A Look into the Benefits of Using an Incentive for Daily Exercise

Brooke Buchanan

Longwood University

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Exercise reduces the risk of heart disease, helps control weight, and is known to improve mental health (MedlinePlus, 2021). The lack of physical activity can lead to an increase in doctor's visits and daily medication usage (U.S. Department of Health and Human Services, 2020). While exercising, the body releases chemicals that improve the mood to relax and reduce stress (MedlinePlus, 2021). The body increases production of endorphins during exercise which leads to positive feelings and can reduce pain perception. Furthermore, exercise can also reduce the risk of depression and relieve built up stress. Also, exercise strengthens the heart muscle and improves circulation allowing more oxygen to get to the rest of body, such as the brain (MedlinePlus, 2021). The aim of this study is to evaluate whether an incentive to exercise improves the total number of exercise minutes per day.

One way to improve total exercise minutes is to make daily activities more active (MedlinePlus, 2021). Small changes, such as taking the stairs rather than an elevator, allows for the body to work harder and result in an increased heart rate. Also, tracking exercise minutes can increase motivation because of the goals are set (MedlinePlus, 2021). Today, Fitbits and Apple Watches are commonly worn to track steps, exercise minutes, and total active calories throughout the day.

The intervention for this study is the participant will be able to watch one episode of their favorite show. The student in this study does not watch television during the week due to the large amount of schoolwork she has to do. The prediction for this study is if the incentive is effective, then the total exercise minutes will increase.

Method

Participant

The single participant observed in this study is a nineteen-year-old female. This female was picked for this study because she exercises inconsistently and lacks motivation to exercise on busy days. She is also a nursing student with a heavy load of schoolwork that impacts her mental health.

Design

The intervention will begin by monitoring the total minutes of exercise over a five-day period with no incentives. The remaining five days will have an incentive for each day if the minimum of thirty minutes of exercise was completed.

Assessment

Total exercise minutes will be monitored using an Apple Watch to track the exercise minutes. This is an accurate device that the participant already wears daily, therefore, it will not interfere with activities of daily living.

Intervention

The intervention is to use an incentive to encourage the participant to achieve thirty minutes of exercise each day. The incentive the participant chose was to watch a thirty-minute episode of her favorite television show. This will allow the participant to rest both physically and mentally once the exercise minute goal has been completed.

Procedure

First, the participant will plan to exercise for ten days with the addition of an intervention beginning on day six. The first five days the participant will attempt to exercise for a minimum of thirty minutes total. There will be no incentives or additional motivators provided during that

period. On days six through ten, an incentive will be applied after each workout or completed thirty minutes of exercise. The participant will have the luxury to rest and reflect once the workout is completed. Once the ten days are done, the participant will report total minutes of exercise per day and note whether there was a change in productivity rates over those days.

Results

A graph representing the minutes of exercise per day is exhibited in Figure 1. The mean for the baseline phase of the trial is 27.4 minutes of exercise. The intervention phase resulted with a mean of 56.8 minutes of exercise per day.

Discussion

This study tested if an incentive to exercise daily was beneficial to the participants total number of exercise minutes per day. The incentive was to allow the participant to watch a thirty-minute episode of television. If the participant watches one episode of their favorite show after an exercise session, then their total exercise minutes will increase per day.

The data collected over the ten-day period supports the hypothesis. This participant utilized the incentive and exercised for longer periods of time throughout the five days within the incentive phase. The data displayed in Figure 1 provides the total number of minutes of exercise per day. The divider in between day 5 and day 6 is there to distinguish between the first five days without an incentive versus the second five day with the incentive.

When looking at Figure 1, there is a notable decrease in exercise minutes towards day 9 and day 10. Further research should be completed about whether the incentive was effective enough for the participant. More research is also needed to determine how to incorporate exercise on days that lack time to exercise and watch an episode of television.

