Extreme heat linked to spike in domestic violence calls in New Orleans, study finds

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Stacey Plaisance splaisance@tulane.edu

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Newcomb Institute researchers found that periods of prolonged extreme heat in New Orleans coincided with a measurable rise in domestic violence-related emergency calls to the New Orleans Police Department. (iStock)

Prolonged extreme heat in New Orleans was linked to a measurable increase in domestic violence-related emergency calls, according to new research in JAMA Network Open co-authored by Tulane University's Newcomb Institute.

The study analyzed more than 150,000 domestic violence calls made to the New Orleans Police Department from 2011 to 2021. Researchers found that when "feels-like" temperatures factoring in heat and humidity stayed in the city's top 10% for at least five straight days, domestic violence calls rose by 7%. In New Orleans, those conditions typically mean sustained feels-like temperatures of 93 to 100 degrees or higher.

Absent such extreme heat there would have been about 245 fewer calls during the study period.

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> *Anita Raj, Newcomb Institute*

"Extreme heat is more than a weather issue — it's a public health and safety concern," said Anita Raj, executive director of the Newcomb Institute and senior author of the study. "We must treat heat preparedness as part of our violence prevention strategies."

Domestic disturbances accounted for about 70% of the calls analyzed, with simple battery incidents making up another 22%. The researchers used a climate index that more accurately reflects the stress heat places on the human body rather than just air temperature.

While previous research has shown that violence tends to rise during periods of extreme heat, this is the first known study to draw a direct connection between prolonged high heat and domestic violence emergency calls in New Orleans.

The authors recommend that the city integrate domestic violence prevention into its heatwave response plans, expand support for survivors during extreme weather and improve 911 call categorization to better track trends.

"Extreme heat can strain not just infrastructure but human relationships," said Arnab Dey, lead author of the study and a scientist at Scripps Institution of

Oceanography. “Recognizing this link can help shape more responsive public policies.”

The study’s co-authors also included researchers from the Irset–Institut de Recherche en Santé, Environnement et Travail at the University of Rennes in France and the University of Wisconsin–Madison.