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Chapter

Benefits and Barriers of Physical Activity in Social Inclusion and Quality of Life in People with Serious Mental Disorders

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Abstract

This book chapter presents a review of the main benefits that the practice of physical activity brings to people with severe mental disorder (SMD), as well as highlighting the most significant barriers that hinder their adherence. In this regard, it should be noted that this is a population sector in which sedentary lifestyle habits predominate, showing that physical activity is not only beneficial for physical health but also for mental and social health. However, people with severe mental disorder face barriers in which personal, social, and intervention program factors play a role, what makes regular practice difficult for them and, therefore, to access the numerous benefits it brings.

Keywords: Severe mental disorder, physical activity, benefits, barriers, inclusion

1. Introduction

Severe mental disorder (SMD) refers to different psychopathological conditions, such as severe depression, bipolar disorder, schizophrenia, or severe personality disorders, which have a duration of at least 2 years and affect several aspects of the person's life (social, clinical, educational, judicial, etc.) [1, 2]. Due to their high impact on quality of life and their current prevalence, they are considered as one of the major health issues [3]. These are people who, for instance, see their life expectancy reduced by 10–20 years [1].

These individuals are at increased risk of medical problems, mainly associated with sedentary lifestyles, poor dietary habits, and the adverse physical and mental effects of toxic intake or medication effects. Possible secondary medical complications include cardiovascular complications, metabolic syndrome, and the development of diabetes [4, 5].

Among the recommendations to palliate these difficulties, the practice of physical activity stands out, as it has benefits not only on physical but also on personal...
well-being and mental health [6, 7]. Through this practice, cardiometabolic complications are affected [8, 9], as well as psychological factors such as mood, self-esteem, and psychological and social well-being, which is also closely related to another common problem in this field, such as stigma toward mental health problems [10].

However, despite the fact that this is a problem with a high incidence among the current population, there are not many studies that focus specifically on the effect of physical activity on people with SMD. This is a topic that has not been formally studied and is mostly based on interventions without follow-up or carried out for short periods of time (1 to 3 months), making it difficult to identify long-term benefits and barriers. Therefore, despite its relevance, there is still a predominant lack of justification for its transfer to clinical routines.

In that sense, this chapter presents a review of the existing literature, with the aim of determining the factors that have a positive effect on the practice of physical activity, as well as the barriers that people with SMD have to face so as to do it. For this purpose, specific attention will be paid to those physical activity programs that have been actively implemented in this population sector, being able to extract the relevant data from them thanks to their empirical analyses, based on the collection of qualitative and quantitative data.

2. Benefits

One of the characteristics of the population with some type of SMD is the reduction in the level of quality of life. This has been defined by the World Health Organization [11] as a personal perception, based on the objectives, standards, concerns, and expectations of each individual, of the position they occupy in life according to the cultural environment and the value system established at the time of measurement. In order to quantify this broad concept, six main factors must be addressed: physical health, psychological state, level of dependence, social relations, personal beliefs, and the relationship with the environment.

Of all these factors, three stand out for having been directly analyzed in the available studies on the implementation of physical activity programs for people with SMD. These factors are physical health, mental health, and social relationships, and the benefits obtained in these studies promote the recommendation of physical activity for people with SMD in all clinical intervention guidelines. However, it should be noted that the WHO currently recommends at least 150 minutes of aerobic physical activity per week at a moderate or vigorous intensity in order to obtain significant results, guidelines followed by the studies analyzed for the benefits described in the following section.

2.1 Physical health

The contributions of the programs examined in the area of physical health, understood as the link between well-being and proper bodily functioning, have been various.

Applying WHO recommendations, the regular practice of physical activity has been directly and significantly related to improvements in anthropometric measurements, functional fitness, and motor skills of participants. This is due not only to the individual effect on each of these variables but also to the interrelationship between them. Anthropometric measurements include body weight and body circumference
and are related to the nutritional and health status of the participants. Their in-depth analysis not only allows predictions to be made about users’ performance but also about their health and even survival. At the same time, changes in anthropometric measurements lead to changes in body composition which, together with muscular strength, cardiorespiratory endurance, flexibility, and balance are the main components of functional fitness, as well as motor qualities for which benefits have been proven in different studies [12, 13].

However, physical health is not only related to physical fitness but also to the development of healthy eating and consumption habits. These habits are particularly relevant among people with SMD as, due to medication and the symptoms of the disorder itself, they tend to have a greater appetite and have diets that are low in fruit and vegetables but high in fat and sugar. Physical activity programs have reported improvements in this area by combining physical exercise with educational workshops on healthy behaviors, improving participants’ diets and promoting the abandonment of substance, alcohol, and tobacco use, which reduces the possibility of developing diseases related to unhealthy habits [14].

