<table>
<thead>
<tr>
<th>Study/ country</th>
<th>Study/ design</th>
<th>Sample characteristics</th>
<th>Duration/ measurements</th>
<th>Outcomes</th>
<th>Main results</th>
<th>Selection bias</th>
<th>Study design</th>
<th>Control for confounders</th>
<th>Blinding</th>
<th>Data collection</th>
<th>Withdrawals and dropouts</th>
<th>Global rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haerens et al. (2007) [23] Belgium</td>
<td>CRCT</td>
<td>n = 281 10 schools mean age 13.2 (SD 0.7) 48% boys</td>
<td>1 hour - baseline - 3 months after intervention</td>
<td>total PA level (TPA) (min/day): school related PA index (school PA) (active transportation + extracurricular activities) + leisure time sport index (LTS) and leisure time active transport index (LTAT)</td>
<td>total PA: ↔ school PA: * LTS: ↔ LTAT: ↔</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Verstraete et al. (2006) [31] Belgium</td>
<td>CRCT</td>
<td>n = 249 7 schools I: mean age 10.8 (SD 0.6) (final sample) C: mean age 10.9 (SD 0.7) (final sample) 49% boys</td>
<td>3 months - baseline - 3 months after baseline</td>
<td>total activity counts: light (LPA), moderate (MPA) and vigorous intensity activity (VPA) during morning recess and lunch break (% of recess time and lunch break) - MVPA engagement: moderate + vigorous intensity activity (% of recess time and lunch break)</td>
<td>morning recess: LPA: * (♀) MPA:*** (♀) VPA: ↔ MVPA: ↔ lunch break</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>**</td>
</tr>
<tr>
<td>Hill et al. (2007) [28] UK</td>
<td>CRCT</td>
<td>n = 620 22 classes 1 school mean age (final sample) 16.97 (SD 1.4) 49% boys</td>
<td>20 min. - baseline - 3 weeks after intervention</td>
<td>average number of exercise sessions for at least 30 min/week during or after school without PE</td>
<td>exercise sessions: ↔ in L, LQ, LII</td>
<td>**</td>
<td>***</td>
<td>**</td>
<td>*</td>
<td>***</td>
<td>*</td>
<td>**</td>
</tr>
<tr>
<td>Tsrbotzoudis (2005) [30] Greece</td>
<td>CT</td>
<td>n = 366 4 schools mean age 14.2 (SD 0.69) 48% boys</td>
<td>12 weeks (36 PE lessons) - baseline A. end of the intervention B. 4-6 weeks after intervention (subsample)</td>
<td>exercise habits (score)</td>
<td>A. exercise habits: *** B. exercise habits: ↔</td>
<td>**</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>Lubans and Sylva (2006) [38] UK 'Lifetime Activity Program'</td>
<td>RCT</td>
<td>n = 78 individuals who elected to participate in an unit on health and fitness rather than the traditional team sports offered at school mean age 16.7 (SD 0.5); 38.5% boys</td>
<td>10 weeks (2x/week) - baseline A. end of the intervention B. 3 months after intervention</td>
<td>moderate to vigorous PA (min/week) of 20 min. or longer (MVPA)</td>
<td>A. MVPA: *** B. MVPA: ↔</td>
<td>*</td>
<td>***</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Murphy et al. (2006) [40] Ireland</td>
<td>CRCT</td>
<td>n = 90 sedentary girls 5 schools mean age 16.3 (SD 0.6)</td>
<td>6 months - baseline A. end of the intervention B. 1 month after intervention (subsample, process evaluation)</td>
<td>- daily PA: duration (hours/week) and intensity of PA. (above 13 on the BORG RPE scale: moderate to vigorous PA)</td>
<td>A. in both 1 groups: (P-value NR) duration: (+) intensity: (+)</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>**</td>
<td>*</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>Lindberg et al. (2006) [37] Sweden 'An adventure with Pelle Pump'</td>
<td>Crosse ctional</td>
<td>n = 1369 mean age I:12.5 (SD 0.60) C: 12.5 (SD 0.50) 50% boys</td>
<td>3 months - after 2 year program</td>
<td>PA index (score)</td>
<td>PA index: ↔</td>
<td>**</td>
<td>*</td>
<td>*</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>Chatzisarantis and Hagger (2005) [33] UK</td>
<td>RCT</td>
<td>n = 83 2 schools mean age 14.60 (SD 0.47) 49.5% boys</td>
<td>5 min - baseline - after 5 weeks</td>
<td>- PA during leisure time: frequency of mild, moderate and vigorous PA in the last 5 weeks</td>
<td>PA participation: ↔</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Digelidis et al. (2003) [34] Greece</td>
<td>CT</td>
<td>n = 783 4 I, 19 C schools I: mean age 11.88 (SD 0.60) 50% boys C: mean age 12.14 (SD 0.77) 47% boys</td>
<td>one school year (3x/week, 45 min) - baseline A. end of intervention B. 10 months after intervention</td>
<td>- behaviour: frequency of regular exercise in the previous month: regular exercise: intensive out of school exercise at least 2x/week for 1 hour or more</td>
<td>A. PA behaviour: ↔ B. PA behaviour: ↔</td>
<td>*</td>
<td>***</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>
### School setting with involvement of family

