

ATTIVITÀ FISICA ADATTATA ONLINE DURANTE LA PANDEMIA DA COVID-19: INDAGINE SU UN'ESPERIENZA PILOTA

ONLINE ADAPTED PHYSICAL ACTIVITY DURING THE COVID-19 PANDEMIC: INVESTIGATION OF A PILOT EXPERIENCE

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Abstract

The crucial role of adapted physical activity (AFA), addressed to elderly people or people with chronic degenerative diseases, in counteracting the decline of functional capacities and in positively affecting the maintenance and/or improvement of motor skills necessary for autonomy and participation in activities, the expansion of social relationships, and the maintenance and/or acquisition of new roles in the community is now widely recognized. The physical distancing imposed by the health emergency from the new coronavirus SARS CoV-2 and the consequent closure of gyms has led to the discontinuation of physical activity courses aimed at people with chronic degenerative diseases and the elderly. In Umbria a pilot project was initiated to transfer the courses that were held in presence to a digital platform. The work presents the results of a survey that aimed to find out the perception of participants in online physical activity courses with respect to meanings, motivations, expectations, advantages and disadvantages, and those in the gym.

È ormai ampiamente riconosciuto il ruolo fondamentale dell'attività fisica adattata (AFA), rivolta a persone anziane o con malattie cronico degenerative, nel contrastare il declino delle capacità funzionali e nell'incidere positivamente sul mantenimento e/o miglioramento delle abilità motorie necessarie all'autonomia e alla partecipazione ad attività, all'ampliamento dei rapporti sociali, al mantenimento e/o all'acquisizione di nuovi ruoli nella comunità di appartenenza. Il distanziamento fisico imposto dall'emergenza sanitaria da nuovo coronavirus SARS CoV-2 e la conseguente chiusura delle palestre ha portato all'interruzione di corsi di attività fisica rivolti a persone con malattie cronico degenerative e ad anziani. In Umbria è stata avviata un'esperienza pilota che ha inteso trasferire i corsi che si svolgevano in presenza su piattaforma digitale. Il lavoro presenta i risultati di un'indagine che ha inteso conoscere la percezione dei partecipanti ai corsi di attività fisica online rispetto a significati, motivazioni, aspettative vantaggi e svantaggi e quella in palestra.

Keywords

Adapted Physical Activity Online, Chronic Degenerative Diseases, Elderly, New Technologies
Attività Fisica Adattata Online, Malattie Cronico Degenerative, Anziani, Nuove Tecnologie

Introduction

The World Health Organisation (WHO), in its Guidelines on Physical Activity and Sedentary Lifestyles¹ (WHO, 2020) highlights how adapted physical activity (AFA), aimed at older people or people with chronic degenerative diseases, contributes to counteracting the decline in functional capacity. Through adapted physical activity it is possible to affect the maintenance and/or improvement of motor skills necessary for autonomy and participation in activities, the expansion of social relationships, and the maintenance and/or acquisition of new roles in the community.

More specifically, the Guidelines point out that regular physical activity² is a protective factor for the prevention and management of non-communicable diseases, such as cardiovascular diseases, type 2 diabetes, breast and colon cancer. In addition, the literature notes that physical activity prevents the risk of recurrence, mortality or a second primary cancer (Cannioto, et al., 2021; Bieyabanie & Mirghafourvand, 2020; Campbell, 2019; National Comprehensive Cancer Network, 2019; Rock, 2012).

Several studies have confirmed that in breast cancer patients, participation in pre- and post-diagnosis physical activity is associated with survival outcomes and improvements in prognosis (Beasley, Kwan, Chen, et al., 2012).

Emotional and psychosocial changes resulting from breast cancer diagnosis and treatment (chemotherapy, radiotherapy, and/or mastectomy) include depression, anxiety, fatigue, sleep disturbances, body image concerns, and problems with sexuality. Much research has shown that women with breast cancer can also benefit from exercise in terms of improved physical and emotional well-being (Stan et al., 2020; Fischetti, Cataldi, Latino, 2020; Lovelace et al., 2019; Leysen et al., 2019; Yee, et al. 2019; Dieli-Conwright, Orozco, 2015; Furmaniak, Menig, Markes, 2016; Battaglini et al., 2014).

