

The contribution of recreational sports activities to alleviate social isolation in diabetic people

مساهمة الأنشطة الرياضية الترويحية في التخفيف من العزلة الاجتماعية جراء إجراءات
الحجر الصحي ضد وباء كورونا لدى الأشخاص المصابين بداء السكري

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Abstract:

This study aimed to recognize the extent to which recreational sports activities contribute in reducing the social isolation phenomenon, resulting of quarantine against corona pandemic among diabetic people. It is widely known that this category of people is more susceptible to infection ramifications due to their weak immune system. Where the descriptive method has been adopted, in addition to applying the questionnaire on a sample of infected people in the municipality of AinOussara- Djelfa province. The results of the field study included the extent of these activities contribution in reducing social isolation to thiscategory, especially during the phase we are living.

Key- words: recreational sportsactivities, social isolation, people with diabetes

الملخص:

تهدف هذه الدراسة إلى معرفة ما مدى مساهمة الأنشطة الرياضية الترويحية في التخفيف من ظاهرة العزلة الاجتماعية الناتجة عن الحجر المنزلي ضد وباء كورونا لدى الأشخاص المصابين بداء السكري، فكما هو معروف أن هذه الفئة أكثر تضررا من تداعيات الإصابة بهذا الوباء بسبب ضعف المناعة لديهم، حيث تم الاعتماد على المنهج الوصفي، وكذا تطبيق الاستبيان على عينة من المصابين. وقد توصلت نتائج الدراسة الميدانية إلى مدى مساهمة هذه الأنشطة في التخفيف من العزلة الاجتماعية لهذه العينة.

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الكلمات المفتاحية: الأنشطة الرياضية الترويحية، العزلة الاجتماعية، الأشخاص المصابين بداء السكري.

1. Introduction:

Unexpectedly, the world found itself in quarantine with the terrible spread of the Corona virus (COVID-19), the thing that made the people subjected to quarantine as the primary alternative and the only choice. People were not used to it in their usual lives, especially they were not familiar to stay at home for long periods and lockdown themselves even with the appearance of slight symptoms such as coughing, headache, slight fever according to World Health Organization slogan “protect yourself and others from covid-19 (World Health Organization, 2019). The situation today force us to be prudent and precautions, and all individuals of society must be more aware than ever, as this epidemic is one of the most dangerous epidemics that humankind encountered. (Bahri, 2020).

This virus appeared for the first time in the Chinese city Wuhan at the beginning of December 2019, in which the World Health Organization declared the spread of the virus and emergency state on 30 January. This virus is known to be associated with the family of viruses that cause severe acute syndrome (SARS) and some common flue, it is also known as the virus of severe acute psychological syndrome Corona 2 (Attab, 2020), it belongs to the family of the Corona virus 2019. One of the most important characteristics of this virus is non-microscopic and characterizes with rapid transition feature from one person to another. The affected person does not show any symptoms until after 15 days, causing increase in the number of deaths and infected cases day after day.

According to the World Health Organization report, the number of infected people around the world in April 2020 has reached over two millions and two hundred thousand person and more than 150 thousand death cases (World Health

Organization, 2020). This is what made scholars and researchers especially specialized doctors in epidemiology confused and under severe pressure to identify the nature and the composition of this virus, and how to give the exact diagnosis to it. This in turn made the majority of people under great pressure, troubled psychological state and great fear due to high prevalence of this virus, especially people with chronic diseases.

What made things more dangerous on the citizens psychological state is the amplification of media to the false and confusing information, in addition to not utilizing the official national and international websites to get the right information. It is what the World Health Organization attracted attention to through minimize following the false news about covid-19 that caused permanent stress and anxiety as mental pressures, added to the pressure of total or partial lockdown according to the degree of the virus prevalence, the tight restrictions imposed on communication and the ability of many people to work, employment, livelihood, income and personal debts (Pierce, and al; 2020). This may result economic collapse and increase the risk of having psychological and mental health problems, and worsening health disparities. As there are harmful effects on people concerning the mental health and more harmful effects on people already suffer from psychological disorder (Moreno, and al; 2020).

