

IMPRoving Outcomes for children exposed to domestic Violence (IMPROVE): an evidence synthesis

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Disclaimer: This report contains transcripts of interviews from studies identified during the course of the research and contains language that may offend some readers.

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Scientific summary

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Scientific summary

Background

Domestic violence and abuse (DVA) is threatening behaviour, violence or abuse between adults who are relatives, partners or ex-partners. Exposure to DVA during childhood and adolescence increases the risk of negative behavioural and health outcomes across the lifespan. There is a moderate to strong association between children's exposure to DVA and internalising symptoms (e.g. anxiety, depression), externalising behaviours (e.g. aggression) and trauma symptoms. There are also links between children's exposure to violence and disrupted social development, poor academic attainment, engagement in risky health behaviours and other physical health consequences. Exposure to DVA in childhood is associated with negative outcomes in adulthood, such as mental health problems, conduct disorder and criminal behaviour, as well as DVA victimisation and perpetration. Despite strong evidence that exposure to DVA is damaging to children in the short and long term, there is a paucity of evidence about clinically effective and cost-effective interventions that aim to prevent or limit the impairment that DVA may cause to children's health and well-being.

Aim of the evidence synthesis

The aim of the evidence synthesis was to formulate recommendations for further research in the UK and internationally, that looks to evaluate interventions to improve outcomes for children exposed to DVA.

We answered seven research questions:

1. What is the nature of the evidence base evaluating targeted interventions to improve outcomes for children exposed to DVA?
2. What is the nature of existing interventions to improve outcomes for children exposed to DVA?
3. What is the evidence that existing interventions are clinically effective?
4. What is the evidence that existing interventions are cost-effective?
5. How are outcomes defined and measured in evaluations of existing interventions?
6. What is the evidence that existing interventions are acceptable to stakeholders and feasible to deliver?
7. What is the nature of the UK evidence base and service delivery landscape?

Methods

Design

A systematic review of controlled trials of interventions, a systematic review of qualitative studies of participant and professional experience of interventions, a network meta-analysis (NMA) and cost-effectiveness analysis of controlled trials, mapping of trial outcomes with baseline measures in longitudinal studies, an overview of current UK provision and consultations with young people, parents, service providers and commissioners on synthesis findings.

Data sources

For the systematic reviews: MEDLINE, Cumulative Index to Nursing and Allied Health Literature, PsycINFO, EMBASE, Cochrane Central Database of Controlled Trials, Science Citation Index, Applied Social Science and Abstracts Index, International Bibliography of the Social Sciences, Social Services Abstracts, Social Care Online, Sociological Abstracts, Social Science Citation Index, the World Health Organization trials portal and Clinicaltrials.gov. For the mapping of outcomes: MEDLINE, Science Citation Index Expanded and Social Sciences Index Expanded. For the overview of current UK provision: organisational websites and grey literature repositories.

Study selection

- Published reports of controlled trials of any intervention measuring behavioural, mental health or social and school outcomes for children aged < 18 years of age (or their parents) who had been exposed to DVA. If the trial included children not exposed to DVA, it was excluded unless outcomes for exposed children were reported separately.
- Published empirical qualitative studies focusing on children's, parents' or stakeholders' views and experiences of receiving or delivering child-focused interventions following children's exposure to DVA.
- Cost estimates based on the number of sessions reported for the intervention and qualification of staff in the trials, relating these to the standardised mean differences (SMDs) between interventions generated from the NMA.
- Published reports of longitudinal or cohort studies that measured internalising or externalising symptoms as potential predictors of longer-term outcomes, or which measured childhood predictors of relevant adult states.
- Reports from government departments, charities and official bodies that described any UK-based intervention implemented after 2003 for children aged < 18 years (or their parents) who had been exposed to DVA and that aimed to improve child outcomes.

Data extraction

The systematic reviews involved independent data extraction by two reviewers. The data extraction for the NMA, mapping and overview of current UK service provision was undertaken by one reviewer.

Assessment of validity

- The Cochrane risk-of-bias tool was applied by two independent reviewers to random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment and incomplete outcome data.
- The Critical Appraisal Skills Program tool was applied by two independent reviewers.

Main outcome measures

For the systematic review of controlled trials of interventions and NMA: internalising and externalising symptoms and behaviour, mood, depression, post-traumatic stress disorder symptoms, self-esteem; for the systematic review of qualitative studies of participant and professional experience of interventions: views about and experience of interventions; and for the mapping of trial outcomes with baseline measures in longitudinal studies: DVA perpetration and victimisation, criminality, substance abuse and mental health problems.

