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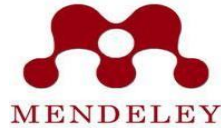
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İÇİNDƏKİLƏR

CONTENTS

Tinatın Mshvidobadze

Women in Science: Challenges and Opportunities 7

Fatma Hacıyeva

Orta məktəblərdə riyaziyyatın tədrisi və müəllim hazırlığının inkişafı 12

Fərqanə Əliyeva

Natiqlikdə effektiv nitq texnikaları: fonetik və ritorik yanaşmalar 17

Birja Bayramova, Zahra Mahmudzada

Why Did the Cradle of Civilization Collapse? 22

Maka Sosanidze

Prospects for Transitioning to a Circular Economy 29

Akif Hüseynov, Ruqiyyə Tağıyeva, Fatimə Vahidova

Universitetlərin ikinci kurslarında rəngkarlıq fənninin tədrisində milli məişət əşyalarından istifadənin imkan və yolları 35

Təhminə Əliyeva

Türklərin Qafqazdakı toplumlara təsiri 40

Müşfiq Çobanov

“Koroğlu” eposunun yaranma tarixi, coğrafiyası, nəşri, tədqiqi və təbliği 45

Teldja Badra, Habbal Souheyla, Hairech Noureddine

Towards Enhancing the Performance of Civil Society in Light of the Participatory Democracy Approach: A Comparative Study of the Brazilian and Moroccan Experiences 64

Emiliya İgidova

Yeniyyətlərdə psixi sağlamlığın qorunmasının effektiv yolları 73

Almaz Erbay

Pandemiyadan sonrakı dövrdə iş modelləri, şəxsiyyət tipologiyaları və təşkilati davranış nəticələri arasındakı yeni dinamikaların elmi təhlili 77

Zahera Malika Benmessabih, Mohamed Mekkaoui

The Process of Verbalization: A Lexical Teaching Approach for Undergraduate Students in French Language and Literature 85

Zemfira Babayeva

Nəriman Məmmədovun bəstəkarlıq yaradıcılığı 94

Sihem Laib

Constructing Educational Content in Arabic Language Textbooks for Non-Native Speakers: An Evaluative Study of the Third Volume of *Arabic for the World Series* by Mohamed Abdel Khaleq Mohamed Fadl 100

Aissa Mefedjekh, Bouarfa Abdelkader

Programming Research and Development Activities in Algeria Between Description and Implementation 111

Fidan Abdullayeva

Azərbaycan Xalq Cümhuriyyəti dövründə təhsil hüququnun inkişafı 125

Mohammed Arbaoui, Hedad Badia

Value Change in the Context of Applied Ethics 130

Soumia Boutira

The Role of Judicial Reasoning (*ijtihad*) in Shaping Its Provisions 138

Murad Mammadov

The Role of the Dollar in the Turkish Economy 145

Samira Rabehi

What Writing Practices When English Influences French in Algerian Primary Education? 151

Mədinə Qurbanova

Azad iradə və determinizm: Filosofların baxışları və müasir tətbiqlər 157

Benchikh Razkia

Internet Addiction Among Adolescents in Light of the COVID-19 Crisis:
A Clinical Study of Some Cases 164

Ali Houiche

The Role of Recreational Physical Activity in Reducing Psychological Pressures During the Covid-19 Pandemic for Individuals with Physical Disabilities 177

Ouahiba Laib

The Use of Folk Tales in the Algerian School Textbook: The Fifth-Grade Arabic Language Textbook 194

Emil Golumb

Administrative-Political Elite in the Political-Administrative Structure: Concepts, Functions, and Recruitment Mechanisms..... 203

Anar Məmmədov

Missiya – vizyon – dəyərlərin strateji planlaşdırmada integrasiyası: komanda və nəticələr 208

Müjgan Abdullayeva

Ənənəvi və onlayn təlim modellərinin müqayisəsi..... 213

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The Role of Recreational Physical Activity in Reducing Psychological Pressures During the Covid-19 Pandemic for Individuals with Physical Disabilities

Abstract

The research aims to know, in a detailed and direct manner, the role that recreational physical activity plays in the reducing and in the lessening of psychological pressures in the shadow and within the circumstances of the Corona Covid-19 pandemic for those persons who are physically disabled in their movement, and also its role in the reduction of the phenomenon of anxiety and of frustration. The descriptive method was used and applied on a sample that was composed of 20 physically disabled individuals from the Nour Club and the Amal Bousaada Club, belonging to this category in the Wilaya of M'sila and in the city of Bousaada.

As for the preparation of the questionnaire, it was based and constructed upon many of the previous studies that were directly related to the subject of this research. From the results that were obtained, we can point out the following:

- Recreational physical activity contributes in a high degree to the alleviation of the phenomenon of anxiety among the physically disabled in the light of the Corona Covid-19 crisis.
- Recreational physical activity contributes also in a high degree to the alleviation of the phenomenon of frustration among the physically disabled in the light of the Corona Covid-19 crisis.

Keywords: *sports recreation, leisure time, physically disabled individuals, corona*

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Fiziki məhdudiyyətli şəxslərdə COVID-19 pandemiyası dövründə psixoloji təzyiqlərin azaldılmasında rekreasiya yönümlü fiziki fəaliyyətin rolu

Xülasə

Tədqiqatın məqsədi fiziki cəhətdən əlil olan şəxslər üçün COVID-19 pandemiyasının kölgəsində və şəraitində psixoloji təzyiqlərin azaldılmasında istirahət yönümlü fiziki fəaliyyətin rolunu, eləcə də narahatlıq və məyusluq fenomenlərinin azaldılmasındakı təsirini ətraflı və birbaşa şəkildə öyrənməkdir. Təsviri metod M'sila vilayətində və Bousaada şəhərində bu kateqoriyaya aid olan Nur Klubu və Amal Bousaada Klubundan olan 20 fiziki məhdudiyyətli şəxs üzərində istifadə edilmiş və tətbiq olunmuşdur.

Anketin hazırlanması isə bu tədqiqatın mövzusu ilə birbaşa əlaqəli olan əvvəlki tədqiqatların bir çoxuna əsaslanaraq həyata keçirilmişdir. Əldə edilən nəticələrdən aşağıdakıları qeyd etmək olar:

- İstirahət məqsədli fiziki fəaliyyət COVID-19 böhranı dövründə fiziki məhdudiyyətli şəxslər arasında narahatlıq fenomeninin aradan qaldırılmasına yüksək dərəcədə töhfə verir.
- İstirahət məqsədli fiziki fəaliyyət COVID-19 böhranı dövründə fiziki məhdudiyyətli şəxslər arasında məyusluq fenomeninin azaldılmasına da yüksək dərəcədə töhfə verir.

