



PRACTICE OF PHYSICAL ACTIVITIES OF A MAN WITH POSITIVE RESULT FROM COVID 19

Prática de atividades físicas de um homem com resultado positivo de covid 19

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ABSTRACT

Practicing physical activity is essential for physical and mental health. In addition, this behavior can be a great way to increase immunity, especially in times of the coronavirus pandemic (COVID-19). In this sense, this study aimed to analyze the practice of physical activities performed by a man with a positive result of COVID-19 during his period of social isolation, as well as his perceptions and difficulties about this practice. Qualitative case study carried out with a man from the northwest region of the state of Rio Grande do Sul with a positive diagnosis of COVID 19. For this, a questionnaire with open / closed questions was used as an instrument for data collection, the same was applied through the whatsapp and interpreted by content analysis. The participant reported that while in social isolation he practiced physical activities with his own body weight and with tools, in addition to abdominals. He performed them in his own room due to social isolation and had no symptoms during practice. In addition, he reported that the greatest difficulty was performing physical activities alone, without company, as usual in the weight training gym. Even in the face of such a singular moment, it is observed that the study participant followed an exercise routine, which can be explained by the adherence to the physical training that he has, and may have benefited in the recovery of the clinical condition during the diagnosis of Covid 19.

Keywords: Social isolation. Coronavirus. Social determinants of health. Exercise.

RESUMO

Praticar atividade física é essencial para a saúde física e mental. Além disso, este comportamento pode ser uma ótima maneira de aumentar a imunidade, especialmente em tempos de pandemia do coronavírus (COVID-19). Neste sentido, este estudo teve como objetivo analisar a prática de atividades físicas realizados por um homem com resultado positivo de COVID-19 durante seu período de isolamento social, bem como suas percepções e dificuldades sobre esta prática. Estudo de caso qualitativo realizado com um homem da região noroeste do estado do Rio Grande do Sul com diagnóstico positivo de COVID 19. Para isso, foi utilizado um questionário com questões abertas/ fechadas como instrumento para coleta de dados, o mesmo foi aplicado por meio do whatsapp e interpretado por análise de conteúdo. O participante relatou que enquanto estava em isolamento social praticou atividades físicas com o peso do próprio corpo e com ferramentas, além de abdominais. Realizava os mesmos em seu próprio quarto devido ao isolamento social e não teve nenhum sintoma durante a prática. Além disso, relatou que a maior dificuldade era realizar atividades físicas sozinho, sem companhia, como de costume na academia de musculação. Conclusão. Mesmo diante de um momento tão singular, observa-se que o participante do estudo seguiu uma rotina de exercícios, o que pode ser explicado pela adesão ao treinamento físico que o mesmo possui, podendo ter beneficiado na recuperação do quadro clínico durante o diagnóstico de Covid 19.

Palavras-chave: Isolamento social. Coronavírus. Determinante sociais da saúde. Atividade motora.

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1 INTRODUCTION

The recent emergence of a new severe acute respiratory syndrome coronavirus (SARS-CoV-2) causing COVID-19 has resulted in drastic public health measures (BOHMER et al., 2020), quarantining half the world and causing a major health crisis (EL-HAGE et al., 2020). Faced with this scenario, the World Health Organization (WHO, 2020) declared a public health emergency of international interest in order to contain the spread of the pandemic.

The number of infected people grows exponentially every day, due to the high rate of transmission, in which it is estimated that an infected person can infect up to three other people (JARVIS et al., 2020). According to WHO (2020), globally there are already more than 41,281,842 reported cases and 1,132,169 deaths. In Brazil, the number of infected people exceeds 5,300,896 and 156,000 deaths (BRASIL, 2020).

So far it is known that the main risk factors for COVID-19 infection are advancing age (ONDER; REZZA; BRUSAFERRO, 2020), having diabetes mellitus and being obese (KRUGLIKO; SCHERER, 2020). Covid-19 is related to several systemic complications in people's health, including the imbalance of the angiotensin axis (MAGALHAES et al., 2020), shortening of the telomeres (SIMÕES et al., 2020) and damage to organs such as the lungs, liver, kidneys, intestines, brain, eyes, nose, heart and blood vessels (WADMANN et al., 2020).

