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# Effective Components of Parenting Programmes for Children's Conduct Problems

Patty Leijten

Conduct problems in early and middle childhood are characterized by argumentative defiant behaviour, vindictiveness, an angry or irritable mood and aggression [1]. These problems compromise children's well-being and relationships with parents and peers [2]. If left untreated, conduct problems can seriously deteriorate children's psychological, social, academic and physical development [3, 4].

The origins of children's conduct problems lie in child characteristics (e.g., temperament and executive functioning [5, 6]), environmental characteristics (e.g., family dynamics, neighbourhood [7, 8]) and interactions between child and environmental characteristics [9, 10]. Children with conduct problems typically find it more difficult to regulate their emotions and behaviours and often interpret others' behaviour as angry or hostile [11]. Distortions in the parent-child relationship, dysfunctional parental cognitions and attributions (e.g., compromised sense of self-efficacy or blaming the child for misbehaviour) and parental emotional and suboptimal reactions to children's conduct problems can inadvertently increase children's conduct problems [12–15]. The latter typically take the form of cycles of coercive parent-child interactions [16].

Coercive cycles may begin when the child acts with resistance or anger to the parent's directives, eliciting anger in the parent which exacerbates the child's resistance or anger. If the parent disengages to stop the child's anger, this serves as a reinforcement to both the parent's and the child's behaviour: the parent learns to give up when the child's behaviour becomes aversive, and the child learns that aversion results in getting one's way (i.e., through operant learning [17]). If the parent, alternatively, forces the child to comply through verbal or physical violence or by threatening with violence, this too is likely to increase both the parent's and the child's aversive behaviour: the parent learns to use violence to direct the child's behaviour, and the child learns to use violence to get one's way

(i.e., through modelling and reinforcement [18]). These reinforcement processes create a feedback cycle where parent-child interactions become more difficult to manage, maintaining and increasing conduct problems over time [19].

## Parenting Programmes as a Key Intervention Strategy

Because of the key role parenting plays in how children's conduct problems develop, parenting programmes are the key strategy to prevent and reduce children's conduct problems [20]. Most established programmes are based on relationship perspectives [21, 22] and operant or social learning theory [17, 18], designed to improve the parent-child relationship and break patterns of coercive parent-child interaction. This dual focus was conceived by Constance Hanf [22a] in the second half of the twentieth century, and is now used in the majority of empirically supported parenting programmes for children's conduct problems (see Kaehler, Jacobs and Jones [23] for an overview).

Programmes typically consist of manualized treatment protocols that explain how therapists can increase parents' understanding of what they can expect from their child (e.g., psycho-education about child developmental stages), encourage adaptive cognitions (e.g., parental self-efficacy) and suggest adaptive parenting strategies (e.g., involvement, positive reinforcement and non-physical discipline). Change is achieved through the use of established behaviour change techniques (e.g., modelling and role play [24]). Parenting programmes can be delivered either in a clinical setting or at home, individually or in groups.

In terms of their evidence base, parenting programmes for children's conduct problems are among the more 'mature' family-based interventions. Around 200 randomized trials and dozens of meta-analyses have evaluated their effectiveness, typically

showing robust small to medium effects on children's observed and parent-reported conduct problems [20, 25, 26]. In addition, parenting programme effects are robust across countries [27], and gains tend to be sustained in the months and years after programmes have ended [28].

However, because many programmes are complex and costly to implement, few are actually taken to scale – therefore, most families affected by children's conduct problems cannot access empirically supported programmes [29]. Recent developments in identifying the effective components of parenting programmes hold promise to fill the gap between available complex evidence-based programmes and the need for effective, low-cost programmes that are easy to implement. If we can identify what components parenting programmes should include and what components are ineffective or superfluous in light of other components, this will allow for 'leaner' programmes that are less complex and costly to implement. In addition, identifying the effective components of parenting programmes improves our understanding of the specific aspects of parenting that matter most for children's conduct problems, refining theories on the development of conduct problems and guiding our efforts to optimize intervention strategies.

## Identifying Effective Parenting Programme Components

*Components* are discrete aspects of parenting programmes that are expected to contribute uniquely to reductions in children's conduct problems. Components can reflect programme content (i.e., parenting techniques taught), delivery methods (i.e., the way parenting techniques are taught, such as through modelling or role play) and programme structure (i.e., the broader setting of the programme, such as individual versus group delivery, and programme duration). Alternative terms for programme components include *kernels* [30] and *elements of therapeutic change* [31].

