CUNY SPS

DATA698: Master’s Research Project

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The Effects of COVID-19 on US Exercise

Abstract

COVID-19 changed many day-to-day habits and behaviors in the United States.

Some behaviors changed naturally like Netflix watching, while others changed in accordance with government orders like indoor dining. One day-to-day behavior in the US that seemingly changed both naturally and artificially is exercise. Exercise is a large part of American health, and this project will analyze its apparent change since the onset of COVID-19. More specifically, this project will use public datasets to measure the change in American exercise routines. The goal of this project is to increase the knowledge about US behavioral change since the pandemic began with a healthy focus on exercise.

Literature Review

**COVID-19 Timeline and Government-imposed Business Closures**

The Coronavirus disease 2019, COVID-19, was declared a global pandemic by the World Health Organization on March 11th, 2020 (WHO, 2020). As a response, the United States declared a national emergency on March 13th, 2020 to slow the spread of COVID-19. The national emergency imposed school closures, nonessential businesses closures, cancellation of large public gatherings, cancellation of as sporting and entertainment events (Chowell, 2020), travel restrictions, quarantines for travelers, and stay-at-home orders implemented by governors and mayors (Gostin & Wiley, 2020). In relation to exercise, these government orders closed commercial gyms, discouraged sharing fitness equipment, and ceased group exercise of 10 or more people (Ramirez-Campillo & Souza, 2020).

**COVID-19 US Attitude Changes and New Normal**

Due to the global pandemic and US national emergency, the behavior and attitude of US public changed. Surveys from May 5-12, 2020 showed US citizens avoided groups of 10 or more persons and agreed with rules that prohibited inside dining (Tynan & Howard, 2020). Another study by the CDC showed a drastic decrease in US population movement from state-to-state during March, April, and May 2020 (Herlihy & Tynan, 2020). All this change is continually shaping a “new normal” in the United States (Roberts & Tehrani, 2020).

Some early and obvious differences are in this “new normal” are well-covered, like more working from home (Ahmad, 2020) and Netflix subscriptions (Dias, 2020). But there is not extensive research about the “new normal” regarding US exercise. Thus, this project will dig into the changes of this large component of American health (Fletcher et al., 1992)

**Relationship between Podcast Data and US Exercise Behavior**

As humans, our interests are complicated. We are interested in many topics, some with greater magnitude and some for different reasons. For this project, it is important to consider that we are interested in topics that are relevant to ourselves (Tobarra, Robles-Gómez, Ros, Hernández, & Caminero, 2014). This link between interest and relevancy is important, although not perfect, because it allows us to use data regarding interest as a proxy for relevance.

One source of data regarding interest that is prevalent and available to us is podcast data. Podcasts have drastically gained popularity since 2014 (Durrani, Gotkin, & Laughlin, 2015) and podcasts with consistent episodes indicate an interested audience (Mcclung & Johnson, 2010). Thus, this project leverages podcast data to measure 7 types of exercise in the US. The podcasts used in this project were chosen because they are the top exercise podcasts in the US according to Spotify.

Resources

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