Chapter 3

Effects of video-feedback intervention on harmonious parent-child interaction and sensitive discipline of parents with intellectual disabilities: A randomised controlled trial

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Effects of video-feedback intervention on harmonious parent-child interaction and sensitive discipline of parents with intellectual disabilities: A randomised controlled trial

Abstract

Background This study tested whether video feedback intervention based on attachment and coercion theory increased harmonious parent-child interaction and sensitive discipline of parents with mild intellectual disabilities or borderline intellectual functioning.

Methods Observer ratings of video recorded structured interaction tasks at home formed pre-test, post-test, and three month follow-up outcome data in a randomised controlled trial with 85 families. Repeated measures analyses of variance and covariance were conducted to test for the intervention effect and possible moderation by IQ and adaptive functioning.

Results The intervention effect on harmonious parent-child interaction was conditional on parental social adaptive behaviour at pre-test, with parents with low adaptive functioning showing significant intervention benefit at post-test and follow-up compared to care as usual. Intervention effects were not conditional on parental IQ. Intervention effects for sensitive discipline were not found.

Conclusion Despite the overall lack of benefit of video feedback intervention, lower parental adaptive functioning was associated with higher likelihood of effect on parent-child interaction.

Keywords: intervention program, mild intellectual disability, parenting, parent-child interactions, randomised controlled trial, sensitivity, video feedback
Introduction

Parenting is a rewarding but complex activity, especially for parents with mild intellectual disabilities or borderline intellectual functioning (Aunos & Feldman, 2002; Llewellyn & McConnell, 2002; Willems, De Vries, Isarin, & Reinders, 2007). People with mild intellectual disabilities or borderline intellectual functioning (hereafter referred as MID) have on average more mental and physical health problems, more psychological stress, less social support and more often histories of institutional upbringing, trauma, and maltreatment (Granqvist, Forslund, Fransson, Springer, & Lindberg, 2014; Hatton & Emerson, 2003; Willems et al., 2007). Societal concern about parenting by parents with MID is strong. A possible over-representation of parents with mild intellectual disabilities was reported for child protection services and child welfare services (McConnell, Feldman, Aunos, & Prasad, 2011; McGaw, Scully, & Pritchard, 2010). When services become involved, disproportionate numbers of children of parents with MID are placed in foster care or put up for adoption (Booth, Booth, & McConnell, 2005) rather than provided with family-based support. A large minority of professionals attribute the functioning of parents with MID to immutable characteristics (Meppelder, Hodes, Kef, & Schuengel, 2014), which may undermine the belief that parenting quality can effectively be influenced, especially if disabilities are more pronounced. The current study tested whether parents with MID may effectively be supported in their parenting, and the extent to which benefits depend on intellectual capacity and adaptive functioning.

A small number of studies have shown that parents with MID can benefit from parenting support for learning important skills to safeguard their children's safety, health, cognitive development, and wellbeing (Feldman, 2004; Llewellyn, McConnell, Honey, Mayes, & Russo 2003; Tymchuk, 2004; Wade, Llewellyn, & Matthews, 2008). A Cochrane review (Coren, Hutchfield, Thomae, & Gustafsson, 2010) identified only three studies with a controlled design on such interventions, with sample sizes up to 45. Otherwise, little is known about effects on more complex parental skills of parents with MID that foster harmonious parent-child-interactions, secure attachment, and noncoercive, inductive discipline.

Juffer, Bakermans-Kranenburg, and Van IJzendoorn (2008) developed a Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD), based on tenets from attachment theory and Patterson’s ideas about avoiding coercive cycles. VIPP-SD promotes sensitive responsiveness as well as sensitive discipline, because this disciplinary style is likely to prevent escalation of hostile and coercive interactions and indirectly to prevent disruptive child behaviour problems (Patterson, 1982; 2002). VIPP-SD has been found effective in multiple trials with low risk and high risk families (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, in press), like parents of children with externalizing behaviour problems (Mesman et al., 2008) and parents in severely deprived conditions (Negrao, Pereira, Soares, & Mesman, 2014). Based on VIPP-SD, the Video-feedback Intervention for parents
with Learning Difficulties (VIPP-LD) was developed (Hodes, Meppelder, Schuengel & Kef, 2014). This program was hypothesized to increase the harmony of parent-child interaction, affording optimal support for learning and development (Janssen, Riksen-Walraven, & Van Dijk, 2003).

The first purpose of this study was to test the effects of VIPP-LD on harmonious parent-child interaction and sensitive discipline of parents with MID. A randomised controlled trial design was used with a larger sample size than previously in this population, in order to be able to test the role of intellectual and adaptive functioning as potential moderators of intervention efficacy. The second purpose was therefore to test to what extent intervention efficacy depended on two individual moderators: parental IQ and adaptive functioning, because these factors are often used as proxies for fitness to parent and amenability to parenting skill improvement (Aunos & Feldman, 2002; Benjet, Azar, & Kuersten-Hogan, 2003).