The best way to prevent infection is to avoid exposure to the virus (MILLAN-ONATE et al., 2020) following the recommendations of daily preventive actions that include hand hygiene, avoiding touching the eyes, nose and mouth, wearing masks and detachment social (GÜNER; HASANOĞLU; AKTAŞ, 2020).

It is also observed that during the pandemic, mainly due to the social isolation recommended to contain the number of infected, there was a reduction in the level of physical activity in the world. This decline is statistically significant, given the reduction in the average step count compared to the same period last year. According to this analysis, during the week of March 22 this year, Brazil saw a 24% decline in step count (FITBIT, 2020).

The potential increase in sedentary behavior can be harmful to health. An abrupt reduction in physical activity levels is particularly worrying, considering the scientific evidence on the impacts of physical inactivity (ROSCHEL; ARTIOLI; GUALANO, 2020). The maintenance of physical conditioning during the period of social distance, both from the perspective of health and sports performance, is of great importance (GUIMARÃES-FERREIRA; BOCALINI, 2020).

The WHO recommendation remains the same, 150 minutes of moderate physical activity or 75 minutes of vigorous activity per week to enjoy a healthy and active lifestyle. Among the benefits, this level of physical activity can improve the immune system (ZBINDEN et al., 2020), blood pressure control (PEDRALLI et al., 2020), mood and anxiety (GIURGIU et al., 2020) and reducing mortality (ZHAO et al., 2020).

In this new and surprising context of forced sedentary lifestyle, physical activity needed to be reinvented (PEYTAVIN, 2020) in order to comply with WHO recommendations. In this



sense, this study aimed to analyze the practice of physical activities performed by a man with a positive result of COVID-19 during his period of social isolation, as well as his perceptions and difficulties about this practice.

2 MATERIAL AND METHODS

Qualitative case study with a man in a city in the northwest region of the state of Rio Grande do Sul, with a positive diagnosis of COVID-19. This research complied with the legal procedures that determine the principles of Resolution 466/2012, of the National Health Council (BRASIL, 2012), on the ethics of research with human beings. The participant was assured of confidentiality and could withdraw from the study at any time.

A questionnaire via whatsapp application was applied to the study participant in July 2020. One of the researchers made contact with him after he reported that he had the disease. The invitation was made and explained how the research would be carried out. After acceptance, it was requested the written consent of acceptance to participate in it, which was sent by photo via whatsapp application.

The questions were typed in the telephone application, in case of doubts by the participant, the researcher sent audios explaining them. The answers were all written by the participant in the application. In this period of application of the instrument, the participants still had the disease, being on the 13th day of social isolation. This day was chosen to apply the instrument, considering that 14 days of social isolation are recommended for people infected with COVID-19 (WHO, 2020).

The questionnaire consisted of questions to identify the case, specific questions about the disease (how it contracted, tests performed, signs and symptoms before and after the tests), how the process of social isolation was, and the subject's perception of fears, uncertainties and behaviors related to their health, leisure and profession. In addition to questions about the practice of physical activities during social isolation.

The data from the research instrument were interpreted by content analysis proposed by Bardin (2011) and shortly after this analysis, the interpretation of the results was sent to the research participant to approve it, also using the whatsapp application.

3 RESULTS AND DISCUSSIONS

The study participant was 25 years old, male and worked in a chemical engineering company in a city in the northwest of the state of Rio Grande do Sul, Brazil. The participant reported that while in social isolation he practiced physical activities with his own body weight and with tools, in addition to abdominals.

The respondent reported that he does not know where he contracted the disease but believes it has some relationship with employment, given that several colleagues tested positive for the disease through the IGG / IGM blood test, with both being reagents for the virus.



In this regard, diagnostic tests exist and are carried out to check and / or identify the presence or absence of antibodies, in order to contain the spread of the disease (BRASIL, 2020). According to the National Health Surveillance Agency (ANVISA, 2020), there are tests that take place using human blood, serum or plasma and others that require the collection of secretions through the patient's nose or throat.

