

No evidence that people alter daily travel after having symptoms that could be COVID-19

25 March 2021, by Danielle Hawkins



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How can we better understand how people move during the pandemic and how they spread COVID-19? New George Mason University's College of Health and Human Services research is one of the first individual-level studies to explore this question.

Dr. Janusz Wojtusiak led the study published in the *Journal of Healthcare Informatics Research*. Wojtusiak and colleagues tracked symptoms and movements of 175 volunteer individuals on George Mason University's campus. They found that there is no evidence that participants altered their movements based on the symptoms they reported.

"We could not detect any significant change of movement when people should self-quarantine. On the other hand some people almost did not leave home since the beginning of the pandemic, while others move freely around," said Wojtusiak.

Participants used the Mason COVID HealthCheck to record symptoms of possible COVID-19

infection and GPS and WiFi data to provide information on how they move during the pandemic. This allows the researchers to model and predict movements during the pandemic and in conjunction with any reported possible COVID-19 symptoms.

"By tracking individual movements and symptoms in our study, our findings could help inform effective public health interventions to reduce COVID-19 infections," explains Wojtusiak.

In addition, Wojtusiak and colleagues analyzed de-identified Mason COVID HealthCheck responses and found that a headache was the most frequently reported symptom, and a headache was always listed as a symptom when any other symptoms were reported. Other commonly reported symptoms were coughs and sore throats.

Movement patterns varied among participants, with some only going out for essential trips while others moved about more. As a group, movement was consistent over the study period, which included a period when Virginia was under a stay-at-home order and when it was not. Participants traveled a total average of 139 miles per week, visiting an average of less than six locations per week. This low average mileage and number of sites visited does suggest that COVID-19-related restrictions affected their movement. However, they also found that even when participants reported symptoms of COVID-19 or contact with others with COVID-19, they did not change their movements as recommended by public health guidance.

George Mason University has a very low COVID-19 infection rate, and during the period none of the study participants reported COVID-19 infection, so researchers weren't able to link COVID-19 positive tests and movement. Future analysis will include

data from the winter of 2020 so may provide more information on movement after COVID-19 [infection](#). The researchers are also conducting surveys and interviews to provide richer data including reasons for complying or not complying with social distancing.

More information: Janusz Wojtusiak et al, COVID-19 Symptom Monitoring and Social Distancing in a University Population, *Journal of Healthcare Informatics Research* (2021). [DOI: 10.1007/s41666-020-00089-x](#)

Provided by George Mason University

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