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THE BAECKE PHYSICAL ACTIVITY QUESTIONNAIRE AS A TOOL FOR STUDYING ASPECTS OF PHYSICAL ACTIVITY IN THE POPULATION

Introduction. Increasing the level of physical activity (PA) in the population is a primary focus of public health strategies in most developed countries worldwide [1, 2, 4]. In recent years, many nations have developed and implemented various initiatives to promote physical activity among their populations, but the impact of these efforts remains limited [3]. To develop the best strategies and effective actions to increase PA in the population, timely and reliable data on the prevalence of sedentary behavior are crucial. However, measuring habitual PA remains challenging due to the diversity and complexity of human behaviors associated with it.

Instruments for measuring PA can be categorized as subjective and objective methods. While objective methods generally provide more accurate estimates of physical activity, they are limited by their bulkiness and inconvenience outside of specialized research settings. As a result, studies predominantly rely on subjective methods, including self-report and PA questionnaires.

Recent publications have highlighted several PA questionnaires, most of which have been developed and validated for use [5]. However, few validated instruments exist for the Ukrainian population. Findings from numerous scientific studies conducted on large population cohorts indicate that the Baecke Physical Activity Questionnaire (BPAQ), often referred to as the Baecke Questionnaire, is recognized as the most suitable, adequate, concise, and user-friendly tool for measuring and assessing habitual physical activity in various populations across the world [1, 4].

The purpose of the study was to characterize the design, implementation, analysis and interpretation of results, advantages and limitations of using the Baecke Habitual Physical Activity Questionnaire.

Research methods: Analysis, synthesis, generalization, and interpretation of scientific and methodical data, reference literature, and internet sources related to this issue.

Research results and their discussion. Developed by Baecke et al. in the Netherlands in 1982, the Baecke Physical Activity Questionnaire (BPAQ) is a self-administered and self-assessment tool designed to measure an individual's physical activity over the past 12 months [1]. This questionnaire provides valuable insights for comparing participants' physical activity levels and identifying behavior patterns that can be modified to increase physical activity.

Originally, the BPAQ comprised 29 questions, but this number was later reduced to 16 [1]. The BPAQ assesses three main domains: occupational-related physical activity, leisure-time sports, and leisure-time physical activity excluding sports. Respondents rate their activity levels on a 5-point Likert scale, ranging from "never" to "always" or "very often", without specifying specific measures such as minutes or metabolic equivalents. Additional questions about the two most frequently performed sports inquire about the number of months per year and hours per week spent on these activities.

The BPAQ enables the calculation of three representative indicators of habitual physical activity: the occupational activity index, the sports activity index, and the leisure activity index. Higher scores on these indices indicate higher levels of physical activity. The sum of these indicators provides an overall measure of physical activity suitable for use in epidemiological studies [5, 6].

The BPAQ, along with its modified versions, is suitable for various age groups and can be used in diverse populations, including healthy adults, older adults, individuals living with HIV, youth, and those with chronic diseases or comorbidities, making it applicable in a broad health context. Recent studies indicate that the Baecke questionnaire exhibits satisfactory methodological quality and a high level of evidence.

Total physical activity, as assessed by the BPAQ, demonstrates a moderate ($r = 0.37-0.54$) correlation with objective methods of measuring physical activity, such as accelerometers and VO_{2max} [5, 6]. This correlation remains significant regardless of the gender and age of the respondents. The Baecke questionnaire exhibits good temporal stability ($ICC = 0.72-0.88$) and reliability ($r = 0.71-0.92$) when applied to healthy adult respondents [5, 6].

Conclusion. The BPAQ is easy to administer, reflects various aspects of physical activity, contains



clear and objective questions and allows for an initial assessment of the level of physical activity in leisure time for the development and implementation of activities that support physical activity. The BPAQ as a whole and its sub-scores demonstrate high construct validity.

References

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