WEATHERING WITHIN WAR
Somatic Health Complaints Among Vietnamese Older Adults Exposed as Adolescents to Bombing and Violence in the American War

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OBJECTIVES
To understand whether and how the environment of war, in particular encounters with high intensity bombing & wartime stress exposures during late adolescence and early adulthood, affect weathering in late adulthood.

THEORETICAL FRAMEWORK: WEATHERING IN WAR
- Socioecological environment of war heightens mortality and morbidity risks
- Short- and long-term effects on biological, psychosocial, and physiological outcomes
- Studies of the effects of weathering1 resultant from war are largely absent
- Developmental plasticity of adolescence creates a focal period for understanding potential weathering effects from war-time experiences
- Somatization and somatic health complaints

STUDY CONTEXT: AMERICAN WAR IN VIETNAM
- Protracted armed conflict transformed Vietnamese society
- Widespread loss of life, infrastructure destruction, and displacement from most intense aerial bombing in history2
- U.S. War resulted in 10-fold increase in crude death rate3
- Adolescent males experienced especially high mortality
- Broad mobilization of teens and young adults, incl. women, to formal and informal military (e.g., Youth Shock Brigades)

HYPOTHESES — Somatic health complaints will be greater:
1 Among individuals who report more intense exposures to armed conflict, compared to less intense exposures;
2 When intense wartime exposures are experienced at younger ages of adolescence, relative to late adolescence or young adulthood;
3 Among older adults who lived in more heavily-bombed communities versus those living in areas less affected by bombing.

DATA AND SAMPLE
Source: 2018 Vietnam Health & Aging Study (VHAS), designed to investigate the long-term health effects of war
Data: Biomarker and omnibus survey data
Sampling Method: Purposeful sampling of four districts differentially exposed to bombing,4 and stratified random sampling within 12 communes
Sample Characteristics: 2,447 older adults age 59+ who experienced peak American War decade (1965-1975) as children-young adults

ANALYTICAL APPROACH
Survey-adjusted OLS regression of somatic health complaints; nested models

MEASURES
Dependent Variable: Somatic Health Complaints
# of somatic health complaints/past month, from SCL-90 (e.g., headache; insomnia; bodily pain)
Explanatory Variables: War Exposure & Timing
Military service: formal, informal, none
Military service (ref: civilian)
Age: in 1965; at most intense bombing
Confounding Variables
PTSD, comorbidities, mental health problems
Controls
Gender, main occupation, education

MAIN FINDINGS
Northern Vietnamese adults who were exposed to greater aerial bombing, individual war exposures, or were < 15 years old at their most intense bombing exposure during the AmericanWar, experience more somatic health complaints. Gender and military service are key adolescent social statuses influencing susceptibility to late life weathering.

CITATIONS

TAKEAWAY POINTS
Weathering from war is evident in late-life somatic health complaints.

- Adolescence is a particularly important phase of life during which extreme stress becomes embodied impacting short and long-term health and illness.
- War and armed conflict present a complicated ‘environment’ that has capacity to shape human health.

Figure 1. Sampled Districts and Bombing Levels
Figure 2. Number of health complaints
Figure 3. Health complaints by gender and military service
Figure 4. Mean number of war exposures

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