



Mental health and physical care projects; a post-pandemic look at the future of society.

Proyectos de salud mental y cuidado físico; una mirada postpandemia al futuro de la sociedad

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ABSTRACT

The present hermeneutic phenomenological research aims to highlight the importance of mental and physical health care in post-pandemic contemporary life. With this brief background, the need to generate a "mental health culture" from the university classrooms is proposed, incorporating projects of linkage with the community that include physical activities, sports and recreation. Methodologically, among fifty articles, the 12 main publications related to the proposed research topic were taken, six of them have been published during the year 2020, and six in the course of this year 2021. The search databases were: Psycinfo, MEDLINE, Google Scholar, Psycodoc and PsycARTICLES.

RESUMEN

La presente investigación fenomenológica hermenéutica, tiene como objetivo destacar la trascendencia del cuidado de la salud mental y física, en la vida contemporánea postpandemia. Con este breve antecedente, se plantea la necesidad de generar una "cultura de salud mental" desde las aulas universitarias, incorporando proyectos de vinculación con la colectividad que incluyan actividades físicas,

deporte y recreación. Metodológicamente, entre cincuenta artículos, se tomaron las 12 principales publicaciones relacionadas con la temática de investigación propuesta, de ellos, seis han sido publicados durante el año 2020, y seis en el transcurso del presente año 2021. Las bases de datos de búsqueda fueron: Psycinfo, MEDLINE, Google Académico, Psycodoc y PsycARTICLES.

Keywords / Palabras clave

mental health, sport, post-pandemia, society

salud mental, deporte, postpandemia, sociedad

Introduction

With the appearance of severe acute respiratory syndrome, known as COVID-19, the world took a completely different course, starting with its identification in 2019 in the city of Wuhan (China), generating a series of social phenomena that have had an impact on the psycho-emotional stability of the world population. Specifically, in the case of mental health, there is research that has shown that the world population experienced symptoms of anxiety, depression, panic, anguish, fear and reaction to stress, highlighting, perhaps more than on other occasions, the importance of mental health and its close relationship with physical and recreational activity (Vivanco et al., 2020).

According to Martinez (2020) pandemics usually bring a series of serious manifestations and sequelae, depending on the intensity of the pandemic, but they always have an impact on the affected population, and obviously, psychological and mental factors are usually influenced in a negative way. The research conducted by Huarcaya (2020), based on the compilation of studies, shows through its results that, during the initial phase of the pandemic, symptoms and emotional problems such as anxiety, depression and high levels of reaction to stress could be identified in the population worldwide. In this context, health personnel who worked directly with the sick and who had to deal with very severe cases and death, suffered high levels of depression, anguish, stress and helplessness.

Apparently, sport and physical activities, until before the pandemic, were not viewed with as much importance as they are today. The social

distancing experienced, together with the restricted mobility to which we were exposed during various periods while the health crisis was controlled worldwide, increased the rates of psychological and psychiatric affectations, with a diversity of symptoms and very frequent problems such as insomnia, aggressiveness, anguish, depression, and others related to post-traumatic stress disorder (Ramirez et al., 2020).

From a bio-psycho-social perspective, the importance of the biological, psychological and social, their interrelation and self-regulation is emphasized, stressing that health and disease can be affected according to these three elements as the main determinants of homeostasis (Ornelas & Ruíz, 2017). In this conceptual framework, the objectives of this study are to present to the reader the importance of linkage projects at the level of sports and physical activities, being highly valued resources at the moment, because they allow at an affordable cost, and with the advantage of being adapted or coupled to contemporary society, based on the age of the practitioner, available time, and a diversity of alternatives, such as yoga, dance therapy at home, taichi, and others.

Melgosa (2017) mentions that the body and mind regenerate when we keep active, many mental disorders are detonated or perpetuated by the lack of physical activity, being also leisure a necessary element to balance the emotional needs of people. The most recent studies in the field of neuroscience, show that physical exercise induces the brain to function optimally, influences neurogenesis, synaptogenesis and the creation of neuronal connections in brain areas such as the motor cortex, prefrontal or hippocampus, improving cognitive performance, maintaining a healthy brain state (Nielsen et al., 2019).

