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Impact of COVID-19 Crisis on University Faculty Members' Physical Activity Levels

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Abstract

Background: The aim of this study was to investigate the impact of COVID-19 Crisis on University Faculty Members' of Allameh Tabatabai University Physical Activity Levels. **Method:** Data were collected using a researcher-made 21-item questionnaire that 284 people were considered as a sample and answered the online questionnaire. **Results:** The results of this study show that the faculty members of the university do not have intense and moderate activities. But the general knowledge about the benefits of exercising during the coronavirus period has increased. Other results of this study showed that university faculty members tend to participate in sports activities in post-corona conditions. **Conclusions:** In a general conclusion, The Covid-19 crisis has created inactivity among human societies. Technology is expanding rapidly and people's lifestyles are changing. Therefore, it is necessary to develop programs for physical activity and health of people.

Keywords: Coronavirus pandemic, physical activity, physical health, exercise

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INTRODUCTION

The worldwide spread of Covid-19 has caused concern among all governments and peoples around the world, and it is so important that it is even recognized as the most important global health issue. According to the World Health Organization, the spread of the new coronavirus should be considered as an international health issue(Organization, 2020). The crisis has prompted the government to take protective measures, including national holidays in countries, travel bans, closures of shopping malls, cultural centers, leisure centers, sports centers, schools and universities(Eyal, Lipsitch, & Smith, 2020). This restriction has disrupted human activity. Staying at home seems to be the best way to prevent the spread of the virus(Narzisi, 2020). But it can also lead to reduced physical activity(Chen et al., 2020). This causes sedentary behaviors. On the other hand, staying home for long periods of time can increase anxiety and depression. However, regular physical activity is associated with health(Sailani et al., 2019). Physical activity reduces the levels of mental and emotional disorders, reduces musculoskeletal disorders(Woods, Breslin, & Hassan, 2017), increases self-confidence, self-confidence(P.-J. Chang, Wray, & Lin, 2014), and reduces levels of stress, anxiety and depression(Y.-C. Chang, Yeh, Pai, & Huang, 2018). In this regard, research shows that regular physical activity leads to strengthening the immune system, which is one of the most important factors in combating Coronavirus disease(Li et al., 2020). Exercise at home using a variety of safe, simple and applicable exercises is suitable to prevent sedentary lifestyle. These exercises can include stretching, balance, dynamic, and other weight-bearing exercises. Maintaining regular physical activity and daily exercise at home is an important strategy for a healthy life during the coronavirus crisis(Wang et al., 2020).

One of the sections of society that has been affected by coronavirus is the academic community. Many international students returned home and the student dormitory was temporarily closed. On the other hand, university staff and Faculty members are restricted from going to university, and like most people, they follow a strategy of staying home. Faculty members of Allameh Tabatabai University, like many faculty members in other countries, follow this strategy to prevent the spread of coronavirus. In this global crisis, universities are offering online classes

for students. But as mentioned, this can lead to inactivity among university faculty members. Therefore, it is necessary to measure the amount of physical activity and provide sports recommendations.

METHOD

The present study is an applied research in terms of nature and purpose, in view point of the type of data search is quantitative, and from the aspect of data analysis method is descriptive-exploratory that data collection was done in the field. The statistical population of this study includes all faculty members of Allameh Tabatabai University and according to Morgan's table, 284 people were considered as a sample who were selected by simple random sampling and answered the online questionnaire. Data were collected using a researcher-made 21-item questionnaire based on the International Physical Activity Questionnaire (IPAQ) on analysis of physical activity of university faculty members in coronavirus conditions. All items are operationalized with a five-point Likert scale (strongly disagree= 1, completely agree= 5). After confirming the content validity of the questionnaire by experts, the researchers collected quantitative data. The questionnaire included questions about intense and moderate physical activity, people's awareness of the benefits of physical activity, and their motivation to engage in physical activity. In order to evaluate the reliability of internal consistency and its stability,Cronbach's alpha index was used in a preliminary study (including 30 people) that the alpha value for the whole questionnaire was 0.779, which this coefficient was confirmed again after complete collection of questionnaires. In order to analyze the research data, demographic data and a questionnaire were first examined using descriptive statistical methods. In the inferential statistics section, the data were distributed using the Kolmogrov-Smirnov test. Then t-test, correlation coefficient and linear regression were used to answer the research questions. Research data were analyzed using SPSS24 software.

RESULTS

Description of the demographic information of the sample under study showed that the 25% were women (60 people). and 75% were men (180 people), and also respondents were mostly in the age group of 36 to 40 years with 41.3% (99 people). 28% of respondents had regular exercise and 72% of respondents did not exercise regularly.