Common research strategies to identify effective parenting programme components include (1) associations between the presence of components and programme effects on children's conduct problems (i.e., correlational evidence, for example, in a meta-analysis that compares the effects of programmes that have different components [25, 32]) and (2) effects of experimentally manipulated components on

children's conduct problems (i.e., causal evidence, for example, in a focused experimental study, sometimes called *micro-trials* [33, 34] or *additive or dismantling trials* [35]). In a micro-trial, families are randomized to receive either one discrete intervention component or no components; in an additive or dismantling trial, families are randomized to receive a full intervention package either with or without the target component.

These two types of research strategies (i.e., studying associations between components and programme effects and studying the effects of experimentally manipulated components) are complementary. Studying associations is less rigorous – it does not allow for causal inferences because it relies on associations between the presence of components and programme effect sizes. It therefore cannot rule out the possibility that any difference in effect sizes associated with the presence of target components are actually caused by other characteristics that programmes with the target component share [36]. However, it provides a solid first test of the merit of discrete parenting programme components: if a component is essential for programme success, programmes with this component should outperform programmes without this component. In addition, more research on this type of evidence exists, meaning that we can draw from a larger and more diverse parenting programme literature. Studying experimentally manipulated components is more rigorous and therefore provides more conclusive evidence. Yet, fewer studies fall into this category, and they come with their own limitations, such as the often limited statistical power of additive and dismantling trials [37]. More details on the relative strengths and limitations of different types of evidence can be found in a review of research strategies to identify the effective components of psychotherapy [38]. This review also includes some other research strategies, such as expert opinion and listing the components that empirically supported programmes have in common [39], not addressed in this chapter because they are less rigorous than the two types of evidence discussed here. However, these other strategies can be helpful to catalogue the components included in parenting programmes as a first step towards developing an overview of potentially important programme components and to generate research questions on what components may be less or more effective.

In this chapter, I will discuss what we know about whether parenting programmes with a range of differing components that yield, on average, larger effects than parenting programmes without the component (i.e., correlational evidence) and what we know about the unique effects of the component (i.e., causal evidence). The overview of components is not meant to be exclusive but provides the first overview of literature on the empirical support of frequently used parenting programme components for reducing conduct problems in children.

## Content Components

### Theoretical Orientation

Parenting programmes can be distinguished in terms of their theoretical orientation, typically behavioural, relational and/or cognitive. Behavioural parenting programmes teach parents techniques based on learning-theory perspectives to redirect their child's behaviour, including positive reinforcement (e.g., praise and rewards) and negative consequences (e.g., planned ignoring and time-out). Relational programmes teach parents how they can improve their relationship with their child through sensitive and responsive parenting and effective communication. Cognitive programmes strive to change parenting practices through altered parental cognitions, such as parents' sense of competence (i.e., self-efficacy) and parents' attributions for child behaviour (e.g., the extent to which parents hold themselves or their children responsible for problematic child behaviour). Most parenting programmes draw from multiple perspectives. For example, many established programmes are based on the *Hanf model*, combining behavioural and relationship orientations, teaching parents first relationship building and then behaviour management skills [23]. That said, programmes vary in how much emphasis they place on each orientation, and some explicitly distance themselves from some, often the dominant behavioural, orientations [40, 41].

Evidence is conflicting regarding whether the theoretical orientation of programmes makes a difference in terms of parenting programme effects on children's conduct problems. Individual trials suggest that each type of programme is effective [41–43], but the evidence for relational and cognitive approaches is thinner than that for behavioural programmes in terms of the number of rigorous programme evaluation trials. Most meta-analyses that

compare the effectiveness of two or more orientations do not suggest any differences in effectiveness between programmes based on different orientations [44, 45]. However, when we examined the possible additive or synergistic effects of combining multiple theoretical orientations in one programme, our meta-analysis suggests combining behavioural and relational orientations in one programme outperforms more purely behavioural orientations in treatment settings, though not in prevention settings [46].

The most stringent test, direct head-to-head comparisons of behavioural programmes and relational programmes, in some cases suggests that behavioural programmes outperform relational programmes [47], whereas other tests do not suggest differential effects [48]. Findings by Högström et al. [49], who compared four different programmes, suggest that the effects of behavioural programmes are more immediate, whereas the effects of relational programmes continue to evolve over time. In a recent meta-analysis, my colleagues and I tested whether these ' sleeper effects ' of relational approaches were present above and beyond behavioural approaches and across trials and programmes, but this was not the case [46].