Perhaps the high risk category by mortal danger due to this epidemic is people with chronic diseases such as cardiac diseases, vascular diseases, diabetes, asthma, respiratory system diseases and kidney failure. Hence, this virus weakens their immune system in which they cannot resist the bacteria and viruses in general, and the corona virus in specific.

The recent studies deduced that diabetic people are the most affected by the new corona virus, in which their infection causes changes at the level of blood sugar;

resulting weak immune system. Thus, it weakens their ability to stand up to any viral infection (Madeforminds K 2020). Experts from the University of Wuhan in China confirmed that people with high level of glucose in blood are more vulnerable to be infected by various dynasties of viruses that are more dangerous than corona (World Health Organization, 2020). Therefore, this category in Algeria became concerned to be cautious and careful to avoid infection by this deadly virus as much as the other chronic diseases categories through complying with decisions and preventive measures that can contribute in the prevention and protection against this deadly virus. In addition to comply with partial or total quarantine measures through isolation from society and staying within the house borders with bearing fears and psychological pressures caused by much spare time, daily media channels intimidation and social media.

Practicing sports in general and recreational sports activities in specific is considered one of the successful behaviors to face fears and psychological pressures of diabetic people, caused by the sudden isolation from society through reducing the long periods of sitting and increasing the activity with friends and family, and also increasing beneficial communication with others concerning children and adult individuals specifically (World Health Organization, 2020). The World Health Organization recommended the necessity of changing bad daily habits and certain behaviors that can contribute in reducing the spread of corona epidemic (covid-19) among individuals such as eating sufficient and healthy food, and exercising regular physical and sports activities (World Health Organization, 2020).

From the previous question, our study tendency is determined through searching for the value of recreational sports activities in guiding the life of diabetic people and revealing the contribution of this type of activities in reducing social isolation in the light of applied, partial or total quarantine measures according to

each province in Algeria in order to obtain findings that may benefit us in the future within sports field in general and recreational sports activities field in specific.

From this and that, our study problematic emerged in the following question:

Do recreational sports activities contribute positively in reducing social isolation among diabetic people in the light of quarantine measures against corona epidemic?

2- The research hypothesis:

Recreational sports activities contribute positively in reducing social isolation among diabetic people in the light of quarantine measures against corona epidemic.

The reasons of topic selection:

- Marginalization that diabetic people suffer from in the Algerian society generally and in AinOussara specifically.
- Identify the reality of exercising sports activity in general and the recreational ones in specific especially among this category.
- Recognize the influence of recreational sports activities on reducing social isolation among this category especially during this delicate phase that we are living (corona pandemic).

3- The importance of the study: The importance of this study represents in being one of the descriptive researches, as it describes a social phenomenon that has imposed itself on all individuals of the Algerian society in general and the category of diabetic people in particular, which is the isolation from society and the associated fears of corona epidemic (covid19); that is why it is necessary to look for mechanisms to manage and control this phenomenon through the practice of recreational sports activities as a prevention and treatment at the same time of the physical and

psychological symptoms arising from fears of infection under the conditions of domestic quarantine.

4- The objectives of the study:

- Highlight the effects of recreational sports activities in modifying social conditions in people with diabetes.
- Know the importance of playing and recreation for this category.
- Highlighting this category within Algerian society, especially at this stage of the Corona pandemic and the health measures imposed, because it is considered a real threat to their lives compared to other ordinary individuals.
- Obtain more information regarding the various changes that occur in people with diabetes during recreational sports activities.
- To come up with useful recommendations and suggestions on the exploitation of recreational sports activities practice for this category in all circumstances and situations facing, through well-thought-out programs dedicated to their health condition.

5- The theoretical framework of the study:

5-1 Recreation: Kraus said that recreation is those aspects of activity or experiences that result from leisure time and are chosen according to the will of the individual in order to achieve enjoyment and pleasure and acquire many social and personal values (Salama, 2013, p12).

5-2 Recreational sports activities: Are all constructive and accepted activities socially and ideologically that are performed during leisure time, and are chosen according to the will of the individual in order to acquire many personal values and achieve satisfaction, pleasure and happiness from the participation itself and not for external motives to material or moral gain (Nahal Hamid, 2018, p367).

