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## LETTERS TO THE EDITOR

# Physical activity in prison: Should it be a first-line healthcare intervention?

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Mr. Editor:

We have recently read the articles on the *Prevalence of chronic conditions and risk factors among the Spanish imprisoned population as well as the Update on diabetes for correctional practitioners*, both published in the first number of the 2017 Journal. Therefore, We would like to share with you and your readers some of the insights on these articles.

Currently, We find very interesting and relevant that some countries are so concerned about the health of people within correctional facilities, both for inmates under preventive measures and those serving actual sentences. This sustains a better view on potential risks for disease in prison. Among those conditions more present according to the article, we can find heart disease, diabetes, anxiety and depression. This is coherent with the situation in Peru, where according to the 2016 Correctional Census the most prevalent conditions are: depression, anxiety, chronic pulmonary disease, hypertension and diabetes<sup>1</sup>.

By better understanding what the most frequent diseases are, we can focus on measures aimed at reducing the incidence or even preventing them as well as improving the impact they have (secondary prevention). The vast majority of prevalent conditions among the imprisoned population can be avoided by physical activity, and thus this should be a first-line measure which should never be missed in programs aimed at the correctional population.

The world Health Organization defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. They recommend 150 minutes of moderate or 75 minutes of high-intensity physical activity per week for adults.

For improved results, adults should aim at 300 minutes of moderate physical activity per week. On the other hand, for further improvement muscle strengthening should be done two or more days a week. Physical activity reduces the risk of hypertension, coronary artery disease, cerebrovascular disease, diabetes, depression and different types of cancer such as breast and colon cancer. Furthermore, people physically inactive are at a higher risk of mortality<sup>2</sup>.

Bataglia and Dicagagno, et al.<sup>3</sup> carried out a study to assess a 9 month intervention program of physical activity to enhance psychological welfare in a prison. Three groups were used: cardiovascular training with resistance exercises, high-intensity training and a control group without physical exercise. The study concluded that the physical activity program was effective in improving the mood and anxiety of inmates as well as overall mental health<sup>3</sup>. On the other hand, a systematic review of interventions aimed at improving cardiovascular health-related factors or behaviors among inmates during imprisonment concluded that supervised physical activity improved determined factors such as blood pressure and cardiovascular issues<sup>4</sup>. Last, a pilot study published in 2015 on the association between physical activity and quality of life among inmates concluded that this is the main determinant, since it entails improved functional and emotional outcomes<sup>5</sup>.

In this sense, we believe that it is important to assess the degree of physical activity among inmates as to implement the corresponding healthcare services, create intervention proposals in this regard especially for overpopulated facilities according to their geographical and cultural background. Therefore we believe that physiotherapy professionals should be

included in the the teams that provide healthcare services for the imprisoned population in view of their competence regarding the prevention and intervention of conditions that affect the overall health and impair human movement.

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*RESPONSE TO THE LETTER TO THE DIRECTOR***Physical activity in prison: Should it be a first-line healthcare intervention?**

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We are very grateful that you found our article on the prevalence of chronic pathology and risk factors of interest<sup>1</sup> and we further join the reflection on whether physical activity should or should not be a first-line intervention.

Sport activities have been contemplated within correctional facilities for a number of years now, aimed at reducing criminality, as a basis for social rehabilitation, as a means to reduce drug abuse, to enhance self-control and even as a means to fill time, to evade from the issues that imprisonment entails<sup>2</sup>.

Currently, physical activity is necessary as a first-line healthcare intervention in view of the risk factors associated to the main and most prevalent diseases in this setting. Physical activity further contributes to overweight and obesity control, to improve insulin resistance and blood glucose levels in diabetes type 2 as well as to enhance therapeutic compliance in dyslipidemia, hypertension and to reduce the incidence of certain tumors such as breast and colon cancer<sup>3</sup>.

Supervised and tailored physical activity programs should be included aimed at the prevention of all the aforementioned risk factors, within prevention and health promotion measures in the correctional setting.

Meanwhile, in consultation we recommend patients something very easy which does not entail any infrastructure: WALKING every day for at least 30 minutes. We must consider, that as a study by the University of

Cambridge<sup>4</sup> reveals: “physical inactivity kills twice as many people obesity”. More specifically, obesity is related to 337000 deaths out of every 9.2 million cases in Europe every year, while inactivity is associated with 676000 cases.

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