Even in individuals with diseases or disorders that impair cognitive function (e.g. in individuals with Parkinson's disease and those with a history of stroke), it is highlighted by the WHO that regular physical activity improves physical function and has beneficial effects on cognitive function.

Numerous studies have shown the positive impact of physical activity on physical and functional capacity in neurodegenerative Parkinson's disease. The progressive and irreversible nature of this disease and its impact on functional capacities has inevitable consequences on quality of life, activities of daily living and social participation that may vary from individual to individual. However, the introduction of physical exercise at an early stage of the disease can slow down its progression (Fox, et al., 2006).

The positive effects of physical activity on people with Parkinson's disease in terms of improved mobility, gait, balance and muscle strength have been demonstrated and recognised by the scientific community (Earhart & Falvo, 2013; van der Kolk & King, 2013). These positive effects have a knock-on effect on the quality of social life, allowing greater and more independent participation.

The physical distancing imposed by the health emergency caused by the new coronavirus SARS CoV-2 and the consequent closure of gyms has led to the discontinuation of physical

1 In the recent WHO Guidelines it is recalled that "physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure and can be performed at various intensities, as part of work, housework, transport or leisure time, or when participating in exercise or sporting activities. At the lower end of the intensity range, sedentary behaviour is defined as any waking behaviour in a sitting, reclining or lying position with low energy expenditure. Emerging new evidence indicates that high levels of sedentary behaviour are associated with cardiovascular disease, type 2 diabetes, cancer and all-cause mortality".

2 The WHO Guidelines (2020) recommend that cancer survivors engage in at least 150-300 minutes of moderate activity weekly and include at least 2 days per week of strengthening exercises.

activity courses aimed at people with chronic degenerative diseases and the elderly, negatively affecting the possibility of primary and tertiary prevention and the consequent possibility of maintaining or re-establishing good quality of life.

In the territory of Umbria and in particular in the city of Terni, the LILT-ODV of Terni, the Association of Sports Doctors, the Parkinson's Association, in synergy with the Viviattivamente Association and the Ce.F.F.A.S. Foundation of the Municipality of Terni, transferred onto a digital platform the free activities that took place on a weekly basis in the gyms of the territory before the advent of the pandemic, mainly aimed at the elderly, women who have undergone mastectomy and people with Parkinson's disease.

The participants were thus able to continue their physical activity in the safe environment of their own homes, carrying out those activities that had been planned and customised on the basis of the functional assessment carried out by medical specialists, in collaboration with sports doctors. The adapted exercise courses, structured and implemented by preventive and adapted exercise science experts, were held in individual sessions in a group situation, through the Google meet platform.

1. Method

The qualitative survey was conducted by administering an online questionnaire, consisting of 10 open-ended questions, to investigate meanings, motivation, advantages, disadvantages and expectations related to the practice of physical activity online and to compare this type of activity with that in the gym. These dimensions constituted the reference category system for the content analysis of the present survey.

Thirty out of seventy participants in online physical activity courses responded to the questionnaire, of whom 25 were female (83 %) and 5 male (17 %), with an average age of 67 years and median age of 70.5. Of these, 11 attended online courses on physical activity for elderly people; 9 AFA online courses for women who have had a mastectomy; and 10 for people with Parkinson's disease.

For the content analysis, the results of which are presented below, the paragraph was chosen as text unit.

2. Results

With regard to the *meaning* that the participants attribute to the AFA online course, the results highlight the importance of doing movement together with others, even if it is a virtual "being together" that however helps not to stop in this particular moment of emergency due to the pandemic, to come out of the torpor, resuming and keeping the commitment to do activities to keep fit, take care of oneself, with physical exercises adapted to the particular needs dictated by the pathology and therefore adapted, thanks to expert guidance:

At this critical time it is important to do at least some physical activity, it improves the body and spirit.

