

Quarantine's Effects on our Daily Habits

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ABSTRACT

Making healthier choices such as exercising more and eating a balanced diet benefits one's mind and body in many ways. Our environment and world around us, however, also affect our choices. The new decade had a rough start with the coronavirus outbreak in Wuhan, China, which quickly grew into global pandemic. With many American states still in quarantine, how does the ongoing pandemic affect our daily lives and habits?

Introduction

Coronavirus Disease 2019 (COVID-19) is a coronavirus structurally similar to the virus behind severe acute respiratory syndromes (New England Journal of Medicine, 2020). Symptoms of COVIDs-19 only start to appear after two to fourteen days and include fever, shortness of breath, fatigue, and other symptoms similar to the common cold. However, this global pandemic does not only affect the infected; schools, businesses, and entertainment centers have shut down worldwide to try and limit the spread of the virus. An estimated 20.6 million people have lost their jobs due to COVID-19, and millions more are restricted to working from home (Soucheray, 2020). Quarantine and shelter-in-place in the United States started in the middle of March 2020 and has continued to take place through the present day. As defined by health officials, quarantine means to restrict contact between a person infected with a contagious disease and others (Porterfield, 2020). In the case of COVID-19, the quarantine of entire cities, counties, and states is necessary due to the two week incubation period of the virus. Since symptoms only show up after two to fourteen days, it is incredibly easy to infect others during the incubation period unless entire masses are under quarantine.

The fear of catching the infectious disease drove individuals, couples, and families to stock up on essential items, leaving entire grocery aisles empty and filling up all available delivery times on online grocery platforms like Costco, Amazon Fresh, and Whole Foods. Similarly, healthcare workers were also dealing with shortages of PPE (personal protective equipment) like gloves and face masks. Now, after five months of being in quarantine, people are slowly letting go of the stockpiling habit, and many individuals and companies have stepped up and started producing masks and face shields for healthcare workers, who are all working around the clock to treat the growing population that is infected with COVID-19.

With people conducting work, business, and school entirely online, they have undergone many changes in their daily lifestyle and habits. The absence of driving to work and school and social gatherings have given many people extra time to take on new hobbies, start projects, or simply get a few extra hours of sleep; on the other hand, the extra time has also gone directly into office and school work, instead of personal tasks and goals. Nearly two-thirds of respondents to a survey conducted by Cleveland Clinic stated that they made changes in their lifestyle including sleep, exercise, food, and more time outdoors (Cleveland Clinic, 2020). Furthermore, when looking at teenagers specifically, without having to wake up as early to commute to school many of them will have more time to sleep and relax (Twenge, 2020). Thus, to observe how quarantine has affected lifestyles of residents around the Bay Area, I conducted a survey focusing on four key lifestyle aspects: exercise, food, sleep, and relaxation; with my hypothesis being that school students would generally be more relaxed and would be exercising and sleeping more, as well as eating healthier, while adults would have a more negative change in habits.

Methods

Participants and Settings

The respondents of this survey were acquaintances of the researcher or heard about the survey from acquaintances, and were located throughout the Bay Area. There were respondents from different age groups, although roughly 90% of the respondents were either working adults or high school students. I made sure to contact a spread of high schoolers in the Bay Area, including students from both public and private schools, as well as different cities. All of the respondents were of the East-Asian or Indian race. I contacted the participants through text, and after they completed the survey, they then sent the survey to their friends and family. In the end, I collected a total of eighty-five responses.

Assessments and Measures

Some factors that I considered when making the survey were making sure the questions were not too private or personal and that the survey would not take a lot of time to complete. Some of the initial questions that I considered were:

How has your diet changed (since the start of the pandemic)?

Is your sleep schedule different?

Do you spend more time with your family?

Are you doing a lot of shopping?

Are you/your family spending a lot or a little money these days?

Do you watch more TV?

Are you exercising more?

Do you have more free time or more work?

Are you staying organized in quarantine?

