

IMPACT OF HOME EXERCISING ON PHYSICAL, HEALTH AND PSYCHOLOGICAL ASPECTS, IN TIME OF CORONA VIRUS (COVID 19) PANDEMIC.

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Abstract

The study aimed to identify the positive role of home exercise in helping a person to adhere to home quarantine through practice, and to what extent is it reflected on the aspects (physical, health, and psychological), in light of the Corona pandemic. The researcher used the descriptive analytic approach in the study, and the studied community is represented by 725 members of the local community of citizens residing in Algeria, quarantined in homes, and aged between (15 and more than 65 years), using an electronic questionnaire form, published on social media. The study showed that the degree of level of trends in the study sample regarding the effect of home exercise on aspects (physical, health and psychological) was high. As well as the availability of sports tools, and the use of social media, help in the physical health and psychological aspects of quarantined people, in addition to helping them better accept to stay at home.

Keywords: home exercise, home quarantine, corona virus health and psychological aspect.

INTRODUCTION

In the shadow of what the world is currently experiencing, in terms of the spread of the Corona pandemic (Covid-19) classified by the World Health Organization as a rapidly spreading and large-scale pandemic disease having affected the lives of human beings, the methods of dealing with this crisis, all over the world, were various and different from a country to another, what has consequently affected the daily way of life of individuals in society, and needs are no more, the same re.

In light of global recommendations and government measures aiming at limiting gatherings and obligating social distancing and sometimes home quarantine, and in light of the difficulty of joining team sports or going to clubs and gyms, it was necessary to think of solutions to do practice types of exercise and physical activity, even at a minimum, to avoid lethargy, laziness and lack of movement.

Exercise is considered as one of the first recommendations given by doctors around the world due to its positive effects on health and psychology. It helps the body carry out its various vital functions and processes by stimulating the blood circulation for example. It has also benefits related to getting rid of excess weight and achieving a healthy and athletic body, in addition to its psychological benefits related to relieving tension and anxiety. Therefore, sports specialists have developed a set of simple and beneficial exercises that can be practiced at home, and are necessary to counter the negative consequences of disease such

as diabetes, high blood pressure, cardiovascular and respiratory diseases, and to ensure active aging. In addition to the psychological impact of quarantine and its negative effects such as anger, confusion, depression, frustration and boredom. And since it has been emphasized that exercise and Physical activity is an effective treatment for most chronic diseases that directly affect mental and physical health, the practice of exercise is considered as curative and preventive (Jimenez-Pavon et al., 2020).

Physical exercise is necessary during quarantine, because preserving the physiological function of most of the body's organs, contributes to confronting the mental and physical consequences of social distancing and lack of movement resulting from Coronavirus. (Jimenez-Pavon, & Lavie, 2020). In cases of self-quarantine, our body and mind need physical exercise to function properly (Nieman,1994), to maintain immunity, and to contribute to its strengthening, for it plays an important role in Strengthening the immune system, and in reducing the possibility of exposure to infections, and improves the ability to heal and recover faster in the event of exposure to infection (Nieman, 1994). It also aims to protect the body from obesity and overweight, to raise physical fitness, enhance self-confidence, remove tension, adjust mood, remove depression, and helps spending time happily, and these are easy and free exercises (Jiang & Villareal, 2019; Martin and al., 2018a; Netz, 2019).

To maintain people's health, it is very important to adopt an active sporting lifestyle during home quarantine, especially for those who have health problems, and among the elderly (Jimenez-Pavon et al., 2020). In this case, adults are required to exercise about 150 minutes a week at a light pace, or 75 minutes a week at a high pace, such as running, walking, push-ups, jumping, abdominal, lunge, squat, thighs, lift, drop, and plank position, muscle stretching, and other exercises. The practice of activities and physical exercises at home, of whatever type, is better than not; as it leads to physical, mental, health, and psychological benefit. (Apostolopoulos, Borkoles, Polman, & Stojanovska, 2014).

And to develop appropriate solutions to increase societal awareness of the importance of prevention and to overcome it from all sides, and given the importance of adhering to proper and healthy nutrition and the practice of sports activities in improving health of individuals in (physical and psychological aspects), everyone must set hours per day to practice sports activities, especially during home quarantine that results in lack of movement, overeating and excessive sleep, in addition to psychological illnesses such as depression, anxiety, boredom and tension, which in turn leads to psychomotor disorders.