The two researchers define these activities as a kind of entertainment, which includes many sports programs that are predominantly recreational and self-motivated and may be carried out individually or collectively.

5-3 Social isolation: It is the individual's sense of unity and trying to move away from the social relations prevailing in the society in which he lives, the lack of security and intimate relationships and the distance from others even if he is among them, as it is also known as the individual's sense of solidarity lack with others and the absence of who shares his opinions and interests as well as his awareness of the lack of belonging to the group and his lack of social sports and cultural participation (Fellag, 2015, p338).

The two researchers define it as the lack of desire of the individual to communicate realistically with others, his sense of loneliness and his preference to sit alone and not engage in discussions with others, also caused them a shortage of friends and relatives, which creates difficulty in integrating into groups.

5-4-Diabetes:

World health organization defines it as “a chronic disease that affects an individual when the pancreas is unable to produce insulin in an adequate amount, or when the body is unable to use it effectively. It leads over time to severe damage to many of the symptoms of the body, especially in the nerves and blood vessels, an individual is confirmed to be diabetic through the appearance of diabetes symptoms such as thirst, including frequent drinking of water and urination, feeling the physical and psychological stress as well as through the results of the medical examination.” (Ismaili, 2017, p15).

6-Previous studies:

In this regard, the two researchers believe that there are many studies and researches in the field of sports that have shown that the practice of sports with its

various activities and types plays a major role in alleviating social isolation in different categories of society, including:

The study of Rawan Mohammed (2011) entitled *The Relationship of Exercising Sports Activity adapted with the Level of Depression in people with diabetes*, the research sample was 60 people with diabetes. The questionnaire was used as a tool for collecting information and data according to the descriptive method. The most prominent results of the study were that adapted physical sports activity has a role in reducing the level of suicidal tendencies, as well as reducing the psychological pressure level in the diabetics, this type of activity also helps them to integrate socially.

The study of Ben Sayed and Ben Mansour (2018) entitled *Diabetes and its relationship to social and cultural variables*, one of the objectives of this study is to highlight some of the social and cultural variables and their relationship to diabetes that will reduce the prevalence of diabetes. The objectives that have been drawn are: the cultural level has an important role in the life of the patient with diabetes, for the economic situation that allows him to organize his time as well as follow a diet with exercising sports. This helps them reduce the blood sugar level and thus, can live a normal life.

The study was entitled "The role of physical and sports education in the development of some psychological skills and psychological compatibility in secondary school students", and the sample of the study consisted of 40 male pupils and 30 female pupils practicing physical and sports education, and (50) Pupils (male and female) exempted from physical and sports education. The psychological compatibility scale and psychological skills scale have been used as a tool to collect information and data according to the descriptive method in a survey style, and the prominent results of the study indicated that there are statistically significant

differences in the degree of some skills Psychological between practitioners pupils (male and female) and non-practitioners in psychological skills (coping with anxiety, coping with stress, self-confidence, relaxation).

7- The study approach:

In this study, the two researchers relied on the descriptive approach because it is interested in studying the phenomenon that actually exists. Hence, it describes it accurately and expresses it qualitatively by describing the phenomenon with a explaining its characteristics or based on quantitative expression, giving it a numerical description with clarifying the magnitude or size of this phenomenon and the degrees of its association with other phenomena (DunyaKhadraoui and others, 2019, p. 114). It one of the most widely used approaches in social and psychological studies.

8-The research community:

The research community is the original group from which the sample is taken, it is sincerely represented, may be persons, teams, pupils, residents or any other units. In our study, our research community is people with diabetes at the level of AinOussara — province of Djelfa.

9- The study sample:

To obtain information from the original research community, we are unable to thoroughly survey and therefore resorting to units representing the study community, or the so-called sample, which is intended as part of the study community from which field data are collected, and it is part of the whole, in the sense that we take a group of community members, to be representative of the research community (Zarwati, 2007, p. 23).