Açar sözlər: *idman istirahəti, asudə vaxt, fiziki məhdudiyyətli şəxslər, corona*

Introduction

Among the matters that happened and occurred in the circumstances of contemporary societies today, with regard to recreation, is the change that took place in the attitudes of people toward recreational activities, at the time when people started to live in cities that are crowded with inhabitants, and when their leisure time increased by the reduction of daily working hours, where recreation became to represent a vital necessity for people's lives. Nevertheless, the participation of people in recreational activities does not happen at the level and at the rate that it was supposed and expected to be. In addition to the fact that recreation is a free activity, the choices of people for recreational activities were not made in a rational way that suits their work conditions and their needs: for those who exert a mental effort in their work need a mental type of recreation, while those who do not exert a mental effort in their work are in need of recreational activities where they exert a physical effort. And because the choice is free in recreational activity, at the same time when the attitudes of people toward recreational activities have changed, the choices of people for the recreational activity that they practice came not suitable for their needs from recreational practice. The presence of recreational institutions for games helped people's interest to turn largely toward sports games without giving attention to the other forms and activities of recreation. Consequently, recreation did not achieve for people the functions that could have been beneficial. And due to its necessity at the present time for the large sectors of the masses with their different age categories, especially the youth, this situation created an urgent need to put an appropriate formulation for recreational development at the present, one that is consistent with the social, psychological, physical, and mental needs of the human being, as well as the circumstances of the era and the nature of societies as a human entity that should intervene to contribute positively in this field by using its three aspects, its methods, and its principles.

Research

The interest in recreation as a behavioral and civilized manifestation of man, and as a subject that deserves research and study, started at the end of the nineteenth century with the emergence of social sciences and the advancement of research in sociology, psychology, and anthropology on the one hand, and the appearance of social work with its scientific approach and field studies on the other hand. The method of social work and the human sciences looked at recreation as an important aspect of human behavior and as a civilized manifestation of human societies, and thus they dealt with it as a fundamental subject and a general phenomenon that is linked to human life and to the social structure (Amer, 2009, p. 54).

In this study, we focused on the role of recreational physical activity in reducing psychological pressures in the context of the Covid-19 pandemic. And we have tackled in this subject two aspects, a theoretical one and an applied one.

The theoretical aspect: In the first chapter we dealt with recreational physical activity in terms of its history, concept, types, importance, theories, and influencing factors. In the second chapter we dealt with psychological pressures from the perspective of history, concept, types, and sources of pressure, and we also dealt with anxiety and frustration, explaining their concepts, classifications, and types. As for the third and fourth chapters, we dealt with Covid-19 and physical disability.

The applied aspect: It consists of two parts. The first part: we clarified in it the procedures of the field study. The second part: we dealt with the presentation, analysis, and discussion of the study's results, then we presented the most important conclusions, and finally we ended our research with a conclusion.

The methodological aspect

1-1- The problem of the study:

Physical and sports activity is considered one of the refined forms of the motor phenomenon in man, and it is the most organized and the most elevated of the other forms of physical activity. Matveev defined it as a special form of activity, which is organized competition for the sake of measuring capabilities and ensuring their maximum determination. Thus, what characterizes sports activity is the physical training with the aim of achieving the best possible result in competition, not

only for the athlete himself but also for the activity in itself / itself, and it adds a necessary social character, because physical activity is a cultural product of the competitive nature of man as a social cultural being.

The need for amusement of the soul is a human need and it has its importance, and usually, we find that we put amusement and entertainment in a side place in our lives and we do not give them any importance. This depends on the recreational awareness of the individual and his perception of its importance for him and for the society. Over time, people found a way to express themselves in an amusing manner. Regardless of how much time and place may differ, human nature and human needs are not to be distinguished by skin color, gender, or belief, and there is the natural inclination of a person to perform activities that express his ideas. Recreation and amusement are a way of life and a style of living.

Everyone sometimes feels pressure. A person may also pass through all types of stressful situations that can be part of daily life, and stress can be useful or motivating. Psychological pressure is the feeling that you are under an abnormal pressure, and this pressure can come from different aspects of life such as: increased workload, a transitional period, a family argument, or new financial worries. You may find that it has a cumulative effect, so all the stresses will add up to each other, and in such cases you may feel depressed, and the body may react with tension, anxiety, and irritability, which can cause all types of physical symptoms.

Coronaviruses are a large family of viruses that are known to cause illnesses that range between the common cold and more severe diseases, such as Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS). A new coronavirus was identified in 2019 in the city of Wuhan, China. This virus represents a new strain that has not been previously identified in humans.

We conclude that recreational physical activity is a purposeful and constructive activity that contributes to the development of skills, values, and educational attitudes of the individual who practices it, and it contributes to the development of the individual's personality. This leads us to pose the following question:

Does recreational physical activity contribute to reducing psychological pressures among the physically disabled in the context of the Covid-19 pandemic?

1-2- Sub-questions:

- Does recreational physical activity contribute to reducing the phenomenon of anxiety among the physically disabled in the context of the Covid-19 pandemic?
- Does recreational physical activity contribute to reducing the phenomenon of frustration among the physically disabled in the context of the Covid-19 pandemic?
- Are there statistically significant differences among the sample members in the level of psychological pressures attributed to the variable (gender, age, type of disability)?

Hypothesis:

- Recreational physical activity contributes to reducing psychological pressures among the physically disabled in the context of the Covid-19 pandemic.

Partial hypotheses:

- Recreational physical activity contributes to reducing the phenomenon of anxiety among the physically disabled in the context of the Covid-19 pandemic.
- Recreational physical activity contributes to reducing the phenomenon of frustration among the physically disabled in the context of the Covid-19 pandemic.
- There are statistically significant differences among the sample members in the level of psychological pressures attributed to the variable (gender, age, type of disability).

1-3- Objectives of the Study:

This study aims to recognize and to identify the following:

- To identify the role of recreational physical activity in the reduction of the phenomenon of anxiety among the physically disabled in the context of the Covid-19 pandemic.
- To identify the role of recreational physical activity in the reduction of the phenomenon of frustration among the physically disabled in the context of the Covid-19 pandemic.

- To identify whether there exist statistically significant differences among the members of the sample in the level of psychological pressures attributed to the variable (gender, age, type of disability).

