

agreed that data saturation was reached and did not lend itself to any more interviews.

Results: Six major themes were identified that were consistent across principals and teachers: 1) Style of teaching had changed, 2) activity/sitting within the classroom depended on the subject, 3) teachers were receptive to the notion of interrupting sitting time in the classroom, 4) health initiatives took away valuable time from learning, 5) concerns regarding standing desks and Swiss balls and 6) teachers and principals were willing to try new approaches.

Discussion: Findings indicate that the current style of teaching will accommodate a re-design of the classroom environment to increase movement in children. While concerns were expressed regarding the incorporation of standing desks and swiss balls, teachers and principals were willing to try new approaches.

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A cross cultural comparison of sedentary behavior of African and European youth

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Introduction: The study of sedentary behavior in rural Africa children and adolescents is scarce, and the goal of this research was to compare the sedentary behavior and light physical activities (LPA) between a rural sample from Mozambican school aged youth (6 to 16 years old) with their European peers, namely from Portugal.

Methods: The sample comprises 146 Mozambican (MZ) and 195 Portuguese (PT) youth of both gender, and was split in 3 age groups (6–8yrs; 9–11yrs; 12–16yrs). The Actigraph model 7164 was used to obtain information marking daily PA and sedentary behaviours during 7 consecutive days in PT, and 1 only day in MZ (due to operational and logistic problems). Data files from all participants were screened by detecting blocks of consecutive zeros. Periods with 60 minutes of consecutive zeros were detected and flagged as times in which the monitor was not worn. Participants had to have at least 10 hours of data to count as a valid day. After complete screening, the raw activity “counts” were processed for time spent in the different PA intensities computations. Sedentary behavior was defined as PA with energy expenditure at the level of 1.0–1.5 metabolic equivalent units (METs). LPA was defined as PA with energy expenditure at the level of 1.6–2.9 METs. Puyau regression equation was used to determine the cut-points for PA intensities. Sedentary behavior was identified using a cut-point of <670 counts.min⁻¹, and LPA using a cut-point of >670 and <3003 counts.min⁻¹

Results: Mozambican rural school aged sample showed, at all age-groups and gender, an accentuated lower time spent in daily sedentary activities with a magnitude of difference around 1.5 higher for PT (Boys: MZ=370.9±78.2 vs PT=590.8±81.9; Girls: MZ=389.4±90.5 vs PT=596.2±86.2; F=493.7; p=0.0000). Using country, age and sex as factors, no statistically significant interactions were found. By turn, time spent in light activities were higher in MZ (Boys: MZ=197.5±47.9 vs PT=157.9±42.7; Girls: MZ=211.8±56.0 vs PT=158.9±47.7; F=66.7; p<0.001) in a magnitude of 1.3 higher for MZ. No significant interactions (p>0.05) were observed.

Conclusions: Based on simultaneous observational studies, a significant higher time spent in light activities and less in sedentary behavior from the MZ rural school aged population may be related to survival households activities, long distance walks and outdoor games still present in African rural areas.

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Associations between physical activity and sedentary behaviour in adolescents: A systematic review

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Introduction: Adolescents spend a large proportion of their discretionary time in sedentary pursuits, such as watching television, which may be adversely associated with psychosocial and physical health. One mechanism through which sedentary behaviour may effect health is through the displacement of more physically active behaviours. A clearer understanding of the association between physical activity and sedentary behaviours will contribute towards identifying the mechanisms underpinning associations with health outcomes and highlight potential targets for intervention. This systematic review examined the direction and magnitude of the association between sedentary behaviour and physical activity in adolescents.

Methods: Observational studies published in English up to and including October 2011 were located through computerised searches, reference lists of primary studies and reviews, and manual searches of personal archives. Included studies presented statistical associations between at least one measure of sedentary behaviour and one measure of physical activity among samples of adolescents aged 12–18 years.

Results: From 10,582 search hits, 513 full papers were retrieved, of which 74 studies met all inclusion criteria. Included studies were published between 1987 and 2011, 64 were cross-sectional and 10 had a prospective design. Sample sizes ranged from 88 to 47,201. Sedentary behaviour was mainly assessed using self-report questionnaires (n=71), with 3 utilising objective measures. Physical activity was mainly measured using self-report questionnaires (n=67) with 7 utilising objective measures. Most studies examined associations between television viewing (n=30) or screen time (n=30) and total physical activity levels (PAL) (n=46) or MVPA (n=15). Sedentary behaviour was negatively associated with physical activity in 45 studies, positively associated in 1 study and associations were unclear or non-significant in 28 studies. For studies that reported a negative association, effect sizes were mostly small (n=33), with 7 showing moderate, and 2 showing large associations. Three studies used objective measures for both sedentary behaviour and physical activity, with 2 showing moderate-large negative effects between total sedentary time and MVPA and 1 showing no association.

Conclusions: The evidence for an association between sedentary behaviour and physical activity in adolescents is somewhat mixed, though the majority of studies report a small/moderate negative association. Whether these associations reflect true displacement is unclear because of the nature of the studies (i.e. not time-stamped). Research to date has focussed predominantly upon associations between self-reported physical activity and screen-based sedentary behaviours; it remains unclear how other types of