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Title: Household Emergency Preparedness Instrument Development: A Delphi Study

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ACCEPTED

Session Title: Meet the Poster Authors Session

Slot: PST: Friday, March 27, 2020: 2:30 PM-3:15 PM

Abstract Describes: Ongoing Work/Project

Applicable Category: Researchers

Keywords: disasters, emergency and preparedness

Abstract Summary:

This project lays the groundwork for providing researchers with an instrument that can be used to reliably assess the level of household emergency preparedness of respondents. Accurate assessment of preparedness levels is critical for effective planning to enhance health promotion, prevent injuries, and increase resilience for individuals in communities.

References:

- Hay JE, Easterling D, Ebi KL, Kitoh A, Parry M. Conclusion to the special issue: Observed and projected changes in weather and climate extremes. *Weather Clim Extrem.* 2016;11:103-105.
- Al-Rousan TM, Rubenstein LM, Wallace RB. Preparedness for natural disasters among older US adults: A nationwide survey. *Am J Public Health.* 2014;104(3):506-511.
- Killian TS, Moon ZK, McNeill C, Garrison B, Moxley S. Emergency preparedness of persons over 50 years old: Further results from the health and retirement study. *Disaster Med Public.* 2017;13(1):113-135.
- McNeill CC, Alfred D, Mastel-Smith B, Fountain R, MacClements J. Changes in self-reported household preparedness levels among a rural population after exposure to emergency preparedness media campaign materials. *J Homel Secur Emerg.* 2016;13(1):1-23.

- Heagele TN. Lack of evidence supporting the effectiveness of disaster supply kits. *Am J Public Health*. 2016;106(6):979-982.
- McNeill CC, Killian TS, Moon Z, Way KA, Garrison MEB. The relationship between perceptions of emergency preparedness, disaster experience, health-care provider education, and emergency preparedness levels. *Int Q Community Health Educ*. 2018;38(4):233-243.
- Olympia RP, Rivera R, Heverly S, Anyanwu U, Gregorits M. Natural disasters and mass-casualty events affecting children and families: A description of emergency preparedness and the role of the primary care physician. *Clin Pediatr*. 2010;49(7):686-698.
- Department of Homeland Security. Homeland Security Advisory Council: Community Resilience Task Force recommendations. [dhs.gov. https://www.dhs.gov/xlibrary/assets/hsac-community-resilience-task-force-recommendations-072011.pdf](https://www.dhs.gov/xlibrary/assets/hsac-community-resilience-task-force-recommendations-072011.pdf). Published June 1, 2011. Accessed May 24, 2019.
- Adams LM, Berry D. Who will show up? Estimating ability and willingness of essential hospital personnel to report to work in response to a disaster. *Online J Issues Nurs*. 2012;17(2).
- Fung OWM, Loke AY. Nurses' willingness and readiness to report for duty in a disaster. *J Emerg Manag*. 2013;11(1):25-37.

Abstract Text:

Purpose: Experts predict global increases in temperature extremes and precipitous events will continue to increase in number.¹ Emergency planners must continually address the challenges precipitated by such disastrous events affecting all of society. Despite extensive efforts to improve Household Emergency Preparedness (HEP) levels in the United States, most households remain unprepared.²⁻⁴ There is currently no gold standard HEP instrument,⁵ which calls into question the validity of published HEP research. The purpose of this project is to lay the groundwork for providing researchers with an instrument that can be used to reliably assess the level of HEP of respondents.

Methods: The investigators used a Delphi method to generate consensus on the concept definition of HEP from a panel of experts and community stakeholders representing multiple disciplines and countries. The panel considered preparedness items generated via literature search, review of existing instruments, and previous expert recommendations. Delphi panelists provided additional items they thought were critical to the definition. The concept definition agreed upon by the expert panel will guide development of a global, all-hazards, valid, and reliable HEP instrument. The use of the Delphi method and rigorous instrument testing will provide support for content validity of the HEP instrument.

Results: A valid and reliable HEP instrument is valuable for assessment of preparedness levels of various populations. Accurate assessment of preparedness levels is critical for effective planning and necessary to enhance health promotion, prevent injuries, and increase resilience for individuals in communities. The HEP instrument can provide evidence to support interventions addressing health needs of all

community members following a disaster, including vulnerable populations and those with chronic health conditions. This is important in health care because previous research provides evidence that the provision of education on emergency preparedness by the healthcare provider increases the preparedness levels of potentially vulnerable populations with chronic disease.^{3, 6, 7} According to the Homeland Security Advisory Council's Community Resilience Task Force,⁸ increases in preparedness levels result in decreases in risk of the negative consequences of a disaster, though this cannot be tested in the absence of an emergency.

Conclusion: The instrument can be utilized by healthcare providers to assess the level of preparedness of their clients to purposefully determine what gaps in preparedness exist or to provide information on recommended preparedness items. In addition, personal preparedness has been suggested as a way to improve the staffing component of surge capacity by decreasing barriers to ability and willingness to report to work following a disaster, with future research needed to provide evidence for this recommendation.^{9, 10} Researchers and practitioners can use the HEP instrument to measure preparedness in research efforts, provide new information for better surge capacity management in healthcare facilities, and provide all healthcare and emergency providers with a gold standard for household emergency preparedness.