1-4- Importance of the Study:

The importance of the study lies in the following:

- To highlight one of the aspects of the role that recreational physical activity plays for the physically disabled from the recreational side and in removing the pressures that are practiced upon them from the society or from any other party.
- To provide the library with a scientific reference, and to contribute with this study as an addition to the scientific efforts that were made, which tackled through research and study the subject of recreational physical sports activity, and which gave it attention and care.

1-5- Definition of Concepts and Terminologies:

Recreational Physical Activity:

Activity, linguistically: from the source *nasata* (نشط), meaning every mental or biological process that depends on the use of the energy of the living being (Qamoos al-Ma'ani).

Physical activity, technically: In our present time, physical and sports activity has become an element of solidarity between sports groups and an opportunity for the youth of the whole world to know and to become acquainted with one another in the service of society. In addition, it contributes to the realization of the individual's self by giving him the chance to prove his natural qualities, and to realize his self through struggle and exertion of effort. It is considered a factor from among the factors of social progress and, at times, professional progress (Mansour, 1971, p. 209).

Recreation, linguistically: The linguistic dictionaries indicate that the origin of the word *Recreation* is that it is composed of two parts: *Re* meaning again, and *creation* meaning creation, so the literal meaning of the word is "re-creation," which is a figurative meaning intended to denote renewal and refreshment as outcomes of the practice of recreation.

The Webster Dictionary defines recreation as "revival of the powers and the spirit after fatigue; it is amusement, it is enjoyment."

The Oxford Dictionary defines recreation as "refreshing yourself by some entertaining functions or passing the time, and it is enjoyment."

Recreational physical activity, technically: It is a way of life and a lifestyle that is characterized by containing activity, which may be a violent activity as in sports and violent games, or a purposeful activity as in reading a book or listening to music. Recreational activity is diversified according to the interests of individuals, and what one individual tastes another might not, and what one considers as a recreational activity at one time may not be such at another time if it lacks renewal. If the individual does not feel that feeling characterized by happiness and distinctiveness of recreational activity, then the practice of some activity will not be considered another activity that provides renewal and feeling of happiness. This necessitates that the individual be familiar with numerous recreational activities in order to achieve the characteristic of challenge and the feeling of happiness (Tehani, 2001, p. 104).

Operational definition: Recreational physical activity is an activity practiced by the individual in his leisure times with the aim of entertaining himself, removing the accumulated pressures upon him, and achieving psychological comfort.

Psychological Pressures:

Linguistic definition: Ibn Manzoor defined it as coming from pressing (*dhatta*), meaning to squeeze something into something else. *Daghatahu* means "he pressed him, squeezed him, pushed him to a wall or such." From it comes "the pressure of the grave." In the Hadith: "You will be pressed on the gate of Paradise," meaning you will be crowded. It is said: *dhatta* when one squeezed and constrained and subdued (Manzoor, 1988, p. 537).

Technical definition: Lazarus defined pressure as the interaction between the individual and his environment, through which the situation is evaluated as surpassing his energy and capacities and threatening his comfort (Lazarus & Folkmane, 1984, p. 19).

Operational definition: Psychological pressure is the response that results from stressful circumstances or events, which cause for man a state of discomfort or instability, because man is unable to achieve balance between the demands of events and his responses to them.

SARS-CoV-2:

Technical definition: Coronaviruses are a broad strain of viruses that may cause disease to animals and humans (zoonoses). It is known that a number of coronaviruses cause in humans respiratory diseases that range in their severity from common cold to the more severe diseases, such as Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS). The newly discovered SARS-CoV-2 virus causes the disease Covid-19. Covid-19 is a contagious disease caused by the most recent virus discovered from the strain of coronaviruses. There was no knowledge of the existence of this new virus and its disease before the beginning of its outbreak in Wuhan, China, in December 2019. Since March 2020, Covid-19 has turned into a global pandemic.

Operational definition: SARS-CoV-2 is the short name for Severe Acute Respiratory Syndrome Coronavirus 2. It is the virus that caused the current pandemic. The disease that results from SARS-CoV-2 has been officially named Coronavirus Disease, or Covid-19.

Physical Disability:

Linguistic definition: From 'aqa (عاق), to prevent. The definition means prevention and use; it is to prevent something from performing its activity normally, whether this obstacle is material or sensory, i.e., all obstacles and types of deficiency that stand in the way of a person, whether internal or external (Manzoor, 1983, p. 25).

Technical definition: It is a physical obstacle that prevents the individual from performing motor or sensory functions, or both, accompanied by a difference in motor balance. The affected individual needs psychological, medical, social, educational, and professional programs to help him achieve his aims in life (Khassi, 2000, p. 12).

Operational definition: Physical disability is the disability that results from bodily or physical defects, and these defects are related to the bones, joints, and muscles. A person affected by such defects is called physically disabled. Scientists see that the physically disabled person is the one who has a physical obstacle that prevents him from performing his motor functions normally, whether for genetic reasons or for acquired ones.

Anxiety:

Linguistic definition: The linguistic meaning of the word *qalq* (قلق) is: the shaking of something, i.e., it did not settle in one place, it was disturbed and worried, so he is anxious (Mustafa, 1973, p. 18).

As it is defined in the Oxford Dictionary (1989) as “an unpleasant feeling in the mind that arises from fear and uncertainty about the future” (Manzoor, 1973, p. 127).

Ahmed Okasha (1988) defined it as “a vague, unpleasant feeling of apprehension, fear, alertness, and tension, usually accompanied by some bodily sensations, especially the increase of activity of the autonomic nervous system, which comes in attacks that recur in the same individual, such as shortness of breath, palpitations, or headache” (Okasha, 1988, p. 10).

Anxiety:

Technical definition: Malham defined it as a general vague unpleasant feeling accompanied by fear, worry, and alertness, and it is usually accompanied by some bodily sensations of unknown source, such as the increase of blood pressure, tension of muscles, palpitation of the heart, and increase of sweat secretion (Malham, 2001, p. 323).

Operational definition: Anxiety is defined as the psychological state that afflicts a person as a result of the accumulation of a group of cognitive, bodily, and behavioral elements, leading this person to feel a state of lack of psychological comfort and the loss of control over fear and tension. The person afflicted with anxiety is not able to identify its reason with precision, and anxiety may appear in the form of an obvious tension of the person, and this tension continues for long periods as a result of the feeling of this person that he might be exposed to some kind of danger. This leads to his being afflicted with a state of severe anxiety, which negatively affects the course of his life.

Frustration:

Linguistic definition: It is depriving an heir of his share or from his inheritance (Al-Munjid French-Arabic, n.d., p. 400).

