Psychological interventions for families of children with ADHD, what are the issues that mater?

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EUNETHYDIS

New Forest Parenting Programme

The University of Nottingham

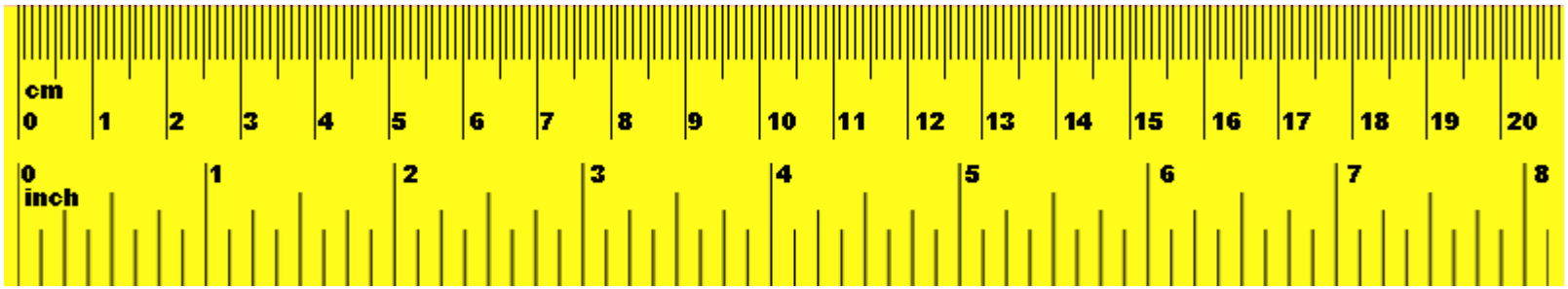
Meta-analysis of non-pharmacological interventions for ADHD

- Daley, Van der Oord, Ferrin, Danckaerts, Doepfner, Cortese & European ADHD Guidelines Group (2014) meta-analysis on non-pharmacological interventions for ADHD
- The analysis on children aged 3 - 18 focused on two key informants
- i) MPROX Person most proximal to the delivery of treatment
- ii)PBLIND Person most probably blind

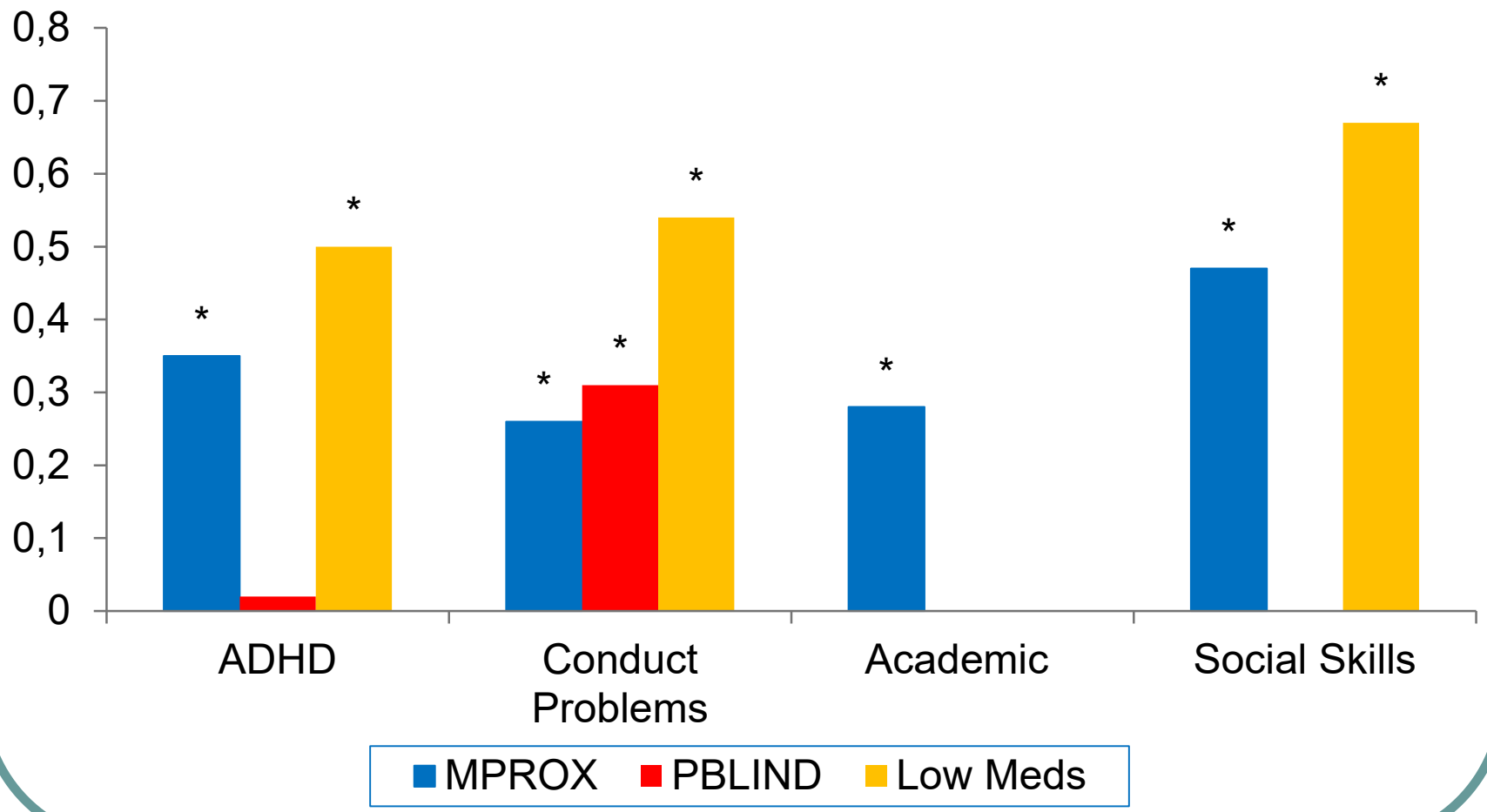
Daley, D., Van der Oord, S., Ferrin, M., Danckaerts, M., Doepfner, M., Cortese, S.& European ADHD Guidelines Group. (2014). Behavioral interventions in attention-deficit/hyperactivity disorder: a meta-analysis of randomized controlled trials across multiple outcome domains. Journal of the American Academy of Child & Adolescent Psychiatry, 53(8), 835-847

