THE ROLE OF RECREATIONAL SPORTS ACTIVITIES IN REDUCING SOME PSYCHOLOGICAL PROBLEMS CAUSED BY COVID-19 PANDEMIC

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Summary: This study is aimed at knowing the role of recreational sports activities in decreasing some psychological problems caused by the COVID-19 pandemic among adolescents, and done on a sample of 400 adolescents chosen from the final year of the Intermediate education stage (Hamam bouhjar Middle school - Ain Temouchent state, Sig middle school – Mascara state), the questionnaire was applied as a tool for the study and it consisted of three axes: the axis of aggressive behavior, isolation, and self-confidence, and each axis consists of a group of questions. We used Frequencies, Percentage, and Chi-square goodness of fit test to analyze and interpret the results. In the end, we concluded that recreational sports activities have a role in alleviating some psychological problems resulting from the COVID-19 pandemic in adolescents, and this is based on the results that we have researched which states that recreational sports alleviate the aggressive behavior caused by the COVID-19 and its major role in reducing the weakness of self-confidence caused by COVID-19 among adolescents, as well as mitigating the weakness of self-confidence under the COVID-19 pandemic. Finally, the researchers recommend the necessity of practicing recreational sports activities in spare time.

Key words: COVID-19, Psychological problems, Recreational sports activity

Introduction

The new Coronavirus pandemic swept the world quickly and spread calmly, posing a danger to peoples' lives, in addition to their physical and psychological health. Fears, anxiety, and panic spread, psychological problems and obstacles increased, which led to the aggravation of the damage, Steven Taylor, author of "The Psychology of Pandemics" and a professor of psychology at the University of British Columbia, believes that between 10 and 15 percent of people, will not return their lives to normal, due to the impact of the pandemic on their psychological health, at the same time a group of prominent health specialists recently warned in the British Medical Journal that it is likely to last longer compared to its effects on physical health.

Recreational sports activity has become an integral part of the basic components of daily life for most members of contemporary society, especially adolescents, this is due to the high level of awareness of its importance and psychological, physical, and health benefits (Amarna 2018, p. 450) and its importance in removing some of the diseases and psychological pressures left by the epidemic, such as stress, depression, and behaviors issued towards individuals or the self, whether verbal or material, filled with frustration, anger, self-defense, or the desire for revenge and the consequent psychological and physical harm, and this is called aggressive behavior (Chaachoua 2012, p. 84), with the increase of the number of people isolated as a result of quarantine and social distancing, it leads to the lack of communication of adolescents with others and the lack of comfort between individuals and the tendency to avoid social situations and this is called social isolation (Abd-Al-rahman 2003, p. 03) In addition to the lack of optimism about the future and of the capabilities and self-abilities in facing various matters and thus results in poor self-confidence (Chafika 2015, pp. 111-121), which represents an appearance of the individual's mental health, and while countries of the world adopt measures to restrict the movement of people as part of efforts to reduce the number of people with COVID-19 disease, an increasing number of people are making significant changes to their daily habits, and experts believe that the practice of recreational sports activities in spare times and some hobbies contributed to increasing the feeling of satisfaction and relieved psychological pressure for many people.

And this was covered by several studies related to the subject, the study of Sharef Si-larbi (2014) named the importance of practicing recreational sports activity in minimizing the phenomenon of aggressive behavior at high school pupils, aimed at knowing the role that recreational sports activity can play within educational institutions in reducing the phenomenon of aggressive behavior among high school students, by proposing an educational recreational program for a period of 12 weeks, and in this context the