The work done by Barbosa and Urrea (2018), suggests that there is vast theoretical evidence on the practice of physical activities and sports, versus positive and direct benefits in emotional and physical variables; highlighting the radical regulation of conditions such as anxiety, depression, and stress reduction. Likewise, cognitive abilities, social skills, self-concept, resilience and reduction of degenerative diseases such as dementia and Alzheimer's disease are improved. Authors such as Fuentes et al. (2020) describe that physical activity and sport could be applied as a means to combat mental health disorders and associated pathologies, due to the multiple benefits of their regular practice and the impact on mental health disorders.

The study presented by Vera et al. (2019), states that physical activity in general, brings important benefits for any person, regardless of the health condition they maintain. By carrying out a physical, recreational or sports activity, stimulation of various systems is obtained, including physiological neuroprotection, brain functions are developed in a better way, neurogenesis is stimulated, resistance to neuronal injury is enhanced, increasing synaptic development at a high level, improving mental performance and learning.

For Bernate et al. (2019), the subject of physical education within university education, aims to create a space where students have fun and can develop at a motor level, have playful spaces, where they take advantage of the optimal use of free time, as well as a context in which they can express themselves and communicate verbally through activities where respect prevails to acquire coexistence standards, achieve interaction and active participation of students, promoting values, as well as respect for the differences among all.

A recent research on university life, anthropometric measures, nutritional habits, physical activity and alcohol consumption, conducted by Villaquiran et al. (2018), indicates that the university population is vulnerable to suffer non-communicable diseases due to sedentary life in the classroom, low intake of fruits and vegetables, and alcohol consumption. Worrying behaviors that should be controlled from intervention proposals that promote healthy lifestyles, such as the frequent practice of physical activities and sports.

Cardoso et al. (2018) in their exploration conducted in health, sport and recreation for a healthy university, highlight as benefits of sports practice, through their proposed program within a Colombian higher education institution, a greater social interaction inside and outside the university, which promotes a student culture oriented towards the quality of life of the social actors that converge in this. The care of body and mental health, under the current pressures at the level of a technologized society and where stress, and adequate efficiency in work tasks are the order of the day, sport and nutrition are intimately linked elements that, necessarily, must be part of the cultural learning of the new generations (Barbany, 2018).

Promoting physical activity for health or to investigate the healthy lifestyle habits of the population and its link with sport, as indicated by Soto (2018) should be one of the main lines of research in the projects of linkage with the community, where the desires, interests

and needs of the population with which we will intervene are included and recognized, since not only sport is the only bodily practice that positively affects people's lives.

Hernández et al. (2018) executed a research in 480 students between 18 and 36 years of age at the University of Girona - Spain, where a self-report was administered to assess drug use (tobacco, alcohol, cannabis, cocaine, heroin, volatile inhalants, amphetamines, hallucinogens). It was found that non-consumers practiced more sports than those who frequently used psychoactive substances, with marijuana being the substance with the highest consumption, demonstrating the importance of integrating preventive measures against cannabis consumption in university programs and degrees, aimed at promoting sports activities and health.

Sport and physical activities within the care of bodily and mental health, have had such transcendence in society, that they have been approached from different disciplines such as psychology, law, anthropology, medicine, sociology, and other branches that have sought to complement them, being leisure and sport, tools that promote human development (Romeo and Lazarus, 2018).

This element, which has various functions at a social, cultural and influential level on the well-being of human health, from the point of view of the sociology of sport, is rooted in the social imaginary (Pérez and Muñoz, 2018), becoming a vital element that is part of the cultural structure of man and is linked to a healthy lifestyle. It also represents an important "leisure tool" that improves self-esteem, is part of the personal choices of individuals in the construction of their own identity, in turn, it is an activity that generates social and economic development, which represents a considerable contribution to the market and employment.

Materials and Methods

As an essential methodological procedure, priority was given to the inquiry of the information, and the location of the correct search string (Turpo, 2017). According to this parameter, the present documentary research was carried out based on an exhaustive search in the databases Psycinfo, MEDLINE, Google Scholar, Psycdoc and PsycARTICLES. The keywords used were: "mental health", "sport", "postpandemia", and "society". To broaden the search results, the term

"mental health" was replaced by its English translation "mental health" and "sport" by "sport", and the words "post-pandemic and society" took the form of "post-pandemic and society".

