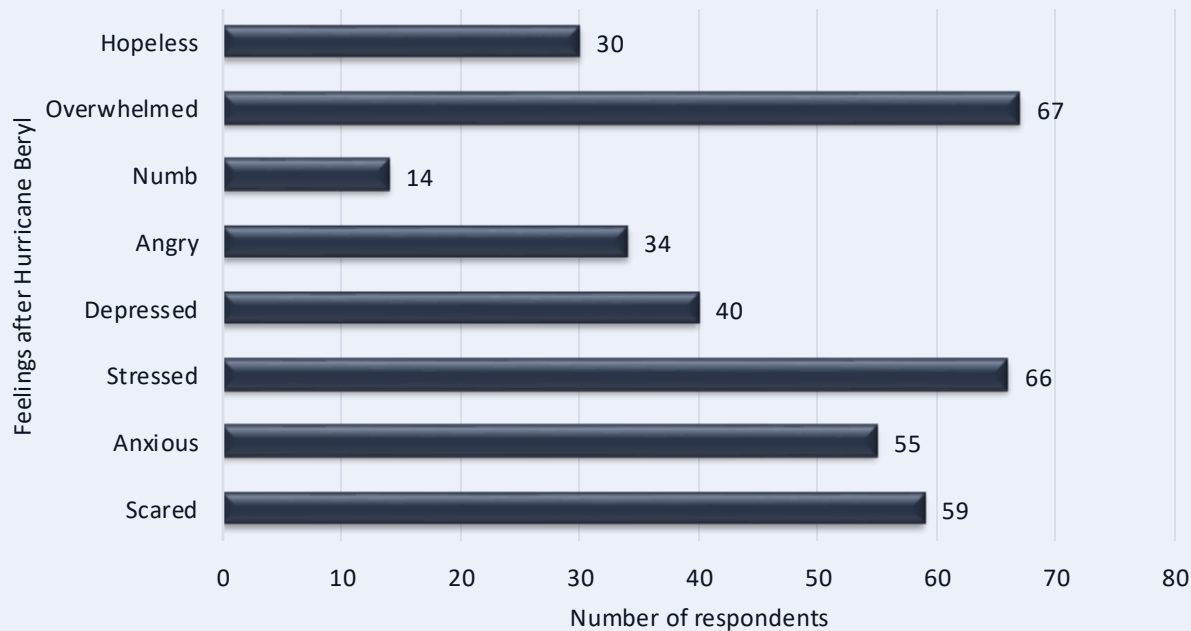
Age Distribution of Participants



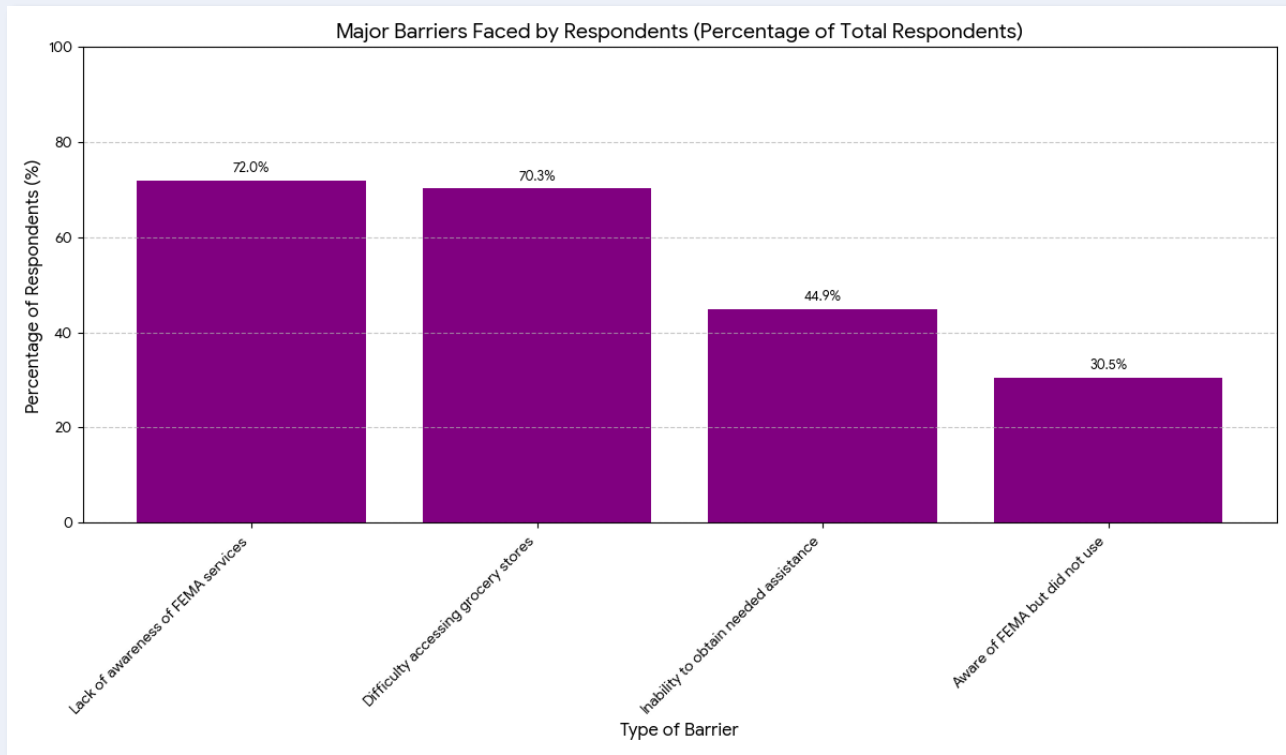
Key Findings — Traumatic experiences and primary stressors reported



