Therapeutics

The early risers programme improved academic competence in children at high risk of aggressive behaviour

August GJ, Realmuto GM, Hektner JM, et al. *An integrated components preventive intervention for aggressive elementary school children: the early risers program.* *J Consult Clin Psychol* 2001 Aug;69:614–26.

QUESTION: In children at high risk of aggressive behaviour during the kindergarten year, is an early risers programme effective?

Design

2 year cluster randomised (unclear allocation concealment*), unblinded*, controlled trial.

Setting

20 demographically matched elementary schools at 2 regional sites in Minnesota, USA.

Participants

245 children (mean age 7 y, 69% boys) who were at high risk of aggressive behaviour during the kindergarten year, with a *T* score ≥ 58 on the 25 item aggressive scale of the Child Behaviour Checklist (CBCL) teacher rating form (using sex specific norms) or with a *T* score $\geq 85^{\text{th}}$ percentile relative to all kindergarten students in their school without dropping below a *T* score of 55. Exclusion criteria included an intelligence quotient < 80 . Follow up was 100%.

Intervention

10 schools (124 children) were allocated to the early risers programme (consisting of “core” and “flex” components) and 10 schools (121 children) to no intervention. The “core” component included 6 weeks of summer school annually that included academic learning centres, social skills training groups, creative arts/sports skills development, large group recreation, and lunch recess each day; a school year teacher consultation and student mentoring programme in which family advocates served as consultants to the 10 schools involved in the programme; child social skills groups; and parent education and skills training groups. The “flex” component was a programme of problem/asset appraisal and proactive family support individually tailored to address the unique needs of each family. The initial phase of the intervention began in the summer after the kindergarten year and continued for 2 years.

Main outcome measures

Academic competence (Woodcock-Johnson Tests of Achievement Revised given to children), Behavioral Assessment System for Children Teacher Rating Scale (BASCTRS) completed by teachers, Teacher's Scale of Child's Actual Competence and Social Acceptance, and Teacher Observation of Classroom Adaptation (Revised), behavioural self regulation (10 scales from 2 parent and 2 teacher measures), social competence (3 scales from teacher and parent BASCTRS), and parent investment in child (Alabama Parenting Questionnaire) measured at baseline and annually for 2 years.

Main results

Academic competence improved over a period of 2 years in the intervention group, but declined slightly in the control group (difference in change from baseline for effect size 0.26, $p < 0.018$). Improvement in behavioural self regulation was greater in the intervention group than the control group for children with the most severe levels of aggression but not for children with low or moderate levels of aggression. The groups did not differ for improvement in social competence or parent investment in child (p values > 0.05).

Conclusion

In children at high risk of aggressive behaviour during the kindergarten year, an early risers programme improved overall academic competence but not social competence or parental investment.

*See glossary.

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COMMENTARY

This study by August *et al* is exemplary by standards of research, prevention studies, and randomised controlled trials. Within the confines of pre-existing classrooms, children were randomly allocated to either intervention or no intervention, the intervention was provided for an extended period to provide a strong test, the sample size was large providing sufficient power, the assessment battery encompassed critical constructs, and some changes were evident that can be attributed to the intervention. The study shows improvement of functioning in children after 2 years of intervention.

It is not clear from the selection criteria (CBCL scores) that these children were at risk for the problems of antisocial and aggressive behaviour or delinquency. Many of these children, if retested before the intervention (eg, 2 wks later), might not have continued to meet the selection criterion; others who did not meet the criterion initially might do so at retesting. In addition, it is not clear from longitudinal studies that children selected in this fashion would have moderate to high rates of serious clinical dysfunction. This does not gainsay the importance of the intervention. We want to reduce aggression, improve parenting, and increase academic performance at any levels.

This study and others reviewed in the article raise research and applied issues. One research issue is the need to understand why this or any other intervention achieves change. Without understanding the mechanisms involved, it will be difficult to optimise the beneficial results and to extend the treatment widely. Also, multicomponent interventions raise special problems (eg, costly in time and money and the likelihood of degradation when extended outside of the context of research). Are all components needed? Do some dilute the effects of others? A more applied question is whether such programmes can be implemented routinely in settings without the special resources of research and retain their effects. Critical factors of high quality research (treatment integrity, monitoring of youths, pre and post assessment) probably need to be in place to optimise programme impact. Rarely are schools, governments, and reimbursement agencies willing to provide the infrastructure to implement and monitor programme delivery and hence to achieve the effects evident in controlled settings. This is a source of frustration exacerbated by the increased availability of interventions of the type August *et al* provide.

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