

# How the pandemic has triggered a cycle of mental health struggles and physical inactivity

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A large, multi-state study highlights how the COVID-19 pandemic has created a cyclical public health problem by both exacerbating mental health challenges and making it more difficult for people to maintain physical activity. The study also reveals that lower-income households struggled more with both mental health challenges and maintaining physical activity levels.

"We know that physical activity is important for helping people maintain their [mental health](#), but this study reveals the unforgiving cycle that the [pandemic](#) has imposed on many people," says Lindsey Haynes-Maslow, co-author of the study and an associate professor of agricultural and human sciences at North Carolina State University.

"The pandemic has increased psychological distress, which makes it more difficult for people to maintain their physical activity levels. This, in turn, further hurts their mental [health](#), which makes them less likely to be active, and so on. Once you

get on this roller coaster ride, it's hard to get off. And all of this is exacerbated by the pandemic making it harder for people to find safe spaces in which to exercise."

For this study researchers were focused on two questions: How is the pandemic influencing physical activity and mental health status? And how, if at all, do physical activity and mental health status relate to each other?

To address those questions, the researchers conducted an in-depth, [online survey](#) of 4,026 adults in Louisiana, Montana, North Carolina, Oregon and West Virginia. The survey was conducted between April and September of 2020.

The researchers found that the more physically active people were, the better their mental health status. That held true even when accounting for an individual's race/ethnicity, household income and other socioeconomic demographic variables.

The researchers also found that the higher an individual's household income, the more likely they were to be able to maintain pre-pandemic physical activity levels. Specifically, people in households that earned less than \$50,000 per year were 1.46 times less likely to maintain their pre-pandemic levels physical activity as compared to people in households that earned more than \$50,000 per year.

In addition, the survey found that participants in urban areas were more likely to report difficulty maintaining their pre-pandemic physical activity levels, as compared to study participants in [rural areas](#).

"This rural/urban finding was somewhat surprising, because normally—when we're not in a

pandemic—people in rural areas tend to report more [mental health challenges](#) than their urban counterparts," Haynes-Maslow says.

"Fortunately, the survey was designed to help understand each study participant's mental health and physical activity levels before and during the pandemic," says Shelly Maras, co-author of the paper and a Ph.D. candidate at NC State. "The survey also included open-ended questions that allowed us to analyze rich, qualitative data related to respondents' mental health and physical activity."

The open-ended survey results revealed that many participants struggled with staying active during stay-at-home orders, but rural participants talked about how their open spaces and places provided more opportunities to get outside and get moving. Participants also talked about how caregiving, exhaustion and mental health stressors kept them from being active, perpetuating the cycle.

"Our findings drive home that mental health is a persistent challenge during this pandemic," says Annie Hardison-Moody, co-author of the study and an associate professor of agricultural and human sciences at NC State. "This survey data helps us understand what people were going through during those early months of the pandemic. It also helps us understand the importance of having access to open spaces and the barriers that are in place preventing people from accessing those spaces."

"We're still in a pandemic," Haynes-Maslow says. "But it's clear that we need a playbook in place for what we do in future crises to help people be active and protect their mental health."

"We need structural changes in communities to ensure people have equitable access to safe spaces where they can be active. That will require policy changes and funding to create the necessary infrastructure: sidewalks, streetlights, green spaces. This will require significant investment, and it will take time, so we need to begin acting on this now. It is much less expensive to invest now than it is to pay for the long-term consequences of poor physical and mental health."

The paper, "Examining the relationship between [physical activity](#) and mental health during the COVID-19 pandemic across five U.S. States," is published in the journal *Preventive Medicine Reports*.

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**More information:** Michelle Grocke-Dewey et al, Examining the relationship between physical activity and mental health during the COVID-19 pandemic across five U.S. States, *Preventive Medicine Reports* (2021). [DOI: 10.1016/j.pmedr.2021.101537](#)

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