Managing Health Data Obsessive Disorder Presentation in Urgent Care

In a prior editorial, I described the case of Thomas, a young man among the "worried-well," who presented to urgent care (UC) with anxiety related to an alarm that sounded on a malfunctioning continuous glucose monitor (CGM), which was prescribed for him despite his lack of a diagnosis of diabetes.[1] The underlying issue prompting his visit was not hypoglycemia but what I refer to as "health data obsessive disorder" (HDOD)—a novel behavioral health disorder diagnosis I propose we might adopt. HDOD is an increasingly common phenomenon in this era of increasingly affordable diagnostic and monitoring equipment available to patients for home use without clinician supervision.

Let's briefly review the pathophysiology and diagnosis of HDOD and then turn our focus on how to manage situations in which patients present due to manifestations of this increasingly common phenomenon.

" It is important to call out the dysregulated behavior in an effort to prevent further harm."

Data Collection

As we return to Thomas' perceived case of "hypoglycemia," it is worth noting that he likely had only good intentions when he requested a CGM from his primary care provider (PCP). I imagine he thought to himself, "I'll use the data to see how foods affect me so I can choose a healthier diet." It's improbable that any thoughts of a falsely low (or high) glucose reading occurring crossed his mind until I was discussing it with him in UC. This is because Thomas isn't a clinician. He's a lay person who is worried about his health and therefore highly susceptible to the allure of new technology and the corresponding promise of it offering a path to a longer, healthier life.

However, when the data collection is placed in the hands of the patient, the patient is responsible for differentiating signal from noise. Armed with data acquisition technology, a worried patient is at high-risk for developing HDOD. Such patients use intellectualization[2] as a reflexive coping mechanism–believing that somehow, by amassing sufficient data, they will "hack" their health and reduce their concerns and risk for disease and death. However, what frequently happens is that the data is erroneously collected and/or interpreted.[3] Garbage in, garbage out (GIGO). Then, predictably, the human tendency towards negativity bias rears its ugly head, like with Thomas, who jumped to the worst-case scenario and immediately rushed to me to seek care.[4] This subsequently makes way for the intervention bias, which commonly presents as requests for questionably indicated additional testing or non-indicated treatments to ensure that a likely false positive is truly false.[5]

The pattern of behavior described here is not an anecdote. Increasingly, studies on the use of home health data tracking have shown that Thomas' story is the rule and not the exception. For example, Rosman and colleagues have published on the consequences of what I would label HDOD in patients wearing smartwatches with a history of atrial fibrillation (AF).[6,7] Most recently, they published an observational study comparing the healthcare utilization of patients with AF who used wearable heart monitors with those who did not. They found that, ironically, the patients using monitoring devices reported both higher preoccupation with their heart rhythm and higher overall anxiety compared with similar patients who abstained from wearable use. Simultaneously, nearly two-thirds of these same patients also reported that their smartwatch "helped them to feel safe."[6]

Equally unsurprisingly, patients using wearable heart monitors contacted their clinicians much more frequently and had more diagnostic testing and ablation procedures than similar, non-monitor wearing controls.[6] While the Rosman et al. study did not specifically examine the long-term outcomes of the subjects, cardiologists understand which patients with AF will benefit from ablation. Increased monitoring and requests for testing almost cer-

tainly produced a form of indication creep (and most likely the negative associated outcomes associated with this) for the device-wearing patients in this study, whereby the procedures were done outside of standard parameters to address the worries of concerned patients.

Tips for UC Management of HDOD

In UC, where we usually have no prior relationship with patients and often feel beholden to meeting their expectations, it can be tempting to order more involved testing or place specialist referrals when patients, like Thomas, present with the manifestations of HDOD. However, this reflexive response, while understandable, only adds fuel to the fire. Instead, it is important to call out the dysregulated behavior in an effort to prevent further harm. Below are some practical principles and guidelines that can be useful when faced with well-appearing patients reporting abnormal findings from their outpatient health data monitoring devices:

1. Most importantly, trust your clinical assessment over the device. Despite improvements in the simplicity and accuracy of wearable devices, user error can (and often does) occur.
2. Conversely, it's important that all alarms be presumed as true positives until proven otherwise. Despite the high probability of false alarms in the well-appearing, asymptomatic patient, beware of premature closure and alarm fatigue. Avoid dismissing the patient's concern without due diligence. Collect a reasonable history and review the data available, however, do not be surprised if you conclude that the overwhelmingly likely diagnosis is that the alarm was due to device or, more likely, user error.
3. Try to determine the source of any false alarm to prevent it from recurring. Just as we would confirm the accuracy of a patient's device and measuring technique if they came in with concerns over home blood pressure readings, we should make an effort to troubleshoot false alarms from other devices. The issue creating the false alarm will often be obvious by simply having the patient demonstrate how they're using the device.
4. Approach patients with HDOD with a non-judgmental attitude and avoid assigning blame to them for seeking care. Put yourself in their shoes. They invested in the acquisition of health data because they care about their health, and they're likely dealing with significant anxiety. Instead, reassure patients that they did the right thing to come in to create a therapeutic alliance. Without this, your teaching efforts will largely be dismissed.
5. Use the visit as a teachable moment to discuss the hidden downsides of hyperfixation on excessive monitoring of their health data. Explain the risks of false positives, like the one that brought them to your UC center, and how overabundant data, especially if not recommended by a clinician, is more often hazardous than helpful. The inconvenience, embarrassment, and expense at hand will make this lesson palpable.
6. Acknowledge and affirm that anxiety about health is normal and discuss how they might divert this nervous energy more productively. For example, instead of compulsive self-monitoring, you might suggest they invest that energy into better health habits, like playing sports with friends or developing a mindfulness practice.

In the future, improvements in artificial intelligence (AI) may offer more solutions for ensuring that patient-collected health data is reliable and beneficial for patient outcomes. In the meantime, we must figure out how to manage this current stage while we incrementally progress towards finding where the true value may lie in home-based health data monitoring devices.

Regardless, without defining and labeling this unhealthy perseveration on metrics of well-being, our patients will not only continue to suffer psychologically, but they will also continue to seek unnecessary medical attention. Most importantly, when faced with such a worried-well individual who demonstrates the hallmark features of health data obsessive disorder, don't let their anxieties compel you towards collecting more unnecessary data. Instead, try taking a moment to highlight how an abundance of data actually seems to be the source of their issues, rather than the solution. ■

Joshua W. Russell, MD, MSc, ELS, FCUCM, FACEP
Editor-in-Chief, *JUCM, The Journal of Urgent Care Medicine*
Email: editor@jucm.com • X: @UCPracticeTips

References

1. Russell JW. 'Health Data Obsessive Disorder'—A Modern Epidemic. *J Urgent Care Med.* 2024; 19(3):1-5
2. Cramer P. Understanding Defense Mechanisms. *Psychodyn Psychiatry.* 2015 Dec;43(4):523-52
3. Perez MV, Mahaffey KW, Hedlin H, et al. Large-Scale Assessment of a Smartwatch to Identify Atrial Fibrillation. *N Engl J Med*. 2019;381(20):1909-1917. doi:10.1056/NEJMoa1901183
4. Kahneman D. Tversky A. Prospect Theory: An Analysis of Decision Under Risk. *Econometrica*. 1979; 47 (2): 263–291.
5. Foy AJ, Filippone EJ. The case for intervention bias in the practice of medicine. *Yale J Biol Med*. 2013;86(2):271-280. Published 2013 Jun 13.
6. Rosman L, Lampert R, Zhuo S, et al. Wearable Devices, Health Care Use, and Psychological Well-Being in Patients With Atrial Fibrillation. *J Am Heart Assoc.* 2024;13(15):e033750. doi:10.1161/JAHA.123.033750
7. Rosman L, Gehi A, Lampert R. When smartwatches contribute to health anxiety in patients with atrial fibrillation [published correction appears in *Cardiovasc Digit Health J.* 2021 Mar 31;2(2):150-151. doi: 10.1016/j.cvdhj.2021.03.006]. *Cardiovasc Digit Health J.* 2020;1(1):9-10. doi:10.1016/j.cvdhj.2020.06.004