researcher used references and sources in the field of sports recreation, in addition to personal interviews with experts and specialists to enrich the proposed educational program, the researcher relied on the experimental approach, using the aggressive behavior scale prepared by Muhammad Hassan Allawi, which was applied in two stages, pre-measurement and post-measurement on the two research samples, a control sample and an experimental one, they were represented in the second year classes, Experimental Sciences 1 and 2, which consisted of 62 students (17 females, 14 males), they were deliberately chosen as the most aggressive after they achieved the highest levels of aggressive behavior in the reconnaissance study, in order to check the hypotheses of the research, the researcher used the appropriate statistical methods and one of the most important results reached is that the proposed recreational program had a positive effect in reducing the phenomenon of aggressive behavior among high school students, and according to this the researcher recommends that all participants in the educational sector need to pay attention to recreational sports activities within educational institutions, and not just stopping at the physical and sports education classes, these activities that have become a successful and meaningful treatment method more than a waste of time and enjoying their spare time, they gain the individual in general and the adolescent in particular experiences that help him enjoy life and get rid of the complex of feelings of inferiority and frustration as well as help him in developing self-confidence (Sharef 2016), meanwhile the study of Arnab, Hamza et al. (2014). It aimed to highlight the role of recreational sports activity in increasing the self-confidence of the physically handicapped has reached important results represented that the disabled self-confidence has improved during the exercise of recreational sports activity which leads to the achievement of good interaction of him in the community and talking with others without feeling inferior. In addition, improving academic performance as well as a sense of positivity and optimism, and it can be said that recreational sports activity increases the self-confidence of the disabled. Among the suggestions that the researcher consider necessary are setting up programs that contain recreational activities that increase the tendency of the physically disabled person towards practicing sports activity, and highlighting the real image that the practice of recreational sporting activity leaves in the psyche of the disabled (Hamza et al. 2014).

On the other hand Mustafa Ayad (2018) in his study aimed to learn about the role of recreational physical activity in the social interaction of high school students and to know the extent of the importance of recreational physical activity in coexistence and respect, knowledge of social values and rules and the preparation of a good citizen by proposing the following hypotheses: Recreational physical activity has a role in providing factors of

respect, coexistence, interaction with others, knowledge of and respect for social values and rules, and the preparation of a good citizen. It was in the form of a comparison between practitioners and non-practitioners. In his study, he followed the descriptive approach and used the questionnaire to reach numerical results. and to analyze these results they came to percentages, standard deviation, and T-test by comparing it with the scheduled T, at the significance level of 0.05, and after analyzing and interpreting the results, he concluded that recreational physical activity has a role in social interaction after finding significant differences between the two groups, the practitioners, and the non- practitioners and in the end, he reached the need for assistance and urged children to engage in recreational physical activity in their spare time (Mustafa Ayad 2018). As for the study of Khaladi Mourad and others (2020), they took the dimension of aggressive behavior, their study aimed at knowing the relationship between the pupils 'attitudes towards practicing physical and sports activity and reducing the aggressive behavior in its various dimensions in the final sections of the high school, and emphasizing the existence of an inverse correlation between the pupils' attitudes towards physical activity and aggressive behavior, where the researchers used the descriptive approach on the research sample, and to collect data and information, the researchers relied on both the measure of attitudes towards physical activity, sport and educational activity and the measure of aggressive behavior. The study found that the degree of aggressive behavior among the sample members is moderate (Mourad & others 2020).

Gouasmia Aissa (2020) says in his study, which aimed to identify the role of practicing educational physical and sports activity by the students in reducing social shyness among adolescents, that practicing educational physical and sports activity can reduce social shyness. According to this the researcher used the social shyness scale, they have distributed it to a random sample of practicing and non-practicing pupils, in the number of 210 students for each of "Colonel Chabani Mohamed High School" and "Khamed Amer" High School, Laghouat State, and after statistical treatment using SPSS, the results showed that the practice of educational physical and sports activity has an effective role in reducing social shyness (Aissa 2020, pp. 485-501).

As a preventive measure against this epidemiological situation of the Coronavirus and home quarantine, we must pay attention to the psychological aspect and develop these aspects in the personality of the teenager, such as self-confidence, self-control, and social integration in a suitable, normal way that gives him happiness and human energy to confront the various challenges of the age, foremost of which are diseases and epidemics, Physical activities in general and recreational sports activities, in particular, are important social

behaviors in the daily life of individuals, as they play a major role in preparing the individual, and have a special place among social groups of different genders, levels, and ages, and are of great importance in developing personality, the recreation of oneself, improving behavior and social relations. Besides other factors, it works to alleviate the tensions and emotions facing the teenager during the quarantine period, and this is what made us ask the following question:

Do recreational sports activities play a role in alleviating some psychological problems caused by the COVID-19 pandemic among adolescents? Under this question, we include three sub-questions which are as follows:

1. Do recreational sports activities play a role in mitigating aggressive behavior among adolescents under the COVID-19 pandemic?
2. Do recreational sports activities play a role in mitigating the isolation among adolescents under the COVID-19 pandemic?
3. Do recreational sports activity play a role in mitigating adolescents' low self-confidence under the COVID-19 pandemic?