The Corona virus forced Algerians to remain within home quarantine, in order not to spread the epidemic among them, and to maintain public health safety. In view of that, the Algerian government took the decision to partial quarantine in some (Wilayat), and total in others, according to the spread of the Corona virus. And it was prohibited to leave homes except in the most urgent cases. The Algerian citizen found himself facing a new imposed way of life leading to a lack of movement, a change in the sleep system, poor organization of daily meals, weight gain, aches, back and muscle pains, fluctuations in temperament and mood, a feeling of boredom, and laziness what increased his desire to leave the house.

Home quarantine is the best option to curb the rapidly spreading infection; however, it may have side effects on the health of the isolated people, especially in changing their lifestyle and behaviors, so they must do various activities to pass time doing beneficial things.

- How much time do people spend daily practicing sports activities while quarantined at home in light of the Corona pandemic?
- Can physical exercise play a positive role in helping a person adhere to home quarantine through home physical exercises
- What is the impact of home exercise on the aspects (physical, health, and psychological) while people stay at home in light of the Corona pandemic?

Study Methodology

The researcher used the descriptive analytic approach in the study, as it is suitable for the purpose of the study.

Study community and sample: The study population is represented by members of the local community, citizens residing in Algeria quarantined at home, due to the Corona pandemic, aged between 15 years and over 65 years. The study was applied to a sample of (725) people who answered the electronic questionnaire out of (1000) people who received the questionnaire.

The human domain: It included members of the local community (citizens foreign residents in Algeria) quarantined at home, due to the Corona pandemic, for age groups ranging from 15 years to over 65 years.

The space domain: (WILAYAS) of Algeria.

The study tool: The researcher used electronic questionnaire that was published on social media, as a study tool since it is the best available and important way to collect information about the importance of home exercise and to know the category of people who do physical exercises.

- Percentages.
- Pearson correlation coefficient.
- Self-honesty.
- Presentation, analysis and discussion of the results of the study:
- Presentation, analysis and discussion of the first hypothesis:

Table 1. presents the results of the study of trends in the study sample concerning the effect of home exercise on aspects (physical, health and psychological).

| AX E | OBJECTIVE OF THE ACCTIVITY | HIGHLY AGREE | | AGREE | | MEDIUM AGREE | | DISAGREE | | HIGHLY DISAGREE | |
|----------------------|------------------------------------------|-----------------|----------------|---------------|----------------|-----------------|----------------|---------------|----------------|--------------------|----------------|
| | | Freque ncy | Percen tage | Freque ncy | Percen tage | Freque ncy | Percen tage | Freque ncy | Percen tage | Freque ncy | Percen tage |
| Physical Aspect | Upgrading fitness | 160 | 22,07 | 164 | 22,62 | 190 | 26,21 | 103 | 14,21 | 108 | 14,90 |
| | Feeling energized | 205 | 28,28 | 158 | 21,79 | 142 | 19,59 | 95 | 13,10 | 125 | 17,24 |
| | Maintaining your body shape | 218 | 30,07 | 173 | 23,86 | 138 | 19,03 | 94 | 12,97 | 102 | 14,07 |
| | Weight maintenance | 135 | 18,62 | 180 | 24,83 | 240 | 33,10 | 72 | 9,93 | 98 | 13,52 |
| health aspect | Sleep better | 184 | 25,38 | 192 | 26,48 | 216 | 29,79 | 65 | 8,97 | 68 | 9,38 |
| | Digest food better | 201 | 27,72 | 154 | 21,24 | 222 | 30,62 | 70 | 9,66 | 78 | 10,76 |
| | Avoid fatigue, back aches, and joints | 234 | 32,28 | 170 | 23,45 | 186 | 25,66 | 55 | 7,59 | 80 | 11,03 |
| | Avoid illness | 247 | 34,07 | 194 | 26,76 | 142 | 19,59 | 42 | 5,79 | 100 | 13,79 |
| psychological aspect | Revitalize the mind and mind | 205 | 28,28 | 215 | 29,66 | 163 | 22,48 | 47 | 6,48 | 95 | 13,10 |
| | Mood improvement | 252 | 34,76 | 198 | 27,31 | 177 | 24,41 | 50 | 6,90 | 48 | 6,62 |
| | Spend time better | 264 | 36,41 | 182 | 25,10 | 166 | 22,90 | 38 | 5,24 | 75 | 10,34 |
| | The ability to remain in home quarantine | 236 | 32,55 | 217 | 29,93 | 150 | 20,69 | 45 | 6,21 | 77 | 10,62 |