This conjunction made it possible to compose a sample of fifty scientific articles that were selected from the publications obtained using the previously mentioned search filters. At this point it is worth mentioning that, the parameters raised by Parraguez et al. (2017) on specificity and delimitation of the topic were followed. Thus, from among the fifty articles, the 12 main publications related to the proposed research topic were taken, of which six were published during the year 2020, and six in the course of the current year 2021.

The total sample was selected with publication ranges between the years 2020 and 2021, it is mentioned that the approaches of Codina (2018) were applied, who indicates that a literature review is composed of two fundamental elements: the documents chosen for such review (generally, scientific articles), and the result of the aggregation and interpretation of the same. Thus, the sample of twelve authors is composed of research that has a greater concordance in findings and results in relation to the topic of the present work. For this reason, the research products were organized under the parameters of: author, year of publication, summary of the most outstanding research contributions and research results. Another criterion for inclusion of the studies was that the publication should be descriptive in nature, and that it should have been published in Spanish or English. In contrast, articles and information based on objectives that were not in line with the purpose of this review were eliminated.

Results

The following are the results of the main findings identified in this literature review, including twelve studies that highlight the need and importance of the holistic approach and transdisciplinary intervention when focusing on programs that generate an impact with positive results on mental and physical health through the practice of play, recreational, physical and sports activities, considering the contemporary reality after the health crisis that has not yet been overcome worldwide.

Table 1. *Systematic review*

Author and year of publication	Summary of the most outstanding research contributions	Research results
Barreira et al. (2020).	The 2020 pandemic places a set of physical, mental and emotional demands on all people, especially in countries that do not have specific public policies to deal with mental health in such a situation.	The practice of post-pandemic physical activities and sports contribute at a social level to regulate the control of anxiety and the resulting well-being. Post-confinement physical exercise provides the practitioner with an auxiliary ritual and a metabolic criterion to reestablish the parameters of time and space in the routines, as long as it is practiced on a weekly basis.
Iglesias et al. (2020).	According to official UNESCO data, it is estimated that more than 70% of the total number of students enrolled, representing more than 1,000,000,000 students, in 186 different national contexts around the globe, have been affected by the closure of schools, colleges and universities in the second semester of studies in 2019-2020.	In the field of pedagogy, curriculum, formal education and implementation of disruptive, democratic, decolonial, anti-racist pedagogies, oriented towards social justice, committed to a continuous process of reflection and permanent improvement, oriented towards equality; sports and projects related to leisure and recreational activities, are constituted as an accessible and economic alternative of social intervention, which has formative

Fernandez et al. (2020).

The research work of these authors in the population of older adults indicates that in the study group (62.2% women and 37.8% men), 95.6% of the total sample studied considered that they belonged to a risk segment. The emotions presented were: fear and dread 34%, sadness, depression, anguish 23.1%, panic, anxiety 21.9%, the same related to concern about contracting COVID - 19 with 37.2%, missing relatives 29.2%, economic problems 18.6%. Most of them presented psychoemotional conditions due to confinement. It is necessary to emphasize the lack of health care, adequate information, and no psychological support in this vulnerable sector.

qualities at the personality level, and implies an impact on the individual and the community.

There are no post-COVID programs for the elderly population in Ecuador. This vulnerable sector requires the practice of physical and recreational activities designed for their age, where elements such as weight, age, level of flexibility, diseases that may coexist, in addition to a comprehensive medical and psychosportive assessment are considered. The national health policy for the group of young and older adults aims to optimize the responsibilities and competencies of the different Ministries, such as Public Health, Education, Social Welfare, Ecuadorian Institute of Social Security, including the Armed Forces and National Police, Municipalities, Provincial Councils and other actors that make up the governmental machinery.

Moscoso
(2020).

For this researcher, sport in today's reality requires necessarily contemplating that the new social paradigm revolves around three facets that will mark existence: social uncertainty, security as a new culture, and the hyper-technologization of social behavior. Sport is the reflection of a culture and nowadays it has gained more followers, due to the health and benefits it can generate.