Some of these questions would not be favorable, since the perceived definition of the question would vary between each individual. For example, in the question “Are you staying organized in quarantine?” the word “organized” can mean a different thing for each person; and in the question “Are you/your family spending a lot or a little money these days?” the words “lot” and “little” have different values for each person. In order to make the survey generalizable, the answers needed to be relative to a fixed value. In this case, the pre-existing condition of each respondent was chosen as the fixed value. The answers for all questions fell under a more than, less than, or equal to category relative to the pre-quarantine state of each respondent.

Additional measures taken to increase the validity of the survey are limiting each person to only one response, using a Google Forms built-in feature, and not asking any personal questions in order to maintain the anonymity of each respondent. Below are screenshots and a link to the Google Forms used for the survey.

<https://forms.gle/LigFkp4fAhbxyrrw6>



Quarantine's Effects on our Daily Habits

Hi, I am a high schooler who is conducting a survey on lifestyle changes during quarantine. I would love it if you could take this survey then ask your family members to take this survey as well or simply send it to people you know.

Please answer each question honestly, reflecting back on the past few months of quarantine. All answers will be anonymous. Thank you!

* Required

If you would like to receive an email with the results of the survey and its analysis, please enter your email below.

Your answer _____

Which group do you belong in? *

- Working Adult
- Non-working Adult
- College/University Student
- High School Student
- Middle School Student
- Elementary School Student

How have your sleeping habits changed in the past few months of quarantine? *

- More sleep
- Less sleep
- Same as before quarantine

How have your eating habits changed in the past few months of quarantine? *

- Eat healthier/less junk food
- Eat more junk food/unhealthy items
- Same as before quarantine

How have your exercising habits changed in the past few months of quarantine? *

- Exercise more
- Exercise less
- Same as before quarantine

Do you feel like you have more time to relax in the past few months of quarantine? *

- More time
- Less time
- Same as before quarantine

Have you started any new habits in the past few months of quarantine? *

- Yes
- No

If you answered yes to the previous question, what is the habit?