Material & methods

1. The method followed in the study: The researcher used the descriptive approach in a survey method due to its suitability for the nature of the current study, the descriptive approach depends on the study of the reality or the phenomenon as it is actually as a precise description and it is interested in describing it accurately and expressing it qualitatively and quantitatively, and since the content of the research revolves around a social phenomenon, namely, recreational sports activities in and its relationship with the psychological problems caused by the COVID-19 pandemic, by collecting various information on it, revealing its various aspects, determining the relationships between its elements, analyzing and interpreting it, we considered it necessary to use the descriptive approach to match the specifications, objectives, and requirements of the study with this approach. If the researcher wants to study a phenomenon, the first step he takes is describing and presenting the phenomenon he wants to study and collecting accurate descriptions and information about it and its form.
2. Research Community: Male adolescents who are in the final year of middle school (Hamam bouhjar Middle school - Ain Temouchent state, Sig middle school – Mascara state)
3. Research sample: Our research was applied to an intentional (intended) sample because it contained characteristics that are not available in other samples, and it was represented

in males (14 – 16 years) practicing recreational sports activity only and in leisure time, and the number was 400 teenagers from the research community. As for the reason for our selection for male teenagers only without female teenagers is that males are more engaged in sports than females.

4. Data collection tools:

Our research included the Psychological Problems Scale and it contained:

- A Scale of aggressive behavior and low self-confidence of Amal Abdel Sami Abaza, 2001.
- The Social Interactions Scale (Isolation), prepared by Prof. Dr. Adel Abdel Hamid Mohamed in 2003.
- Self-confidence scale, by Amal Abdel Samie Abaza, 2001.
- Benefiting from some previous studies as a source and reference.

psychometric properties of the data collection tools

- Reliability: to calculate the reliability of the scale, the researcher used the Guttman Split Half Reliability Coefficient, and the table below shows the results.

Table 1

Show the results of the K-S normality test and the Guttman Split Half Reliability Coefficient results

	questions	variance	pearson correlation	Guttman Coefficient	Kolmogorov-Smirnov Normality Test	
1 st half	12	49.7	0.94	0.959	K-S statistical value	0.119
2 nd half	11	47.3			Statistical significance	0.200
All questions	23	238.2			significance level	0.05

Since the statistical significance of 0.2 is higher than the significance level of 0.05 we can say that the null hypothesis (H_0) is validated and that the normality of the data distribution condition is also validated.

From the table, it is clear that the value of Gutman's reliability coefficient amounted to 0.959 with a high degree of correlation between the two halves of the questionnaire, where the value of the Pearson correlation coefficient reached 0.94, which indicates that the questionnaire has a high degree of reliability and we can adopt it in the applied study with confidence.

Validity: To confirm the validity of the study tool, we used the arbitrators' validity as a tool to ensure that the questionnaire measures what is to be measured. Where we distributed the questionnaire to a group of professors from the University of Mostaganem, relying on the observations and directions made by the arbitrators, we made the amendments agreed upon

by most of the arbitrators, as some of the phrases were deleted and the wording of others changed.

Subjective validity: To find out the subjective validity of the questionnaire used in our study, we calculated the square root of the reliability coefficient, and the table below shows the results:

Table 2
Show the results of the subjective validity

	reliability coefficient	Subjective validity
1st half	0.86	0.93
2 nd half	0.81	0.90
All questionnaire	0.84	0.92

Through the aforementioned measures, the previous studies that we touched upon, the pilot study that we carried out on the sample and the arbitration carried out by a committee of the Institute's doctors, our tool has become codified and contains three axes and each axis consists of nine expressions. Except for the first axis, as it contains 5 expressions, so that the answer to the axes is yes or no.