The Ritalin Ruler

- As a guide the effect size for medication is approximately 0.7 – 1.0



Child Outcomes SMD



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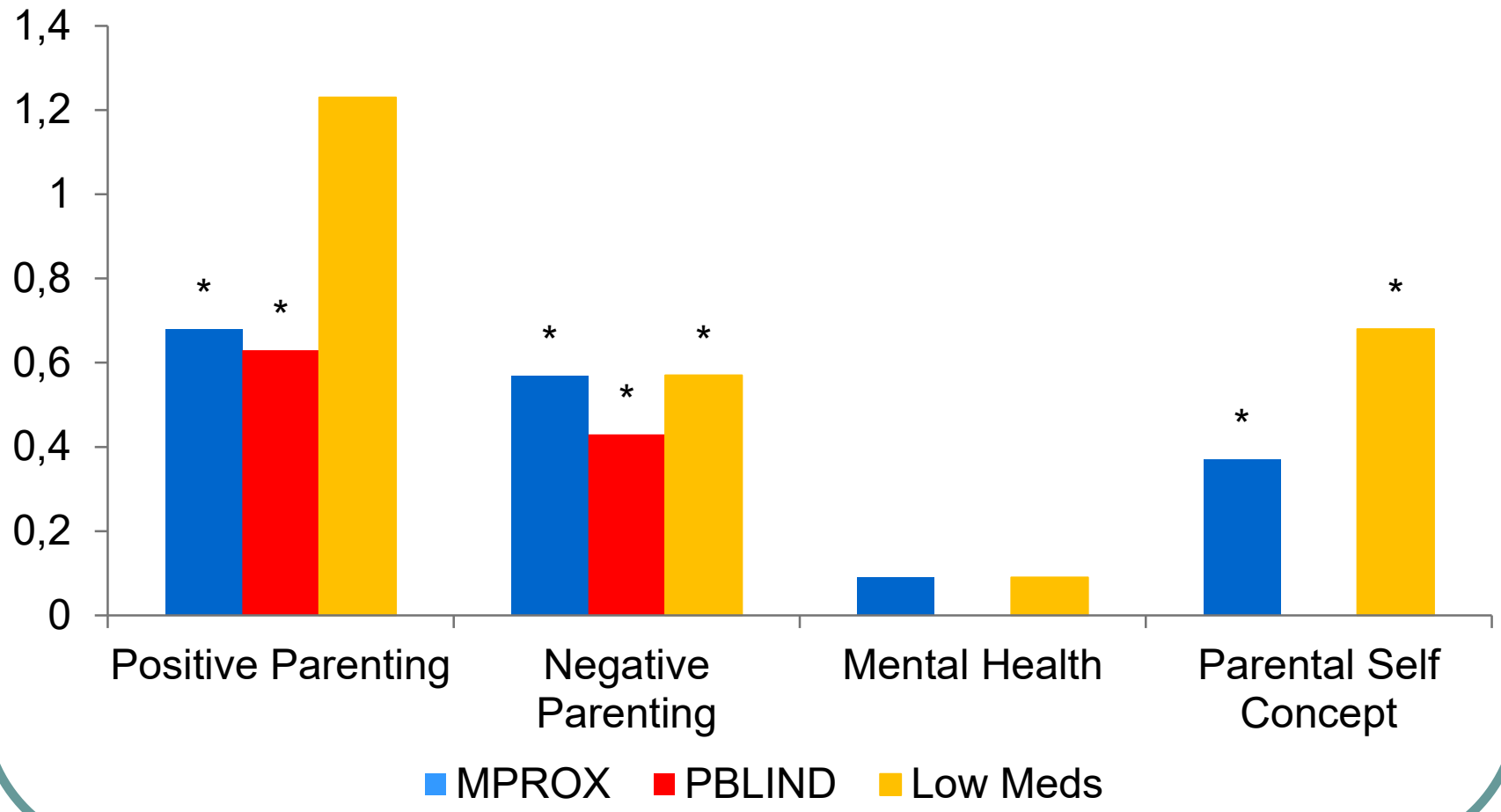
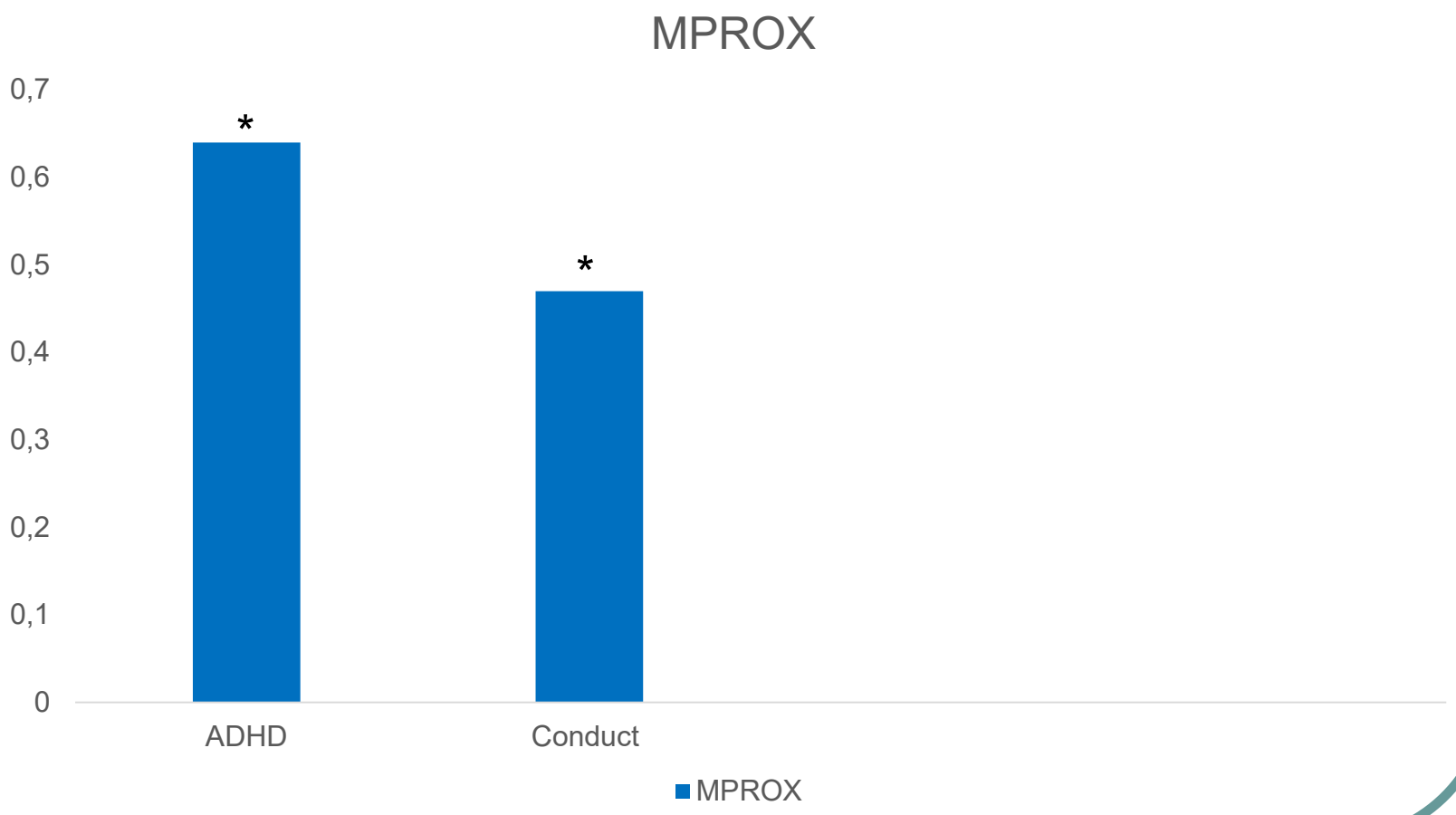
Parental Outcomes SMD



