
Research Report

Criterion-related Validity of the Short Form of the International Physical Activity Questionnaire in Adults Who Are Blind

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The World Health Organization advocates that a greater focus should be placed on the surveillance of patterns of physical activity and the identification of specific high-risk groups and measures to respond to their needs (World Health Assembly, 2004). From a public health perspective, it is important to examine if adults meet the current general recommendation of at least 30 minutes of moderate or greater physical activity per day (World Health Assembly, 2004). Doing so requires accurate measurements of physical activity for supporting the promotion of health and physical activity.

Currently, there are various methods to assess physical activity in daily life, including objective measures, such as heart rate, accelerometry, and pedometry, and subjective recall questionnaires or physical activity diaries. Questionnaires have been the most frequent method of assessing the physical activity of populations or population groups because of their low cost and their general acceptance by participants (Lee, Macfarlane, Lam, & Stewart, 2011).

The short form of the International Physical Activity Questionnaire (IPAQ-S) has been recommended for use in studies to evaluate patterns of physical activity that are relevant to health (World Health Organization, 2007). The IPAQ-S also includes a measure of sed-

entary behavior, which may be useful since there is ample evidence that sedentary behavior and the lack of physical activity are independent behaviors that have specific effects on health (Garber et al., 2011). Thus, even when adults meet physical activity guidelines, sitting for prolonged periods can compromise their metabolic health (Owen, Healy, Matthews, & Dunstan, 2010).

The IPAQ-S has been shown to be a reliable and valid measure of physical activity and sedentary behavior of the general population (Craig et al., 2003; Rosenberg, Bull, Marshall, Sallis, & Bauman, 2008). Nevertheless, there is evidence that it overestimates physical activity when compared to objective methods like accelerometry (Lee et al., 2011); thus, like other questionnaires, the IPAQ-S appears to be vulnerable to recall and reporting bias.

To our knowledge, there is no evidence on the use of the IPAQ-S with adults who are blind. Therefore, the study presented here examined the criterion validity and measurement bias of the IPAQ-S in adults who are blind using accelerometry as an objective measure of physical activity.

METHODS

Participants

The inclusion criteria consisted of being aged 18 to 65, being legally blind (with a central visual acuity of 20/200 or less in the better eye with the use of corrective lenses or a corrected field of vision less than 20 degrees), living independently in the community, being an associate of Associação dos Cegos e Amblíopes de Portugal (ACAPO), the Portuguese association for people with visual impairments, having a telephone number registered in the ACAPO database, and living in the Lisbon area. Of the 177 potential participants, 77 could not be contacted by telephone (because they had invalid telephone numbers or were unreachable after two attempts), 30

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