Table 1. shows that the response of the trends in the study sample to the effect of home exercise on the aspects (physical, health and psychological) of the quarantined people is high. The researcher attributes this to the fact that home exercise is important to them and contributes greatly to improving their physical shape, maintaining their health, preventing them from illnesses, and above all, psychologically helping to overcome the quarantine and to grow the ability to do so. The researcher attributes this result to the extent to which community members are aware of the importance of sports activities in promoting public health and preventing disease, stimulating the mind and brain as well as improving mood during the home quarantine period. And since the life of many people is characterized by lack of activity and

movement, and rarely engage in sports activities, they must be motivated to increase their movement activities and engage in physical activities that they like, such as walking, running and various team games, as long as they practice them periodically and regularly, hence the need to put certain people under supervision and control when starting an exercise program.

These results are consistent with the study by Faisal Al Mulla (2020), a professor at the College of Health and Sports Sciences at the University of Bahrain, who showed that the most common reasons that drive members of the Bahraini community to practice exercise during the period of home quarantine, is the desire to enjoy good health by (39.00%) of the participants. While approximately (22.00%) of community members indicated that the

reason for engaging in physical activity is the desire to lose weight, to protect the body from exposure to many health problems in general and to

strengthen the immune system and reduce viral infections in particular.

Table 2. shows the sample answers to the first axis questions related to the number of people who exercise weekly and daily and the time allotted for that, before and during home quarantine.

| Days of exercise per week | Pre-quarantine during quarantine | | | During quarantine | |
|-------------------------------------|----------------------------------|------------------|------------|-------------------|------------|
| | | Number of People | Percentage | Number of People | Percentage |
| 0 times | 110 | 15.17% | 188 | 25.93% | |
| Once | 134 | 18.48% | 190 | 26.20% | |
| Twice | 85 | 11.72% | 175 | 24.13% | |
| Three times | 240 | 33.10% | 94 | 12.96% | |
| More than three times | 156 | 21.51% | 88 | 12.13% | |
| Number of minutes to exercise a day | 0 minutes | 115 | 15.86% | 172 | 23.72% |
| | 15 minutes | 80 | 11.03% | 126 | 17.37% |
| | 30 minutes | 165 | 22.75% | 122 | 16.82% |
| | 45 minutes | 165 | 22.75% | 122 | 16.82% |
| | 60 minutes | 245 | 33.79% | 160 | 22.06% |

Table 2. clearly shows that the number of days of physical exercise before quarantine, at three times a week, reached the highest percentage (33.10%). followed by (21.51%) representing the percentage of physical exercise at more than three times per week. As for the highest percentage of the number of days of exercise per week, during the quarantine, it was in favor of physical exercise once a week, with a rate of (26.20%). Then comes 25.93% representing zero sports per week. This decrease in the number of training sessions is due to the quarantine. And the study by Faisal Al-Mulla (2020), a professor at the College of Health and Sports Sciences at the University of Bahrain, found that a large percentage of (32.15%) of community members Bahraini engaged in physical activity 1 to 2 times a week, while a small percentage of approximately (18.00%) of Bahraini community members engaged in physical activity more than 3 times a week during quarantine. Noting that the World Health Organization (WHO) advises people aged (18-64 years) to practice sports.

As far as the number of minutes spent exercising per day before quarantine are concerned, the highest percentage (33.79%) was in favor of duration (60 minutes). Next is a percentage (22.75%) in favor of daily exercise time (45 minutes). During the quarantine, the highest percentage of minutes of daily exercise was in favor of playing sports zero minutes per day (23.72%), followed by (22.06%) for exercise (60 minutes) per day. This decrease in the number of minutes of exercise per day is due to the quarantine. The study by Faisal Al-Mulla (2020), professor at the College of Health and Sports Sciences at the University of Bahrain found that in

addition to the gap among members of the Bahraini community in terms of percentages of hours of practice in physical activities per day, during home quarantine period of Corona pandemic (Covid-19), approximately (36.30%) were practicing physical activities average (one hour) per day. These percentages are very close to the rates set by the World Health Organization, which stipulates the practice of physical activities (30) to (60) minutes per day.