Getting active, following expert guidance.

For me, it means keeping moving by sharing these moments with other people who have the same pathology as me.

Sharing a moment of leisure with other people.

It's important to keep moving.

Getting out of the torpor of the pandemic.

At a time when it is difficult to get out, it is very important to keep active.

Resume an activity abandoned because of the covid.

It makes me feel good.

Start taking care of myself again.

Keeping fit so as not to stiffen joints and recover mobility in my limbs, elasticity and muscle tone.

Feeling better about myself by doing what is useful for my illness.

From the *comparison* between the physical activity in the gym and online, the results show how the participants in the AFA distance course perceive this new experience, on the one hand lighter from a physical point of view, on the other hand more demanding, due to the absence of direct contact, on a relational and technical level, with the instructor, typical of the course “in presence”. The online activity, although not replacing the one in the gym, is recognised as the only possible way to cope with the period of social restriction and is perceived as positive, comfortable, pleasant and useful to maintain motivation, also due to the contact with the instructors.

A new experience, equally positive.

Given the moment, very comfortable and less demanding... lighter.

Perhaps more demanding because you are alone, without the physical presence of the instructor.

It's not a substitute, it helps us get through this phase.

Contact with our instructors is very important because it gives us motivation.

The only one possible.

The *motivation* for participants to take part in the online physical activity course seems to be related to the need to exercise, to improve the problems resulting from one's own disease or to counteract the physical decline typical of advancing age; to participate in fun activities that promote well-being, allow one to maintain contact with the group and the instructor, and to follow the advice of medical specialists and physical activity experts.

I feel the need to exercise my body.

It is fun and can only do good.

Staying at home I can do useful exercises to improve my problem.

To keep in touch with my group.

It was proposed to me by my instructor.

My oncologist advised me to move around and in this way I can perform the right movements.

The *advantages* of doing physical activity online highlighted by the participants in the survey are the possibility of resuming the courses they followed in the gym, thus not losing the motivation to engage and the possibility of staying active, which is fundamental in fighting the advancement of certain diseases and maintaining physical and mental well-being. Another positive aspect is that the course can be followed in the privacy of one's own home, thus avoiding pandemic risks, but also optimising costs (it is free) and time (not having to move from home to reach the gym). Finally, one of the advantages of the course is that it allows those who cannot move independently to attend.

Getting moving again.

It stimulates everyone's commitment by being obliged to respect the commitment (from a mental point of view).

In this period when gyms are closed, we keep our minds active and fit.

It allows us to maintain muscular elasticity. It is a contribution against Parkinson's disease.

The convenience of being able to do at home what I would be forced to do 25 km from home.

Optimising time and risks related to the period we are living in.

The possibility of exercising in a period when you can't leave the house.

It allows you to do some physical activity while staying at home.

Privacy and no charge.

There are many advantages of this activity at this complicated time for the elderly because

of Covid.

Even people who don't go out alone can do the activity.

The *disadvantages* noted by the participants are linked to technical aspects of internet connection, which is sometimes weak. There is also a lack of social relationships, of “human contact” and the fear of not performing the exercises correctly, as the instructor is not physically present and specific equipment is not available.

There is no good internet connection, so many exercises I cannot follow properly.

Lack of presence of the instructor and friends.

The disadvantage is not being able to have social relations... Sometimes the gym is also a moment of leisure with friends.

Not being able to socialise.

Lack of human contact and some correction.

Contact with friends and the teacher.

Not knowing if the exercises are performed correctly.

Lack of specific equipment.

The *expectation* of the participants with regard to online physical activity is that it can primarily be a way to ‘resist’ and better overcome psychologically and physically the challenges of the pandemic period. It is also hoped that this opportunity will remain active until such time as people are able to return to physical activity in the gym, and that the duration of this activity will be extended. This is to prevent some people from worsening certain illnesses and others from maintaining and improving their fitness and general well-being.

