Preschoolers in the Playground: a pilot cluster randomised controlled trial of a physical activity intervention for children aged 18 months to 4 years

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Plain English summary

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This pilot trial assessed the feasibility and acceptability of an outdoor playground-based physical activity intervention (Preschoolers in the Playground or PiP) and the methods that would be used in a full-scale trial of the intervention.

Ten primary schools and 164 children aged from 18 months to 4 years were recruited in Bradford, UK. Half of the schools were randomised to deliver the intervention and the others continued with their usual routines (control schools). Children at the intervention schools were compared with those at control schools at baseline and 10 and 52 weeks.

The intervention ran in primary school playgrounds. Families were encouraged to come to three 30-minute PiP sessions each week for 30 weeks. Sessions included structured and unstructured play. The first 10 weeks were supervised by a facilitator and the next 20 were unsupervised.

The study assessed the recruitment rates for schools and families and how many participants stayed in the trial. It also investigated the acceptability of the trial procedures and the intervention. We found that 37% of schools and 48% of parents approached agreed to take part. There were good levels of follow-up at 10 (82.3%) and 52 (83.5%) weeks. The trial procedures were mainly acceptable and feasible. Attendance to the intervention was poor between autumn and spring and somewhat better in the summer. To improve attendance, modifications have been proposed including running the intervention during the summer term only. In conclusion, it is feasible and acceptable to conduct a full-scale randomised controlled trial of the PiP intervention with some modifications.
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