

Suicides Increase During Heat Waves



By Alex Berezow — July 19, 2018



Credit: Storyblocks [1]

Everybody hates heat waves. We hate them so much, in fact, that heat waves have a measurable detrimental impact on our society.

For starters, [temperatures tend to flare](#) [2] during heat waves. People become more aggressive and violent. As a result, [crime increases](#) [3] as well. In general, people feel miserable and take their frustrations out on others.

Given these observations, it seems natural to wonder if people who suffer from mental illness have a more difficult time during heat waves. So a team of British researchers analyzed the literature and published a systematic review of the topic in the journal *Public Health*. Their analysis, which examined the impact of high temperature on adverse mental health outcomes (such as suicide or the exacerbation of symptoms among schizophrenics), included the results of 35 studies.

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The team's most important finding involved suicide. Of the 17 studies they included which examined suicide, 15 showed a link between higher temperature and suicide frequency. Specifically, for every 1°C increase in temperature, the risk of suicide also increased by 1% to 37%. Though the association was weaker, the studies also found that suicides tend to be more violent as the weather gets warmer.

The rest of their findings are summarized in the chart below. In general, heat tended to exacerbate previously existing mental illness, such as worsening the symptoms experienced by schizophrenics and causing more agitation in dementia patients. There was also an increase in mortality due to alcohol and drug misuse.

Table 1 – Number of studies and headline findings of review by outcome group.

| Outcome group | No. of studies | Main findings |
|---|----------------|---|
| Suicide | 17 | <ul style="list-style-type: none"> • 49% of all included studies examined the association between suicide and temperature • 15 of 17 studies found a positive and significant association between increasing temperatures and suicide frequency • 4 studies found a positive and significant association between violent suicides and increasing temperature |
| Bipolar disorder, mania and depression | 5 | <ul style="list-style-type: none"> • A positive and significant association between admissions due to bipolar disorder and increasing temperature • No significant association was found between mania or depression and increasing temperature |
| Schizophrenia | 5 | <ul style="list-style-type: none"> • A positive and significant correlation between temperature and exacerbation of schizophrenic symptoms • Risk of mortality more than doubled during episodes of heat wave |
| Organic, dementia, Alzheimer's disease and senility | 5 | <ul style="list-style-type: none"> • Risk of admission for organic mental disorders increased significantly during periods of heat wave • Agitation and disruptiveness of nursing home residents with known dementia increased significantly with temperature |
| Alcohol and substance misuse | 2 | <ul style="list-style-type: none"> • Risk of mortality due to alcohol and substance misuse increased significantly during episodes of heat wave |
| Other mental health outcomes and service use | 7 | <ul style="list-style-type: none"> • A number of outcomes were covered by only one study with mixed findings • Risk of admissions to psychiatric hospitals increased significantly during episodes of heat wave • Mortality of those diagnosed with mental health illness increased significantly during periods of heat wave |

This study has serious implications. Usually, when a heat wave arrives, the media rightly warns the public to check in on elderly people, children, and pets. But, clearly, they aren't the only ones vulnerable to the effects of extreme heat.

People who are depressed and/or suicidal, as well as those suffering from other mental illnesses, also should receive special attention. And because the homeless population is disproportionately afflicted with mental illness and addiction, public health officials would be well advised to take extra precautions.

Source [4]: R. Thompson, R. Hornigold, L. Page, T. Waite. "Associations between high ambient temperatures and heat waves with mental health outcomes: a systematic review." *Public Health*. Published online: July 2018. DOI: 10.1016/j.puhe.2018.06.008

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[1] <https://www.storyblocks.com/stock-image/very-high-scorching-temperature-shown-on-a-thermostat-sp3ema0vqobj6gn0m49>

[2] <https://www.livescience.com/21431-hot-temperatures-mood.html>

[3] <https://www.bbc.com/news/uk-44821796>

[4] [https://www.publichealthjrnl.com/article/S0033-3506\(18\)30213-0/fulltext](https://www.publichealthjrnl.com/article/S0033-3506(18)30213-0/fulltext)