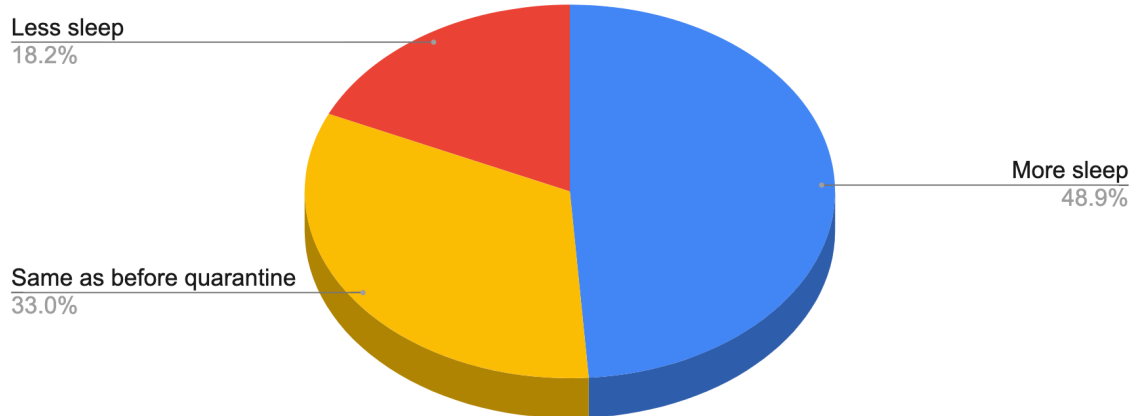
Your answer _____

Submit

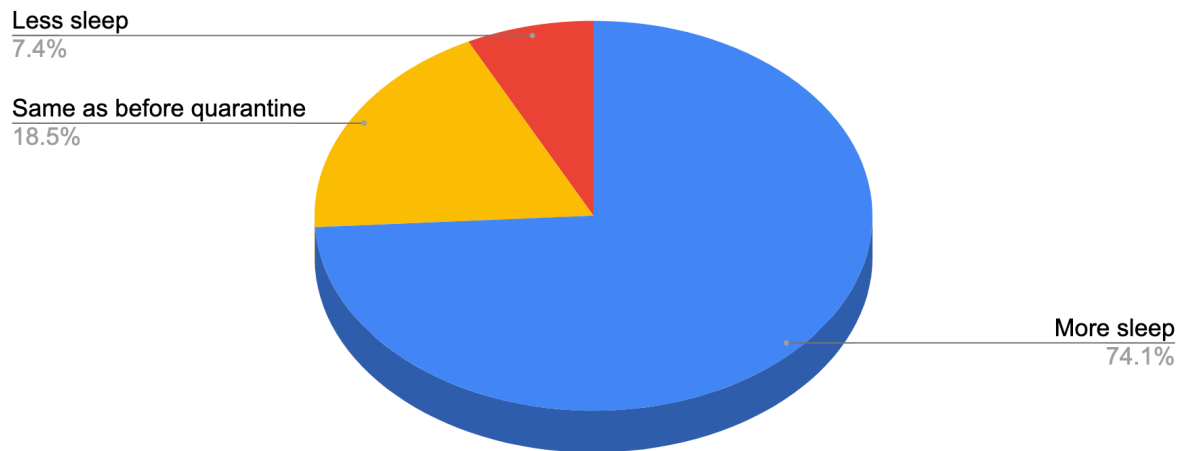
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Results

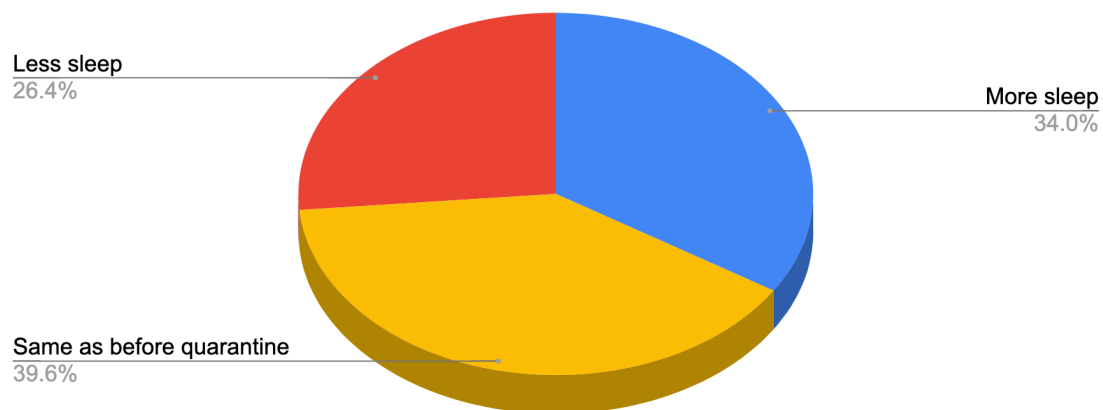
Change in Sleeping Habits



Change in Sleeping Habits for High School Students



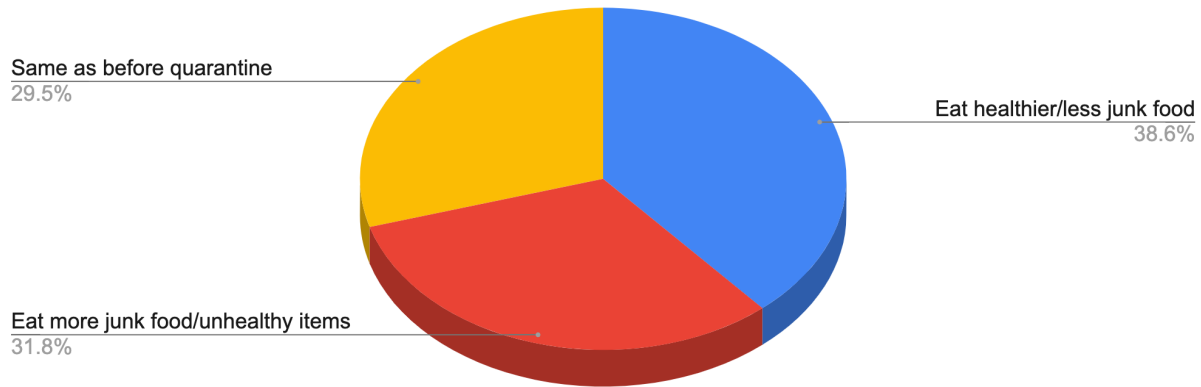
Change in Sleeping Habits for Working Adults