One of the main limitations this study consisted of was a lack of time to complete both an effective exercise session and watch a thirty-minute episode of television. A college student is committed to attending classes and extra-curricular meetings, completing homework, attending clinicals, or working a part-time job. The external validity of this study was weak because physical activity minutes could be higher if the participant was not a full-time college student. However, the internal validity was strong because the data was consistently tracked and there was no possibility of biased data.

In conclusion, the incentive to watch a thirty-minute episode of television was effective toward increasing the total number of exercise minutes per day. The total number of exercise minutes per day during the incentive phase increased by approximately thirty minutes.

References

MedlinePlus. (2021, April 27). *Benefits of Exercise*. MedlinePlus. https://medlineplus.gov/benefitsofexercise.html.

U.S. Department of Health and Human Services. (2020, April 3). *Real-Life Benefits of Exercise and Physical Activity*. National Institute on Aging. https://www.nia.nih.gov/health/real-life-benefits-exercise-and-physical-activity.

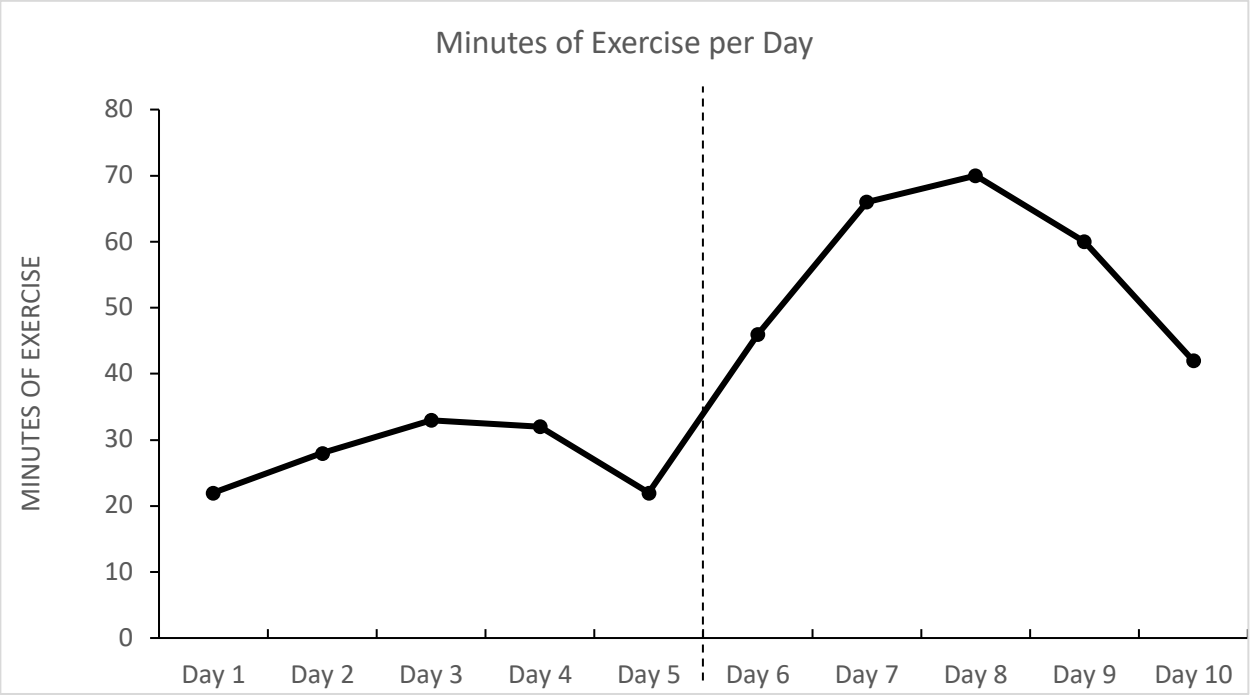
Minutes of Exercise per Day
MINUTES OF EXERCISE
80
70
60
50
40
30
20
10
0
Day 1
Day 2
Day 3
Day 4
Day 5
Day 6
Day 7
Day 8
Day 9
Day 10

Figure 1