Therefore, the selection of a sample represented honestly and fully in the original community is considered one of the most important steps. The sample of

research was in the municipality of AinOussara, the province of Djelfa, and they were selected in a deliberate manner and numbered (60) people who were distributed as follows:

Table 01: represents the distribution of the study sample

| Total | Male | Female | place |
|-------|------|--------|----------------------------|
| 60 | 35 | 25 | AinOussara municipality |

- The study tools:

After studying our subject and looking at previous studies and related topics, in addition to surveying a sample of approaches specialists, we saw that the most appropriate tool for collecting information is the questionnaire known as: it is one of the tools of collecting information, data and facts. One of the advantages of this tool is that it contributes to the collection of information from samples in the least effort and time. (Ben Rajm, 2019, p. 189)

9-1 Psychometric characteristics of the study tool (questionnaire):

Calculating the honesty of the questionnaire

- Honesty:

The questionnaire also includes all the elements that concern the analysis regarding the clarity of its paragraphs and vocabulary in order to be understandable for all the users. (Zarwak, 2019, p. 203)

- The arbitrators' honesty (apparent honesty):

Considering that the honesty of the content is one of the most common types of honesty when used in political and social sciences. We adopted this questionnaire in order to infer the credibility of the tool study by consulting the opinions of university arbitrators. They are four teachers specialized in physical and sports education, in addition to three teachers specialized in psychology.

with the subject studied.

After taking the observations of the arbitrators by deleting the phrases that are not suitable for measuring the axes of the research subject, we have (12) phrases after it was (20) phrases in the initial version, and after the statistical treatment of the responses of the sample arbitrators to the terms of the questionnaire in its last version, a value equal to (0.75) was obtained, and considering that all values are greater than 0.60, it can be said that the terms of the questionnaire are true in what was prepared to measure.

Calculating the stability of the questionnaire:

The survey is consistently intended to give the same result if it is redistributed more than once under the same conditions and circumstances, or in other words means stability in the results obtained and not significantly changed from its reapplication to the same members of the sample, and the stability has been verified by the Alpha Kronbach coefficient, the following table shows the Alpha Kronbach coefficient to measure the stability of the questionnaire.

Table 1 represents the stability coefficient of each questionnaire axis and the sum of the axes

| Variables | Number of paragraphs | Cronbach's Coefficient Alpha |
|---|----------------------|------------------------------|
| Total questionnaire paragraphs Psychological pressures | 12 | 0.877 |

Source: Based on SPSS outputs

We note from Table 1 that the Cronbach's Coefficient Alpha of all the questionnaire axis ranges reached (0.877), which prove the high stability value and shows that the stability value is high and indicates that the search tool is highly stable, making us fully confident that our questionnaire is correct and appropriate for the study and the hypotheses testing.

-Means and statistical methods used:

The SPSS, TheCronbach's Coefficient Alpha, Tabulated χ^2 test, Degree of freedom, Percentage, χ^2 test.

10- Results:

10-1- Presentation of the hypothesis results:

Table 2: The table represents statistical operations

| The expressions | The answers | The Percentage % | The answers | The Percentage % | Chi ² calculated | Chi ² tabulated | Degree of freedom |
|-----------------|-------------|------------------|-------------|------------------|-----------------------------|----------------------------|-------------------|
| 01 | Yes | 75 | No | 25 | 14.288 | 3.841 | 01 |
| 02 | Yes | 60 | No | 40 | 18.001 | 3.841 | 01 |
| 03 | Yes | 55 | No | 45 | 32.07 | 3.841 | 01 |
| 04 | Yes | 82 | No | 18 | 50.23 | 3.841 | 01 |
| 05 | Yes | 88 | No | 12 | 34.47 | 3.841 | 01 |
| 06 | Yes | 66 | No | 34 | 12.66 | 3.841 | 01 |
| 07 | Yes | 95 | No | 05 | 45.12 | 3.841 | 01 |
| 08 | Yes | 85 | No | 15 | 47.65 | 3.841 | 01 |
| 09 | Yes | 70 | No | 30 | 14.83 | 3.841 | 01 |
| 10 | Yes | 91 | No | 09 | 22.89 | 3.841 | 01 |
| 11 | Yes | 70 | No | 30 | 11.44 | 3.841 | 01 |
| 12 | Yes | 89 | No | 11 | 51.76 | 3.841 | 01 |

Source: Based on SPSS outputs

The answers are also shown in the table above.