Technical definition: It is a situation, state, or action that prevents a person from achieving one of his social or psychological needs (Abdelhamid, 2008, p. 29).

Operational definition: It is defined as the state of despair and disappointment that afflicts an individual, pushing him toward surrender and the desire for withdrawal, and it may result in the loss of self-confidence. This state often appears after repeated failed attempts and the loss of efforts made in order to achieve a specific goal, whether due to external obstacles such as economic and social factors, or due to internal obstacles that originate from the individual himself.

1-6- Previous Studies:

Study of Abdullah Bajaymia Nour Eddine (2016): *The effectiveness of educational sports programs in reducing aggressive behavior.*

A dissertation to obtain the PhD in the specialization of Physical Educational Sports Activity. The aim of the study was to identify the differences in the degrees of the Aggressive Behavior Scale among the members of the sample through verbal assaultive aggression, speed of response... etc.

Methodology: The researcher used the comparative causal studies method. The sample size was 139 male and female pupils from those studying in a sports education system. The study relied on the Aggressive Behavior Scale and the Technical Skills Scale to collect its information.

Results: No significant differences were found between the degrees obtained by the two samples in instilling self-confidence. No significant differences between the registered degrees of the two samples in the ability of concentration and attention. No significant differences between the degrees of the two samples in the dimension of the ability to confront anxiety.

Study of Rahli Mourad (2009): for obtaining the Master's degree in the Theory and Methodology of Physical and Sports Education. Entitled: *The role of recreational physical activity in achieving psychosocial adjustment for the mentally retarded.*

The researcher hypothesized that recreational sports activity has a positive effect on achieving personal adjustment for the mentally retarded. The aim of the study was to recognize the role played by recreational sports activity in achieving psychosocial adjustment for the mentally retarded.

Methodology: The researcher used the experimental method which he saw suitable for his study. The sample was chosen deliberately, and it consisted of 44 children from "special education" classes (with mild and moderate mental retardation). He applied the experimental design of pre-test and post-test for a control group and an experimental group, in the medical pedagogical center for mentally retarded children in the Wilaya of M'sila.

The researcher used the Adaptive Behavior Scale of the American Association on Mental Deficiency, prepared by Kazuo Fera and colleagues in 1974.

Results: The mentally retarded (mild and moderate), i.e., educable, obtained recreational sports activities inside the medical pedagogical centers, which led to the development of some motor skills, whether locomotor or non-locomotor movements. This showed growth in some psychological aspects, in addition to the growth of social skills. This appeared clearly through: the presence of statistically significant differences at the 0.01 level, between the averages in the post-test between the experimental group and the control group in the growth of basic motor skills (locomotor, non-locomotor, and object control movements).

Study of Bashir Hossam (2006): Master's thesis at the Institute of Physical Education and Sports, Sidi Abdellah, Algeria, Class of 2006. Entitled: *The importance of practicing recreational sports activity in reducing psychological problems for the physically disabled athlete.*

This study confirms the role of recreational sports activity in overcoming the psychological problems faced by the physically disabled athlete. The researcher used the descriptive method, and distributed questionnaires to 20 instructors in order to know their opinions about recreational sports activity directed to the physically disabled category, and also about the role of the instructor in reducing the psychological problems that this category faces. He also used the Self-Confidence Scale

prepared by Sidney Shrager (1990), and the Anxiety Scale designed by Spielberger (1970) and translated by Mohamed Hassan Allawi, directed to the physically disabled, whose number was 120. From them, the researcher chose 40 physically disabled persons on whom he applied the two scales.

Results: The researcher concluded that practicing recreational sports activity for this category will help them to discharge their energy, direct it, and use it well. It also helps them to get rid of various psychological problems such as anxiety, and to increase self-confidence. On the other hand, the instructors agreed on the choice of the disabled themselves for activities that represent the only means through which the disabled can reduce anxiety and increase self-confidence, and overcome the psychological problems they face. It also helps in academic achievement through acquiring many skills.

Study of Saba Najib Mahmoud Abu Aziza (2004): A Master's thesis in Physical Education, entitled: *The effect of modified recreational activities on the psychological dimension of the physically disabled*.

The study aimed to recognize the psychological dimension of the physically disabled, and then to recognize the effect of practicing modified sports activities according to a number of independent variables, through knowing the following:

- The traits of the physically disabled in the field of the psychological dimension.
- The most important psychological differences among the physically disabled through practicing modified sports activities.
- To know whether there are differences in a type of depression among the physically disabled through practicing modified sports activities.
- To research some statistically significant differences of practicing modified sports activities on social support among the physically disabled.

Methodology: The researcher used the experimental method, following the experimental design of two equal groups, pre-test and post-test. The study was conducted on a sample of 96 physically disabled children with an average age of 22 years. The researcher chose 36 disabled children for the experimental group.

The researcher used a psychological test designed and developed by the researcher herself to measure the dimensions intended to be measured.

Results of the study:

The results showed the occurrence of a development in the psychological dimension that was largely linked to the training age ranging between five and six months, that is, in the cases where the disabled person had acquired a new experience. As for the variables in the cause and type of disability, they did not give the expected significance that many studies had confirmed. On the other hand, the study reached the finding that there was a statistically significant effect for the practice of modified recreational sports activities on the psychological dimension, while no statistical significances appeared on the other study variables. The study concluded with the positive role played by modified recreational activities in reducing the negative manifestations of these cases and in developing the positive aspects in the feelings and behaviors of the disabled, thus ridding him from the negative manifestations that are associated with disability.

Study: Turki Ahmed (2004):

The role of competitive sports activity in the social integration of the physically disabled. Master's dissertation, Department of Physical and Sports Education, University of Algiers.

Objective of the study: The researcher dealt with the subject of the social integration of the physically disabled as a variable that is positively affected by the practice of adapted competitive sports activity.

Methodology: The researcher used the descriptive method.

Sample size: 20 physically disabled individuals.

Results of the study: The existence of a correlation between adapted competitive physical activity and the acceptance of disability, through proving the differences between practitioners and non-practitioners of physical sports activity. Likewise, there was a relationship between the individual

characteristics of the physically disabled person and his social integration, and the existence of differences in positive social behavior between practitioners and non-practitioners, in favor of the practitioners of adapted competitive sports activity.

After applying the research tools represented in the Disability Acceptance Scale and the questionnaire on two groups, one group of practitioners represented in athletics clubs, and another group of non-practitioners represented in the students of vocational training centers.