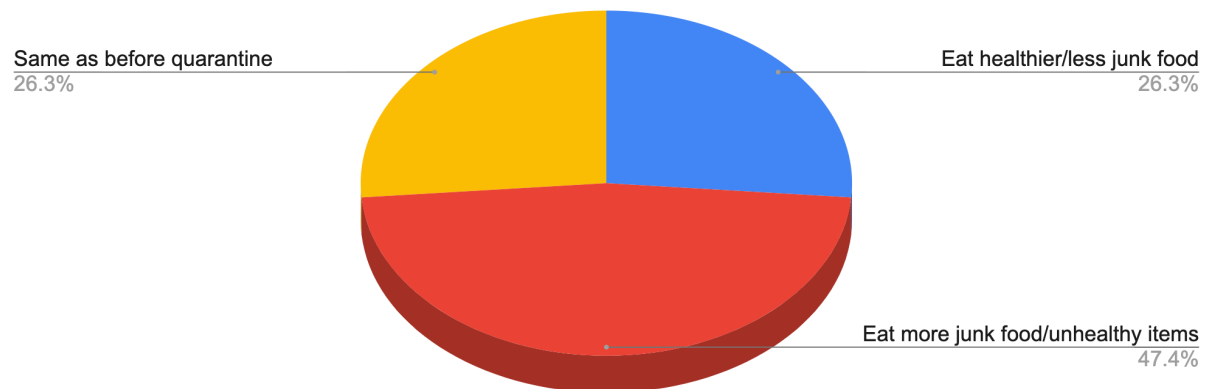
Change in Sleeping Habits

Getting a full seven to nine hours of sleep is crucial for being attentive and increasing productivity. As shown in the graphs above, 48.9% of all respondents stated an increase in sleep during quarantine, and 74.1% of the high school respondents stated an increase in sleep; however, only 34.0% of working adults indicated an increase in sleep during quarantine.