<table>
<thead>
<tr>
<th>Study/ country design</th>
<th>Study/ country design</th>
<th>Sample characteristics</th>
<th>Duration/ measurements</th>
<th>Outcomes</th>
<th>Main results</th>
<th>Selection bias</th>
<th>Study design</th>
<th>Control for confounders</th>
<th>Blinding</th>
<th>Data collection</th>
<th>Withdrawals and dropouts</th>
<th>Global rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrison et al. (2006)</td>
<td>Ireland, “Switch off – get active”</td>
<td>n = 312 9 schools in areas of social disadvantage mean age 10.2 (SD 0.70) 57% boys</td>
<td>16 weeks (10 lessons/30 min) - baseline - end of intervention</td>
<td>- moderate to vigorous PA (MVPA): principal PA + intensity (30 min blocks/day)</td>
<td>MVPA: *</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Haerens et al. (2006, 2007)</td>
<td>Belgium, “Switch off – get active”</td>
<td>n = 2840 15 schools mean age 13.1 (SD 0.8) 63% boys 32.5% of higher SES</td>
<td>2 school years - baseline A. end of first school year B. end of intervention</td>
<td>- total PA level (TPA) (min/day): school-related PA index (school PA) + leisure time PA index (LTPA) (leisure time sport (LTS) + leisure time active transportation (LTAT)) Subsample - accelerometer data: sedentary, PA of light intensity (LPA) and PA of moderate to vigorous intensity (MVPA) (min/day)</td>
<td>Subsample: + (I and I+P) LTPA: ++ (♂) LTS: ↔ Accelerometer data: LPA: + (I and I+P) MVPA: + (I+P) meeting guidelines: ↔ B. School PA: + (♀) LTPA: ↔ Accelerometer data sedentary: ↔ LPA: +++ (♂); + (♀) MVPA: (+, trend)</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Christodoulos et al. (2006)</td>
<td>Greece, “Switch off – get active”</td>
<td>n = 78 2 schools I: mean age 11.2 (SD 0.40) C: mean age 11.2 (SD 0.30) 54% boys</td>
<td>1 school year (two 45 min PE classes/week) - baseline - end of intervention</td>
<td>- duration, frequency and total time spent on total moderate to vigorous PA and organised moderate to vigorous PA; weekly leisure supervised activities out of school (hours/week TMVPA, OMVPA)</td>
<td>OMVPA: + TMVPA: ↔ (trend) meeting the guidelines:</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>***</td>
<td>*</td>
<td>**</td>
</tr>
</tbody>
</table>