The findings showed that faculty members did not engage in strenuous physical activity during the coronavirus, such as heavy lifting, digging, aerobics, brisk cycling, soccer, and regular running for more than an hour during the day (table 1).

Table 1: One Sample T-test for Intense physical activity

Variables	t	df	Sig. (2-tailed)	Mean Difference	95% confidence interval Low limit	High limit
Intense physical activity	-27/74	239	0/001	-1/23	-1/23	-1/15

Also the findings showed that faculty members did not engage in moderate physical activity during the coronavirus, Such as carrying light loads, medium speed cycling or volleyball, for more than an hour during the day (table 2).

Table 2: One Sample T-test for moderate physical activity

Variables	t	df	Sig. (2-tailed)	Mean Difference	95% confidence interval Low limit	High limit
moderate physical activity	-17/32	239	0/003	-0/95	-0/84	-1/05

As observed, during the coronavirus period, university faculty members did not engage in regular exercise, and this can lead to inactivity in these individuals. The researcher-made questionnaire included questions about awareness of the benefits of exercise during the coronavirus period, to get information about increasing sports information of university faculty members. Table 3 shows faculty members' awareness of the benefits of exercise.

Table 3: One Sample T-test for faculty members' awareness

Variables	t	df	Sig. (2-tailed)	Mean Difference	95% confidence interval	
					Low limit	High limit
faculty members' awareness	16/82	239	0/001	0/75	0/66	0/84

According to the information in Table 3, it can be said that because the upper and lower limits are positive, then the population average in that variable is more than the test value. In fact, university faculty members have learned more about the benefits of regular physical activity during the coronavirus crisis.

DISCUSSION

Due to the prevalence of coronavirus in different countries and the fact that this issue has become the most important health issue in the eyes of the World Health Organization, various researches in relevant fields have been on the agenda of researchers and researchers. In this regard, various researches in the field of sports and health have been conducted to determine the impact of exercise and physical activity on this epidemic. Research in the field of sports and health shows that physical activity is highly associated with limiting human health-related injuries due to the epidemic of coronavirus(Li et al., 2020). Sports medicine research shows that with physical activity, active muscles produce chemicals that improve immune function, which in turn reduces the rate of infections and inflammation(Khoramipour et al., 2021). Physical activity is a powerful preventative and therapeutic intervention for the most common chronic conditions that reduces the risk of severe infections. The effect of physical activity on the prevention and treatment of anxiety and depression can be beneficial during a coronavirus crisis. Physical activity also increases the effectiveness of vaccines, so an active lifestyle will continue to be associated with each stage of the epidemic(Ainsworth & Li, 2020). According to worldwide research, about 23% of men and 32% of women are at risk for coronavirus disease, severe coronavirus infections, and stress-related psychological symptoms. However, staying home for long periods of time can lead to decreased physical activity and increased sedentary behaviors that negatively affect immune function

and increase the risk of developing chronic diseases. Given the current situation, research on physical activity and coronavirus is a global health need. In this regard, research related to physical activity can cover a wide range of basic sciences. Among the many research needs, the present study focused on analyzing the level of physical activity of faculty members of Allameh Tabatabai University. The results of this study show that the faculty members of the university do not have intense and moderate activities and their participation in sports activities is very low and this issue is very worrying, because these people have been teaching online for long hours and are sedentary under coronavirus conditions, it is necessary to consider exercise and physical activity programs for them. The results of this study also showed that there was no significant difference between the statistical sample in terms of gender in intense physical activity, while there was a significant difference in moderate activity between women and men and according to the results, women were more active than men. The findings also showed that intense physical activity did not differ significantly in any of the age groups, in other words, there was no significant difference between the statistical sample in different age groups. However, regarding moderate physical activity, the findings showed that there was a significant difference between the statistical sample and faculty members less than 35 years old had more moderate physical activity. This group includes a total of 24% of the statistical sample of this study. On the other hand, the results of this study showed that the general knowledge and awareness of university faculty members about the benefits of exercising during the coronavirus period has increased. In other words, the statistical population of the research has turned its attention to sports and sports activities and has obtained information in the field of sports and health, which is very satisfying. Because increasing people's knowledge about physical activity causes them to participate in sports activities. Other results of this study showed that university faculty members tend to participate in sports activities in post-corona conditions. Therefore, it is necessary to design sports programs and physical activity for the faculty members of the university.

CONCLUSIONS

In a general conclusion, it can be said that the faculty members of Allameh Tabatabai University in the conditions and era of coronavirus did not have intense and moderate sports activities and did not participate in sports activities. However, their knowledge and awareness of the benefits of sports has increased and their willingness to participate in sports activities has increased in post-corona situations. Due to the existence of uncontrollable intervention variables in research, more research is needed and generalization of results should be done with caution.

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