Table 3
Show the axes of the questionnaire and number of the questions

Number	Axes	Number of questions
1	The first axis: Aggressive behavior which contains some manifestations of abnormal behavior	5
2	The second axis: isolation which included phrases referring to the loneliness and introversion that the teenager is exposed to	9
3	The third axis: Low self-confidence which included expressions of adolescent self-confidence	9

Statistical Tools: The researcher used statistical methods like the SPSS Program to calculate: Frequencies, Percentage, and Chi-square goodness of fit test.

Goodness of fit chi-square test:

$$k^2 = \sum_{i=1}^k \frac{(x_i - m_i)^2}{m_i} \quad x_i: \text{observed frequencies} / m_i: \text{expected frequencies. (Akkab, 2015, p. 216)}$$

Guttman Split Half Reliability Coefficient:

$$r = 2 \left(1 - \frac{\sigma_1^2 + \sigma_2^2}{\sigma^2} \right) \quad \sigma_1^2: \text{1st half variance} / \sigma_2^2: \text{2nd half variance} / \sigma^2: \text{overall variance. (Tighza, 2009)}$$

Results

Presentation and discussion of the results of the first hypothesis: This stipulates the role of recreational sports in alleviating the aggressive behavior caused by the COVID-19 pandemic among adolescents.

Table 4

Shows the significance of the differences in the subjects' answers about the role of recreational sports in alleviating aggressive behavior

N	The question	Frequencies (The ratio)		K ²	K ² Scheduled	Difference significances
		yes	no			
1	Do you drop your colleague when announcing a recreational game and ignore the imposition of the spacing?	158 39%	242 61%	17.64	3.84	Significant
2	Do you assault your teammate after losing a game and ignore the imposition of the spacing?	148 37%	252 63%	27.04		
3	Do you make a mess in stressful sporting activities due to the pressure of spacing ?	172 43%	228 57%	7.84		
4	Do you destroy the pedagogic tools because of your enthusiasm in a recreational sport game?	158 39%	242 61%	17.64		
5	Do you say bad words after each sport activity under the pretext of imposing spacing?	159 40%	241 60%	16.81		
Total		400 100				

Scheduled K² = 3.84 - degree of freedom **1** - significance level **0.05**

Through Table 4 we note that the largest percentage of adolescents representing 61 % do not drop their colleagues when announcing a recreation game and respect the imposition of spacing, and 63 % of the number of adolescents do not assault their colleagues after the loss in a game or ignore the spacing, we note that 57 % of them do not make chaos in a sports activity due to pressure of impose spacing, 61 % do not destroy the pedagogic tools due to their enthusiasm in a recreational sports game, and 60 % do not say bad words after each sports activity under the pretext of imposing the spacing, the Chi square goodness of fit test (k2) was also ranged from 7.84 and 27.04, which is greater than the scheduled (k2), witch was 3.84 and these values are statistically significant ,which means there are statistically significant differences in adolescent answers to those who practice recreational activity and do not drop their colleagues or assault their colleagues and make chaos because of quarantine pressure and do not say bad words and respect the imposition of health spacing, from which we conclude that there are statistically significant differences in reducing the aggressive behavior in favor of practitioners of recreational sports activity,

In the light of these results, most of the teenagers decrease their aggressive behavior immediately after they practice recreational sports, and they avoid the harassment of their colleagues and do not rush to attack them, their discussions are quietly not nervously, and a high percentage of them can control their behavior and their language, and this by not assaulting their colleagues in case of anger, and these are all indicators of the adolescent's capability of controlling his emotions in front of difficult attitudes such as anger and aggression.

Presentation and discussion of the results of the second hypothesis: Which stipulates the role of recreational sports in alleviating isolation caused by COVID-19 among adolescents

Table 5

This shows the significance of the differences for examinations on the role of recreational sports in alleviating isolation