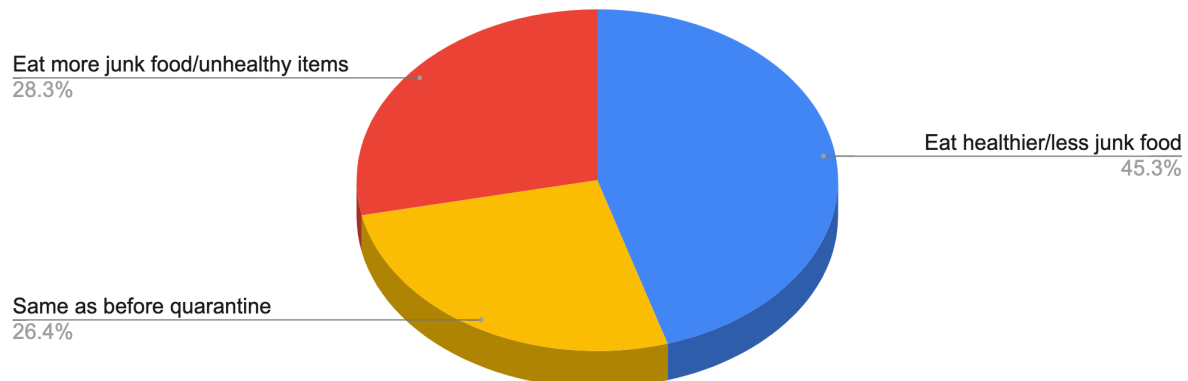
Change in Eating Habits



Change in Eating Habits for High School Students



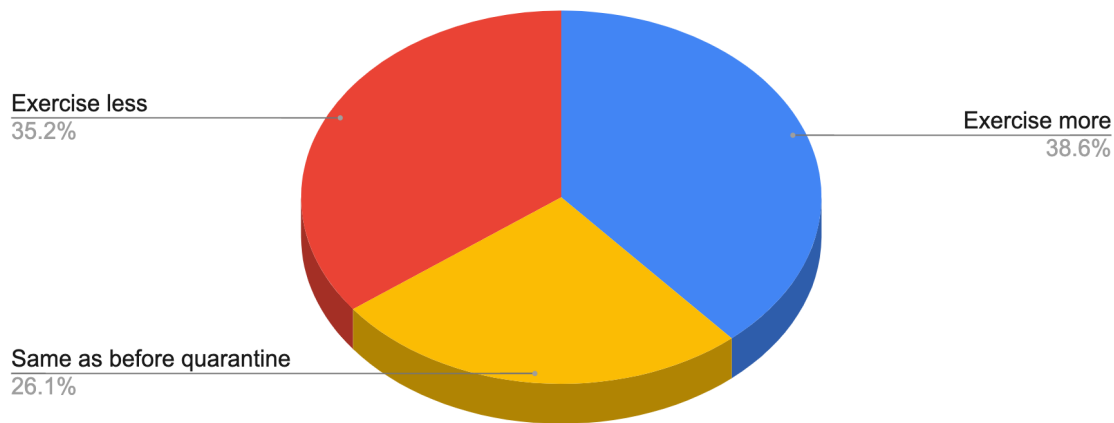
Change in Eating Habits for Working Adults



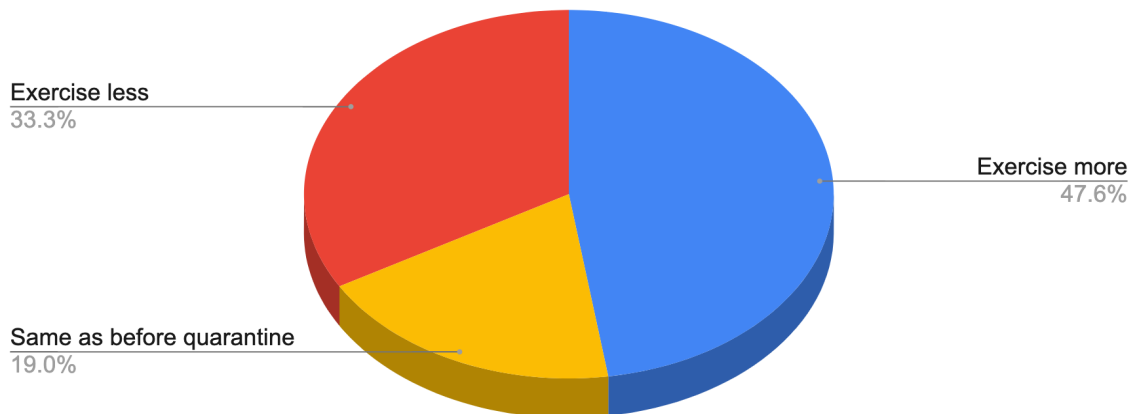
Change in Eating Habits

In general, 38.6% of all respondents stated that they were eating healthier during quarantine, while an almost equal 31.8% of respondents stated that they were eating unhealthier during quarantine, when compared to their pre-quarantine diet. However, a majority of the responses claiming an unhealthier diet came from high school respondents. Of all high school participants, 47.4% stated that they were not eating as healthy during quarantine as they were before quarantine, while 45.3% of all participants who were working adults stated that they were eating more healthily during quarantine.