Study: William Rice (2020):

Changes in Recreational Behaviors of Practitioners of Recreational Activity During the Covid-19 Pandemic: An Analysis Across Urban and Rural Communities.

The aim of this study was to know the effect of the Covid-19 pandemic on practitioners of recreational activity. The researcher sent 63,890 emails. Out of a total of 63,890 recipients, 3,003 individuals opened the email that contained the survey link, and 1,012 respondents agreed to complete the survey, for an overall response rate of 4.7%, or an adjusted response rate of 33.7% (based on the opened emails), which is within the expected range for online surveys (Blumenberg & Barros, 2018).

Respondents resided in 49 U.S. states and territories and 14 countries, consisting of 57.8% females, with an average age of 47 years. The researcher concluded that practitioners of outdoor recreational activities are disproportionately affected by the recreational burden of the pandemic: their participation decreases, their recreational places change, and recreation in urban areas decreases to a greater degree than that of rural residents. In another way, the results point out that planners and public land managers should give extra attention to the recreational capacity of urban residents during this crisis.

3-1- The Exploratory Study:

Exploratory studies are considered one of the most important steps that a researcher should follow during the carrying out of a field study. In this study, we conducted an exploratory visit to the clubs that were the subject of the study, where I asked some questions related to the role of recreational physical activity in reducing psychological pressures in the context of the Covid-19 pandemic. Five (05) questionnaires were distributed for the purpose of the exploratory study, which aimed at:

- Keeping the student away from falling into mistakes in the basic study.
- Recognizing the population of the study.
- Knowing the extent of suitability of the study tool with the research population (Baba Arabi

Latifa, 2012, p. 47).

The objectives of this study were:

- To know the difficulties that the researcher may face during the carrying out of the study.
- To recognize the field of application and conducting of this study.
- To know the readiness of the employees of the directorate to assist us in conducting the study.
- To know the extent of difficulty or ease of the questionnaire questions presented.

From this exploratory study, we recognized a group of results:

- Recognizing the population of the study.
- Delimiting the sample of the study.

The Spatial and Temporal Scope

The spatial scope: The spatial scope in which the exploratory study was carried out consisted of the Nour and Amal Bousaada Clubs for wheelchairs.

The temporal scope: The temporal period during which the exploratory study was carried out extended from April 15, 2021, to April 16, 2021. As for the field study, it extended from April 20 to May 15, 2021.

3-2- Method of the Study

The foundation in scientific progress today is no longer the mere obtaining of a larger quantity of knowledge, but rather the foundation is the means that enables us to obtain this quantity and to invest it in the shortest possible time and with the simplest efforts. The means in this regard is the scientific method with all of its givens. Therefore, the scientific method is considered the way that the

researcher follows to reach instructions or results in a precise scientific manner, as well as being the set of general rules that guide the research to reach scientific truth.

The method is a way that helps in research, and the scientific researcher cannot dispense with it, for without the method the research would be a mere collection of information unrelated to scientific reality. The method differs from one study to another depending on the nature and problem of the research subject, and also depending on the differences between researchers, their capacities, and their possibilities. Based on methodology books, the descriptive method is the most efficient in uncovering the truth of the phenomenon and highlighting its characteristics. When the researcher wants to study a phenomenon, the first step he takes is to describe the phenomenon he wants to study and to collect precise data and information about it. The descriptive method studies the phenomenon as it exists in reality, describes it precisely, and expresses it quantitatively (Morris, 2004, p. 102).

- In line with the objectives and the nature of the study subject, we relied on the application of the descriptive survey method through the role of recreational physical activity in reducing psychological pressures in the context of the Covid-19 pandemic for some wheelchair basketball clubs in M'sila.

- Thus, the descriptive method can be defined as the set of research procedures that integrate to describe a phenomenon based on the collection of facts and data, their classification, treatment, and quantitative and precise analysis, in order to extract their indications and to reach results and generalizations about the phenomenon or the subject under research (Malham, 2002, p. 352).

3-3- Variables of the Study

Based on the hypotheses of the study, it became clear to us, and in an explicit manner, that there are two variables: one independent and the other dependent.

The independent variable: It is the variable that determines the variables of importance, and it is sometimes called the experimental variable, i.e., that which the researcher fixes in order to verify the effect of a certain event. It is of special importance since it can be controlled, manipulated, and compared. The independent variable is the variable that the researcher assumes is the cause or the causes of a certain result, and the study leads to knowing its effect on another variable. In our study, the independent variable, i.e., the cause of the study subject, is: recreational physical activity.

The dependent variable: It is the variables resulting from processes that reflect performance or behavior. Accordingly, the stimulus is the independent variable, while the response represents the dependent variable. The latter, in our study, is: psychological pressures.

3-4- The Population and Sample of the Study

The population of the study: The population of the study is defined as including all the elements and items of the problem or phenomenon under study (Rihi & Othman, 2009, p. 138).

Mohamed Ubaidat defined it as all the individuals, events, or observations of the research subject or study (Ubaidat, 1999, p. 84).

The population of our research consisted of some wheelchair basketball players in the Wilaya of M'sila.

Table 1. The Research Population and Sample Members.

| Research Population | Wheelchair Basketball Players |
|--|-------------------------------|
| Nour Club – M'sila (wheelchair basketball) | 10 players |
| Amal Club – Bousaada (wheelchair basketball) | 10 players |

Research Sample

The sample is regarded as a part of the whole, or some of the entire population, in an attempt to reach certain generalizations that strive for results which are more accurate, objective, and closer to reality (Allaa, 1997, p. 58).

In this study, we relied on a sample estimated at 20 individuals. The sample consisted of 20 participants: 5 individuals for the exploratory study and 15 for the main study.

3-5- Methods of Data Collection (Tools of Data Collection)

In order to cover the topic from all of its aspects, we used the questionnaire form, which is considered a principal tool for collecting overall data about limited facts from a relatively large number of persons. It is a set of systematically interrelated questions.

The questionnaire form is also defined as: a set of related questions concerning a certain subject, placed in a form that is sent to the concerned persons by mail or delivered by hand, in preparation for obtaining answers to the questions included. Through it, one can reach new facts about the subject and verify information that may be known but not supported by evidence. It is also defined as a tool for collecting data related to the subject of scientific research by means of a form that is filled out by the respondent (Khaled, 2016, p. 51).

The form specific to this study contained two sections:

- **The first section:** includes the personal data of the respondents (gender, age, type of disability).
- **The second section:** includes twenty (20) questions, ten questions for each axis.

A three-point Likert scale was used (Always – Often – Never).

