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Degree of Physical Activity in University Teachers Before and During the COVID-19 Pandemic

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Abstract

The objective of this work was to analyze the degree of physical activity of university teachers before and during the Covid-19 pandemic, this in the context of social isolation. The present study adopts a quantitative and cross-sectional approach. The sample was determined randomly, made up of 129 university professors from the Faculty of Physical Culture Sciences of the Autonomous University of Chihuahua, aged between 18 and 74 years. The results show that 50.39% of teachers before the pandemic maintained a high degree of physical activity, while during confinement they presented a lower degree of physical activity, decreasing to only 39.53%. The Covid-19 not only wreaked havoc on health, but also negative effects in the psychological, emotional and social sphere of people, as well as havoc in the practice of physical activity, modifying healthy lifestyles and leaving possible effects for the consequent physical health.

Keywords: Fiscal activity, COVID-19, confinement, pandemic

Introduction

The health emergency and its isolation measures modified personal habits, including the practice of physical activity, since a decrease in this was observed, leading to the development of health problems and affecting people's quality of life (García-Tascón et al., 2020). According to Cabrera (2020), within homes, exercise increased, as a media phenomenon, to combat the emotional imbalances of confinement and health maintenance. Especially this type of activities were more developed in people who performed office work at home.

With this, the creation and an increase in the offer of different virtual exercise programs of all kinds were observed, on mobile platforms and applications, such as Seven, Freeletics Training Coach, Home Exercises and Nike Training Club, among others (Cruz & Vera-Ponce, 2021). However, despite all the strategies to mitigate the effects of social isolation due to Covid-19, this caused unhealthy lifestyles to be generated, increasing sedentary behaviors and increasing the risk of suffering from diseases with negative health consequences (Álvarez & Harris, 2020; Sánchez-Villena & De La Fuente-Figuerola, 2020; Wilder-Smith & Freedman, 2020). It is said that the coronavirus pandemic has given rise to unprecedented restrictions in the routines of the population, such as prolonged stays in confinement, generating fear, panic, anxiety, stress, dissatisfaction and states of depression (Camacho et al., 2020). In this sense, the Covid-19 pandemic has not only had an effect on the practice of physical activity, in terms of a decrease in it, but also a significant impact on the mental and emotional health of individuals, experiencing emotions such as sadness, fear of contagion, thoughts of uncertainty and frustration, physical discomfort such as headaches, muscle pain, back pain, difficulties in their sleep cycle such as insomnia and nightmares (Sandín et al., 2020).

On the other hand, Gómez-Montón and Royo-Sancho (2020), mention that the practice of physical activity is fundamental for its benefits since the sedentary lifestyle could have worsened during the confinement that was lived, in addition to the fact that it is It is well known that the practice of physical activity plays an important role in improving the immune system, being vital in the prevention of infections, chronic degenerative disorders, according to Baena, Tauler, Aguiló and García (2020). Accordingly, regular physical activity was recommended to preserve mental, neuromuscular, cardiovascular, metabolic, and endocrine health during the pandemic period (Mateu & Rodrigues, 2020). To promote physical exercise and maintain a healthy state, it has been suggested that general physical activity routines be applied during quarantine periods (González, 2021), however, these should always be established with physical activity guidelines adapted for each group of population, giving special

consideration to those vulnerable to COVID-19, as they were and still are more likely to re-isolate.

Cossio-Bolaños (2021) mentions that since the epidemic began and a worldwide quarantine was declared, efforts to perform physical activity have been latent in all regions of the world. Well, since the prolonged closure of schools and home confinement during a pandemic outbreak, there have been negative effects on the physical and mental health and lifestyle of the population.

It is important to know the degree of physical activity that populations, in this case teachers, as a way of knowing the negative effects presented on people's lifestyles during COVID-19. Working from home, the closure of recreational centers or spaces for the practice of physical activity favored a sedentary lifestyle, adding to it the degrees of stress and fear that the same situation generated in the population (Álvarez & Harris, 2020; Sánchez-Villena & De The Source-Figuerola, 2020)

According to the effects of the pandemic on the aforementioned variables, the question arises, to what degree did the confinement due to the COVID-19 pandemic affect the practice of physical activity by university teachers?, in order to know if the changes in habits, work from home, isolation and restrictions of social recreation, generated by social isolation, generated the development of physical inactivity, this in order to provide information to readers of the situation presented and the consequences generated at a physical level during the quarantine process.

Methodology

Study design, variables and sample.

The present study adopts a quantitative and cross-sectional approach, with the purpose of describing the variables of physical activity, before and during the pandemic. The sample was determined randomly, made up of 129 university professors from the Faculty of Physical Culture Sciences of the Autonomous University of Chihuahua, aged between 18 and 74 years, with an average of 40.7 of which, 62 participants were women. (47.3%) and 67 men (51.1%).

