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The characteristics for the primary school students' physical activity

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Objective This thesis provides a theoretical basis for improving children's physical activity levels and promoting the healthy development of primary school children.
Methods Measuring the height, shape index of children which are in 3-5 grades of primary school in Nanjing and taking the BMI cut-off point of the Cole as the object of this study BMI evaluation criteria. Applying the ActiGraph GT3X accelerometer to measure the physical activity of children in seven consecutive days which includes five school days and two weekend days. By counting the physical activity in a 60s interval, children's physical activity can be evaluated. Besides, using 100cm as the cut-off point, the number of students' sedentary breaks can be calculated. And the relationship between the results and students' BMI characteristics can be discussed.
Results (1) For the male students, the average sedentary breaks, LPA and MVPA time is 849.47min, 297.01min and 37.99 min respectively. And for the female students, the sedentary breaks, LPA and MVPA time is 874.12min, 272.33min, and 32.55min respectively. The male students' MVPA time is significant higher than the female students ($P<0.05$), but for both of them, the MVPA time cannot achieve the international children's physical activity daily recommended amount which is 60min. Besides, there is no difference between different grades($P>0.05$). (2) Students' daily MVPA time was significantly higher than the weekend MVPA time ($P <0.05$). Male students' MVPA time in the school days is higher than the MVPA time in the weekend($P<0.01$). For the children in different body shape, the MVPA time in the school days is higher than that in the weekend($P<0.05$). In the school days, the male students' MVPA time is significant higher than that of female. ($P<0.05$). In the weekend, the normal group's MVPA time is much higher than that of overweight and obese groups($P<0.05$).(3) The sedentary breaks of normal group is less than that of overweight and obese groups($P<0.05$). There is no significant difference between different gender, grades and BMI($P>0.05$).
Conclusions （1）Male students' MVPA time is higher than the female students.（2）The MVPA time in the school days is much higher than in the weekend. In terms of the sedentary breaks, there is no difference between different gender, grade and body shape.（3）Students with more sedentary breaks get lower BMI,and the change of LPA will be the primary cause of MVPA changing.