3-6- Psychometric Properties of the Research Tools (Validity, Reliability, Objectivity)

Validity

By the validity of the tool is meant the ability of the questionnaire to measure the variables for which it was designed. To verify the validity of the questionnaire used in the research, we relied on the following:

a- Face validity: To verify the validity of the research tool content, and to ensure that it serves its objectives, the questionnaire was presented to a panel of university professors as referees to study the tool and to provide their opinions regarding the appropriateness of the statements for the content. They were also asked to examine the adequacy of the tool in terms of the number of statements, its comprehensiveness, and the content of its statements, or any other comments they deemed appropriate. The referees' notes and suggestions were studied, and modifications were made in light of their recommendations and opinions, so that the tool became more suited to achieving the objectives of the research. Taking into account the referees' notes and applying the required modifications was considered as face validity and content validity of the tool.

b- Criterion validity: The coefficient of criterion validity was calculated by taking the square root of the Cronbach's Alpha reliability coefficient, as shown in Table (2). We find that the overall validity coefficient of the research tool reached (0.803), which is a very high coefficient and suitable for the purposes and objectives of the research. Accordingly, it can be said that all the statements of the research tool are valid for what they were designed to measure.

c- Internal consistency validity: After verifying the face validity and criterion validity of the research tool, Pearson's coefficient was used to confirm the construct validity and internal consistency, and to determine the extent of its internal homogeneity. The following tables illustrate this.

Table 2. Correlation Coefficient of the Statements with the Overall Score of Each Axis.

| Axis One | | | Axis Two | | |
|----------|-------------------------|--------------|----------|-------------------------|--------------|
| Item №. | Correlation Coefficient | Significance | Item №. | Correlation Coefficient | Significance |
| 01 | 0.847** | 0.000 | 11 | 0.638* | 0.000 |
| 02 | 0.780** | 0.001 | 12 | 0.198 | 0.000 |
| 03 | 0.950** | 0.000 | 13 | 0.899** | 0.000 |
| 04 | 0.899** | 0.000 | 14 | 0.659** | 0.007 |
| 05 | 0.659** | 0.007 | 15 | 0.973** | 0.000 |
| 06 | 0.973** | 0.000 | 16 | 0.899** | 0.000 |
| 07 | -0.373 | 0.172 | 17 | 0.582* | 0.002 |
| 08 | 0.904** | 0.000 | 18 | 0.552* | 0.002 |

| | | | | | |
|-----------|---------|-------|----|--------|-------|
| 09 | 0.761** | 0.001 | 19 | -0.403 | 0.172 |
| 10 | 0.818** | 0.000 | 20 | 0.638* | 0.000 |

Note: Correlation is significant at the 0.01 level.

Source: Outputs of the Statistical Package for the Social Sciences (SPSS), version 22, prepared by the student.

From Table (2) we observe that all the questionnaire items possess a very high degree of validity, and they are statistically significantly correlated with the total score of their respective axis. In the first axis, the correlations ranged between (0.973 and 0.659), except for item 7, which was not valid with a probability ($\alpha = 0.172$). In the second axis, the values ranged between (0.484 and 0.957). Hence, the questionnaire demonstrates internal consistency validity.

Table 3. Correlation Coefficient of the Axes with the Overall Score of the Questionnaire.

| Axis | Number of Items | Correlation Coefficient with the Overall Score | Significance |
|--------------------|-----------------|--|--------------|
| Anxiety | 10 | 0.915** | 0.000 |
| Frustration | 10 | 0.633* | 0.011 |

Note: Correlation is significant at the 0.01 level.

Source: Outputs of the Statistical Package for the Social Sciences (SPSS), version 22, prepared by the student.

Observation from Table (2)

It can be noted from Table (2) that all axes of the questionnaire are correlated with the overall score of the instrument, where the values ranged between 0.633* as the lowest coefficient and 0.915* as the highest coefficient. These are relatively high values that strongly approach unity. Accordingly, the questionnaire demonstrates internal consistency validity.

Reliability

Reliability refers to the extent to which the researcher obtains the same or similar results if the study is repeated under comparable conditions using the same tool. In this research, the reliability of the tool was measured using Cronbach's Alpha coefficient, which determines the acceptability of a measuring tool at a level of 0.60 or higher. The results are presented in the following table:

Table 4. Cronbach's Alpha Reliability Coefficient.

| Variable | Number of Items | Cronbach's Alpha |
|-----------------------------|-----------------|------------------|
| Psychological Stress | 20 | 0.803 |

Source: Outputs of the Statistical Package for the Social Sciences (SPSS), version 22, prepared by the student.

The results in Table (4) show that the Cronbach's Alpha value for all items of the questionnaire reached **0.803**, which is considered a high reliability coefficient. Hence, the scale is reliable and suitable for distribution.

Objectivity

According to Marwan Abdul-Majid (2000, p. 140), objectivity is one of the essential factors that must be ensured in any research tool. It means freedom from bias, prejudice, or the influence of personal factors in research. Objectivity implies adherence to the credibility of scientific research and

academic integrity, guaranteeing the confidentiality of all information related to the respondents, and following systematic scientific procedures in order to extract sound conclusions that contribute to enriching scientific knowledge.

3-7- Research Design and Statistical Treatment

To achieve the objectives of this study and analyze the data collected, a set of appropriate statistical methods were applied using the Statistical Package for the Social Sciences (SPSS), after coding and entering the data into the computer.

To determine the length of the Likert-type three-point scale cells (minimum and maximum limits used in the study axes), the range was calculated as follows: $(3 - 1 = 2)$. The range was then divided by the number of scale cells to obtain the length of each cell $(2 \div 3 = 0.66)$. Thus, the scale cells were defined as follows:

Table 5. Minimum and Maximum Limits of the Study Scale.

| Response | Mean Range |
|----------|-------------|
| Never | 1.00 – 1.66 |
| Often | 1.67 – 2.33 |
| Always | 2.34 – 3.00 |

In addition, weights were distributed across the three alternatives as follows:

Table 6. Weights of the Alternatives.

| Response | Score | Evaluation |
|----------|-------|------------|
| Never | 1 | Low |
| Often | 2 | Moderate |
| Always | 3 | High |

To ensure clarity in analyzing and interpreting the responses, the following statistical procedures were employed:

- 1. Cronbach's Alpha coefficient:** to determine the reliability of the tool.
- 2. Pearson correlation coefficient:** to measure construct validity by examining the correlation between each item and the total score of its axis.
- 3. Frequencies and percentages:** to describe the characteristics of the sample and to identify their responses to the axes of the study.
- 4. Arithmetic means and standard deviations:** to determine the general tendencies of respondents toward the study axes.
- 5. t-tests (One-Sample t-test and Independent-Samples t-test):** to detect differences across study variables.