All these improvements, both in terms of physical fitness and eating habits, promote the improvement of the autonomy of this sector of the population. Although this is also influenced by the social aspect, the physical sphere plays a very important role [15]. Improved anthropometric measurements, functional fitness, and motor skills allow for better performance of daily activities, without the need for assistance and/or support. In addition, the inclusion of healthy eating habits and the reduction or cessation of substance, alcohol, and tobacco use also contribute positively, as they do not require supervision in this regard and prevent the occurrence of related health problems.

2.2 Mental health

Physical activity programs for people with SMD have also reported various benefits in terms of mental health, understood as a state of being aware of one's individual capacities and being able to face everyday difficulties, work productively, and contribute to the community of which one is a part.

Several authors have focused their studies in this area, determining the improvement of factors such as self-esteem, stress, and anxiety [16, 17]. Similarly, in other work where the effect of a regular football league on mental health was evaluated, they also found improvements in self-stigma [18]. Even in studies where mental health status has been measured in a general way, mental health status has improved equally [19]. Physical activity allows participants to create new goals that they are capable of achieving, giving them the confidence that they can achieve what they set out to do and feel that they contribute to the community in some way. In this way, the perception of self-worth is positively modified while increasing self-esteem and self-image, thus promoting improved mental health.

Likewise, several authors have found significant improvements in symptomatology, both positive and negative, in SMD [20–22] that is addressed through the practice of physical activity thanks to the contributions of this type of activity. On the one hand, the hormonal release that is produced intervenes in the reduction of symptoms related to certain disorders, such as depression or anxiety. On the other hand, the possibility it offers in terms of disconnection also plays a positive role. Users have the opportunity to disconnect the mind by focusing on the task at hand, reducing the attention on negative symptoms that are occurring.
Therefore, physical activity programs develop positive expectations toward symptom improvement so that adherence to such programs is increased [23]. However, the need to control the energy used in physical activity is demonstrated, given that excess energy can also lead to problems in adaptation and behavioral problems [24].

Likewise, in other study proposed, it can be observed how the practice of regular physical activity from an early age acts as a protective factor in various psychological problems, such as depression by acting on all the factors studied earlier [25].

2.3 Social relationships

Although there are few practical studies that have directly measured how physical activity affects interactions between two or more people involving a set of implicit norms, they have demonstrated benefits for participants.

In terms of the benefits of physical activity on a social level, some studies highlight improvements in personal and social functioning [12], allowing for the emergence of positive social relationships, reducing self-stigma, all thanks to the contact established during the activity sessions, both between people with SMD and those who do not have SMD [16]. Therefore, the socialization of this group is promoted [15], in which fun acts as a common thread, leading to a reduction in stereotypes and symptomatology and the creation of bonds between those involved [26]. In this way, the practice of physical activity may be a suitable way to improve social support for people with SMD [17].

These improvements appear indirectly, i.e. it does not seem to be necessary for physical activity programs to devote part of the session to this task. In fact, these are benefits detected through studies whose objectives were physical and mental health variables, in which no improvements were obtained, but which were nevertheless positively valued by the participants in view of the social possibilities presented [27].

The internal characteristics of team activities, especially when they are carried out in groups, and the wide range of possibilities they offer, allow participants to value them positively by fostering positive experiences through the exchange of sessions with like-minded people. Team activities offer a wide range of social opportunities by allowing interaction between participants, both during the activity itself, which requires cooperation, and after the activity has ended, and by encouraging the emergence of positive stimulus from other users who are in the same situation.

3. Barriers

However, despite all these benefits, the practice of physical activity continues to be a pending subject in this population, possibly due to different barriers, that is to say, elements that hinder participation and continuation in programs of this type. These barriers can be classified into three main groups: personal, social, and/or related to the activity program itself.

3.1 Personal barriers

Regarding this type of factors, a study points to the importance of lack of motivation and fatigue [28], to which other researchers add poor physical self-awareness that leads to shortcomings at the motivational level as it predetermines poor performance and performance in physical activity [29]. To these variables, some authors add their
own emotional influences [30], closely related to low mood and the presence of high levels of stress [31]. Another research also includes low self-efficacy and stigma [32]. Although it has previously been concluded that these variables are reduced or even eliminated, their existence hinders adherence to physical activity programs and thus the possibility of eliminating them and accessing the benefits they bring.

Along the same lines, it is established as a barrier the personal experience with the disorder, taking into account the symptoms of the disorder and the side effects of medication [33]. To this, together with negative expectations and an incorrect body perception, we must add the achievement of immediate negative results and the misconceptions evoked toward the sport practice itself (type of activity, intensity, etc.) [23].

However, these are barriers that can be overcome by providing the right support to the participants, both during, before, and after the tasks. In this way, the creation of false expectations would be avoided and the demotivation inherent in their nonachievement would be easier to counteract. Such support should come from the relationships established between the providers of the intervention, as well as from the rest of those involved in the program. This would require coordination between all those involved, although this is a barrier that is still present today [34].