N	The question	Frequencies (The ratio)		K ² Scheduled	Difference significances
		yes	no		
1	Are you comfortable with your own in recreational sport?	192 48%	208 52%	0.64	Significant
2	Can you consolidate relationships in a recreational sport game despite your fellow spacing?	227 57%	173 43%	7.29	
3	Do you like recreational sports despite the pressure of COVID-19?	242 60%	158 40%	17.64	
4	Do you feel harassed from isolating your colleagues from you despite an enjoyable game in sport activity?	198 49%	201 51%	0.04	
5	Do recreational sports games make you forget about isolating yourself from your colleagues?	190 47%	210 53%	1	
6	Is it difficult for you to make eye contact with your colleague in a competitive game?	188 47%	212 53%	1.44	
7	Do you feel enjoyment in a sport game despite the distance between you?	231 58%	169 42%	9.61	
8	Does your preoccupation with playing a sport make you forget your colleagues' alienation in the shadow of COVID-19?	209 52%	191 48%	0.81	
9	Are you pleased that there are games in a sporting activity, even if the interaction between you and your colleagues is from afar?	220 55%	180 45%	04	
Total		400			
		100			

Scheduled K² = 3.84 - degree of freedom **1** - and significance level **0.05**

Through Table 5, we note that the largest percentage of adolescents, which represents 52 % , do not feel comfortable on their own in a recreational sport, while the rest, who represent 48 % feel so. In addition, 57 % can consolidate relationships in a sport game

despite the distance with their colleagues, We note that 60 % love sports despite the pressure of COVID-19, and 53 % do not forget a recreational sporting activity that isolates them from communicating with their colleagues, whereas, 53 % of the total number of subjects do not have difficulty communicating visually with their colleagues in a competitive game, and 58 % of them enjoy a sports game despite the spacing between them, and that 52 % believe that being busy playing a sports game makes them forget that their colleagues are away from them in shadow of COVID-19. We also note that the largest percentage of adolescents, which represents 55 % are pleased with the presence of games in a sporting activity, even if the interaction between them was from afar. Also, the Chi square goodness of fit test results are all statistically significant, which means that there are statistically significant differences in the responses of adolescents in favor of those who engage in recreational activity, which leads us to conclude that there are statistically significant differences in the relief of isolation demotion in favor of recreational sports practitioners. In light of these results, most adolescents feel enjoyment, enabling them to consolidate relationships in recreational sports activity despite the spacing between them, nor it is difficult for them to make eye contact from afar because they keep in touch with each other in the recreational sporting activity. Also, most of them love sports despite the pressure of COVID 19 - and are not bothered by the isolation of their colleagues on the presence of sports games in the activity, they also see that their preoccupation with practicing recreational sports make them forget about being apart from their colleagues, They feel happy that there are games in sports activity, even if the interaction between them is from afar. Presentation and discussion of the results of the third hypothesis: This stipulates the role of recreational sports in reducing the weakness of self-confidence caused by COVID-19 among adolescents.

Through Table 6 we note that the largest percentage of adolescents, which represents 59 % do not get afraid of COVID-19 pressure in a sports game against a colleague, and that 56 % of them are not afraid to risk friction with their colleagues in a competitive game, We also note that 56 % of them can resist COVID -19 pressure when announcing a recreational game. A percentage of 53 % represents that the practitioners don't have any difficulties communicating from far away with their colleagues in a competitive game, and that 51 % do not accept the criticism of the responsible if they ignore the spacing imposed, and 52 % do not hesitate to express their opinion of a stressful sports activity despite the health protocol, we counted 52 % of the practitioners can accept the loss in a sports game despite the imposition of spacing, and 59 % of them forget about the COVID-19 pressure in a recreational sports game, the percentage of those who do not

feel confused when they touch a colleague's hand by mistake in a game and he sneezes after that 56 % .

Table 6

The significance of the differences for examinations on the role of recreational sports in reducing the weakness of self-confidence

N	The question	Frequencies (The ratio)		K ² Sche duled	Difference significances
		yes	no		
1	Are you afraid of COVID-19 pressure in a sports game against a fellow?	164 41%	236 59%	12.9	Significant
2	Are you afraid of the risk of friction with your colleague in a competitive game?	175 44%	225 56%	6.25	
3	Do you have the ability to resist COVID-19 pressure when announcing a recreational game?	223 56%	177 44%	5.29	
4	Do you feel confidence and reassurance under the imposition of spacing knowing that all sports activities are games?	232 58%	168 42%	10.2	
5	Do you forget the pressure of COVID-19 in a recreational sports game?	236 59%	164 41%	12.9	
6	Will you feel confused when you touch a colleague's hand and he sneezes after that?	178 44%	222 56%	4.84	
7	Do you accept the criticism of the responsible if you ignore the spacing imposed?	199 49.9%	201 501%	0.01	
8	Have you hesitated to express your opinion about a stressful sports activity despite the health protocol?	194 48%	206 52%	0.36	
9	Can you accept the loss in a sports game despite the imposition of spacing?	210 52%	190 48%	01	
Total		400			
		100			