In the same vein, through the Ministry of Health, tests are carried out only by immunochromatographic tests, better known as rapid tests. There are several tests of this type being developed, however only those validated by the National Institute for Quality Control in Health of the Oswaldo Cruz Foundation (INCQS / Fiocruz) and registered by ANVISA can be used as a resource for the diagnosis of the disease (WHO, 2020).

It is still important to note that, "negative results do not exclude SARS-CoV2 infection and positive results cannot be used as absolute evidence of SARS-CoV2". (BRASIL, 2020, p. 14). Thus, as recommended by WHO (2020, sp), the molecular test performed using "samples from the respiratory tract is the recommended method for the identification and laboratory confirmation of COVID-19 cases". Thus, the recommended test is the PCR (Polymerase Chain Reaction) test, which amplifies the RNA sequences of the virus, enabling more effective identification through the use of a nasopharynx or oropharynx swab (WILCOX et al., 2020).

After the positive result for COVID-19, the researched man was removed from his job for 14 days and spent this period at home with his parents. He reported: "I wear masks and gloves all day and I take care of hygiene. It is being very bad". Even with all precautions to prevent contagion by the disease, it is possible that there is exposure to the virus, directly or indirectly. Still, the individual, even without being aware of this exposure, can be infected, with signs and symptoms or not, and in any case the first care required is social isolation.

In this case, as recommended by the Ministry of Health, "the home isolation of all suspected or confirmed cases of COVID-19, as well as all of its household contacts, must occur for 14 days after the onset of symptoms. This isolation time should be extended, if a home contact presents symptoms" (BRASIL, 2020, p. 26). In addition, those individuals who need hospitalization, even if they are released before the planned isolation period, must remain isolated at home to complete the recommended cycle (BRASIL, 2020). According to Dias et al. (2020, p. 2) "if there is a need to release the isolation before discharge, a strategy based on two negative RT-PCR tests with an interval of at least 24 hours associated with the resolution of fever and respiratory symptoms can be used".

Regarding the signs and symptoms of COVID-19, the research participant reported that he did not have any indispositions and tiredness. According to WHO (2020) and the Ministry of Health (2020) the symptoms and signs caused by the new coronavirus are confused in many cases with a common cold or flu syndrome, however it affects people differently, and may be mild to moderate in most cases, with no need for hospitalization. In other cases, the disease can worsen, causing severe pneumonia, which can lead to death, usually this occurs with elderly patients or individuals with pre-existing diseases, such as diabetes mellitus, arterial hypertension, respiratory diseases, obesity, among others.



There are numerous and varied symptoms identified in infected patients, however, the main symptoms seen are related to fever from 37.8°, signs and symptoms of a respiratory order, such as cough, sore throat, difficulty breathing, runny nose, among others (BRASIL, 2020). Still, according to the Ministry of Health,

[...] the most common clinical signs and symptoms in outpatients were cough (73.7%), fever (68.8%), runny nose (37.4%), sore throat (36.2%) and dyspnoea (5.6%), and among hospitalized patients, the most common symptoms were fever (81.5%), cough (79.8%), runny nose (31.1%), sore throat (26, 1%) and dyspnea (26.1%) (BRASIL, 2020).

In addition, in a study conducted in the city of Wuhan, Hubei province, China, with 99 patients infected with COVID-19, the most prevalent symptoms were also fever, cough and shortness of breath, respectively. However, muscle pain, confusion, head and throat pain, rhinorrhea, chest pain, diarrhea, nausea and vomiting were also present in patients, but to a lesser extent (CHEN et al., 2020). In addition, “there are also reports of less common symptoms that are difficult to measure objectively, such as anosmia (loss of smell), hyposmia (decreased smell) and ageusia (loss of sense of taste)” (ISER et al., 2020 , p. 6), in line with this information, through the study carried out in Milan, Italy, by Giacomelli et al. (2020, p. 889), with about 59 hospitalized individuals, “of these, 20 (33.9%) reported at least 1 taste or olfactory disorder and 11 (18.6%) both, 12 (20.3%) had symptoms before hospitalization, while 8 (13.5%) experienced them during hospitalization”.