Instruments

Short version of the International Physical Activity Questionnaire (IPAQ)(Carrera, 2017; Craig et al., 2003).

The International Physical Activity Questionnaire (IPAQ) by Carrera (2017) and Craig et al.(2003), in their version, consists of 7 questions related to the amount and type of physical activity carried out in the last seven days. Your questions are directed at moderate, vigorous activities, walking and sitting time. It is an instrument for use in young people and adults, between

15 and 65 years of age. The Questionnaire was transferred to Google Forms® and the questions were adapted making references to "BEFORE and DURING the pandemic, as an example: How many days did you do vigorous physical activity "BEFORE" the pandemic? (heavy lifting, digging, aerobics, or fast cycling) or, how many days have you been engaged in vigorous physical activity “DURING” this pandemic? How much time do you spend on that activity? hours per day and minutes per day. (you can answer for example: 3 hours, 1 hour, or if they are minutes: 10min, 50 min, 30 min) or (1 hour 30 min)

(IPAQ) Automatic Short Version of the International Physical Activity Questionnaire *(Di Blasio et al., 2016)*

It is an Excel file, which allows you to enter the answers obtained from the International Physical Activity Questionnaire (IPAQ) by Carrera (2017) and Craig et al. (2003), in order to more quickly obtain data on the degree of physical activity, being able to classify or group into low, moderate or high physical activity.

Process

Teachers from the Faculty of Physical Culture Sciences of the Autonomous University of Chihuahua were invited to participate, through email, social networks and promotion of research through the coordinators of the academies of the different semesters of the institution. Teachers who accepted gave their informed consent at the same time they answered a Google Forms® form. In the questionnaire, they were asked to answer the questions of the Short Version of the International Physical Activity Questionnaire (IPAQ) (Carrera, 2017; Craig et al., 2003). The form was sent via email and via social networks, such as WhatsApp and Facebook. They were asked to be honest when answering and they were thanked for their participation. Once the instrument was applied, the results were compiled through the database collection function in the Google Forms® application, extracting the answers as an Excel document and later working on SPSS version 21.0 for Windows. (IBM SPSS Statistics 21.0). Through the Automatic Report Short Version of the International Physical Activity Questionnaire (IPAQ) by Di Blasio et al. (2016), the results of the degree of physical activity were obtained, grouping them into low, moderate and high.

Analysis of data

Descriptive statistical analyzes were carried out, obtaining graphs, and the analysis of comparison of means, using the T test for related samples, with the purpose of observing if there are differences in the degree of physical activity before and during the confinement of the pandemic. of

COVID-19. All statistical analyzes were performed using the SPSS version 21.0 for Windows program. The level of statistical significance was established at p=.05 and a reliability of 0.80 was found for the Short Version of the International Physical Activity Questionnaire (IPAQ) for Running, 2017 and Craig et al. (2003).

Results

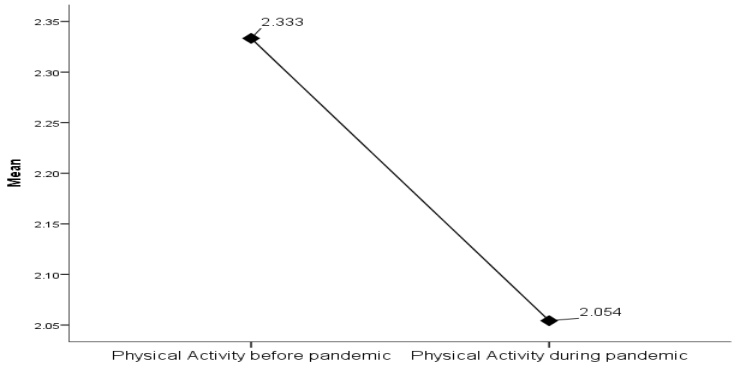
The results show the degree of physical activity before and during the Covid-19 pandemic. Below are graphs and statistics from the comparison of means analysis, using the t-test for related samples, for the Short Version of the International Physical Activity Questionnaire (IPAQ) for Running (2017) and Craig et al. (2003), for a sample made up of 129 university professors from the Faculty of Physical Culture Sciences of the Autonomous University of Chihuahua, aged between 18 and 74 years, with an average of 40.7, of which 62 participants were women. (48.1%) and 67 men (51.9%).

Table 1, shows the statistics of related samples of the variables degree of physical activity before and during the pandemic, in addition to the significant differences in the t-test data for related samples, since, according to the means obtained, These were higher, before, than during the confinement period, as can be seen more clearly with the values in Figure 1.