To revitalize the sports sector after this major health crisis, it is essential to promote access to sports, support the development of physical activities and competitive sports, starting at the federative level, which will allow the economic revival of companies and sports services. Starting with fiscal measures that encourage the reincorporation to the practice of sports among the population. Measures are also required to activate and regulate physical-recreational activities in children, youth and university populations, generating a culture of physical and mental care.

Simon and
Lopez
(2020).

This study, carried out in the Spanish population, concludes that physical activity is "the best purchase" that could be made today in public health for the West. In addition, the study concluded that physical exercise in society could reduce public health spending in Spain by 10%.

The 3 main reasons given by 75.8% of the health professionals who participated in the study suggest that outdoor physical exercise is essential for the maintenance of health and well-being for the following medical reasons: for adequate physical and mental functioning of the body, to achieve sufficient exposure to light (85%), to reduce stress and

Cabrera
(2020).

The studies found point to negative effects on the mental health of the population during the periods of confinement and social distancing derived from the pandemic. Fear of contagion, stress, frustration, financial uncertainty, stigmatization and social isolation are registered in the population.

anxiety levels (72%), to increase caloric expenditure and to train aerobic capacity in people with difficulties in performing strength and/or high intensity training (61%).

The World Health Organization recommends 150 minutes of physical activity per week, which implies about 30 minutes of physical activity per day. In this regard, there has been an increase in programs oriented to physical activity in homes with a large number of participants worldwide, aimed at combating the psychological effects of isolation and social distancing due to the pandemic.

Sebastian et
al. (2021).

The World Health Organization suggests physical activity and avoiding a sedentary lifestyle to prevent diseases such as diabetes, obesity, high blood pressure and depression. Sports and physical activities prevent respiratory problems. It is known that a good physiotherapeutic

Physical activity and sports have a positive influence on physical and mental health because there is a massive release of endorphins, which reduce anxiety, stress and prevent and improve depression; the production of endorphins generates tranquility and well-being, thus creating a feeling of analgesia. The cardiovascular, digestive,

	exercise can be practical in chronic obstructive pulmonary disease, cystic fibrosis and asthma.	respiratory and endocrine systems recover, cardiac and respiratory activity improves, obesity is prevented, and the musculoskeletal system is strengthened.
Flax (2021).	The main contributions of this author's research show that regular physical activity (RPA) is an important tool to face the adverse effects caused on the organism due to COVID infection, and his argument is based on the fact that: a) it improves the immune system response, b) it increases the action of the angiotensin converting enzyme iso-form two axis, which favors anti-inflammatory and antithrombotic stages and decreases oxidative stress.	With these findings, he concluded that the systematic practice of AFR offers a better preventive response to COVID-19, reducing the risk of mortality. Sport and physical activity contribute to the good maintenance of people's physical and mental health conditions. It is important to generate a culture of health care in Latin America that helps to create a preventive awareness of COVID-19. Sport, within public policies, is a valuable low-cost prevention and intervention tool that can be accessed by the world's population.
Market (2021).	Sport is constituted as a social activity that expresses different symbologies, which is the reflection of a culture or society. Physical education, physical activity and sports have a great multiplying effect on	It is important that Latin America begins to generate public policies that guide and integrate sport, without discrimination for all people, including those who have a diverse gender identity or some type of disability, and

Cadena and Cardozo (2021).

societies, generating individual and collective happiness, harmony, cohesion and, of course, benefits for physical and emotional health, as well as social and economic development and the empowerment of young people.

The practice of physical activities and health care are related to self-concept, which encompasses the labels that a person attributes to him/herself, related to physical attributes, behavioral characteristics and psychoemotional qualities. The subjective perception of physical condition is related to bodily elements such as strength, flexibility, endurance, speed, reactions and others, which will determine the individual's self-concept, influenced by factors such as age, sex, economic and cultural conditions, among others.

guarantee spaces free of discrimination, sexism, racism, violence, homophobia, gender violence, reinforcing a new culture of health in which recreational, physical and sporting activities are considered as alternative and complementary proposals.