- Do you think that recreational activities at home strengthen your relationships with your family members?

We note from answers that 75% of the total sample believe that recreational sports activities have a role in strengthening their relationship with their family members, while the estimated 25% answered the opposite. These differences in the results were confirmed in the calculated chi² test that equalled the value (14.288) which is greater than the tabulated value of (3.84). It means that there are statistically significant differences.

- Does recreational sports activities at home increase the acceptance and satisfaction of your family members?

For this question, 60% of the total basic sample considered that recreational sports activities at home increased the acceptance and satisfaction of their family members

on them, while 40% answered the opposite, and these differences in the results were confirmed in the Calculated χ^2 test, which equalled the value (18.001), greater than the tabulated χ^2 (3.84). It means that it is statistically significant.

- Does your recreational activities give you time to express yourself in front of your family member?

For this question, 55% of the total basic sample considered that recreational sports activities gave them time to express themselves in front of their family members, while 45% answered otherwise, and these differences in the results of the Calculated χ^2 test, which equalled the value (32.07) that is greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Do recreational sports activities meet your social needs and desires?

For this question, 82% of the total basic sample considered that recreational sports activities met their desires and social needs, while 18% answered otherwise, and these differences in the calculated χ^2 test results, which equalled the value (50.23), that is greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Does recreational sports activities at home compensate you for your activities with the outside community?

For this question, 88% of the total basic sample considered that the practice of recreational sports activities at home compensates them for their activities with the outside community, while 12% answered otherwise. These differences are confirmed in the results of the calculated χ^2 test, which equaled the value (34.47) which is greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Do recreational sports activities help you get rid of the worries that accompany you during the quarantine period?

For this question, 66% of the total basic sample believed that recreational sports activities helped them get rid of the fears that accompanied you during the home

quarantine period, 34% responded to the contrary, and this is confirmed by the differences in the calculated χ^2 test results, which were equal to the value (12.66) that is greater than the tabulated χ^2 (3.84); it is statistically significant.

- Do recreational sports activities build new relationships with others via social media?

About this question, 65% of the total basic sample considered that recreational sports activities are building new relationships with others through social networking sites, while 05% answered otherwise, and these differences in the results of the Calculated χ^2 test, which equalled the value (45.12) that is greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Do recreational sports activities help you improve your self-confidence?

For this question, 85% of the total basic sample considered that recreational sports activities helped them improve their self-confidence, while 15% answered the opposite, and these differences in the calculated χ^2 test results, which equalled the value (47.65), that is greater than the tabulated χ^2 (3.84). It means that it is statistically significant.

- Do recreational sports activities help you attract your family's attention to you?

About this question, 70% of the total basic sample considered that recreational sports activities helped them to attract the attention of their family's individual towards them, while 30% answered the opposite, and these differences in the results of the calculated χ^2 test, which equalled the value (14.83); greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Do recreational sports activities help you alleviate the feeling of inferiority and loneliness you experience in the period of home quarantine?

For this question, 91% of the total basic sample considered that recreational sports activities helped them to alleviate the feeling of inferiority and loneliness experienced

in the period of home quarantine, while 09% answered otherwise, and these differences in the results of the calculated χ^2 test, which equalled the value (22.89) which is greater than the tabulated χ^2 (3.84) means that it is statistically significant.

- Does recreational sports activities help you in harmony to participate in group work at home?

For this question, 70% of the total basic sample considered that the practice of recreational sports activities helped them to harmonize for participating in group work at home, while 30% answered otherwise, these differences were confirmed in the results of the calculated χ^2 test, which equalled the value (11.44) that is greater than the tabulated χ^2 (3.84). It means that it is statistically significant.

- Does practicing recreational sports activities give you the ability to discuss constructively with others?

For this question, 89% of the total basic sample considered that recreational sports activities gave them the ability to discuss constructively with others, while 11% answered otherwise, and these differences were confirmed in the calculated χ^2 test results, which equalled the value (51.76) that is greater than the tabulated χ^2 (3.84). It means that it is statistically significant.