Scheduled K² = 3.84 - degree of freedom 1 - and significance level 0.05

Also, the Chi-square goodness of fit test results are all statistically significant, which means that there are statistically significant differences in the responses of adolescents in favor of those who engage in a recreational activity, which leads us to conclude that there are statistically significant differences in mitigating the weakness of self-confidence in favor of practitioners for recreational sports activity.

In the light of these results, most adolescents are not afraid of the pressure of COVID-19 and do not fear the risk of friction with their colleagues, most of the adolescents can resist COVID-19 pressure through recreational sports activity and are confident and reassuring despite the spaces between them and do not accept excessive physical stress despite the health protocol and accept the loss in any sports game that makes them forget the pressure on them either from COVID or the pressure of harsh life, they also do not get

confused if a colleague sneezes or feels tired, and all this self-confidence is due to the need for recreation through recreational sports activity.

Discussions

Through research, hypotheses, objectives, and what resulted in the results of the analysis of tables and, in the light of discussing these are the results we reached:

1. Most of the adolescents who engage in recreational sports are characterized by low aggressive behavior despite the pressure of the COVID-19 pandemic, this is consistent with the study of Sharef Si-laarbi (2014), which stipulated that the proposed recreational program had a positive impact on minimizing the phenomenon of aggressive behavior at high school pupils, and Mohamad's study adds that recreational sports activities have a role in minimizing aggressive behaviors of the pupils at the final sections of high school. Through the analysis of our tables and from previous studies, we can say that our first hypothesis, which states that recreational sports alleviate the aggressive behavior caused by the COVID-19 pandemic, has been achieved.

2. The adolescents practicing recreational sports activities are characterized by too much social contact and they do not suffer from isolation, this is consistent with the study of Mustafa Ayad (2018), which concluded that recreational physical and sports activity has a role in social interaction, after there are differences between the two groups, practitioners and non-practitioners, for the benefit of practitioners, this is confirmed by the study of Hajaj Saad, Barkat Houssin (2018) which concluded that there are statistically significant differences at the level of significance (0.01) between invasive juveniles practicing recreational sporting activity and non-practitioners, in favor of invasive juveniles practicing recreational sporting activity.

Through the analyzes of our tables and discussion and the results of previous studies, we can say that our first hypothesis which states that recreational sports activities have a role in alleviating the isolation under the COVID-19 pandemic has been achieved.

3. The adolescents practicing recreational sports activities are characterized by high self-confidence and are not affected by the COVID-19 pandemic, This is consistent with a study of Arnab, Hamza, and others (2014), which resulted in the development and positive and notable change in minimizing psychological problems and increasing self-confidence at practitioners for recreational sports activity unlike non-practitioners, and the study of Abd El-Wahed Haniid EL- Khabissi (2011), which has reached that recreational activities have an impact on the acquisition of self-confidence pupils, values and different social skills. Through the analyzes of our tables and discussion and the results of previous studies,

we can say that our third hypothesis which states that recreational sports activities have a role in mitigating the weakness of self-confidence under the COVID-19 pandemic has been achieved.

Conclusion

The need for self-entertainment is a humanitarian need that has its importance, and usually, we find that we put entertainment and entertainment activity on a side place of our lives and do not give it particular importance, especially at this difficult time of Coronavirus, and to realize how important it is for them and the community, entertainment is a manifestation of human activity characterized by mental, psychological and physical health, the inclusion of recreational sports activity and practicing its all different types and forms is a very useful activity of all segments of society. Finally, we found that the practice of recreational sports activity alleviates the psychological problems (aggressive behavior, social isolation, and low self-confidence) caused by quarantine measures in adolescents.

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Recommendations

- We recommend practicing recreational sports activities in free time to relieve some psychological pressures, especially in these epidemiological conditions of the Coronavirus, while respecting the preventive measures.
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