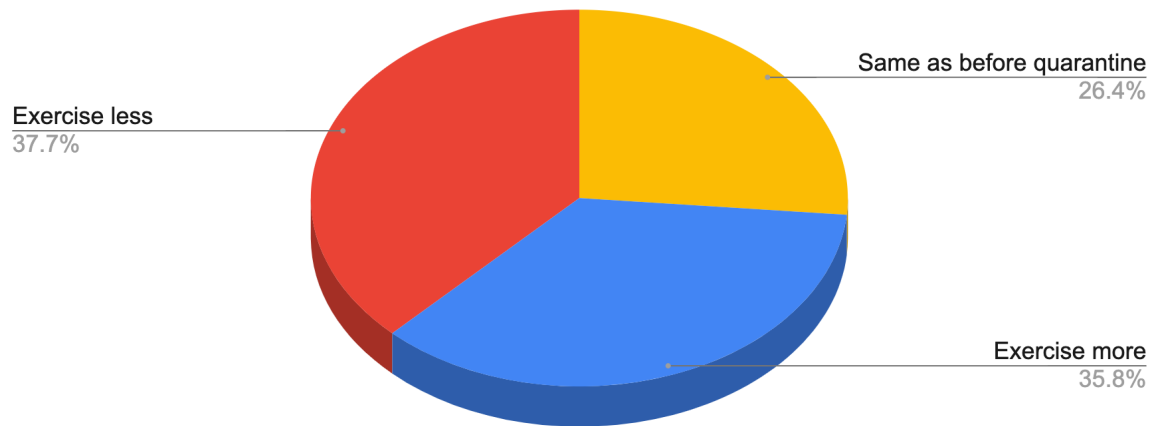
Change in Exercising Habits



Change in Exercising Habits for High School Students



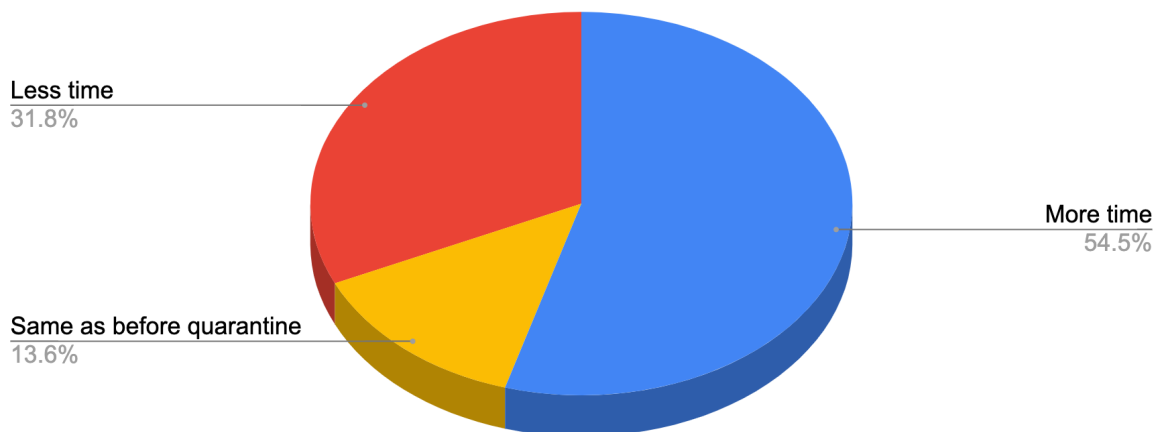
Change in Exercising Habits for Working Adults



