

The prescription of physical exercise, a necessity

La prescripción de ejercicio físico, una necesidad

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There is increasingly more scientific evidence to support the positive effects of the physical exercise-health relationship, evidence that is now solid and is accepted by scientific societies and bodies such as the World Health Organisation.

It is recognised that physical fitness is an excellent predictor of life expectancy and quality of life, while there is also an inverse relationship between physical fitness and morbidity -mortality in the general population.

Medicine is advancing, providing effective treatments for many pathologies that are accessible to most of the population, however scientific progress is also most certainly demonstrating that the regular practice of physical exercise, even at low intensities, is extraordinarily effective in both prevention and as a complement to treatment for a growing number of chronic pathologies, some with a prevalence at a pandemic magnitude. The problem is so great that the Council of the European Union has made a recommendation to Member States "To work on effective policies with regard to Health-Enhancing Physical Activity, promoting a cross-sectoral approach that covers political areas such as sport, health, education, the environment and transportation".

Unquestionably, society as a whole must accept the incorporation of physical activity and exercise as a health strategy to prevent disease and to serve as a complementary treatment for the same.

From a healthcare point of view, doctors and other healthcare professionals have a major role to play in managing exercise for health and also, outside the healthcare sector, physical activity and sports professionals play a key role in promoting and implementing active lifestyles as health-promoting strategies.

The prescription of physical exercise must be like any other prescription for medicine, containing all the elements required for the execution

of the exercise program: type of exercise, intensity, duration, number of repeats and sets, rest periods, progression criteria, evolution, etc.

The prescription must be made by taking into consideration the contraindications and precautions of physical exercise adapted to each individual patient. It must comply with established guidelines, based on scientific and medical evidence, and must be part of the patient's overall treatment.

The exercise program that is directed at improving one or more of the physical fitness components must be prescribed by taking account of the pathology, the medical treatment and other treatments, the functional situation, socioeconomic and cultural aspects, and patient preferences, so that the program can be maintained without the patient dropping out. The fact is that the correct programming of exercise facilitates the regular participation, enjoyment and safety of the participants in the program..

The periodical evaluation of the response to the therapeutic exercise program is an essential part of the prescription and the program itself. Therefore, attention should be paid to those circumstance in which the patient: does not achieve the initially expected targets, or there are symptoms or signs of excessive effort or inadequate responses to physical exercise, or the patient rejects the proposed program.

In this context, it is necessary to routinely include in the medical monitoring and follow-up, an assessment of the physical condition as a baseline for the prescription of physical exercise and the monitoring of its progress.

Basically the assessment of those components of physical fitness that are health-related such as the aerobic profile, strength and body composition, without forgetting flexibility and balance.

For this purpose, it will be necessary to routinely conduct different tests to assess these components, based on the material means

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available: ergospirometry, ergometry, 6 minute tests, 4 metre speed test, dynamometer hand-grip, weight, height and waist circumference, among others.

Thus, the physical exercise prescribed shall be directed at improving the health-related physical fitness qualities, which have been assessed and periodically monitored with the tests conducted.

It is of the utmost importance to personalise exercise prescription, in other words to adapt the prescription as far as possible to the physiological characteristics and response to exercise of each patient and, as indicated above, to the pathological and medical treatment constraints and to the financial, social and cultural situation of each patient.

The physical exercise programs proposed must be easy to prescribe and simple to undertake by the patients in question, avoiding any possible negative effects: drop-out, injuries of the locomotor system, increased cardiovascular and metabolic risks.

The entire process requires assessment, control and supervision by qualified personnel, as indicated above.

At present, all these actions are being performed magnificently, and in some cases almost "heroically", by work groups and professionals at different geographical points of our country, but in a disjointed, unstructured way and not included in the normal portfolio of healthcare services.

Today, the most obvious examples of the need to assess and prescribe physical exercise of quality include surgical prehabilitation and persistent COVID, which add to the pathologies that were typically the target of prescription, such as cardiovascular, respiratory, metabolic, oncological pathologies, among others.

The best trained professionals, doctors specialising in sports medicine, are not part of the public health system, while the doctors in the system - primary health care and other specialties - normally lack quality training in this subject.

We therefore find ourselves in a situation in which, although scientific evidence indicates the benefit of the prescription of exercise for the health of individuals and populations and its positive effect on all levels of the health care systems, including economic benefits in the medium and long term, the general public is not offered this service on a widespread, generalised basis.

As professionals of Sports Medicine and of the Sociedad Española de Medicina del Deporte (SEMED - Spanish Association of Sports Medicine) in particular, we are concerned about this situation, which is included among our priorities of action.

We believe that the measures to be adopted must include information to the general public, the training of doctors in the public health system in the prescription of exercise, and that doctors specialising in sports medicine should act as consultants in complex cases and also support other colleagues, particularly with regard to primary care.

Public healthcare and sports institutions and administrations should resolutely address the progressive implementation of exercise prescription in the portfolio of healthcare services.

At the Sociedad Española de Medicina del Deporte, and on behalf of sports medicine specialists, we offer our collaboration to inform the population in general (as we have already been doing), to give quality training in the prescription of exercise for health care purposes to our colleagues in primary care and other specialties, with programs that have already been developed, as well as to continue to work to convince administrations and institutions that this is a matter of far-reaching significance and importance due to its positive effect on the health and quality of life of the general public and must therefore be addressed as a matter of priority.

Conflict of interest

The authors do not declare a conflict of interest.

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