for physical activity, particularly through physical education (PE) in schools, rather than in relation to the proportion of children meeting recommended physical activity levels. There has been much surveillance of children’s physical activity but this has been undertaken infrequently over time, by a wide range of organisations, and with varying inclusion of different domains of activity such as school PE, leisure time activity and active travel. There has only been one campaign in England targeted at children and their intermediaries (Change4Life), which was an obesity campaign focussing on dietary behaviour in combination with physical activity. Most recently an infographic supporting the physical activity guidelines for children and young people was developed, but details of its dissemination and usage are unknown.

Conclusions

There have been many developments in physical activity policy in England targeted at children and youth. The area of greatest progress is national physical activity guidelines. Establishing

Abstract

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O3-6 The Healthy School Start Plus Study - A parental support programme to promote healthy behaviours and prevent childhood obesity in disadvantaged areas

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Background

The rise in childhood overweight and obesity worldwide demands effective health promotion and obesity prevention programmes, especially targeting socially disadvantaged areas. The aim of this study is to examine the effectiveness of a revised parental support programme, promoting physical activity and a healthy diet, and on preventing overweight and obesity among children in disadvantaged areas.

Methods

The effectiveness of this programme will be compared to standard school routines in a parallel group cluster randomised controlled trial. The 6-month programme included: 1) A health information brochure; 2) School nurses conducting motivational interviewing with parents; 3) Classroom activities and home assignments for children; 4) A self-test for type-2 diabetes risk for parents. Seventeen schools were enrolled including 352 six-year-old children (155 intervention/197 control). Physical activity and sedentary time were measured by accelerometry. Dietary intake was assessed by a newly developed mobile phone-based photo method. Weight and height were measured by trained researchers. All outcomes were measured at baseline and at 6 and 18 months post baseline. Parental level of education was self-reported, and the highest level achieved by either parent was used as an indicator of socioeconomic position (SEP). A mixed-effect regression analysis will be performed to evaluate the effectiveness of the programme.

Results

After the intervention, when adjusting for sex and parental education, the intervention group showed 6.4 mins more moderate to vigorous physical activity (MVPA) during weekdays than the control group (p = 0.03). No significant effect on MVPA was detected during weekends (p = 0.47). Further, no significant effect was detected on time spent sedentary during weekdays (p = 0.12) nor during weekends (p = 0.78).

According to IOTF classifications, 9.6% of the children had obesity, 16.4% overweight, 4.4% underweight and 69.6% normal weight. Results on changes in BMI, and dietary intake at 6 months will be presented.

Conclusions

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O3-7 Prenatal predictors and physical fitness in Spanish Youth: the UP&DOWN study

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Background

Physical fitness outcomes are considered major health biomarkers to assess and monitor exercise-based interventions across the lifespan. Recent studies provide evidence that many adult and childhood chronic diseases should have their origins in gestational or fetal life. To date, a few pioneering studies have showed associations between prenatal predictors and selected physical fitness tests (strength and cardiorespiratory). Nevertheless, there is a lack of knowledge about the influence of prenatal factors on childhood performance on a comprehensive fitness test battery including speed and coordination. The innovative purpose of the current study is to analyse the relative weight of prenatal predictors on schoolchildren’s physical fitness outcomes.

Methods

We obtain data from 1188 children (571 girls) aged 6-11 years and 1020 adolescents (495 girls) aged 12-17 years. Prenatal predictors (gestational anemia, gestational diabetes and length of gestation) were self-reported from offspring’s mothers. The ALPHA fitness test battery for youth was used to assess offspring’s physical fitness (muscular strength, motor fitness and cardiorespiratory fitness). Regression analysis were performed to predict the different physical fitness outcomes.

Results

The main findings of the present study indicate that the presence of gestational anemia significantly predicted lower scores of lower-body explosive muscular strength (standing long jump) and motor fitness (4x10-m shuttle run) and predicted moderately lower scores of upper-body isometric muscular strength (handgrip strength test). (p>.005; p>.008; p>.075 respectively). Moreover, gestational anemia better predicted lower scores of muscular strength and motor fitness in children than in adolescents (standing long jump, handgrip strength test, 4x10-m shuttle run) (p>.001; p>.051; p > 0.18, respectively). While gestational age and length of gestation (>34-<42 weeks) predict better cardiorespiratory fitness (20 m shuttle-run test) (p>.023; p>.023 respectively) and motor fitness (4x10 m shuttle; moderately for length of gestation). (p>.020; p > 0.55 respectively).

Conclusion

This evidence suggests that preventive strategies by health-care institutions, policy makers and technicians must be two-fold: a) to effectively reduce gestational anemia in order to prevent offsprings predisposition to low levels of physical fitness, and b) to intervene with toddlers and children at risk to provide tailored physical activity programs and regular physical fitness evaluation.