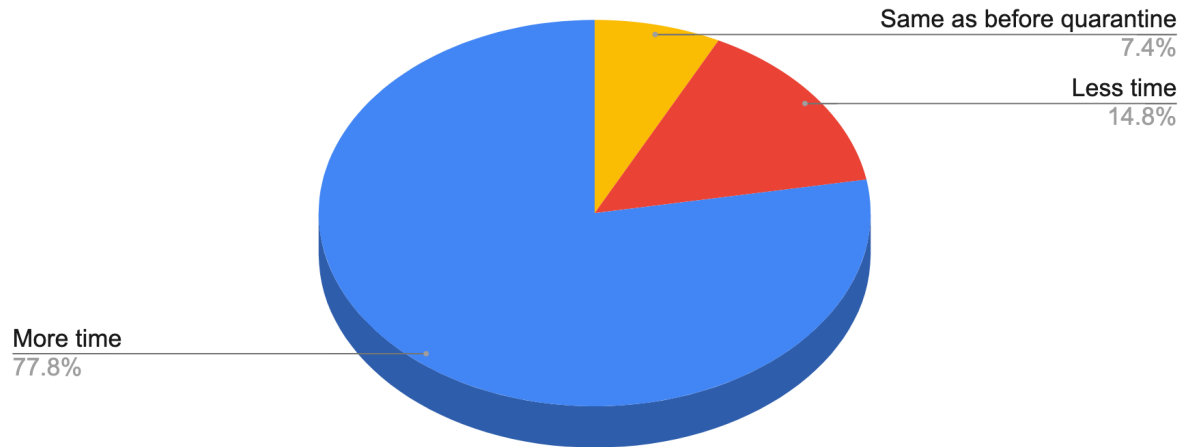
Change in Exercising Habits

While 38.6% of all respondents claimed to be exercising more during quarantine, 35.2% of all respondents claimed that they were exercising less during quarantine. When looking at the two groups of participants separately, 47.6% of high school respondents claimed to be exercising more, while 33.3% of high school students were exercising less during quarantine. And when looking at working adults, only 35.8% claimed to be exercising more during quarantine, while 37.7% claimed to be exercising less.

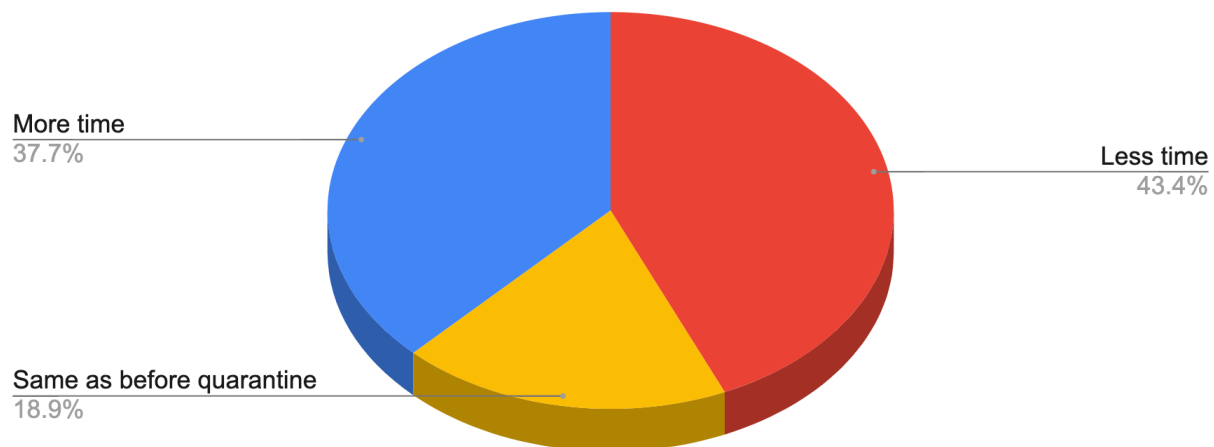
Change in Relaxation Time



Change in Relaxation Time for High School Students



Change in Relaxation Time for Working Adults



Change in Relaxation Time

As seen above, 54.5% of all respondents felt they had more time to relax during quarantine. Of all the high school respondents, a massive 77.8% of participants felt they had more time to relax. Unfortunately for working adults, only 37.7% claimed they had more time to relax, while 43.4% of the working adults felt they had less time to relax.

Discussion

The world around us influences the choices we make, and the goal of this study was to discern the impact quarantine has had on all of our choices. More than 60% of all respondents noticed a change, positive or negative, in their sleeping habits, and more than 70% of all respondents noticed a change, positive or negative, in their eating, exercising, and relaxation habits.

Getting a full night's sleep is essential for living a healthy, more engaged lifestyle. The lack of a proper night's sleep can stunt growth in adolescents, while a full 7 to 9 hours of sleep can reduce stress, reduce the risk of

weight gain, and improve memory consolidation for both teenagers and adults. The results this study produced indicates that being in quarantine has given people the opportunity to get more sleep, which is the first step in leading a healthier lifestyle. One possible reason for this could be the time saved from travelling back and forth to school and extracurricular activities.