### Psycho-education

Many parenting programmes include psycho-educational components, informing parents about typical and atypical child development and about how parents and children shape each other's behaviour. Little research has been conducted on whether explicit psycho-education is an essential component of parenting programmes for children's conduct problems. One difficulty in studying the value of psycho-education is that while it may sometimes be an explicit separate programme component, it is often woven into other components, for example, as part of explaining the pros and cons of certain parenting techniques. Two meta-analyses, one by Kaminski et al. [32] and one by me and my colleagues [25], show that parenting programmes with explicit attention to psycho-education are not more (or less) effective in reducing children's conduct problems than parenting programmes without explicit attention to psycho-education.

Some parenting programmes focus primarily on psycho-education. These programmes typically include a limited number of sessions (e.g., two or three) that can be attended by a large group of parents (e.g., the Triple P seminar series). Because they are less

costly, these programmes are often offered in regions with fewer resources for mental health support. Individual trials suggest that seminar programmes can be effective for reducing parent-reported conduct problems in children [50, 51]. The dominant clinical view, however, is that guidance with practising and implementing new parenting techniques is needed for achieving sustained change in parent-child interactions and children's conduct problems, especially when problems are more severe [52].

## Rewards and Praise

Many parenting programmes, in particular those adopting a more behavioural approach, encourage parents to use rewards and praise as positive reinforcement to promote appropriate child behaviour. The premise underlying this approach, based on learning-theory principles, is that rewarding children (verbally, socially or tangibly) for prosocial and compliant behaviour, and not for disruptive behaviour, increases their prosocial and compliant behaviour and reduces their disruptive behaviour. Indeed, two meta-analyses show that parenting programmes that teach parents to use rewards and praise are, on average, more effective for reducing children's conduct problems than parenting programmes that do not teach parents these techniques [25, 32], especially in cases where children's conduct problems are more severe [25]. Looking at causal evidence of the unique contributions of praise to children's conduct problems, the literature is more mixed. Although several experimental studies have shown that praise increases child compliance [53, 54], reviews and meta-analyses indicate that the overall evidence is inconsistent [34, 55].

While this chapter focuses on children's conduct problems specifically, the broader literature on the consequences of praise for other child developmental outcomes seems too important to ignore. There is a vast literature showing that specific forms of praise, such as praise focused on the child's personal abilities ('you're so smart!') and inflated praise ('that's an incredibly wonderful painting!') negatively impact children's emotions (e.g., person praise increases the shame children experience when they fail), motivation (e.g., choosing easier tasks over difficult tasks) and behaviour (e.g., less persistence in academic tasks) [56–8]. Similarly, rewarding children for prosocial behaviour that is intrinsically motivating for them backfires – it reduces, rather than increases,

prosocial behaviour [59, 60]. These findings show that while praise and rewards have traditionally been associated with positive child development – in terms of reduced risk for conduct problems – they are a complex phenomenon that affects children in many different ways, both positive and negative (see Brummelman [61] for recent comprehensive reviews on the effects of praise).

Although it may seem difficult to draw conclusions from such a complex and diverse literature about whether praise and rewards are 'effective components', the pattern that seems to emerge is that for reducing children's noncompliance, especially in cases where noncompliance is more severe, praise and rewards can be effective. However, in the general population, and for outcomes other than non-compliance specifically (e.g., for health promotion and general wellbeing), caution is warranted in relying on praise and rewards to direct children's behaviour.

## Time-Out and Planned Ignoring

Time-out and planned ignoring are often taught in behavioural parenting programmes. In a time-out procedure, parents prevent the child from receiving reinforcement for disruptive behaviour [62] and encourage the child to self-regulate his or her emotions [63]. This is typically done by removing the child from the situation where disruptive behaviour occurred for either a set amount of time (e.g., two or three minutes) or the time it takes for children to calm down. In a planned ignoring procedure, parents ignore low-level disruptive, attention-seeking or demanding child behaviour by not paying attention to it.