Daley, D., Van der Oord, S., Ferrin, M., Danckaerts, M., Doepfner, M., Cortese, S.& European ADHD Guidelines Group. (2014). Behavioral interventions in attention-deficit/hyperactivity disorder: a meta-analysis of randomized controlled trials across multiple outcome domains. Journal of the American Academy of Child & Adolescent Psychiatry, 53(8), 835-847

Child Outcomes SMD NFPP



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Therapeutic content and delivery

What does the current evidence beyond meta-analysis tell us?

Effective elements of behavioural intervention

- **No specific meta-analysis to guide us**
- Wyatt Kaminski et al (2008) showed for conduct problems that components that Targeted
- Emotional communication skills (d = 1.47 compared to d = 0.35) for interventions without this aim
- Taught parents to use time-out (d = 0.52 compared to d = 0.36) for interventions without this aim),
- Targeted parenting consistency (d = .59 compared to d = 0.36) for interventions without this aim were consistently associated with larger effects sizes
- Not clear whether these findings extend to ADHD

Wyatt Kaminski, J., Valle, L. A., Filene, J. H., & Boyle, C. L. (2008). A meta-analytic review of components associated with parent training program effectiveness. Journal of abnormal child psychology, 36(4), 567-589.

Effective elements of behaviour intervention

- Hornstra et al (in press) used individual patient data meta-analysis to conduct a meta-regression of effective elements of intervention for ADHD
- Higher dosage of psycho-education for parents was associated with smaller effects on behavioural problems.
- Higher dosage of teaching parents/teachers to use negative consequences was associated with larger effects on behavioural problems.
- Individual training compared to group training was associated with larger effects on ADHD and hyperactivity-impulsivity symptoms.

Hornstra, R., Groenman, A., Van der Oord, S., Luman, M., Dekkers, T., Hoekstra, P., & Van den Hoofsakker, B. (in press). Which components of behavioral parent and teacher training work for children with ADHD? A meta-regression analysis on child behavioral outcomes. *Child and Adolescent Mental Health*

Are Tailored interventions better than more generic interventions?

- At least one behavioural programme the New Forest Parenting Programme NFPP has been designed to target underlying features of ADHD – such as self-regulatory and cognitive problems (Sonuga-Barke, Thompson, Abikoff, Klein & Brotman 2006)
- on the grounds that this will lead to better effects on core symptoms.
- Is there evidence that interventions tailored specifically to target ADHD symptoms reduction are better than interventions targeting overall parenting improvement?

Sonuga-Barke, E. J., Thompson, M., Abikoff, H., Klein, R., & Brotman, L. M. (2006). Nonpharmacological interventions for preschoolers with ADHD: The case for specialized parent training. Infants & Young Children, 19(2), 142-153.

