

ABSTRACT

DISSERTATION/THESIS/RESEARCH PAPER/CREATIVE PROJECT: Establishing the Reliability of Several Consumer-Based Physical Activity Monitors

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DATE: July 2016

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Consumer-based physical activity monitors (CPAMs) have become increasingly popular in recent years; however, little research exists investigating their reliability. The purpose of this study was to determine the intra- and inter-monitor reliability of several popular CPAMS for estimations of steps and Calories (kcal) in a structured laboratory setting as well as inter-monitor reliability for steps, kcal, and active minutes in a free-living setting. Once adjusted of monitor malfunction, the intra- and inter-monitor reliability for all hip-mounted CPAMs was strong (≥ 0.80) for steps and kcal in the laboratory setting; free-living correlations were more sporadic yet strong for most monitors and variables of interest. The reliability of CPAMs appears to be strong which suggests that CPAMs provide reliable estimations of PA in laboratory and free-living settings.

