



ADVANCING HEALTH EDUCATION & RESEARCH



ADVANCING HEALTH EDUCATION & RESEARCH

AVA Research Reviews provides AVA members with recent published, peer-reviewed articles in a broad array of violence and abuse topics. The goal is to highlight and disseminate violence and abuse research in a timely fashion, and to enhance healthcare providers' practice by fostering the educational mission of AVA

Editorial Board:

Barbara Boat (Chair)
University of Cincinnati

Megan Bair-Merritt
Johns Hopkins University

Peter Cronholm
University of Pennsylvania

Melissa Dichter
Philadelphia VA Medical Center

Colleen Friend
California State University, LA

Brooks Keeshin
University of Utah

Susan Kelley
Georgia State University

Phil Scribano
University of Pennsylvania

AVA Research Review

ADVANCING HEALTH EDUCATION & RESEARCH

Review Title: A Nuanced Definition of Resilience

Reviewers: Betty S. Lai PhD, School of Public Health, Georgia State University & Harini Vakamudi BS, School of Public Health, Georgia State University

Article: Resilience and Trajectories of Posttraumatic Stress Among Youth Exposed to Disaster. Carl F. Weems and Rebecca A. Graham. *Journal of Child and Adolescent Psychopharmacology*, 24(1), 2 – 8.

Introductory Comment:

Resilience is an important and growing area of interest for our field. Yet, experts debate the basic definition of resilience. This article presents a nuanced definition of resilience and provides data that compares and contrasts findings based on alternative definitions of resilience.

Background:

While the association between natural disasters and post-traumatic stress (PTS) symptoms in youth is well established, PTS distress symptom patterns are not as well characterized. Past research (Bonanno et al., 2010, 2011; Feng et al., 2008) has identified four prototypical PTS symptom trajectories, which include: chronicity (initial increase in symptoms and subsequent impairment), recovery (initial increase followed by a gradual decrease), delayed distress (severity increases with time after a period of moderate or low symptomology), and resilience (low or transient symptoms).

One issue that has not been adequately explored in the extant literature is the role of exposure in defining resilience. Current research has defined resilience post-disaster as stable-low or transient

symptomology. However, disaster samples are often heterogeneous in their exposure levels; additionally, there is a dose-response association between experience intensity and symptom severity. Therefore, examinations of resilience need to include examinations of whether groups have comparable levels of exposure to traumatic events.

Aims/hypotheses of article:

Weems and Graham aimed to identify post-disaster symptom trajectories in 141 school-aged youth exposed to Hurricanes Katrina and Gustav. Weems and Graham expected to identify at least four PTS symptom trajectories, based on past research. To improve on prior methodological weaknesses in the literature, the study also aimed to utilize a nuanced definition of resilience that included not only low symptom levels but also high exposure levels. Thus, they evaluated whether youth categorized as reporting low symptoms also reported high levels of hurricane-related stressor exposures. They hypothesized that youth categorized as reporting low symptom levels would reflect a heterogeneous distribution of exposure to hurricane-related stressors.

Relevant Findings:

Weems and Graham utilized cluster analyses to examine PTS symptom trajectories, measuring symptom severity at three time points: 24 months post-Katrina (i.e., 1 year pre-Gustav), 30 months post-Katrina (i.e., 6 months pre-Gustav), and 1 month post-Gustav. They identified five trajectory patterns: stable low (43%), stable high (15%), increasers (9%), decreasers (10%), and a moderate group (23%), which was characterized by a stable pattern of intermediate symptom severity. Next, the authors examined the stable low group, finding that only 22 of the youth in this group reported average to above average levels of Katrina exposure (i.e., 16% of the full sample of youth). Thus, based on a nuanced definition of resilience (i.e., low symptoms with high exposure levels), the authors estimated that only 16% of their sample was resilient, as opposed to 43% of the sample identified as resilient using a less nuanced definition of resilience (i.e., based on low symptom levels only). The authors conducted additional analyses to characterize and confirm PTS trajectory groups and exposure levels. The newly defined resilient group reported lower use of avoidant coping strategies than the moderate

and increaser groups. Multilevel modeling demonstrated that higher levels of Katrina exposure were associated with higher levels of PTS symptoms. Gustav exposure was associated with differences in slopes over time. Low Gustav exposure was related to patterns of decreasing symptom severity, while high Gustav exposure was related with relatively stable PTS symptom patterns.

Conclusions:

Consistent with prior theories, multiple PTS symptom trajectories in children were identified. When youth were evaluated based on PTS symptom levels only, children with heterogeneous exposure levels were identified as resilient. However, further evaluation on the basis of exposure determined that the majority of the resilient youth had low exposure levels and did not meet the more nuanced low symptom/high exposure level resilience criteria. Weems and Graham's findings demonstrate the importance of evaluating both symptom levels and exposure level when identifying resilient populations. Misclassification may hold negative policy and practice implications, leading to inaccurate conclusions about predictors of resilience and subsequent inability to address the healthcare and social

services needs of affected groups.

Limitations:

The study population was racially and socioeconomically homogeneous, consisting of predominately low-income, minority children. While this may preclude generalizing findings to other populations, the sample provides information on a previously underrepresented, underserved group. The study also utilized youth report measures. While youth are not inherently unreliable sources, additional reports may provide valuable perspectives.

Reviewer's Comment:

This is an important article that challenges how we currently conceptualize resilience. Utilizing their nuanced definition of resilience (i.e., low symptoms and high exposure levels), Weems and Graham found strikingly different results in terms of the proportions of their sample that would be characterized as resilient. This has critical implications for how we conduct research related to understanding factors that may promote resilience. Given the field's current focus on resilience, more work is

needed in this area to guide policy and practice.

References:

1. Bonanno, G.A., Brewin, C.R., Kaniasty, K., La Greca, A.M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest*, 11, 1-49.
2. Bonanno, G.A., Westphal, M., Mancini, A.D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7, 511-535.
3. Feng, X., Shaw, D.S., Silk, J.S. (2008). Developmental trajectories of anxiety symptoms among boys across early and middle childhood. *Journal of Abnormal Psychology*, 117, 32-47.