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Validity of the ActiGraph GT3X+ and BodyMedia SenseWear Armband to estimate energy expenditure during physical activity and sport

Running Head: Validity of the ActiGraph GT3X+ and BodyMedia Armband to predict energy expenditure

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Abstract

Objective: The purpose of this study was to assess the validity of the ActiGraph GT3X+ (GT3X+) and the BodyMedia SenseWear Armband (SWA) to estimate energy expenditure (EE) during physical activity and field sport movements.

Design: Criterion validity.

Methods: Twenty-six active adults completed a single 90 min session involving alternating intervals of exercise (5 min) and recovery (10 min). Exercise involved walking (4 km/h), jogging (8 km/h), running (12 km/h) or a sport-simulated circuit (three intervals). Participants wore two triaxial

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