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MENTAL HEALTH AMONG A COHORT OF WOMEN IN COASTAL LOUISIANA AFFECTED BY THE DEEP-WATER HORIZON OIL SPILL

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Statement of the Problem: The Deepwater Horizon Oil Spill (DHOS) was the largest accidental marine oil spill in the history of the US petroleum industry, dwarfing all prior oil tanker spills in magnitude and impact on the environment and causing extensive damage to marine and wildlife habitats. It contaminated over 1,000 miles of beach and marsh shoreline from Texas to Florida and threatened the viability of the northern Gulf's commercial fishing and tourism industries. The Women and Their Children's Health study was established to examine health effects from the DHOS among a cohort of 2800 women and 650 children in Louisiana. Psychological sequelae are among the most pronounced effects in populations following exposure to oil spills. Women in particular represent a vulnerable yet influential population but have remained relatively understudied with respect to the DHOS.

Methodology: A baseline telephone interview in 2012, obtained data on physical/mental health and exposure to the oil spill. A follow-up interview was completed in 2016. Exposure to the DHOS was assessed measuring an individual's physical and economic experience of the spill. Generalized linear models were fit to estimate the association between DHOS exposure and mental health outcomes among the adult women cross-sectionally at baseline then subsequently over time.

Findings: We observe that this population has experienced numerous traumatic events in their lifetime; further the DHOS exposure is associated with increased severity of depression, stress and PTSD symptoms.

Conclusion & Significance: Although additional work is necessary to disentangle this single event from other natural disasters and traumatic events that have occurred in this population, this technologic disaster has had long-lasting negative effects on the psychological well-being of a vulnerable community. Our findings support the adverse impact of disaster exposures on mental health symptoms in women and identify potential targets for post-disaster mitigation.

Biography

Edward S Peters is Professor and Chair of the LSU School of Public Health's Epidemiology Program and Director of the School's Epidemiology Data Center. His research interests focus on using classic and molecular epidemiologic tools to examine molecular and biologic heterogeneity and susceptibility of chronic diseases. More recently this research has begun including aspects of social epidemiology to examine how the effects of social determinants of health influence disparate disease outcomes through a transdisciplinary perspective. He is the Co-PI of the Women's and Their Children's Health Study that was established to examine the health effects from the Deepwater Horizon Oil Spill. He has active research projects in oral, ovarian, and prostate cancer. In addition, through his work in the Louisiana Tumour Registry he works on efforts to improve cancer surveillance for HPV related cancers, bioinformatics and molecular pathology.

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