Presentation, Analysis, and Discussion of Results

4-1- Presentation and Analysis of Personal Data

Table 7. Personal Data of the Study Sample.

| Variable | Frequency | Percentage |
|--------------------|-----------|------------|
| Gender | | |
| Male | 13 | 86.7% |
| Female | 2 | 13.3% |
| Age | | |
| 19–26 years | 4 | 26.7% |
| 27–35 years | 7 | 46.7% |
| Above 35 years | 4 | 26.7% |
| Type of Disability | | |
| Acquired | 6 | 40.0% |
| Congenital | 9 | 60.0% |
| Total | 15 | 100% |

Note: Correction made to the total (the sample for the main study was 15, not 60 as mistakenly listed).

Interpretation of Table (7):

From the table above, it is clear that the proportion of males in the study sample was significantly higher, representing **86.7%**, while females accounted for only **13.3%**. Regarding age distribution, the sample was divided into three categories: the youngest group (19–26 years) at **26.7%**, the middle group (27–35 years) at **46.7%**, which represented the majority, and the oldest group (above 35 years) also at **26.7%**. As for the type of disability, **40.0%** of the sample had acquired disabilities, while the remaining **60.0%** had congenital disabilities.

4-1- Presentation of Results: Axis One (Anxiety)

The responses of participants to the items of the first axis were described by calculating the arithmetic means and standard deviations, comparing them with the theoretical mean, and then evaluating the degree of contribution using the one-sample t-test. If the arithmetic mean exceeded the theoretical mean (2.0), with a positive and significant t-value, the contribution was considered **high**; if the opposite, the contribution was **low**; and when the difference was slight and the t-value was non-significant, the contribution was evaluated as **moderate**.

The results are summarized as follows:

Table 8. Contribution Degree of the Items of Axis One (Anxiety).

| Item | Mean | Std. Dev. | Mean Difference | t | Sig. Level | Decision | Contribution Degree |
|------|--------|-----------|-----------------|--------|------------|-----------------|---------------------|
| 01 | 2.6667 | 0.48795 | 0.66667 | 5.292 | 0.000 | Significant | High |
| 02 | 2.5333 | 0.63994 | 0.53333 | 3.228 | 0.006 | Significant | High |
| 03 | 2.4667 | 0.63994 | 0.46667 | 2.824 | 0.014 | Significant | High |
| 04 | 2.6000 | 0.50709 | 0.60000 | 4.583 | 0.000 | Significant | High |
| 05 | 2.4000 | 0.73679 | 0.40000 | 2.103 | 0.054 | Non-significant | Moderate |
| 06 | 2.4000 | 0.73679 | 0.40000 | 2.103 | 0.054 | Non-significant | Moderate |
| 07 | 1.3333 | 0.48795 | -0.66667 | -5.292 | 0.000 | Significant | Low |
| 08 | 2.6000 | 0.63246 | 0.60000 | 3.674 | 0.003 | Significant | High |
| 09 | 2.8667 | 0.35187 | 0.86667 | 9.539 | 0.000 | Significant | High |
| 10 | 2.7333 | 0.59362 | 0.73333 | 4.785 | 0.000 | Significant | High |

Interpretation:

From the results above, it is evident that **8 items (1, 2, 3, 4, 8, 9, and 10)** showed a high contribution, while **items 5 and 6** were moderate, and only **item 7** revealed a low contribution. In general, the overall contribution of recreational physical activity in reducing anxiety among the physically disabled can be judged as **high**.

A bar chart (Figure 1) illustrates the comparison between actual means and the theoretical mean of the items of this axis.

4-1- Presentation of Results: Axis Two (Frustration)

Table 9. Contribution Degree of the Items of Axis Two (Frustration).

| Item | Mean | Std. Dev. | Mean Difference | T | Sig. Level | Decision | Contribution Degree |
|------|--------|-----------|-----------------|--------|------------|-----------------|---------------------|
| 11 | 2.7333 | 0.59362 | 0.73333 | 4.785 | 0.000 | Significant | High |
| 12 | 2.4000 | 0.73679 | 0.40000 | 2.103 | 0.054 | Non-significant | Moderate |
| 13 | 2.4000 | 0.73679 | 0.40000 | 2.103 | 0.054 | Non-significant | Moderate |
| 14 | 2.5333 | 0.63994 | 0.53333 | 3.228 | 0.006 | Significant | High |
| 15 | 2.4000 | 0.73679 | 0.40000 | 2.103 | 0.054 | Non-significant | Moderate |
| 16 | 2.6667 | 0.48795 | 0.66667 | 5.292 | 0.000 | Significant | High |
| 17 | 2.9333 | 0.25820 | 0.93333 | 14.000 | 0.000 | Significant | High |
| 18 | 2.8000 | 0.41404 | 0.80000 | 7.483 | 0.000 | Significant | High |
| 19 | 2.1333 | 0.35187 | 0.13333 | 1.468 | 0.164 | Non-significant | Moderate |
| 20 | 2.7333 | 0.59362 | 0.73333 | 4.785 | 0.000 | Significant | High |

Interpretation:

Based on these results, **6 items (11, 14, 16, 17, 18, and 20)** showed a high contribution, while **4 items (12, 13, 15, and 19)** were moderate. On the whole, the second axis indicates a **moderate-to-high contribution** of recreational physical activity in reducing frustration among the physically disabled.

A bar chart (Figure 2) depicts the differences between actual and theoretical means for this axis.

4-2- Presentation of Hypotheses Results

First Hypothesis

"Recreational physical activity contributes to the reduction of anxiety among the physically disabled."

Table 10. Contribution of Recreational Physical Activity in Reducing Anxiety.

| Axis | Sample Size | Theoretical Mean | Arithmetic Mean | Std. Dev. | df | t | Sig. Level | Decision |
|--------------------|-------------|------------------|-----------------|-----------|----|-------|------------|-------------|
| Axis One (Anxiety) | 15 | 20 | 22.2 | 4.32 | 14 | 157.1 | 0.000 | Significant |

Interpretation:

The results show that the arithmetic mean (22.2) is higher than the theoretical mean (20), with a **t-value of 157.1 ($p < 0.01$)**. This confirms that recreational physical activity contributes significantly to the reduction of anxiety among the physically disabled during the COVID-19 pandemic. The hypothesis is thus **accepted with 99% confidence** and only a 1% chance of error.