Are Tailored interventions better than more generic interventions

- One RCT (Abikoff et al 2015) compared a generic parent training approach HNC and an ADHD-specific programme NFPP.
- The specific ADHD approach did not show greater efficacy on child behaviour (ADHD, conduct problems) or parental stress or parenting practices.

- A second large trial (Sonuga-Barke et al, 2018) also failed to demonstrate superiority of NFPP over a different generic approach (Incredible Years infant programme, Webster-Stratton 2015). Trends & health economics did support NFPP

Abikoff, et al (2015). Parent training for preschool ADHD: A randomized controlled trial of specialized and generic programs. Journal of Child Psychology and Psychiatry, 56(6), 618-631. Sonuga-Barke, et al (2018). A comparison of the clinical effectiveness and cost of specialised individually delivered parent training for preschool attention-deficit/hyperactivity disorder and a generic, group-based programme: a multi-centre, randomised controlled trial of the New Forest Parenting Programme versus Incredible Years. European child & adolescent psychiatry, 27(6), 797-809.

Who should deliver the interventions?

- No meta-analytic evidence and no studies have systematically varied the amount of training and supervision.

- One RCT found that effects were reduced to non-significance when interventions were implemented by randomly selected therapists delivering treatment as part of their everyday caseload compared to specialist therapists working on a clinical trial (Sonuga-Barke, Thompson, Daley, & Laver-Bradbury 2004).

Sonuga-Barke, E. J., Thompson, M., Daley, D., & Laver-Bradbury, C. (2004). Parent training for attention deficit/hyperactivity disorder: is it as effective when delivered as routine rather than as specialist care?. British Journal of Clinical Psychology, 43(4), 449-457.

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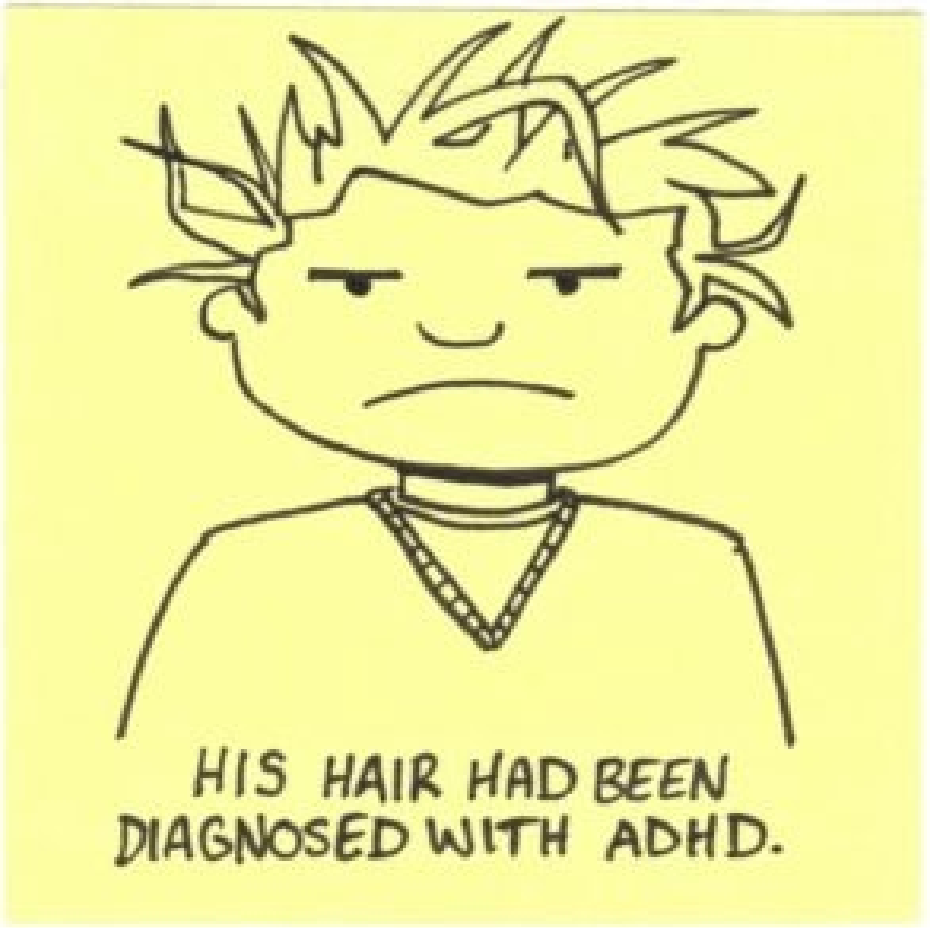

Indications and contraindications

What does the current evidence tell us?

