

A Longitudinal Study of the Mental and Behavioral Health Effects Expressed in Lower Alabama Areas Affected by the Deepwater Horizon Oil Spill



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Background

- On April 20th, 2010, the Deepwater Horizon oil spill occurred in the Gulf of Mexico.
- This spill affected approximately 181 miles of Gulf Coast shoreline and impacted the livelihood of residents within Lower Alabama.
- Previous studies have shown increased behavioral health symptoms following high magnitude natural disasters.
- Symptom expression typically adheres to one of several trajectories: recovery, evidenced by gradual declines in symptoms over time, or delayed disruptions in functioning, evidenced by gradual increases in symptoms over time.
- However, very few existing studies have investigated the long term behavioral health effects of a large-scale technological disaster.
- Surveillance of mental and behavioral health symptoms over time can inform needed resiliency-restoring and recovery-related service provision resources.

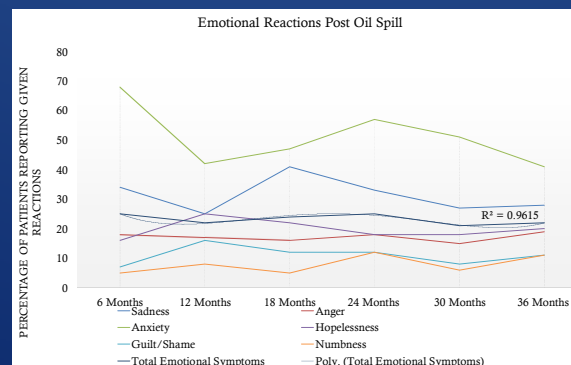
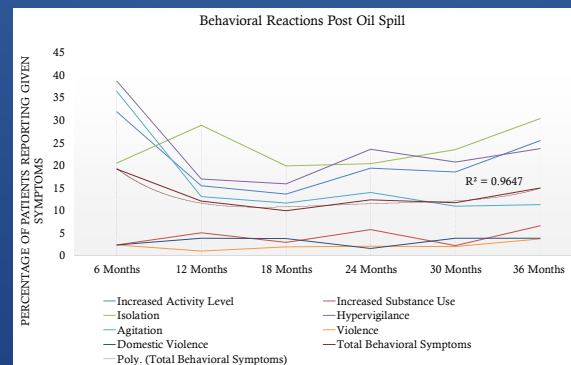
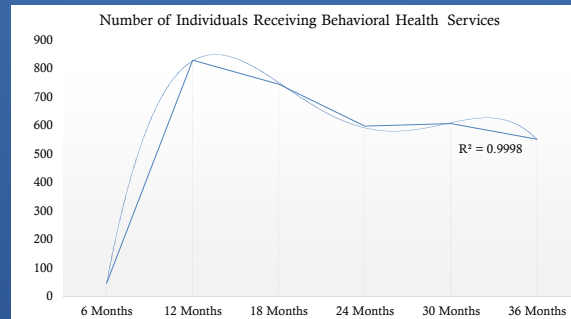
Purpose

The purpose of the current study was to determine the trajectory of mental and behavioral health symptoms as well as provision of behavioral health services within the Lower Alabama region following the Deepwater Horizon oil spill.

Methods

- Using health surveillance methodology, plots were developed to depict the trajectory of behavioral health symptoms expressed by service-seeking Alabama Gulf Coast residents (n = 3,731 people; 61% female) within impacted areas of Mobile and Baldwin counties.
- The presented data represents information gathered from disaster- deployed mental health service providers (e.g., number of patients treated and their behavioral health symptoms) in order to monitor fluctuations in behavioral health indicators across the recovery period.
- Six distinct time points were included in the analyses (6, 12, 18, 24, 30, and 36 months post-spill).

Results



Discussion

- Overall, the current study offers insight into the pattern of behavioral health responses experienced by Coastal Alabama residents over the three year period following the Deepwater Horizon oil spill.
- Results demonstrate a period of recovery between 6 months and 18 months post-spill as evidenced by a gradual decline in behavioral health symptoms.
- However, beginning around 18 months post-spill and continuing through Year 3, delayed disruptions in functioning were evidenced by gradually increasing reports of behavioral health symptoms over time.
- Results suggest that behavioral health symptoms in need of treatment still persist, with a trend of increasing symptoms present over the past year and a half.
- Several factors may be impacting continued symptom expression including:
 - Ongoing litigation related to the oil spill
 - Lack of behavioral health care capacity within the Gulf Coast region
 - Large percentage of individuals within the region who are experiencing on-going poverty and a lack of access to affordable health care
- Persisting behavioral and emotional reactions as well as the above factors demonstrate the need for ongoing programs such as the Gulf Region Health Outreach Program (GRHOP).
- Specifically, programs aimed at increasing behavioral health care capacity through provision of affordable health care services may be essential.



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For more information related to this project, please contact Dr. Langhinrichsen-Rohling, Director of the Gulf Coast Behavioral Health and Resiliency Center at jhr@southalabama.edu. The Center website at the University of South Alabama is www.southalabama.edu/gcbhrc/