

LINHA DE PESQUISA: « VALIDATION OF DAILY PHYSICAL ACTIVITY DIARY: CORRELATION BETWEEN ENERGY EXPENDITURE ESTIMATED BY A PROTOCOL SELF-REPORTED AND THE OBJECTIVE MEASURE OBTAINED BY ACCELEROMETRY ».
[aprovada no grupo de ciências sociais e comportamentais: 06/04/2011 reunião do CIDAF]

DATA DE INÍCIO: 2004

BALANÇO INTERMÉDIO: 11/09/2013

ESTADO: concluído

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PARCERIAS: Fundação para a Ciência e a Tecnologia [SFRH/BD/38988/2007 - PhD Machado-Rordigues]

TESES DE MESTRADO PREVISTAS	[#0]
TESES DE DOUTORAMENTO PREVISTAS	[#0]
ARTIGOS EM REVISTAS INTERNACIONAIS PLANEADOS	[#2]

OUTPUTS (apenas após data de registo)

TESES DE MESTRADO REALIZADAS	[#0]
TESES DE DOUTORAMENTO REALIZADAS	[#0]
ARTIGOS EM REVISTAS INTERNACIONAIS	[#0]
ARTIGOS EM REVISTAS INTERNACIONAIS [COM IF]	[#2]

EVIDÊNCIAS

ARTIGOS EM REVISTAS INTERNACIONAIS [COM IF]

Machado Rodrigues AM, [Coelho e Silva MJ](#), Mota J, Cyrino E, Cumming SP, Riddoch C, Beunen GP, Malina RM (2011). Agreement in activity energy expenditure assessed by accelerometer and self-reported in adolescents: variation by sex, age and weight status. *Journal of Sports Sciences* 29(14):1503-14

[Thomson ISI Journal Citation Reports 2011: IF=1.930]; [DOI:10.1080/02640414.2011.593185]

Machado Rodrigues A M, [Coelho e Silva MJ](#), Figueiredo AJ, Mota J, Cumming SP, Eisenmann JC, Malina RM (2012). Concurrent validation of estimated activity energy expenditure using a 3-day diary and accelerometry in adolescents. *Scandinavian Journal of Medicine and Science in Sports*, 22 (2): 259-264

[Thomson ISI Journal Citation Reports 2011: IF=2.867] ; [doi: 10.1111/j.1600-0838.2010.01155.x]

BASE DE DADOS COM JOVENS ESCOLARES (1)

PROJECTO (ano): *“Sociogeographic variation of morphology, physical activity and health-related physical fitness – multi-method and multifactorial approach in school adolescents (2007)”*

IR:

Manuel J Coelho-e-Silva

EQUIPA:

Aristides Machado-Rodrigues [SFRH/BD/38988/2007]; José Alfredo Proença, Vanessa Nunes, Juliana Cordeiro, Carlos Santos, Ana Baganha, Ivo Rego

Dimensões (variáveis, instrumentos):

Antropometria, maturação somática, diário 3-dias, acelerometria, aptidão cardiorespiratória

Amostra:

n=454 (13-16 anos)

OBSERVAÇÕES: Base de dados resulta de teses mestrado: Machado Rodrigues (Mestrado em Desenvolvimento e Adaptação Motora), Juiana Cordeiro (Mestrado em Exercício e Saúde em Grupos Especiais), José Proença (Mestrado em Treino Desportivo para Crianças e Jovens), Paulo Francisco (mestrado em Treino desportivo para Crianças e Jovens), Vanessa Nunes (Mestrado em Lazer e Desenvolvimento Local), Carlos Santos (Mestrado em Treino Desportivo para Crianças e Jovens), Ana Simões (Mestrado em Exercício e Saúde em Grupos Especiais)

(*) normas de gestão de projectos publicadas em 29/04/2010; (**) regras de protecção de bases de dados aprovado em 23/01/2013

RESUMO (PROJECTO OU DO PRINCIPAL OUTPUT)

The agreement between self-reported and objective estimates of activity energy expenditure was evaluated in adolescents by age, sex, and weight status. Altogether, 403 participants (217 females, 186 males) aged 13–16 years completed a 3-day physical activity diary and wore a GT1M accelerometer on the same days. Partial correlations (controlling for body mass) were used to determine associations between estimated activity energy expenditure (kcal _ min⁻¹) from the diary and accelerometry. Differences in the magnitude of the correlations were examined using Fisher's r to z transformations. Bland–Altman procedures were used to determine concordance between the self-reported and objective estimates. Partial correlations between assessments of activity energy expenditure (kcal _ min⁻¹) did not differ significantly by age (13–14 years: $r=0.41$; 15–16 years: $r=0.42$) or weight status (normal weight: $r=0.42$; overweight: $r=0.39$). The magnitude of the association was significantly affected by sex ($P=0.05$). The agreement was significantly higher in males than in females. The relationship between activity energy expenditure assessed by the objective method and the 3-day diary was moderate (controlling for weight, correlations ranged between 0.33 and 0.44). However, the 3-day diary revealed less agreement in specific group analyses; it markedly underestimated activity energy expenditure in overweight/obese and older adolescents. The assessment of activity energy expenditure is complex and may require a combination of methods.