There is sound evidence that time-out procedures reduce children's disruptive behaviour. One meta-analysis shows that parenting programmes that teach parents to use time-out are, on average, more effective for reducing children's conduct problems than parenting programmes that do not teach parents time-out [32]; another suggests that this is the case for programmes targeting children with more severe conduct problems specifically [25]. In addition, a range of experimental studies on the unique causal effects of time-out indicates their effectiveness for improving children's conduct problems [34, 64–6]. Of all the components of parenting programmes for children's conduct problems, time-out is probably the most well studied, including studies on the



relative effectiveness of different time-out procedures [66–8].

The evidence for the effectiveness of planned ignoring is thinner. One of the meta-analyses linking different components to programme effect sizes did not examine planned ignoring as a separate component [32]; another meta-analysis found no evidence that programmes that teach parents to selectively ignore disruptive behaviours are more effective than programmes that do not [25]. Experimental studies suggest that planned ignoring is effective for reducing noncompliance [69], and a meta-analysis of experimental trials confirms the effectiveness of ignore for reducing noncompliance and conduct problems more generally [34]. However, the number of experiments on planned ignoring is substantially lower than the number of experiments on time-out.

Although the evidence for the effectiveness of time-out in reducing children's conduct problems is substantial, so is the criticism levelled at this component. The main criticism is that time-out procedures break the attachment bond between parents and children by communicating to the child that the parent is not available to the child for support and soothing [70]. There is no empirical evidence for iatrogenic or harmful effects of time-out [71]. That said, time-outs are known to be difficult to implement correctly, and incorrect implementation of time-out is associated with parents' perceptions of their ineffectiveness [72]. For a more detailed discussion of time-out, I refer readers to a recent overview by Dadds and Tully [73].

## Giving Clear Instructions

A sometimes less visible but key component of many parenting programmes is to guide parents in giving children clear instructions. The premise underlying this component is that children must first process verbal information they receive from parents before deciding whether or not to comply [74]. The way instructions are given can therefore greatly influence children's interpretation and subsequent behaviour. Most programmes encourage parents to give positive, direct commands: instructions that clearly state the specific behaviour that is expected of the child. Indirect commands, in contrast, are suggestions (e.g., 'why don't we clear up your toys'), polite commands or commands stated in a question form (e.g., 'could you clear up your toys, please?') or state the behaviour that is not expected from the child (e.g., 'please don't make such a mess').

None of the meta-analyses that studied direct commands suggest that including direct commands as a programme component more effectively reduces children's conduct problems [25, 32]. Some experimental research suggests that preschoolers understand direct commands better than indirect commands but that this difference disappears in kindergarten [75]. Although limited in number, available studies that manipulated parental instructions suggest that teaching parents to give clear instructions reduces children's noncompliance [76].

## Child-Led Play

Virtually all parenting programmes focus at least to some extent on improving the parent-child relationship. Many programmes encourage parents to spend quality time together with their children, to be involved in their children's activities and to monitor their whereabouts. Some programmes, however, adopt specific techniques to improve the parent-child relationship. One of these is child-led play, also known as *the child's game*.

The Kaminski meta-analysis [32] did not test child-led play as a separate component. Our recent meta-analysis did [25], and it found that programmes that encourage parents to use child-led play in addition to basic behaviour management techniques were not more effective overall but more effective in cases where children have already developed conduct problems. The authors speculate that the parent-child relationship in these families may be more distressed and that this might be why this component seems to work well for these families. In prevention settings, where most children have not yet developed conduct problems, including child-led play as a parenting programme component did not have additional merit for reducing children's conduct problems [25].

Findings from experimental studies on the causal effects of child-led play on child compliance are mixed. Some studies suggest that child-led play improves child compliance [77, 78]; others suggest that this is the case for children with more severe conduct problems only [79]. One study that compared child-led play to limit setting and discipline (e.g., planned ignoring) found that the latter was more effective for reducing children's conduct problems [80]. Together these results seem to suggest that child-led play can be an effective component, particularly when children's conduct problems are more severe and perhaps especially when combined with behaviour management.

## Promoting Children's Social, Cognitive and/or Academic Skills

Many children with conduct problems experience difficulties in their social relationships (e.g., with peers), cognitive development (e.g., executive functioning) and academic development (e.g., school achievement), and these difficulties can contribute to the development of their conduct problems [81, 82]. It is not surprising, therefore, that some parenting programmes teach parents techniques to manage their child's conduct problems at home, as well as techniques to support their child's broader development.

