Review: family and parenting interventions reduce subsequent arrests and length of time in institutions in youths with conduct disorder and delinquency

Woolfenden SR, Williams K, Peat JK. Family and parenting interventions for conduct disorder and delinquency: a meta-analysis of randomised controlled trials. Arch Dis Child 2002 Apr;86:251–6.

QUESTION: In youths aged 10–17 years with conduct disorder or delinquency, do family and parenting interventions improve behaviour and long term psychosocial outcomes as well as parenting, family functioning, and parental mental health?

Data sources

Studies in any language were identified by searching Medline, EMBASE/Excerpta Medica, PsycINFO, CINAHL, Sociofile, ERIC, and HealthSTAR (up to mid 1999), and by searching the Cochrane Controlled Trials Register. Bibliographies of relevant studies were reviewed, and experts were contacted for information on unpublished trials.

Study selection

Randomised controlled trials were included if they evaluated family and/or parenting interventions for youths 10–17 years of age with conduct disorder (defined by standardised psychological assessment or psychiatric diagnosis) and/or delinquency (referral from a legal system for a youth who committed a serious crime and/or offended on ≥ 2 occasions) and assessed ≥ 1 objective or validated outcome measure. Trials of youths who committed only sex or drug offences were excluded.

Data extraction

2 reviewers independently extracted data on trial location and methods, patient characteristics, type and duration of the intervention, and outcomes. Study quality was assessed for allocation concealment, blinding of outcome assessors, reporting of clinically important outcomes, and follow up.

Main results

8 studies (749 children and adolescents and their families) were included in the meta-analysis. Family and parenting interventions included short term family intervention, parent training, multisystemic therapy, multidimensional treatment foster care, and an adolescent diversion project with a family condition and a multifocus condition. Control conditions included usual care, waiting list, and no intervention. At follow up, fewer youths in the intervention than in the control group were subsequently arrested (table). Youths in the intervention group spent less time in institutions and had lower self reported delinquency than those in the control group (table). The groups did not differ for youths' behaviour, parental mental health, family functioning and relationships, risk of incarceration, and peer relationships.

Conclusion

In youths aged 10–17 years with conduct disorder or delinquency, family and parenting interventions reduce the risk of subsequent arrest, length of time spent in

institutions, and self reported delinquency compared with usual care or no intervention.

Family and parenting interventions (FPI) v usual care or no intervention (control) for youths with conduct disorder or delinquency*

Outcomes at 6 months to 3 years (number of trials, participants)	Weighted event rates			
	FPI	Control	RRR (95% CI)	NNT (CI)
Subsequent arrest (5 trials, n=486)	44%	65%	34% (2 to 56)	5 (3 to 50)
Comparison			Mean difference (CI)	
Mean time in institutions (days) (4 trials, n=379)	FPI v Control		-51 (-73 to -30)†	
Self reported delinquency (3 trials, n=275)	FPI v Control		-0.41 (-0.65 to -0.17)‡	

*Abbreviations defined in glossary; RRR, NNT, and CI calculated from data in article. All analyses used a random effects model.

†Weighted mean difference.

‡Standardised mean difference in delinquency scores.

COMMENTARY

Several studies have examined the efficacy of interventions for conduct disorder and delinquency in children and adolescents.¹ The systematic review by Woolfenden *et al* is timely as it is the first quantitative synthesis of preventive interventions targeted at youths aged 10–17 years.

The review methodology was rigorous, a thorough search of biomedical and psychosocial bibliographic databases was done, inclusion criteria were specified, and conduct disorder and delinquency were clearly defined. Furthermore, variation within and between studies (heterogeneity) was quantitatively assessed. Although the cost effectiveness of different family and parenting interventions was not evaluated, multisystemic therapy was highlighted as a resource intensive intervention. Only 1 study from Australia targeted conduct disorder; the remaining studies were from the US and included juvenile delinquents who were chronic or serious offenders. The findings, therefore, are based on this population and focus on the US juvenile justice system, and thus may not be generalisable outside this setting.

Nevertheless, the results of this systematic review are relevant to practitioners working in child and adolescent mental health services and to practitioners whose clients include juvenile delinquents. Recurrent delinquency is associated with high rates of multiple service utilisation and substantial societal cost. Interventions that could reduce the risk of subsequent arrest and time spent in institutions are a valuable contribution to adolescents, their families, and society as a whole. Further research is needed on the effectiveness of interventions in children with conduct disorders, particularly given the suggested relation between early conduct problems and risk of subsequent recurrent delinquency.²

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1 Brown CH, Berndt D, Brinales JM, *et al*. Evaluating the evidence of effectiveness for preventive interventions: using a registry system to influence policy through science. *Addict Behav* 2000;25:955–64.

2 Steiner H. Practice parameters for the assessment and treatment of children and adolescents with conduct disorder. American Academy of Child and Adolescent Psychiatry. *J Am Acad Child Adolesc Psychiatry* 1997;36:122S–39S.