I hope that this will contribute to the ability to resist and overcome this bad period, both physically and psychologically.

A bit of relief on the physical and mental side in this bad period.

May it continue until you recover in presence, until the gyms reopen.

I expect not to make my situation worse.

I expect the recovery of my mobility having had a total mastectomy.

I just expect to stay in shape for when we return to presence.

To acquire greater fluidity of movement.

I expect to feel a little better.

I expect to regain physical and mental well-being.

An improvement in my physique. More elasticity. Improve muscle tone.

I hope to find relief from my difficulties.

To keep myself somewhat trained.

In the following paragraph, the results will be discussed.

3. Discussion of results

With regard to the significance attributed by the participants in the online AFA course, the results highlight the importance assigned to the element of continuity of physical activity that allows for movement, particularly in this “critical moment” of the ongoing pandemic (Bas et al., 2020). The prospect of “coming out of the pandemic’s torpor” by resuming “an activity abandoned due to Covid” becomes an opportunity to “create distraction and movement within the routine at a time when it is complicated to leave the house”, but also to “share a moment of leisure with other people”.

In addition, having a weekly appointment with a ‘guide’ who supports in the execution of the exercises becomes a significant factor that encourages one to be present and to participate in an activity in a new way.

Exercising” therefore takes on the meaning of “feeling good”, of starting to take care of oneself again, of having a motor commitment to keep fit and exercising, recovering the mobility of the limbs and in general physical well-being, elasticity, muscle tone, and perceiving the positive sense “of doing something useful for the disease”.

Compared to the physical activity carried out in the gym, the online one is perceived as a “new experience” that turns out to be “just as positive”.

Even in a situation of constraint due to the pandemic, physical activity at home is ‘more comfortable’ as it does not require travel.

However, when comparing in-person and online activity, the latter is perceived as temporary. It is a buffer measure to do something for oneself in a new form that turns out to be “the only one possible” to give continuity to the already started physical activity.

The perception of a “softer” and “lighter” activity in terms of physical effort could be linked to the assignment by the instructors of moderate exercises, already known to the participants, safe and with a low articular and muscular impact, but in any case capable of maintaining a level of exercise sufficient to combat sedentariness and to avoid muscular hypotonia and the consequent physical decline.

At the same time, the activity is perceived as ‘more demanding’ from a cognitive point of view, as the absence of the physical presence of the instructor and the consequent impossibility of receiving close-up instructions on the movement, forces participants to pay greater attention and concentration on the execution of the exercise.

The choice to take part in the online physical activity course stems from “physical needs”, from the need to “do useful exercises” for one’s own body, from the opportunity to be stimulated by an organised and scheduled activity that becomes a personal commitment and a reason “to overcome laziness”.

The ‘need to move’, to carry out physical activity, to keep the body moving, to perform specific exercises for the difficulties one is experiencing, represents the main motivation together with the need to follow the indications given by medical specialists. Beyond the motivations that start from the need to continue doing something for one’s own body and well-being, one perceives the desire to give continuity to a good habit and good social relations that animated daily life before the pandemic event. And so it becomes significant to participate in the online activity in order to “maintain contact” with the group of people who participated in the AFA courses in presence or to stay in touch with the instructor of trust, with whom a significant relationship has been established for some time.

Regarding the advantages of doing physical activity online, three significant aspects emerge. The first is the comfort of being able to exercise from home. This certainly reduces travel and outings at a time when government regulations limit movement to protect public health. The second significant aspect, experienced as an advantage, is the feeling of being engaged in an individual activity in a group situation, which also keeps cognitive functions and social relations active. Thirdly, and finally, it is an advantage to be able to ‘take up some movement’ in order to ‘maintain muscle elasticity’ and respond actively and preventively to the disorders that a chronic illness, such as Parkinson’s, can bring about.

On the other hand, the instability of the network in maintaining an active connection during connections and the lack of physical proximity between participants represent disadvantages.