There is no evidence to suggest that parenting programmes that invest in enhancing children's social, cognitive and academic development are more effective for reducing children's conduct problems than parenting programmes that do not invest in these additional domains [25, 32]. Whether more comprehensive programmes produce additional benefits for child development more broadly is unknown, but they are not superior to more focused parenting programmes in reducing children's conduct problems specifically. If anything, the meta-analysis by Kaminski et al. [32] suggests that programmes with a broader focus are inferior to more targeted programmes. It might be that the broader approach to child development comes at the cost of sufficient emphasis on key parenting strategies to reduce children's conduct problems.

## Delivery Components

While there is a rich literature on the most effective techniques to change people's behaviour (e.g., to increase a healthy lifestyle), few of these techniques have been evaluated in the context of parenting programmes for children with conduct problems. In this section, we discuss key techniques often used in parenting programmes for children's conduct problems for which at least some studies have been conducted. For more general reviews on effective behaviour change techniques, I refer readers to other work [83].

## Practice with Child During Sessions

Parenting programmes differ from each other in the extent to which only parents themselves attend the sessions or whether parents attend (parts of) the sessions together with their child. Having parents practise with their child (e.g., using bug-in-ear coaching) allows parents to learn new skills in interaction with

their child, potentially making the transition to implementing new skills at home easier. This premise is in line with the general educational literature on the importance of learning in context [84]. The seminal meta-analysis by Kaminski et al. [32] showed that parenting programmes where parents practised with their own child during sessions yielded larger effects on children's conduct problems than parenting programmes where parents did not practise with their own child during sessions. Most trials on programmes where parents practise with their child, however, came from the same programme (parent-child interaction therapy [85]), potentially limiting the generalizability of this finding to other programmes, and were based on relatively few and small trials. That said, the finding by Kaminski et al. [32] suggests that practising with children during sessions may be an effective parenting programme component. Experimental research where parents are randomized to either practice skills with their child during programme sessions versus only practising at home is lacking.

## Role Play

Practising skills, as opposed to only discussing them, is known to enhance skill development [86]. Practising parenting skills using role play is therefore a key part of many parenting programmes for children's conduct problems. However, the seminal meta-analysis by Kaminski et al. [32] showed that parenting programmes where parents practised skills using role play were not more (or less) effective than parenting programmes that use other teaching methods.

Findings from experimental studies on the merits of role play are inconsistent. Some studies suggest that role play is not more (or less) effective than other teaching methods (e.g., a video modelling the technique) [87], whereas other studies suggest that at least some parents benefit more from modelling and role play than from readings and discussions [88]. In sum, there is some but inconsistent empirical evidence that role play is an important component of parenting programmes for children's conduct problems.

## Video Modelling and Video Feedback

Videos are used in different ways in parenting programmes for children's conduct problems. Some programmes use video vignettes to model different parenting strategies to families (e.g., Incredible Years parenting programme [89]); other programmes use

videos to provide parents with individualized feedback on their interactions with their child (e.g., Video-feedback Intervention to Promote Positive Parenting and Sensitive Discipline [90]). The meta-analysis by Kaminski et al. [32] showed that parenting programmes that use video modelling (and/or in-person modelling) are not more (or less) effective than parenting programmes that do not use video modelling. They did not test whether the use of video feedback is associated with programme effectiveness.

Findings from experimental studies suggest that video modelling is an effective method, and more effective than written materials, for teaching parenting skills [91, 92]. However, the evidence is not unequivocal: some studies suggest that video modelling is not superior to written materials for teaching parenting skills [87]. In one study, the effectiveness of a group discussion programme with video modelling was compared to the same group discussion programme without video modelling [93]. Although differences in programme effects were small, adding video modelling seemed to enhance programme effectiveness on some outcomes related to children's conduct problems. Another study added individualized video feedback to the Incredible Years video modelling programme and found that this enhanced parents' behaviour change (no effects on children's conduct problems were assessed) [94]. These findings suggest that both video modelling and video feedback can uniquely contribute to parenting programme effects.

## Homework

Because regular practice enhances skills development [86], many parenting programmes for children's conduct problems ask parents to work on assignments at home in between sessions. Some trials suggest that adherence to homework assignments predicts how much families benefit from the programme [95, 96], although it remains unclear whether homework contributes to programme effectiveness or whether it is a marker of parental engagement or experience of initial success. In their meta-analysis comparing programmes with versus without homework assignments, Kaminski et al. [32] did not find evidence that parenting programmes with homework assignments are more effective. Experimental studies that manipulate the implementation of homework assignments in parenting programmes for children's conduct problems, to my knowledge, do not exist.