### School setting with involvement of family and community

<table>
<thead>
<tr>
<th>Study/ country design</th>
<th>Study/ country design</th>
<th>Sample characteristics</th>
<th>Duration/ measurements</th>
<th>Outcomes</th>
<th>Main results</th>
<th>Selection bias</th>
<th>Study design</th>
<th>Control for confounders</th>
<th>Blinding</th>
<th>Data collection</th>
<th>Withdrawals and dropouts</th>
<th>Global rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simon et al. (2004-2006)</td>
<td>France, “ICAPS”</td>
<td>n = 954 8 schools mean age 11.7 (SD 0.6) 46.3% I; 51.8% C boys.</td>
<td>4 school years - baseline - 6 months of intervention</td>
<td>- leisure organised PA in and outside sport clubs (%)</td>
<td>LOPA: ++</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>***</td>
<td>**</td>
</tr>
<tr>
<td>Jurg et al. (2006)</td>
<td>The Netherlands, “JUMP-in”</td>
<td>n = 510 6 schools (4 I, 2C) 49% I, 48% C boys 9-12 years I: 71%, C: 94% foreign ethnicity</td>
<td>1 school year - baseline - end of intervention</td>
<td>- total PA score: min/day at least moderately active: daily activity score: PA score in moderate active min/day (MET-score ≤ 5) + sports score: total amount of min/day organized sports. - meeting the guidelines: 60 min/day of moderate to vigorous PA</td>
<td>total PA score: + grade 4-5: ↔ grade 6: +++ meeting the guidelines: + grade 4-5: ↔ grade 6: +++</td>
<td>**</td>
<td>***</td>
<td>***</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Moon et al. (1999)</td>
<td>UK, “Wessex Healthy School award Scheme”</td>
<td>n = 16 schools; pupil numbers ranged from 440 to 1486 mean age NR 11-16 years 57% boys NR</td>
<td>4 school terms (15 months) - baseline - end of intervention</td>
<td>- PA behaviour: % taking part in sports at school (not PE) once or more a week</td>
<td>PA behaviour: ↔</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>
## Community with involvement of schools

### Baxter et al. (1997) [25]
- **UK**
- "Action Heart"
- **Study design**: CT
- **Sample characteristics**: 1991: n = 2685
  - 1994: n = 3224
  - 4 schools
  - 11 and 14 years (years 7 and 10)
- **Duration/measurements**: 3 years
  - baseline
  - end of intervention
- **Outcomes** - exercise: % of the students that exercise 3 or more times weekly
- **Main results** - exercise: **↔** (I increased with 4%, C remained stable, p-value NR )

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Study Design</th>
<th>Sample Characteristics</th>
<th>Duration/Measurements</th>
<th>Outcomes</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baxter et al. (1997) [25]</td>
<td>CT</td>
<td>1991: n = 2685 1994: n = 3224</td>
<td>3 years</td>
<td>exercise: % of the students that exercise 3 or more times weekly</td>
<td>exercise: ↔ (I increased with 4%, C remained stable, p-value NR )</td>
</tr>
</tbody>
</table>

### Primary care

### Ortega-Sanchez et al. (2004) [41]
- **Spain**
- **Study design**: RCT
- **Sample characteristics**: n = 448
  - mean age 17.0 (SD 2.4)
  - 58 % boys
- **Duration/measurements**: 3 x 5-10 min (baseline, 6 and 12 month visit)
  - baseline
  - 6 month after 1st session
  - 12 month after 1st session
- **Outcomes** - proportion of actives: % of the sample
  - duration (min/week), frequency (days/week) and intensity in points (mild = 1, moderate = 2, vigorous = 3)
  - A. proportion of A: ++
  - duration: +
  - frequency:++
  - intensity: ++
  - B. proportion of A: ++
  - duration: ++
  - frequency:++
  - intensity: +++