The importance of implementing intervention programs aimed at health promotion, related to physical self-concept, self-esteem, body image, and their consequences, in addition to other aspects of physical and mental health in university students, where the use of technologies as a means of remote education has taken on greater importance in situations of confinement, is highlighted. The emergence of distance learning media such as B-learning, E-learning, M-learning, 3D E-learning, We-learning should be considered in university welfare or health units within the students' own institutions.

Buitrago et al. (2021).	<p>The therapeutic measures that have been taken can be described as non-specific and old during the global health crisis and there are still no well-defined post-pandemic mental health policies. During the health crisis, a list of population reactions such as acceptance, denial, anger, paranoid delirium, openly oppositional attitudes and even moments of euphoric outburst have been documented. Scientific research on the mental health impact of this type of phenomena is currently very scarce, although it will probably be very numerous in the years to come.</p>	<p>Proposals for intervention are analyzed, discussing the scarcity of research on COVID-19, its impact on the social, health and personal levels. Based on this background, a series of recommendations for the care and psychological intervention of the population, health workers, and the world community are proposed, taking into consideration: 1) psychological and psychosocial works and research on topics related to the subject. 2) the approach of new interventions and models of action in the face of pandemic situations.</p>
Urrea and Cañon (2021).	<p>Studies carried out in the context of other epidemics have shown that compulsory isolation and quarantine are measures that generate vital negative experiences in the community, since they cause</p>	<p>It is emphasized that each subject is responsible for their own care and autonomous in making decisions that initiate the search for physical and mental wellbeing. However, it is the State who must provide the tools and make them available to</p>

psychological health problems during their duration and can even be extended once the diseases are under control. Among the symptoms, several emotional or mood symptoms have been reported, which enhance some stressors. citizens for the search for wellbeing. In this contextual framework, recreation, physical activity and sport are resources that should be promoted at the public policy level.

After carrying out the bibliographic exploration, it is possible to demonstrate that the frequent and controlled practice of physical activities and sports contribute directly to the care of the body's health, generating, in addition, states of psychic well-being through the discharge of tensions and the production of endorphins.

Within this context of benefits that this activity can produce, Hidalgo et al. (2021) refer to functional training, which is oriented to specific muscular work in daily life, for which each training routine is based on the principle of individualization, so it is perfectly adapted to the needs of inactive subjects derived from the COVID-19 pandemic, being a different proposal in the area of physical activity with health effects.

Rodriguez and Orozco (2021) mention that cardiac and pulmonary rehabilitation programs have shown to improve the results during the COVID-19 pandemic, through the frequent practice of sports. Currently, there are several physical exercise routines, regulated at different intensities, which can be supported by robotic technological elements that are used in oncological, cardiac and neurological diseases.

In a post-COVID study on the quality of life in the Spanish population, García et al (2020) indicate that confinement has changed the conditions for practicing physical activity, affecting the quantity and intensity, with only neuromotor or functional training and flexibility activities, and sports disciplines that are easily adapted to the home, with little demand for space and equipment.

On the other hand, at the level of the university population, Daoudi et al. (2021) in their work on strategies to improve mental health in the face of COVID-19 confinement, determined that the coping strategies used by students were 12, these strategies were grouped into 3 groups: cognitive, emotional and finally behavioral category, which, in turn, are subdivided into two types: passive and active. In the studies analyzed, it is possible to mention that it was found that physical exercise as a coping strategy in the face of problems and stressful situations was the regulation mechanism most used by university students. However, these authors found that the main coping strategy of university students in the face of the pandemic and post pandemic, are drugs and alcohol consumption.

Conclusions

Post-COVID-19 contemporary life has generated a series of social, medical and psychological situations that have generally affected the world's population. Thus, recreational, physical and sporting activities are valuable resources available to today's society to deal with the aftermath of the pandemic. Particularly in Ecuador there are mental health and physical care projects, however, they have not been exploited and developed to their full extent, taking advantage of the benefits that these activities can generate.

At the university level, projects that benefit society have been proposed, being very scarce the research works and linkage with the community that have taken sport and recreation as a fundamental axis, despite the fact that they are valuable instruments of social intervention at the level of psychological and physical health. In this sense, this research proposal highlights the enormous contributions that can be obtained with this type of programs, requiring low-cost investments, with achievable and real objectives, which can generate interesting impacts on the Ecuadorian population.

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