Review methods

A narrative review of the trials that constitute the primary studies; a qualitative synthesis using meta-ethnographic methods to identify first-, second- and third-order constructs from the primary studies; a NMA and incremental cost-effectiveness analysis; and an extrapolation of predictors of adult problems measured in the primary studies. In *Chapter 9* we report the findings of the synthesis by the seven research questions posed above.

Results

Nature of the evidence

The evidence base is underdeveloped, with limited empirical evidence of clinical effectiveness or cost-effectiveness and acceptability of interventions. We identified 13 completed trials (nine of which were randomised), published between 1995 and 2015, with a total of 1345 participants. Most were conducted in the USA, and none was conducted in the UK or in low- or middle-income countries. Two studies had a low/unclear risk of bias, but most trials had an unclear or high risk of bias overall. Our quality appraisal was hampered by poor reporting of studies.

We identified five peer-reviewed qualitative studies published between 1992 and 2012, with a total sample of 100 children, 202 parents and 39 professionals. Most of the studies were conducted in the USA, although one was UK based. None was linked to a trial or quantitative study, although two focused on models (psychotherapy and psychoeducation) for which we found (unrelated) trials. Study quality was generally high.

A review of the grey literature on UK programmes identified 26 reports covering 19 programmes. Of the 19 interventions identified, 17 had undergone evaluation in 21 studies. Studies were mostly characterised by small samples, with evaluation largely focusing on the process of delivery and acceptability of programmes.

Nature of the interventions

From the small body of trial and qualitative evidence that we identified, we found six types of intervention that were evaluated in the peer-reviewed literature: (1) psychotherapy; (2) psychoeducation; (3) advocacy; (4) guided self-help; (5) parenting skills training plus advocacy; and (6) advocacy plus psychoeducation.

Trials most frequently evaluated psychotherapeutic and psychoeducational interventions delivered to non-abusive parents (mostly mothers) and children. None of the trials evaluated interventions including the abusive parent, or lower-intensity interventions, such as self-help. Qualitative evaluative studies, some of which included both the abusive and non-abusive parent, mostly explored experiences of receiving and delivering psychoeducational interventions.

Interventions were most often offered based on children's exposure to DVA, rather than on their specific clinical profile or broader social needs. There was variation in the format (group, individual, dyad or mixed) and duration of programmes. Most of the interventions evaluated in the trials were targeted at pre-school- to middle-school-age children, and delivered in specialist DVA settings or unspecified community-based settings by graduates with expertise in disciplines allied to mental health.

UK programmes were largely psychoeducational, with few psychotherapeutic and no parenting interventions that were tailored to the specific needs of children and parents who have experienced DVA. Interventions were based on children's exposure to DVA and were not specific to the presentation of particular problems. They were offered to a broader age group than addressed in the peer-reviewed literature, but none was offered to parents of infants. UK programmes were also delivered in DVA service or community settings by a broader range of professionals than was evident in the peer-reviewed literature.

Evidence of clinical effectiveness

Eleven of 13 trials reported improvements in behavioural or mental health outcomes, with modest effect sizes. However, high or unclear risk of bias, heterogeneity of studies and minimal replication makes uncertain conclusions about effectiveness, particularly comparative effectiveness. Comparator interventions were equally heterogeneous, making conventional meta-analysis or even direct comparison between interventions impossible. We therefore used NMA to pool evidence across a connected network of intervention comparisons, making a consistency assumption about similarity of effects if all trials had included all interventions. For reviews of complex interventions there is also an assumption that interventions of the same category are also similar across studies, which is not often the case. Therefore, the findings of the NMA must be considered hypothesis-generating rather than conclusive.

Based on the findings of the NMA, interventions delivered to the child only were relatively more effective at improving children's mental health outcomes. In particular, interventions that had a psychoeducational component and that were delivered in a group format had the highest chance of being effective, although there was large uncertainty in this finding. Interventions delivered to (non-abusive) parents and children were most likely to be effective at improving children's behavioural outcomes. In particular, parenting skills training plus concurrent DVA advocacy for parents was more effective than other interventions, although there was also some evidence to suggest that psychoeducation delivered in parallel to parents and children could improve behavioural outcomes.

These findings suggest that interventions that are effective at reducing children's mental health symptoms may be different from those that are effective for reducing children's behaviour problems. This is evidence for targeting interventions to children's needs or clinical profiles, rather than providing the same programme for all children exposed to DVA. This proposition requires further investigation to determine if one model is more effective than others for reducing specific problems.

Evidence of cost-effectiveness

None of the trials that we reviewed in this evidence synthesis conducted an economic analysis. Our analysis was based on the NMA, and, by virtue of this, the same strong assumptions. It was designed to inform research recommendations, not the implementation of one intervention over another.

