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Fitbits Monitor Symptoms in Transplant Patients

A new study from the University of North Carolina at Chapel Hill shows that activity trackers (eg, Fitbits) can be used to track patients' symptoms and overall functional status after a serious medical procedure. The study is published online in the journal *Quality of Life Research*.

Researchers used Fitbits to monitor the physical activity of 32 patients who had undergone bone marrow transplant, finding that decreases in average daily steps were associated with increases in pain, fatigue, nausea and other symptoms, as well as a reduction in self-reported physical activities.

The researchers say the findings indicate that activity trackers could be a valuable tool for tracking symptoms and physical function systematically, especially for patients who may not be able to self-report their symptoms using questionnaires because of language barriers, literacy, cognitive or health status.

“These wearables provide a way to monitor how patients are doing, and they provide continuous data with very little patient burden,” said Antonia Bennett, PhD, a UNC Lineberger member and research assistant professor in the UNC Gillings School of Global Public Health.

In the study, the research team evaluated daily steps, as measured by Fitbit Flex activity trackers, and symptoms, in patients undergoing bone marrow transplant. The sample of adult transplant recipients wore the activity trackers and completed assessments about their symptoms and quality of life for four weeks during transplant hospitalisation and four weeks after discharge.

The research protocol that provided the data for this study was led by William Wood, MD, a UNC Lineberger member and assistant professor in the UNC School of Medicine.

“Physical function can be measured in many different ways -- from performance testing to patient-reporting to passively observed daily activity,” Dr. Wood explained. “Studies like this demonstrate that wearable devices can measure an aspect of physical function that is directly related to symptomatic toxicities following treatment.”

“With these research results and future studies, we are aiming to transform these new activity trackers into patient-centred clinical assessment tools,” Dr. Bennett added.

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Source: University of North Carolina Health Care System
Image credit: Fitbit Inc.

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