10-2-Discussion:

Through the results of the table, it was found that recreational sports activities contribute a great deal in helping people with diabetes to alleviate the various dimensions of social isolation associated with them in the period of home quarantine, as this type of activities help greatly in alleviating the isolation and loneliness that accompany them through the practice of various recreational sports activities with family members, as well as working to meet the various needs and social requirements of them. Further, helping this category to get rid of them.

In addition to the contribution of these sports activities to filling the gaps of the terrible free time resulting from the measurement of total or partial home quarantine, it was concluded that the practice of this type of sports activities enables this category to get rid of various disorders and negative thoughts resulting from excessive free time during the period of domestic quarantine and poor management of daily times, in addition to sitting for long periods in follow-up channels and social media.

It has also been noted that these activities help this group to get rid of various aspects of anxiety by a large percentage, because if the individual finds something that benefits him, takes up his time and helps him get rid of his negative energy, he finds nothing to worry about. In this context, Dr. Mohammed Al-Effendi (1965) emphasizes that recreational sports activities help the individual to alleviate various tensions and help the individual to control his emotions (Effendi, 1965), and it has also been concluded that these sports activities help this group by supporting their self-confidence and making the right decisions, which is one of the main objectives of sports recreation (Gully, 2001).

The results of this study were in accordance with the Rawan Mohammed Study (2011), which found that adapted physical activity played a role in reducing the level of suicidal tendencies, as well as reducing the level of psychology in diabetics, this type of activity also helps them integrate into social integration. The study of Boukhalkhal, Bakai. (2018) resulted that the social status of this category within the family has been greatly affected by their support, encouraging and practicing with them various sports activities that help them to exploit their leisure time, as well as care plays a big role in their lives.

Moreover, the study of (Yahawi 2014) which found that there are statistically significant differences in the degree of some psychological skills between male and female pupils practicing and non-practitioners of sports activities for the benefit of

practitioners in psychological skills (coping with anxiety, coping with stress, self-confidence, relaxation), and on this basis it can be said that our hypothesis has been achieved to an acceptable extent, i.e. "recreational sports activities play a positive role in alleviating the social isolation resulting from the procedures of home quarantine against the covid-19 epidemic in people with diabetes.

10-3-Conclusions and recommendations:

In summary, the majority of questioned people with diabetes had positive opinions about the contribution of recreational sports activities to alleviating the social isolation associated with them in times of home quarantine, where they had opinions from medium to good between 55% and 95%, about the role of this type of sports activity in reducing the various negative manifestations of social isolation from loneliness, fear, anxiety, tension and others. In addition to an increase in some positive manifestations of behavior such as improving the mood, self-confidence, increased concentration, feeling of optimism and satisfaction, increase disengaging from the family and participate with them in various activities in home and meeting various social needs and desires.

This is confirmed by the results of the differences with the statistical significance of the test of sufficient squared χ^2 , as these activities open the way for the individual to express himself with full confidence, and help him to get rid of excess energy and exploit the free time resulting from the imposed house quarantine, which leads to their sense of pleasure and happiness, and increases their concentration on important things in their daily lives and stay away from all that worries them and disturbs their mood from negative ideas resulting from the follow-up of false news from the Internet or through various media channels,. In this context, Dr. Abdeslam emphasizes that an individual who has opportunities for recreation and play is characterized by health and balance, and health here in a broad sense that

includes psychological, physical, mental and emotional health and not only the absence of individual vulnerability and disease (Abdessalam, 2001).

Recommendations:

- The need to pay attention to this category in terms of exercise.
- A recommendation for the need to pay attention to recreational sports activities, especially for this category.
- Work to raise awareness and correct the perception of all segments of society for sports activities in general and recreational activities in particular.
- The need for sports professionals to work on programs for recreational sports activities that suit this category
- Find ways, methods and mechanisms to practice recreational sports activities everywhere and under any circumstances (e.g. corona pandemic and home quarantine).
- The family must provide a dedicated place for recreational sports activities at home, especially for this category.
- To illustrate the importance and impact of recreational sports activities on the social side of this category.
- Raising interest in recreational sports activities through family encouragement.
- Strengthening scientific studies on recreational sports activities and their positive effects on different groups of society.

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