Key Findings — Feelings of respondents after Hurricane Beryl



Key Findings — Barriers faced when accessing mental health services and resources



Key Findings — Coping mechanisms and mental health services for those affected

Qualitative feedback obtained during Focus Group Sessions

“I looked at the negatives and found positives in them. In our communities, disasters bring out the best in people. Through this, I saw how it brought together nieces, friends and distant relatives. We sat down and ate together. In that moment, it showed that we can come together and be positive toward one another.” (Respondent)

“I have been blessed and thankful to have people around me and good people who I know who have been there for me. Their support kept me grounded during such a difficult time. But when disaster strikes, sometimes you do not have a choice—you just have to act. If your family says get up and move, you have to move. There is no time to hesitate because safety comes first. It made me realize how important it is to have a plan and people you can rely on in moments like these.” (Respondent)



Key Findings – Summary of coping mechanisms identified



- 1 Spiritual and Emotional Resilience** - Many participants leaned on faith, prayer, and emotional strength to manage fear, anxiety, and uncertainty.
- 2 Family and Community Support** - Social connections—especially support from family, neighbors, and community organizations—served as vital sources of comfort and assistance.
- 3 Practical Preparedness** - Some individuals took proactive steps like revisiting emergency plans, securing supplies, and improving home readiness for future storms.
- 4 Adaptability and Learning** - Coping involved mental flexibility and learning from the experience—recognizing what worked, what didn't, and how to be better prepared next time.

Broader Impacts



Community networks as frontline responders:	Underscore the critical role of community networks in emotional recovery and practical support, highlighting how family and neighbors became frontline responders in the absence of accessible services.
Gaps in mental health service awareness and use	Reveal systemic gaps in disaster mental health infrastructure, such as the low awareness (72%) and underutilization (6.8%) of FEMA's crisis counseling services among minority communities.
Culturally responsive recovery strategies	Inform the design of more equitable disaster recovery strategies, with culturally responsive outreach and better integration of community-led mental health support.
Centering marginalized voices in climate resilience	Advance climate justice and resilience discourse by centering the lived experiences of historically marginalized populations and supporting long-term trauma-informed planning.
Evidence base for future federal policy action	Provide timely, community-informed data to guide FEMA, SAMHSA, and local agencies in strengthening post-disaster behavioral health responses.
Foundation for longitudinal mental health tracking	Lay groundwork for future studies on post-disaster PTSD, resilience, and the long-term well-being of underserved communities.

Next Steps



1. Publish peer-reviewed findings:

A manuscript titled "*Examining Mental Health Challenges and Support Gaps for Minority Communities Impacted by Hurricane Beryl*" has been submitted to ***Natural Hazards Review***, advancing the scholarly conversation around disaster mental health equity.

2. Pursue follow-up funding opportunities:

Build on this QRR study by seeking support from NSF and NIH for larger-scale, longitudinal research that addresses post-disaster trauma, coping, and systems-level interventions in marginalized communities.

3. Continue community engagement:

Maintain partnerships with local organizations and community leaders in the Third and Fifth Wards to co-develop long-term mental health resilience strategies and ensure that findings are accessible, actionable, and grounded in community priorities.



Acknowledgements

1. National Science Foundation
2. Natural Hazards Center - University of Colorado Boulder
3. Houston Climate Movement
4. New Liberty Road CDC
5. Community Care Cooperative
6. All research participants
7. Dr John Aliu (co-PI) from the University of Georgia

Do you have any questions?

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Thank You!