As far as the first aspect is concerned, it emerges that there is a difficulty in communication due, in some cases, to the suboptimal Internet connection, which sometimes makes it impossible to understand the trainer’s instructions and to follow them correctly. On this front, the data reveals the structural difficulty of ensuring a stable connection in many areas of our country and, as Morin argues, “confinement has been a magnifying glass of social inequalities: the pandemic has dramatically accentuated socio-spatial inequalities” (2020, pp. 34-35), also due to the structural impossibility of an internet connection.

With regard to the second aspect perceived as a disadvantage, on the other hand, the lack of human contact with the people who normally meet in the gym and with whom friendships have

been established that help to have fun is significant. In fact, the gym as a physical place is not only the place of the AFA, but for many who live with a chronic illness, it becomes a significant symbolic and relational space in which to establish links with other people in order to nurture the dialogue on the course of their illness, finding comfort and support in the exchange of experience. Beyond the moment of the activity with the instructor, the meeting with other people before the beginning or at the end of the activity becomes significant. All this is not possible by adhering to a proposal, however emergency, of an online AFA.

In addition, direct contact with the instructor is also missing, both in terms of human and relational contact, and in terms of the more technical contact that leads, in the physical reality of the gym, to being able to receive indications on how to carry out body movements also directly on the body, sometimes with the support of specific and, if necessary, adapted equipment, such as balls, ropes, elastics, weights, which are not available in the domestic space.

Being able to benefit from this activity, primarily to better cope with the period of social distance imposed by the ongoing pandemic, is certainly among the expectations of AFA online participants. This is because the people it addresses need to have their health protected, as they are among the most vulnerable due to the presence of chronic degenerative diseases that can weaken the response of their immune system. With this in mind, taking part in the activity at home is not only a way of feeling protected, but also a guarantee of continuity of the physical activity carried out in the gym before the start of the pandemic. It is hoped that the activity will return to presence as soon as possible. While waiting for this to happen, moving the activity to a distance creates the expectation of being able to continue working on one's body and well-being, continuing to "keep fit", acquiring greater elasticity and fluidity of movement, improving muscle tone and generally keeping fit.

Considering the high motivation of the participants, demonstrated by their adhesion and interest in this research, it is an expectation of the outcome that the lesson time will be extended from the current 30 minutes to 60 minutes, as is usual in the presence session.

Conclusions

From the research conducted it emerges that in the face of the preventive value of the AFA that motivates participants to be present on the basis also of medical prescriptions, the online delivery modality posed in its emergency nature has in fact made possible the access to this activity and has had an encouraging adhesion.

However, if on the response from the level of participation in the initiative was promising, the data collected clearly show that on the relational front, the online AFA does not fully cover the need for human contact that the modality in presence ensures, thanks to the spontaneity and fluidity of the communicative exchanges and the absence of the technological filter that the modality at a distance, as such, requires. What is missing is the relational contact with the figure of the instructor who remains permanently complementary, contractually implicated, focused on the objective, founded on trust, neutral, intimate, ritualized (Bongiorno, Malizia, 2002, pp. 35-36) but who is deprived of the more qualitative that the physical meeting can give, also on the technical level, in the cases of indications or corrections of the movements. The greatest challenge for the instructors, in fact, during the pandemic is precisely that of freeing themselves from the spaces of the gym, approaching the private space, adapting the activity to the available means (Coco et al., 2020).

The instructor is required to plan a digitally appropriate proposal that therefore requires specific skills not only in technology but also in didactics and that on the one hand guarantees the assignment of safe and effective exercises, even if with low impact, and on the other hand manages to keep the participants' attention and motivation alive.

The study shows the willingness of the participants to positively accept the challenge of a new form of physical activity that requires the use of technology and related digital skills, which are not always already acquired in older participants.

In conclusion, we can state that the survey from a prospective perspective shows that from a

response to an emergency situation the provision of distance learning physical activity courses could represent a new way/tool to give equal opportunities to those who cannot move independently, facilitating participation and possibly involving caregivers as well.

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