3.2 Social barriers

The existence of certain social conditioning factors also plays an important role, such as a clear lack of support, both at family and social level and from the health system itself [33]. Thus, according to other studies, the lack of medical staff involved during the development of physical activity is considered a barrier to its practice, since it is interpreted as a lack of support from the environment and increases demotivation [21, 29]. This is a sector of the population that requires more support from their environment to adhere to this type of activities, facing the personal barriers they face.

It is highlighted the shortcomings at the organizational level. On the one hand, they highlight the lack of staff during the development of the physical activity, resulting in difficulties at the level of supervision and, therefore, of individual adaptation of the activity itself, as well as in the absence of guidance and support. On the other hand, they highlight the usual lack of financial resources, not only at an organizational level for these programs, but also at a personal level. These are people with greater economic difficulties that affect the possibilities of accessing sports facilities and acquiring adequate material [35].

3.3 Program barriers

With regard to the constraints related to the physical activity program itself, environmental restrictions, lack of staff and support in supervising the implementation of the activities, and the presence of rigid structures that limit spontaneous exercise, that is to say, preestablished exercise site conditions that allow for few changes, are identified [24]. The existence of such structures and the lack of support result in a lack of adaptation of the activities to be performed, which is considered another barrier to be taken into account [21].

At the same time, the lack of appropriate equipment is also seen as a barrier. Currently, the logistical factors of these interventions are characterized by being mostly deficient and not adapted to the needs of the participants or needing to be
provided by the participants themselves, a sector of the population with economic
deficiencies. This not only leads to lower participation but also contributes to feelings
of insecurity during the activities [36].

On the other hand, there is a notable lack of physical activity programs that
include and consider the participation of people with severe mental disorder (SMD)
[26]. There is insufficient support from previous physical activity programs that
could serve as a reference and motivation for both the organizers and the participants
themselves. Thus, participation is diminished, as well as the creation of interventions
that consider the inclusion of this population.

4. Conclusions

The review of the literature carried out throughout this work has allowed us to
develop the main objective established, which was to identify the benefits reported
by the practice of physical activity for people with SMD and the barriers that act as a
hindrance to its implementation.

The results obtained reveal that the practice of physical activity in people suffering
from some type of SMD has many benefits. It allows for an improvement in physical
fitness, whether in terms of anthropometric measurements or physical condition, and
facilitates the acquisition of healthy habits, thereby reducing the likelihood of devel-
oping diseases related to unhealthy habits, such as smoking or a sedentary lifestyle
[37]. This is of great relevance as it aims to reduce certain health risk factors identified
by the World Health Organization as the main causes of death from cardiovascular
problems, placing it at around 61% of total deaths [38].

In terms of mental health, this also benefits as the practice of physical activity
intervenes on psychological problems such as self-esteem, stress, or anxiety. The
development of these factors is of great importance as it contributes positively to the
improvement of autonomy [39]. This improvement also contributes to the reduction
of the symptoms of the disorder, as stated by Stubbs. This reduction in symptomatol-
ogy could lead to a reduction in the consumption of drugs, together with the benefits
of sport on certain health problems derived from the side effects of the medication
prescribed for the disorder in question [40].

Other reported benefits are related to social factors. The studies analyzed
have found that the practice of physical activity promotes socialization and the
development of social relationships, which acts against the usual isolation in this
population [41].

Nevertheless, it should be noted that, despite the potential negative impact and
recommendations due to the benefits found, people with SMD often do not engage
in any type of physical activity [42]. Low adherence is prevalent and needs to be
corrected to achieve significant results as regular practice is important [43]. This
lack of adherence is due, in part, to the presence of various barriers that need to be
addressed. According to those found throughout the literature review, these include
personal, social, and program-specific factors.

Regarding the former, the main stumbling block to consider is demotivation
toward this practice. This may be related to various factors, such as a low self-concept,
fatigue, erroneous beliefs about individual abilities and skills, and even negative emo-
tional influence caused by stress or low mood. These problems are derived from the
physical inactivity itself or appear as a consequence of the disorder or as side effects
of the pharmacological treatment administered [39, 44, 45].
There are also barriers around the physical activity program itself. These lie in logistical factors such as lack of equipment, lack of support from physical activity specialists, and nonstandardized locations, i.e. limitations intrinsic to the facilities in which the activity takes place. These barriers contribute to demotivation due to the difficulties of access that they entail [32].

In terms of social factors, two main ones stand out. On the one hand, the lack of support from the environment and, on the other hand, the problems derived from the healthcare system. In this regard, the lack of training and awareness in this regard both on the part of the immediate environment and healthcare staff stands out [32]. Similarly, the current healthcare system gives greater importance to pharmacological treatment [46], leaving other types of interventions such as physical activity in the background.

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