## Letter to the Editor

Questionnaires for assessing physical activity in Spanish population: future research directions

Medición de la actividad física en la población española mediante cuestionarios: direcciones futuras de investigación

Dear Editor:

Guirao-Goris et al.1 have recently presented a structured review of physical activity questionnaires for older adults and the elderly. Since physical activity is considered a cornerstone to prevent chronic diseases, it is compulsory to monitor physical activity for public health strategies. In this review, a special focus was given by the authors to present physical activity questionnaires validated in Spanish population. Only three validated physical activity questionnaires for Spanish adults were found (that is, Minnesota Leisure Time Physical Activity, Yale Physical Activity Survey and Modified Baecke Questionnaire). These findings show the necessity to carry out studies to validate — in terms of reliability and validity properties — physical activity questionnaires in Spanish adults. Nevertheless, this new research must be conducted with caution. Two principal rationales should be taken into consideration to select physical activity questionnaires for validation purposes.

Firstly, each questionnaire should be valid to assess physical activity in surveillance studies across lifespan (childhood, adolescence, adulthood and aging). Although validation studies will have to be conducted in all the different age groups, cross-sectional and longitudinal samples may be measured by using the same questionnaire or with an identical structure and the same physical activity outcomes. Secondly, physical activity questionnaires must be valid for cross-national comparisons. Comparisons of physical activity levels among countries need the same instrument to minimize biases. Thus, it makes possible the implement of short- or long-term physical activity public policies developed in the most active countries.

In the scientific literature there are several attempts to achieve these two objectives at the same time. For example, the International Physical Activity Questionnaire (IPAQ, www.ipaq. ki.es) has been validated for adults and adapted for several languages such as Arabic, Croatian, Dutch, English, Estonian, French, German, Icelandic, Italian, Korean, Malay, Lithuanian, Persian, Polish, Swedish, Turkish, Vietnamese and Spanish from USA, Colombia and Argentina, but not from Spain<sup>2</sup>. Likewise, the IPAQ has been recently validated for European adolescents (International Physical Activity Questionnaire for Adolescents, IPAQ-A) from 9 countries to the HELENA Study framework (www.helenastudy.com)<sup>3</sup>. On the other hand, there is a "family" of questionnaires with the same structure and similar questions for children<sup>4</sup> (Physical Activity Questionnaire for Children, PAQ-C), adolescents<sup>5</sup> (Physical Activity Questionnaire for Adolescents, PAQ-A), and adults<sup>6</sup> (Physical Activity Questionnaire for Adults, PAQ-AD). In addition, the PAQ-A version has been recently validated in Spanish adolescents<sup>7</sup>. Hence, the "IPAQ and PAQ families" are two plausible opportunities for validation studies in Spanish population. However, these questionnaires may be too long to be included in epidemiological surveys where physical activity is just one more lifestyle marker. Thus, single-item questions (e.g. How many days do you do physical activity for 60 min or more?) may also be a feasible option in many research designs<sup>8,9</sup>.

In spite of the fact that physical activity questionnaires are widely used, objective instruments, such as accelerometers, pedometers and heart rate monitors, may assess accurately physical activity in Spanish population, and should not be forgotten in health-related research since these tools do not differentiate among cultures and languages. Objective measures of physical activity are considered as an acceptable criterion to validate questionnaires, but more efforts must be performed to use these methods in large sample populations from Spain.

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