This finding aligns with Hossam Bachir's (2006) Master's thesis *"The Importance of Practicing Recreational Physical Activity in Reducing Psychological Problems among Physically Disabled"*

Athletes”, which concluded that such activity assists in managing anxiety, boosting self-confidence, and channeling energy positively.

Second Hypothesis

"Recreational physical activity contributes to the reduction of frustration among the physically disabled."

Table 11. Contribution of Recreational Physical Activity in Reducing Frustration.

| Axis | Sample Size | Theoretical Mean | Arithmetic Mean | Std. Dev. | df | t | Sig. Level | Decision |
|------------------------|-------------|------------------|-----------------|-----------|----|--------|------------|-------------|
| Axis Two (Frustration) | 15 | 20 | 25.7 | 2.25 | 14 | 299.84 | 0.000 | Significant |

Interpretation:

The arithmetic mean for this axis (25.7) is greater than the theoretical mean (20), with a **t-value of 299.84 ($p < 0.01$)**. This indicates that recreational physical activity makes a **high and statistically significant contribution** in reducing frustration among the physically disabled during the COVID-19 pandemic.

Results and Discussion of the Third Hypothesis

The third hypothesis stated: *“There are statistically significant differences in the level of psychological stress attributed to the variables of gender, age, and type of disability”*. To verify this hypothesis, the data were analyzed using the Independent Samples t-test and One-Way ANOVA. The results are presented in the following table:

Table 12. Tests of Differences According to Gender, Disability Type, and Age.

a) Gender

| Gender | N | Mean | Std. Dev. | df | T | Sig. Level |
|--------|----|--------|-----------|----|-------|------------|
| Male | 13 | 2.6038 | 0.137 | 13 | 5.948 | 0.000 |
| Female | 2 | 1.9500 | 0.212 | | | |

b) Type of Disability.

| Disability Type | N | Mean | Std. Dev. | df | T | Sig. Level |
|-----------------|---|--------|-----------|----|-------|------------|
| Acquired | 6 | 2.633 | 0.5164 | 13 | 1.420 | 0.176 |
| Congenital | 9 | 2.4389 | 0.3286 | | | |

c) Age (ANOVA).

| Source of Variance | Sum of Squares | df | Mean Square | F | Sig. Level | Decision |
|--------------------|----------------|----|-------------|-------|------------|-----------------|
| Between Groups | 0.275 | 2 | 0.138 | 2.239 | 0.149 | Non-significant |
| Within Groups | 0.738 | 12 | 0.061 | | | |
| Total | 1.013 | 14 | | | | |

Interpretation of Results

Hypothesis 3-1 (Gender):

The results show that the mean score for males ($M = 2.6038$, $SD = 0.137$) is higher than that for females ($M = 1.9500$, $SD = 0.212$). The t -value = 5.948 at a significance level of 0.000 ($p < 0.01$). This means there are statistically significant differences in psychological health between males and females, in favor of males. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted, which states that gender accounts for significant differences in psychological health.

Hypothesis 3-2 (Type of Disability):

The mean score for participants with acquired disability ($M = 2.633$, $SD = 0.5164$) was close to that of those with congenital disability ($M = 2.4389$, $SD = 0.3286$). The t -value = 1.420 at a significance level of 0.176 ($p > 0.01$). Thus, there are no statistically significant differences in psychological health between the two groups. The null hypothesis is therefore accepted.

Hypothesis 3-3 (Age):

ANOVA results show that the calculated F -value = 2.239 with a significance level of 0.149 ($p > 0.01$). This indicates no statistically significant differences in psychological health among participants according to age categories. Hence, the null hypothesis is accepted.

5-1 Conclusions

In light of the results obtained and the hypotheses tested, this study concludes that recreational physical activity plays a significant role in reducing psychological stress among individuals with physical disabilities during the COVID-19 pandemic. The findings strongly support the hypotheses formulated, confirming that recreational physical activity has a positive impact on the psychological state of the physically disabled. By engaging in various forms of recreational physical activity, participants were able to mitigate pressures and constraints that usually hinder their lives.

The first hypothesis was confirmed: recreational physical activity contributes to reducing anxiety among the physically disabled during the pandemic. This highlights that recreational activity is an effective method in alleviating anxiety.

The second hypothesis was also supported: recreational activity contributes to reducing frustration among the physically disabled during the pandemic. This aligns with Richard Alderman (1983), who, in agreement with Freud, considered play and physical activity as means of relieving anxiety, which itself is born of frustration.

Thus, it can be concluded that recreational activity provides an effective mechanism for reducing frustration as well, reinforcing its dual role in supporting mental health for this group during COVID-19 (Barakat, 1990, p. 239).

5-2 Recommendations

Based on the results of this research, several recommendations can be proposed to open new perspectives for future studies and practical interventions:

- Enhance recreational and sports activities within centers for people with special needs.
- Employ specialists in adapted physical education to integrate recreational physical activity into the daily lives of children with disabilities, as their expertise contributes significantly to addressing psychological stressors.
- Increase focus on recreational activities in special needs centers, as such activities help build self-confidence and reduce psychological pressures, especially in crises like the COVID-19 pandemic.
- Involve experts and academics in designing specialized recreational programs to support the mental health of the physically disabled.
- Promote strict adherence to COVID-19 preventive measures in special needs centers to ensure safe practice of recreational activities.

Conclusion

The physically disabled individual lives under significant conflicts, particularly since daily life represents an intersection of all directions—cultural, social, psychological, and athletic, among others. For this reason, every disabled person has his or her own specific inclinations and tendencies

regarding different domains of life. From this very standpoint emerged the idea of the present research, which we attempted, as much as possible, to organize within a scientific framework. Through this study, we aimed to focus on the field that concerns us, namely the recreational dimension, by addressing the engagement of physically disabled individuals in recreational physical activities, and by seeking to clarify the relationship between psychological pressures and physical activity. We connected these two elements within the domain of inquiry, which is the role of recreational activity in relieving psychological stress among the physically disabled during the COVID-19 crisis.

From this, we concluded that disabled persons hold positive attitudes toward the practice of recreational activity. The study validated what we sought to demonstrate, which can be summarized as follows: individuals had concrete objectives behind their engagement in recreational activities. We found that the disabled person's primary aim in all such practices—whether imposed by circumstances or self-chosen—was the alleviation of the pressures weighing upon them. Their engagement was directed toward reducing tension, toward achieving psychological recreation, and toward dispelling anxiety and frustration. It also aimed at demonstrating mental strength by overcoming such pressures through sustained recreational physical activity.

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