The next question in the survey focused on the eating habits of respondents. In addition to sleep, eating a balanced diet also plays an important role in improving mood, reducing the risk of chronic diseases and diabetes, as well as memory consolidation. Processed food like potato chips, fast food burgers, and pastries contain unhealthy amounts of fat and sugar when not eaten in moderation, which can lead to additional health issues in the long run. The responses in this survey show that working adults, who already know how to cook meals, are able to have a healthier diet during quarantine, while teenagers are simply snacking on whatever they can find at the moment.

The third aspect of living a healthier lifestyle is exercising; however, it is important to note that according to the CDC, only 22.9% of Americans exercise on a regular basis to begin with. The most common New Year's resolution is to exercise more, closely followed by eating more healthily and losing weight. It is also the New Year's resolution that is given up the fastest. There are many factors involved in why teenagers and high schoolers in this survey seem to be exercising more when compared to adults including staying in shape for sports, online workout trends, for their own happiness, and simply because they have the time. However, adults now have less free time on their hands, possibly because kids are home all day which requires them to put more effort into looking after their children instead of doing things for themselves. Whatever the reason is, quarantine gave many respondents a chance to start exercising on a regular basis.

The final aspect I covered in the survey was relaxation. Having time to relax and relieve stress from a hectic work or school day is crucial for a healthy mental and emotional state. Too much stress and pressure can impair one's immune system and increase the aging process, as well as cause anxiety or depression. One often forgets to set aside time to relax when trying to get through piles of homework or office work, and can lead to unhealthy relationships with friends and family. Fortunately, the survey shows that 54.5% of respondents feel that they have more time to relax during quarantine; however, a majority of those responses came from high school students. A big factor in this data is the fact that the high school students do not have school over the summer, and thus have more free time, while working adults still need to work over the summer. Moreover, since working adults have felt like they have had less time to relax, being in quarantine must have an effect on their office workload which causes these adults to have less time to relax instead of the same amount of time or more time.

Conclusion

While quarantine is a time of tragedy for several people who have lost loved ones due to COVID-19, many are using it to jumpstart a healthier lifestyle by sleeping more, eating more healthily, and/or exercising more frequently. Although plenty of people have complained about quarantine and being stuck in the house all day, it is important to look back at the personal growth people have achieved during this period. Health officials have already declared that quarantine can decrease the spread of COVID-19, and the results of this survey display that quarantine has helped many individuals, mostly teenagers, make healthier choices by sleeping and exercising more in their daily lives and have more time to relax. However, the results of the survey do prove me wrong on my initial claim that teenagers would be eating healthier as well. On the other hand, working adults have a more equal spread when it comes to exercising more, but a less negative change in sleeping habits; most working adults either slept the same amount or got more sleep. Unlike high schoolers, however, there was a net positive response when it came to eating healthier when looking at adults, where 71.7% of them either maintained their eating habits or ate healthier, which was not as I had anticipated. Finally, unlike high school students where a majority of them had more time to relax, 43.4% of working adults found that they had less time to relax, while a smaller 37.7% found that they had more time to relax.

While this survey does not tell us the exact reasons why the participants were able to make the changes they did to their daily lives, it does give us a perspective on how quarantine has affected individuals instead of the population as a whole or the number of people infected daily. If I were to repeat this survey, it would be beneficial to receive a greater number of responses in order to increase the sample size; additionally, it would be useful to receive responses from many regions in the United States. Both of these factors affect the generalizability of the survey, as a larger, more diverse sample size would be more representative of the large, diverse population in the United States. In its current state, the results of the survey would only be applicable to other Indians and East-Asians living in the Bay Area. One more improvement that I could make to the survey would be to include questions asking the participants why they chose the answers they did. This way, if a participant chose that they had more time to relax, we would also know why they had more time to relax and so on. In the end, it is still important to be able to look back and notice the growth that people made during such a conflicting time as the COVID-19 pandemic.

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