Table 1. Related samples statistics and related samples t-test data for physical activity before and during the covid-19 pandemic

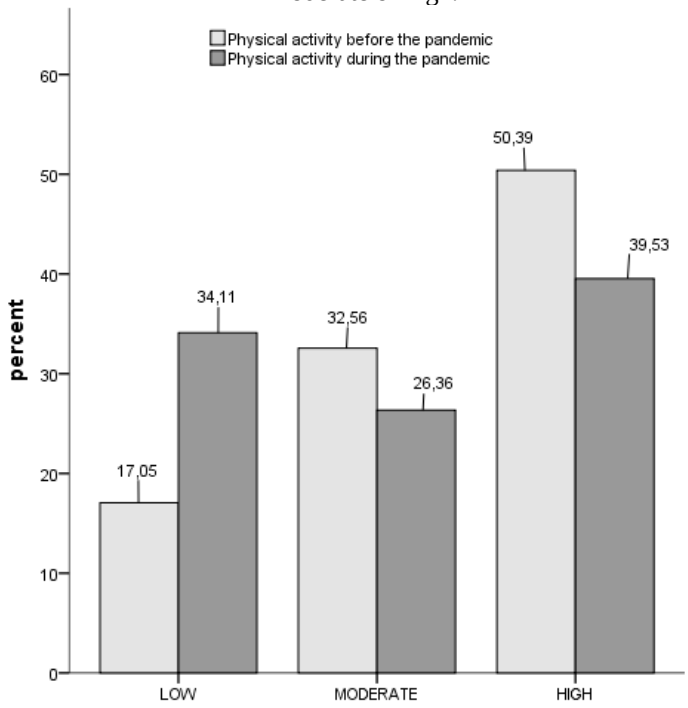
	t-test data for related samples			
	t	N	Correlation	P
Physical Activity before-Physical Activity during pandemic.	3.700	129	0.683	< 0.05
	Related Samples Statistics			
	Mean	N	Typ. deviation	Typ error half
Physical Activity before pandemic	2.33	129	0.753	0.066
Physical Activity during pandemic	2.05	129	0.860	0.076

Figure 1. Comparison of the degree of physical activity before and during the pandemic (t (129) =3.700, p < 0.05).



Taking into account the means found in each questionnaire and observing that there are marked differences and a decrease in the degree of physical activity, the categorization of the scores of the Short Version of the International Physical Activity Questionnaire (IPAQ) for Career (2017) is presented. and Craig et al. (2003) as low, moderate and high, using the Automatic Report Short Version of the International Physical Activity Questionnaire (IPAQ) by Di Blasio et al. (2016). It is observed that 50.39% maintained a high degree of physical activity before the pandemic, 32.56% moderate. While, during the confinement due to the Covid-19 pandemic, a decrease in the degrees of high and moderate physical activity is observed with 39.53% and 26.36% respectively. Regarding the low degrees of physical activity, it was found that before the pandemic only 17.05% performed it, increasing this situation to up to 34.11% (figure 2).

Figure 2. Level of physical activity before and during the pandemic by category low, moderate or high.



Discussion

The objective of this study was to determine the degree of physical activity of university teachers before and during the Covid-19 pandemic. The results show that 50.39% of teachers before the pandemic maintained a high degree of physical activity, while during confinement they presented a lower degree of physical activity, decreasing to only 39.53%. On the other hand, it

was observed that before the pandemic, 17.3% of the teachers surveyed had a low degree of physical activity, increasing sedentary lifestyle to 34.11%, that is, 16.81% more people who did not perform physical activity, nor high nor moderate. It can be said that teachers decreased or stopped doing physical activity, being more sedentary.

These results are similar to those presented by Rico et al. (2020), where, when analyzing the habits of physical activity and state of health during the confinement by Covid-19, finding low levels of physical activity during the pandemic and coupled with this, high levels of stress. Similarly, in the study by Flores et al. (2021), on the analysis of the degree of physical activity, stress with the body mass index in university teachers in a pandemic, it was found that university teachers presented a lower degree of physical activity during the pandemic, in contrast to the high activity level before lockdown. On the other hand, Ortiz and Villamil (2020), found that the regular practice of physical activity is necessary to face the current situation of the pandemic, since it helps not only to maintain good physical and mental health during the period of social isolation and confinement, but also seems to offer a better response to infection by Covid-19, reducing the risk of mortality and finally, a relationship was found with the work of Curay et al. (2021) where they mention that physical activity constitutes a primary factor for improving the quality of life, and practice on a regular basis, reduces the risk of acquiring non-communicable diseases, which helps to improve physical functionality, self-esteem, cognitive, mental and social health.

Conclusion

The objective of this study was to determine the degree of physical activity of university teachers before and during the Covid-19 pandemic. The results show the negative influence of the Covid-19 pandemic on people's levels of physical activity during the pandemic. Teachers before the pandemic maintained a high degree of physical activity, while confinement generated a decrease, making university teachers more sedentary. The Covid-19 not only wreaked havoc on health, but also negative effects on the practice of physical activity, modifying healthy lifestyles and leaving possible effects on physical and mental health as a consequence. Although we cannot generalize with the results obtained, however, it can be shown as scientific data of the process experienced worldwide, and which intensely affected without distinction of gender, age or social condition.

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