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## The Ongoing Impact of Secondary Stressors on Businesses in Northern Ireland Affected by Flood Events

Authors: Jill Stephenson, Marie Vaganay, Robert Cameron, Caoimhe McGurk, Neil Hewitt

Abstract: Purpose: The key aim of the research was to identify the secondary stressors experienced by businesses affected by single or repeated flooding and to determine to what extent businesses were affected by these stressors, along with any resulting impact on health. Additionally, the research aimed to establish the likelihood of businesses being re-exposed to the secondary stressors through assessing awareness of flood risk, implementation of property protection measures and level of community resilience. Design/methodology/approach: The chosen research method involved the distribution of a questionnaire survey to businesses affected by either single or repeated flood events. The questionnaire included the Impact of Event Scale (a 15-item self-report measure which assesses subjective distress caused by traumatic events). Findings: 55 completed questionnaires were returned by flood impacted businesses. 89% of the businesses had sustained internal flooding while 11% had experienced external flooding. The results established that the key secondary stressors experienced by businesses, in order of priority, were: flood damage, fear of reoccurring flooding, prevention of access to the premise/closure, loss of income, repair works, length of closure and insurance issues. There was a lack of preparedness for potential future floods and consequent vulnerability to the emergence of secondary stressors among flood affected businesses, as flood resistance or flood resilience measures had only been implemented by 11% and 13% respectively. In relation to the psychological repercussions, the Impact of Event scores suggested that potential prevalence of post-traumatic stress disorder (PTSD) was noted among 8 out of 55 respondents (15%). Originality/value: The results improve understanding of the enduring repercussions of flood events on businesses, indicating that not only residents may be susceptible to the detrimental health impacts of flood events and single flood events may be just as likely as reoccurring flooding to contribute to ongoing stress. Lack of financial resources is a possible explanation for the lack of implementation of property protection measures among businesses, despite 49% experiencing flooding on multiple occasions. Therefore it is recommended that policymakers should consider potential sources of financial support or grants towards flood defences for flood impacted businesses. Any form of assistance should be made available to businesses at the earliest opportunity as there was no significant association between the time of the last flood event and the likelihood of experiencing PTSD symptoms.

Keywords: flood event, flood resilience, flood resistance, PTSD, secondary stressors

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