Given the multiplicity of symptoms identified in patients with COVID-19, in many cases it is not possible to identify whether or not there is infection by the virus due to the confusion between symptoms compatible with those of other viruses, and yet, there are patients who even infected with the disease may be asymptomatic, with no symptoms whatsoever, which can significantly affect the spread of COVID-19 and worsen the health status of patients.

When asked about the practice of physical activities while in social isolation, he reported that he practiced activities with weight: “I did body exercises, weight training, abdominal board and squats”. “I usually did the exercises in my room”. In this sense, it is believed in physical activity as a way to improve, protect and restore health from the harmful effects that the stressful routine of the day to day and / or the bad habits of life bring. It is observed that in most cases, the more physically active the person is, the better his quality of life, in addition, the differences in the quality of life of people who practice physical activities compared to those who do not, not only in aspects of physical health, but also psychological and cognitive aspects (SILVA et al., 2010).

It is understood that regular physical activity is essential for human health. Helps maintain a healthy body weight and prevents or slows heart disease, type 2 diabetes and some cancers. In addition, a higher level of leisure-time physical activity was associated with higher life expectancy at a variety of activity levels and BMI groups (MOORE et al. 2012).

He reported not feeling any symptoms of the disease while practicing physical activity, however, in the beginning it was more difficult to perform the activities because he had to make



changes in relation to when he practiced at the weight training gym. As materials for carrying out physical activities he explained that: “I had to exercise with the weight of my own body and with some adaptations that I made with a tool box and other things”.

Exercises at home using a variety of safe, simple and easily implemented exercises are suitable for maintaining levels of physical activity. This type of activity can include, but is not limited to, strengthening exercises, activities for balance and control, stretching exercises or a combination of these. Examples of exercises at home include walking around the house, lifting and carrying groceries, climbing stairs, sitting and getting up from a chair, squats on the chair, sit-ups and push-ups (CHEN et al.2020).

Given the concerns about the increasing spread of COVID-19, it is imperative that infection control and safety precautions are followed. Home stay is a fundamental safety step that can limit infections to spread widely, however, when prolonged they can increase sedentary behaviors and contribute to anxiety and depression. Therefore, it is essential to maintain a physical activity routine in the home environment, being a safer and more important strategy for a healthy life during the COVID-19 pandemic (CHEN et al., 2020).

The participant reported that performing physical activity alone was very bad, that attending the gym was a facilitator of the practice. Toro et al. (2018) points out that physical activity programs tend to decrease effectiveness over time due to lack of adherence, it is important to adapt the type of activity to the preference of each patient, in order to avoid interruption of activities by of individuals.

Thus, the group environment facilitates adherence, in view of social interaction and mental health (SCHUCH et al., 2016). Andrade (2011) corroborates that the possibility of social interaction that occurs between practitioners can represent a factor of psychological well-being, caused by the networks of affective relationships provided by physical activity.

Finally, he said: “I am happy that there is only one more day to end the isolation”, “I was very afraid of contaminating my family”, “I am afraid and ashamed of my friends for having infected me”. Zhai and Du (2020) explain that the discrimination and isolation experienced by individuals who were contaminated with COVID-19 can increase the chances of greater vulnerability to persistent stress, anxiety and fear.

Along with this phenomenon, there is concern about the prejudice of people being treated or even cured by COVID-19. If discrimination is consolidated as a social response, fear of the double harm related to COVID-19 (illness and stigmatization) can delay the search for appropriate diagnosis and care, in order to produce an additional threat to the effective control of the disease in society (FARO et al., 2020).

4 CONCLUSION

Based on the results found in the study, it was concluded that the practice of physical activities even in times of social isolation, when practiced at home, can be beneficial in the recovery of the patient infected by COVID-19.



In this sense, physical exercise is recommended for different types of populations due to the biopsychosocial benefits and essential in coping with different clinical conditions, including in the case of Covid-19, even in the face of a scenario in which we are experiencing, of social isolation. Understanding the behavior of fans of physical exercise is important in order to develop intervention strategies.

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