



# Cystic Fibrosis Research News

## **Title:**

Longitudinal Mental Health Trends in Cystic Fibrosis

## **Lay Title:**

Anxiety and Depression Symptom Patterns over 6 years in one Pediatric CF Center

## **Authors:**

Michelle Hjelm, MD<sup>1,2</sup>, Elizabeth Hente, MPH<sup>1</sup>, Jamie Miller, MSW<sup>3</sup>, Susan Moore, MSW<sup>3</sup>, James Peugh, PhD<sup>2,4</sup>, David V. Swetland, MD, MEd<sup>5</sup>, Dawit G. Tadesse, PhD<sup>6</sup>, Md Monir Hossain, PhD<sup>4</sup>, Christopher Siracusa, MD<sup>1,2</sup> Stephanie S. Filigno, PhD<sup>1,2,7</sup>

## **Affiliations:**

1. Division of Pulmonary Medicine, Cincinnati Children's Hospital Medical Center (CCHMC), Cincinnati, OH, USA
2. Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, USA
3. Division of Social Services, CCHMC, Cincinnati, OH, USA
4. Division of Epidemiology and Biostatistics, CCHMC, Cincinnati, OH, USA
5. Department of Pediatrics, Tulane University School of Medicine, New Orleans, LA, USA
6. WIRB-Copernicus Group Princeton, NJ, USA
7. Division of Behavioral Medicine and Clinical Psychology, CCHMC, Cincinnati, OH, USA

## **What was your research question? [50 words maximum]**

What happened with anxiety and depression symptoms over 6 years of screening in CF clinic?

What happened to mental health during the COVID-19 pandemic?

What happened to mental health for people who were taking highly effective modulator treatment?

Are there any other health factors linked to anxiety and depression symptoms?

## **Why is this important?**

This study is important because many CF centers ask routine questions about anxiety and depression symptoms. This helps us understand what can happen when you ask about and

**Cystic Fibrosis Research News**

[cfresearchnews@gmail.com](mailto:cfresearchnews@gmail.com)



# Cystic Fibrosis Research News

support mental health. It also helps us know what other health issues may affect mental health.

## **What did you do?**

We followed the CF Foundation recommendations to ask about anxiety and depression in CF clinic for 6 years. We compared the mental health scores to other areas of health in the electronic medical record (for example: age, gender, lung function, having CF related diabetes [CFRD], modulator use) to see if anything was linked to anxiety and depression. We also looked to see if mental health scores got worse during the COVID-19 pandemic.

## **What did you find?**

We found that anxiety and depression scores changed over the 6 years. More people reported fewer symptoms. We kept mental health screening in place with telehealth when CF care changed during the pandemic. People who had more mental health visits were more likely to have CFRD and more anxiety and depression symptoms. People with higher lung function had less anxiety and depression symptoms. When people were on a more effective modulator they had less depression symptoms but had about the same anxiety symptoms. Anxiety and depression symptoms did not get worse during the COVID-19 pandemic years for most people.

## **What does this mean and reasons for caution?**

Our findings suggest that routine screening and psychological support are an important part of CF clinical care. When mental health is discussed more often and people get the care they need (when they need it), they can have improvements over time. We believe that mental health symptoms were stable during the COVID-19 pandemic because we used telemedicine to screen and provide psychological care. The extra work of taking care of CFRD can increase anxiety and depression symptoms for some people. Health stressors should be asked about because people may need more psychological support.

## **What's next?**

This study is from one pediatric CF Center. It is important for more Centers to look at mental health data to learn more about common mental health stressors. It is important to learn more about what people need so that we can provide the best care at the right time.

## **Original manuscript citation in PubMed**

<https://pubmed.ncbi.nlm.nih.gov/37393160/>

**Cystic Fibrosis Research News**

[cfresearchnews@gmail.com](mailto:cfresearchnews@gmail.com)