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Study Design</th>
<th>Sample Characteristics</th>
<th>Duration/Measurements</th>
<th>Outcomes</th>
<th>Main Results</th>
</tr>
</thead>
</table>
| Ortega-Sanchez et al. (2004) [41] | RCT | n = 448 mean age 17.0 (SD 2.4) 58 % boys | 3 x 5-10 min (baseline, 6 and 12 month visit) | proportion of actives: % of the sample
duration (min/week), frequency (days/week) and intensity in points (mild = 1, moderate = 2, vigorous = 3)
A. proportion of A: ++ duration: + frequency:++ intensity: ++
B. proportion of A: ++ duration: ++ frequency:++ intensity: +++ | *** * * * * ** |

### Walker et al. (2002) [42]
- **UK**
- **Study design**: RCT
- **Sample characteristics**: n = 1488
  - mean age 14,8
  - 49% boys
- **Duration/measurements**: 20 min
  - baseline
  - 3 months after intervention
  - 12 months after intervention
- **Outcomes** - prevalence of health related behaviour (PA): % of teenagers who reported positive behaviour change
  - A. PA behaviour: ++
  - B. PA behaviour: ++

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Study Design</th>
<th>Sample Characteristics</th>
<th>Duration/Measurements</th>
<th>Outcomes</th>
<th>Main Results</th>
</tr>
</thead>
</table>
| Walker et al. (2002) [42] | RCT | n = 1488 mean age 14,8 49% boys | 20 min | prevalence of health related behaviour (PA): % of teenagers who reported positive behaviour change
A. PA behaviour: ++ B. PA behaviour: ++ | *** * * * * ** |

### Individual

### Kelleher et al. (1999) [36]
- **Ireland**
- **Study design**: one group pre- post design
- **Sample characteristics**: n = 203 (8-11 years); n = 111 (12-15 years), n = 196 (adults)
  - mean age NR
  - 47 % boys
- **Duration/measurements**: 10 min.
  - baseline
  - 1 year after intervention
- **Outcomes** - lifestyle characteristics: exercise: times/week,
  - exercise behaviour: ↔

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Study Design</th>
<th>Sample Characteristics</th>
<th>Duration/Measurements</th>
<th>Outcomes</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kelleher et al. (1999) [36]</td>
<td>one group pre- post design</td>
<td>n = 203 (8-11 years); n = 111 (12-15 years), n = 196 (adults) mean age NR 47 % boys</td>
<td>10 min.</td>
<td>lifestyle characteristics: exercise: times/week, exercise behaviour: ↔</td>
<td>** * * * * **</td>
</tr>
</tbody>
</table>

### Woods et al. (2002) [32]
- **Scotland**
- **Study design**: RCT
- **Sample characteristics**: n = 459
  - mean age 19 (SD 4.5)
  - 38% boys
- **Duration/measurements**: PAL1 distributed in Jan., PAL 2 in Nov.
  - baseline
  - 7 months after baseline
- **Outcomes** - exercise behaviour: membership of the Sport and Recreation Service at the university (%)
  - exercise behaviour: +++

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Study Design</th>
<th>Sample Characteristics</th>
<th>Duration/Measurements</th>
<th>Outcomes</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woods et al. (2002) [32]</td>
<td>RCT</td>
<td>n = 459 mean age 19 (SD 4.5) 38% boys</td>
<td>PAL1 distributed in Jan., PAL 2 in Nov.</td>
<td>exercise behaviour: membership of the Sport and Recreation Service at the university (%)</td>
<td>** *** *** *** * **</td>
</tr>
</tbody>
</table>

+++ = p≤0.001 ++ = p≤0.01 + = p≤0.05 ↔ no significant effect (I vs C), sustained effect
*** = strong ** = moderate * = weak
I: intervention group
C: control group
PA: physical activity
PE: physical education
NR: not reported
NA: not applicable