Fitness Trackers: from Solving Crime to Substantiating Injuries

Date: October 10, 2018

Fitness trackers, such as the Fitbit or the Apple watch, are becoming increasingly popular. Users typically wear them for 24 hours a day, and rely on them to monitor their activity, diet and even sleep. These trackers not only have GPS capabilities that can pinpoint the wearer's exact location, but they also record heart rate and count (literally) every step taken by its users. Suffice to say, these trackers can act as a 'black box' of the body's physical activities.

Interestingly, fitness trackers are being used by law enforcement agencies for investigative purposes. For example, in the United States, Tony Aiello was arrested on October 2, 2018, on suspicion of murdering his 67-year-old step daughter, Karen Navarra. Navarra was found dead in her San Jose home with lacerations to her head and neck. Neighborhood cameras captured Aiello's vehicle in Navarra's driveway. The Fitbit, worn by Navarra, recorded a spike in her heart rate, followed by a sudden slowing and eventual stop, at precisely the same time. The data from the Fitbit placed Aiello inside Navarra's home at the exact time of her death, contradicting Aiello's version of events.

Given their ability to track, it is hardly surprising that fitness trackers have started to make their way into courtrooms. In 2014, for the first time, a personal injury firm in Calgary announced that it would be using its client's Fitbit data to substantiate her injuries and demonstrate that she is less active now than she was prior to the accident. The data was provided to Vivametrica, a health-data analytics company, who will compare it to the activity levels of members of the general population in the same age group as the plaintiff.

In the Calgary case, it was the plaintiff's counsel who wanted to rely on the data. The more interesting question is whether defence lawyers or insurers can demand production of data from a plaintiff's fitness tracker, in order to use it *against* a plaintiff.

In theory, defence counsel may subpoena the data from the manufacturer, similar to how one would obtain records from a telephone company etc. Such information could provide valuable insight regarding the nature and extent of the claimant's alleged injuries. For instance, in cases where the credibility of the claimant is in question, defence lawyers would benefit from

objectively determining if a claimant's activity levels have actually lessened after an incident or whether he or she is continuing to go on 5-kilometre runs after allegedly being disabled.

It is important to note that such data should not be used in isolation but rather in conjunction with other medical documentation and medical-legal assessments. This is due to the fact that the data can be easily manipulated (such as having someone else wear the fitness tracker, or taking it off all together). As well, there is an element of interpretation involved in analyzing the data.

From an evidentiary perspective, there is no general exclusionary rule governing the admission of data from a fitness tracker. Generally speaking, the data can be admitted into evidence if it is relevant to a material issue in the case.[1] While the information yielded may be useful in the civil-litigation context, there are some serious concerns regarding the invasion of privacy. However, the reality is that when an individual commences an action, he or she is already giving up a fair amount of privacy. It will be the responsibility of plaintiff's counsel to limit the scope of disclosure to ensure that the information provided is relevant to the claim.

Apart from their potential use in litigation, insurers have already begun to work with health-data analytics companies to use data collected from smartphones and fitness trackers, and applying it for underwriting and risk-assessment purposes. In a recent publication[2], Munich Re discovered that the number of steps taken per day can "effectively segment mortality risk even after controlling for age, gender, smoking status and various health indicators".[3] It recommends that insurers who seek to adopt a "wearables program" should initiate a pilot program to gain a better understanding of the insured's physical activity characteristics, and then perhaps consider a comprehensive risk assessment program.[4]

It is not unforeseeable that, in the near future, insurance companies will offer lower premiums or usage-based insurance for those who disclose data collected from their personal fitness trackers.

---

[1] David M. Paciocco & Lee Stuesser, *The Law of Evidence*, 6th ed (Toronto: Irwin Law Inc. 2011) at p. 24.

[2] Based on data from trackers collected by Vivametrica.

[3] Munich Re, *Stratifying Mortality Risk Using Physical Activity as Measured by Wearable Sensors*, 2018.

[4] *Ibid.*