Through Table 3. it was found that 71.80% of people quarantined at home, used electronic means to search for exercises, or exercised with a friend through smart applications or with a trainer via video. It was found also, that (66.20%) did housework and (62.40%) went out for a walk or jog and (55.20%) used sports tools or equipment at home, and (51, 60%) were doing random exercises. All these means help to improve the physical shape of individuals, help them to feel active, keep them in shape and maintain their right body weight. They are of great help in improving the quality of sleep and the digestion of food, and in preventing fatigue, back and joint pain, and disease. They also help stimulate the brain and the mind, improve mood, in addition to helping to better cope with time and staying at home.

Researcher believes that the sports exercises that can be done at home are many and varied. And they are available on television, where you can watch programs dedicated to physical activity and perform exercises simultaneously. You can also apply the physical exercises broadcast through websites of physical activities.

Table 3.

| Means of performing the activity | S.M.A | S.D | Percentages | Scale dimensions | SMA | S.D | Percentages |
|------------------------------------------------|-------|------|-------------|------------------|------|------|-------------|
| Housework | 3,31 | 0,49 | 66.20 % | Physical | 3,41 | 0,34 | 68,20 % |
| | | | | Healthy | 3,26 | 3,42 | 65,20 % |
| | | | | Psychological | 3,26 | 3,42 | 65,20 % |
| Random exercises | 2,58 | 0,75 | 51,60 % | Physical | 2,53 | 0,67 | 50,60 % |
| | | | | Healthy | 2,56 | 0,61 | 51,20 % |
| | | | | Psychological | 2,65 | 0,53 | 53,00 % |
| Using electronic means to search for exercises | 3,59 | 0,47 | 71,80 % | Physical | 3,44 | 0,30 | 68,90 % |
| | | | | Healthy | 3,70 | 0,29 | 74,00 % |
| | | | | Psychological | 3,62 | 0,32 | 72,50 % |
| Home sports equipment | 2,76 | 0,76 | 55,20 % | Physical | 2,60 | 0,59 | 52,10% |
| | | | | Healthy | 2,95 | 0,51 | 59,10 % |
| | | | | Psychological | 2,72 | 0,70 | 54,40 % |
| Go out to run | 3,12 | 0,45 | 62,40 % | Physical | 3,29 | 0,50 | 65,90 % |
| | | | | Healthy | 2,87 | 0,43 | 57,50 % |
| | | | | Psychological | 3,19 | 0,66 | 63,80 % |

Furthermore, it is possible to contact friends or sports coaches on smart phones, and open a video call to take part in a common sports activity, through which we can develop social relations. In addition, home physical exercises are important in burning calories, increasing the level of fitness and promoting general health. Faraj Yousef Aad's study (2020) also showed on the other hand, that the presence of sports equipment and the use of social media help in the physical health, and psychological development of the quarantined persons. As for the study of Yahia Ben el-Arabi, Rebbouh Mohamed (2020), it showed that practicing sports is an absolute necessity in normal circumstances, and more than necessary in our current situation, through quarantine measures, because of its role in maintaining health. For its part, the General Sports Authority (2020) study showed that the goal of practicing sports during quarantine for the sake of health came at a percentage estimated at (59,700%), and it also showed that doing sports exercises through information, experiences and Internet came at a rate of (74, 00%), while the study of Al-Madkhouri and Bouchareb (2020) showed that the practice of sports activities gives energy and vitality to the activity of the body, and the study

recommended that men and women should practice sporting activities on a daily basis, in addition to diversifying and participating in home activities as much as possible.

CONCLUSIONS

Degree level of trends in the study sample towards the effect of home exercise on the aspects (physical, health, and psychological) was high.

The number of days of exercising three times a week was the largest percentage (33.10%), followed by (21.51%) exercising more than three times a week before quarantine. As for the largest percentage of the number of days of exercising a week during quarantine, it was in favor of practicing sports once a week, and it was (26.20%), followed by a rate of (25.93%) for practicing zero sports once a week.

The largest percentage of the number of minutes of exercise per day was in favor of (60 minutes), (33.79%). This is followed by a percentage (22.75%) in favor of the daily exercise period (45 minutes), and this is before the quarantine. As for the largest percentage of the number of minutes of exercising

daily during quarantine, it was in favor of exercising zero minutes per day, and it reached (23.72%). It is followed by (22.06%) for exercising (60 minutes) and exercising daily.

Doing household chores, random exercises, using electronic means, providing sports tools at home,

going out for running, are factors that help in the physical, health and psychological development of the quarantined people, in addition to helping them to stay at home better.

LITERATURE

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