## Structure Components

### Programme Duration

There is evidence to suggest that shorter parenting programmes outperform longer programmes. While not studied exhaustively for programmes to reduce children's conduct problems, we see this finding consistently in related fields, such as in parenting programmes to increase parental sensitivity in infancy and early childhood [97], parenting programmes to reduce child maltreatment [98] and video-feedback programmes to improve parenting behaviour more generally [99]. For children with conduct problems specifically, the evidence suggests that brief programmes (i.e., fewer than eight sessions) can be effective [100].

One perhaps intuitively appealing explanation for findings that 'less is more' is that longer programmes typically target more severe cases. Therefore, it is important to note that the most consistent moderator of parenting programme effectiveness is conduct problem severity: children with more severe problems at baseline tend to benefit more than children with less severe difficulties [101]. This implies that even if programme duration was confounded with problem severity in analyses relating programme duration to programme effects, this would contribute to the likelihood of finding results indicating that longer programmes outperform shorter programmes. Yet most meta-analyses suggest otherwise.

Trials that randomize families to receive either shorter or longer programmes, and can therefore rule out any alternative explanations for the findings from meta-regressions comparing parenting programme effects across trials, are scarce. Available comparative trials suggest the non-superiority of shorter (or longer) programmes: abbreviated programmes yield, on average, effects that are not different from those of the original version of the same programmes [102, 103]. In addition to these trials being scarce, they tend to be statistically underpowered, with sample sizes too small to detect small effects between treatment conditions. In sum, the minimal or optimal number of sessions is unknown, but empirical findings strongly challenge the assumption that 'more is better' and encourage the use of 'lean' programmes.

### Group vs. Individual Delivery

Evidence that either group or individually delivered programmes are more effective is inconsistent. An influential meta-analysis by Lundahl et al. [44]



showed that individually delivered programmes yielded larger effects on children's conduct problems. Also, some individual trials suggest that some parents may prefer individual programmes [104]. However, most trials that directly test group and individually delivered versions of the same programme against each other show no advantage of individually delivered programmes over group programmes [93, 105–7], and some suggest advantages of group programmes over individually delivered programmes [108, 109]. Thus there is no consistent evidence that either individual or group delivery is more effective.

## Self-Directed and Online Delivery

Although most parenting programmes are delivered by a trained therapist, some programmes are developed as self-directed programmes using a booklet or, increasingly, a website or app. Meta-analyses of online programmes with no or limited therapist contact suggest that they reduce parent-reported conduct problems in children [110, 111]. Head-to-head comparisons, where parents are randomized to receive either a self-directed or therapist-assisted or therapist-led programme, suggest that self-directed programmes are in general inferior to therapist-led programmes – families benefit less from programmes when no or less therapist contact is involved [112–14]. Although differences in effectiveness tend to be small, the available evidence suggests that therapist contact increases the effects of parenting programmes for children's conduct problems.

## Next Steps

There is a growing interest in research on the effective components of parenting programmes for children's conduct problems. This interest fits emerging trends to develop and implement lean programmes that can be easily accessed, either in person or online, and stepped-care models that require insight into how to vary the content and intensity of care needed for families facing different levels of child conduct problems [115]. To a certain extent, research on effective parenting programme components can help guide these trends. It can inform policymakers and practitioners on programme components that seem to drive programme effectiveness and those which could perhaps be safely eliminated. At the same time, research on effective parenting programme

components faces several challenges. One of these is the likely complex interplay between components in exerting programme effects. Until now, most research on parenting programme components has focused on their individual effects, not their additive or synergistic effects. Alternative study designs are needed for this, such as experimental studies that test all relevant combinations of programme components against each other (i.e., factorial experiments) [116, 117]. An additional challenge is that much as in any psychological therapy, parenting programme effects are in part driven by non-specific programme characteristics, such as therapist-client alliance and placebo effects [118]. Research on effective parenting programme components needs to find a way to integrate the seemingly divided research lines on *effective components* and *non-specific elements*. Building a more precise intervention science that integrates a range of research strategies to identify effective parenting programme components is needed to better understand and overcome these challenges.

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