Should we focus on parents who have clear parenting difficulties?

- In the past inclusion in RCTs has been based on children having ADHD and not on a lack of parenting abilities.
- Improvements in parenting, have been shown to mediate the relationship between intervention and change in behaviour problems for children at risk of conduct problems (Gardner et al 2010).
- However, there is no evidence to suggest that intervention-related improvements in parenting occur only for those families with low pre-existing parenting skills or deficits.

Gardner, F., Hutchings, J., Bywater, T., & Whitaker, C. (2010). Who benefits and how does it work? Moderators and mediators of outcome in an effectiveness trial of a parenting intervention. Journal of Clinical Child & Adolescent Psychology, 39(4), 568-580.

Are parent preferences important?

- A large study showed that around two thirds of parents of children with ADHD had a preference for individual over group parent training or other alternatives (Wymbs et al 2015).
- The majority of parents were seeking to feel more informed about their child's problems and to understand as opposed to solve their child's difficulties.
- About one fifth of parents preferred group-delivered therapy and the same amount preferred a minimal information alternative (i.e., just information).

Wymbs, F. A., Cunningham, C. E., Chen, Y., Rimas, H. M., Deal, K., Waschbusch, D. A., & Pelham Jr, W. E. (2016). Examining parents' preferences for group and individual parent training for children with ADHD symptoms. Journal of Clinical Child & Adolescent Psychology, 45(5), 614-631.

Are parent preference important?

- Parents with a preference for **minimal information reported the highest levels of depression** and had children with the **most complex problems.**
- This suggests that not all help-seeking parents are looking or willing to engage in intervention.
- The evidence of a clear preference for individual therapy is at odds with current guideline recommendations in the UK (NICE 2008).

Is early intervention more effective?

- RCT's have focused mainly on preschool and primary school aged children.
- Most meta-analyses do not report a significant impact of age on outcomes of behavioural interventions (Hodgson, Hutchinson & Denson 2014; Mulqueen, Bartley & Bloch 2015).
- However,r our 2014 meta-analysis (Daley et al 2014) found larger effects in younger children on unblinded **ADHD measures** ($t = -2.63$, $p = 0.03$**), conduct problems** ($t = -2.46$, $p = 0.05$) and **positive parenting** ($t = -2.63$, $p = 0.03$).

Hodgson, K., Hutchinson, A. D., & Denson, L. (2014). Nonpharmacological treatments for ADHD: a meta-analytic review. Journal of attention disorders, 18(4), 275-282 Mulqueen, J. M., Bartley, C. A., & Bloch, M. H. (2015). Meta-analysis: parental interventions for preschool ADHD. Journal of attention disorders, 19(2), 118-124.

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Summary of evidence for behavioural interventions

- Based on current evidence the positive effects on ADHD symptoms reported by parents **are not** corroborated by independent blinded sources and may reflect a change in parents' attitudes and perceptions about their child with ADHD rather than any actual change in behaviour (Daley et al 2014).

- This is in contrast to the impact of behavioural interventions on conduct problems where the evidence from independent sources corroborates the view of parental reports.

Summary of evidence for behavioural interventions

- Behavioural interventions may improve academic and social functioning, but the lack of independent blinded measures for either outcome makes the improvements difficult to interpret at the meta-analytic level.

- There is also evidence that behavioural interventions enhance parental behaviours towards their children. They increase positive and reduce negative parenting **even on blinded measures**, which may eventually have a positive effect on future outcomes.

Summary of therapeutic context and delivery

- High-quality evidence is lacking to help answer most questions relating to therapeutic context and delivery.
- There has been little attempt to identify the key elements necessary for effectiveness.
- Specialized interventions do not show advantages over more generic approaches. However, parents may prefer a particular form of intervention and **this may impact on both engagement and outcome.**
- The quality of therapist training and supervision are likely to be important but greater research is required to explore this.

Summary indications and contraindications

- Behavioural intervention is not just needed for parents with manifest parenting difficulties.
- Parent have clear treatment preferences which may be important.
- Earlier access to behavioural treatment may be more effective and is certainly encouraged

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