In terms of children's mental health outcomes, a psychoeducational intervention delivered to the child is likely to be most cost-effective [incremental cost-effectiveness ratio (ICER) > £858/SMD], although at a very high willingness-to-pay threshold (ICER > £22,575/SMD), cognitive-behavioural therapy may be equally cost-effective.

For children's behavioural outcomes, a psychoeducational intervention provided to parents and children in parallel is likely to be the most cost-effective at a lower willingness-to-pay threshold (ICER > £3782/SMD), with parenting skills plus advocacy becoming relatively more cost-effective at a higher willingness-to-pay threshold (ICER > £8017/SMD).

Defining and measuring outcomes

Trials largely measured children's symptoms and disorders; their heterogeneity hampered the synthesis of evidence across trials. The qualitative studies that we reviewed and our consultations with young people, parents and professionals suggest that, although symptom reduction is considered an important benefit, desirable outcomes extend to functional status such as school attainment, the ability to cope with challenges, self-expression and self-regulation, a sense of well-being and improvements in the quality of important relationships. Agreement on a core outcome set for the field, informed by stakeholders and including negative or adverse effects of interventions, would ensure that trials evaluate effectiveness against outcomes that are relevant and important to stakeholders and would help to synthesise findings across trials.

Acceptability to stakeholders

Based on the qualitative studies, the UK grey literature and consultations with stakeholders, group-based psychoeducational interventions delivered to children and non-abusive parents in parallel are acceptable to children and parents. Perceived benefits included those derived from the group process and those derived from the therapeutic content of the intervention. However, specific components of this type of intervention (safety planning, sexual abuse prevention) were problematic for some children and parents. There is uncertainty over the most acceptable delivery format for older children and teenagers, as well as over how acceptability may vary according to individual factors, such as readiness to engage in a therapeutic intervention and ethnicity.

Psychoeducational interventions also appear to be acceptable to those delivering services, as well as feasible to implement, although the success and sustainability of this intervention may depend on the broader community response to DVA and the stability and culture of the organisation hosting it. More research is needed on the acceptability and feasibility of interventions in different settings.

Important questions also remain regarding if and when it may be appropriate to offer psychoeducational interventions that include the abusive parent. This warrants investigation, given the increasing focus on whole family interventions in the UK and the absence of evidence of effectiveness. Guided self-help may be an acceptable lower intensity intervention to enhance the quality of parent-child communication, but there is no evidence of its effectiveness. We found limited evidence relating to the acceptability of other types of interventions.

The UK evidence base and service profile

It is striking that there are no UK-based trials and a paucity of qualitative research on interventions for children exposed to DVA. It was, nevertheless, heartening to observe a culture of service evaluation emerging in the DVA sector; for example, we found 21 evaluations of 19 different programmes. Although there can be little doubt that more robust studies are needed, there is also a case for looking at ways to maximise the quality of service evaluation as well as the value of the information that is produced more routinely for the purpose of service monitoring.

The UK response to children exposed to DVA mostly consists of group-based psychoeducational interventions that are delivered either to the child alone or to the child and their non-abusive parent in parallel. This type of intervention was identified as promising in our synthesis. The other promising intervention that we identified, namely parenting skills training plus advocacy, is not currently implemented.

The findings of our review of the UK grey literature and consultations with professionals indicate that the response to children who have been exposed to DVA is largely led by the specialist DVA sector, which is currently suffering severe budget cuts. Such cuts are undermining the development of evidence-based services for this vulnerable group of children.

Conclusion

There is an urgent need for more high-quality studies, particularly trials, that are designed to produce actionable, generalisable findings that can be implemented in real-world settings and that can inform decisions about which interventions to commission and scale.

Research recommendations (in priority order)

1. Well-designed, conducted and reported UK-based RCTs with cost-effectiveness analyses and nested qualitative studies are needed to evaluate the clinical effectiveness, cost-effectiveness and acceptability of targeted interventions for children exposed to DVA.
2. Development of a consensus in the field about a core outcome data set.
3. Exploration of the acceptability and effectiveness of interventions for specific groups of children and young people, differentiated by ethnicity, age, trauma exposure and clinical profile.
4. Investigation of the context in which interventions are delivered, including organisational setting and the broader community context, as well as the influence of contextual factors on intervention fidelity and effectiveness.
5. Evaluation of qualities, qualifications and disciplines of personnel delivering interventions.
6. Prioritisation of psychoeducational interventions and parent skills training delivered in combination with advocacy in the next phase of trials.
7. Exploratory trials of interventions that engage the abusive and non-abusive parent.

Study registration

This study is registered as PROSPERO CRD42013004348 and PROSPERO CRD420130043489.

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