Methods
Participants

Parents with MID were recruited from 10 care organizations in the Netherlands supporting parents with intellectual disabilities. Parents could be included if they had at least one child in the age range from 1 up to 7 years living with them. Ethical approval for the study and the informed consent procedure (including the supports to comprehend the purpose and procedure) was obtained from the Medical Ethical Committee of VU University Medical Center, Amsterdam (ref. no. NL 31934.029.10).

A total of 146 parents participated in the first stage of the study (see Figure 1). Parents were visited at home or in the family care facility, were interviewed, and asked to fill out questionnaires. One of the questionnaires was a Dutch version of the Parenting Stress Index-Short Form (PSI-SF; Abidin, 1983, 1992; De Brock, Vermulst, Gerris, & Abidin, 1992; see below). Parents who got a total score at subclinical level, at or above the 62th percentile, were recruited for the intervention study, as well as parents whose children were placed under custody of the child protection services and parents who were living in houses with on-site support (possibility of support 24/7). Of the 85 parents, all parents (98% mothers, 2% fathers) consented to the intervention study. Mean age of parents at pre-test was 30.3 years (SD = 6.7 range = 20.6 – 46.5). Parents’ IQ recorded on file ranged from 49 to 88 with a mean of 71 (SD = 9). Mean age of the children at pre-test was 3.1 years (SD = 1.4; range = 1.1 – 6.5); 52% were girls.
Figure 1. CONSORT Flow Diagram of enrolment and intervention allocation
Recruitment spanned two years. To start as soon as possible after the parent had proceeded to the intervention phase, sequential block randomization was used to assign parents to the experimental group or the control group. An independent researcher, not belonging to the research team, used a computer program every time there were five or six parents available, which randomly assigned in total 43 families in the VIPP-LD intervention group and 42 families in the Care As Usual (CAU) control group. A target sample size of 85 was chosen in order to have sufficient power (>0.80) for detecting a significant time x group effect comparable to an effect size of \( d = .33 \) (Bakermans-Kranenburg et al., 2003). Parents in the control group received care as usual and were put on a waiting list for intervention after the follow-up.

**Procedure**

All intervention sessions and assessments took place at the participants’ home. Demographic data and parental IQ were obtained from the care organizations’ educational psychologists. They were instructed to administer the Vineland Adaptive Behaviour Scales with the parents and deliver these data to the researchers. Parenting stress was assessed by administering a questionnaire to parents by one of the researchers.

Trained support staff (see below) conducted 15 home visits with parents in the intervention group: 7 visits for video recording, 7 visits for video feedback, and 1 closing visit. Parents were visited twice a week within a total intervention period of three months (or more in case of illness or holidays). During and after these three months, care as usual continued. Observations of parent-child interactions took place for the experimental intervention group as well as for the CAU group at pre-test, three months later at post-test, and again three months later at follow-up.

**Intervention**

Consistent with Feldman’s (2004) recommendations regarding interventions with parents with MID, VIPP-LD focused on concrete parenting skills, used behavioural teaching strategies, used video and pictures as well as text, and took place at home, where the skills are needed (see Hodes et al., 2014, for elaboration). The feedback reinforced positive interactions between the primary caregiver and the child. The intervention was conducted from a manual, including the steps by which interventions such as video feedback were personalized. Parents received a personal scrapbook with stills taken from the video recordings as visual reminder, to reinforce important turning points in the parent-child interaction. VIPP-LD was conducted by care organization staff, under supervision of the organizations’ psychologist. Staff (\( N = 32 \) ) were trained by the first author. Every third video feedback session with the parent was recorded to monitor treatment fidelity.
Care As Usual

The care received by the control group consisted of support with running their household, with administrational matters with money issues, with personal problems, with general self-care, and sometimes support with general parenting issues. Care as usual did not include any form of video support.

Measures

Parenting Stress

Stressful aspects of parenting the focal child were assessed with the 25-item Dutch version of the Parenting Stress Index – Short Form (Abidin, 1983; De Brock et al., 1992). Parents responded on a 6-point scale (1 = ‘strongly disagree’ to 6 = ‘strongly agree’). The mean score represented total parenting stress. Internal consistency was .90 (Cronbach’s alpha).

Harmonious parent-child interaction

Harmony in parent-child interaction was observed within the semi-structured Three Bags-procedure (NICHD ECCRN, 2003). The 15-minute play period requires parents to support their child in engaging with three sets of age-appropriate toys (separate sets for 1-2 year olds, 3-4 year olds, and for 5-7 year olds). Harmonious quality was indexed by 10 rating scales: parents’ supportive presence, respect for autonomy, stimulation of cognitive development, hostility, and confidence, as well as children’s enthusiasm, persistence, negativity, affection towards the parent and the dyadic scale affective mutuality. The scores were rated on an anchored scale from ‘very low’ (1) to ‘very high’ (7). The individual subscales were aggregated into an overall scale indexing harmonious interaction, with Cronbach’s alpha of .91 for the baseline assessment. Aggregation of the subscales was further supported by high intercorrelations and the results of factor analyses. All sessions were double coded by a pool of four trained coders. The coders were blind to the experimental condition, to measurement occasion (pre-test, post-test or follow-up), and to other data concerning the participants. The average pair-wise intraclass reliability coefficient (two raters, absolute agreement) was .79 (range: .71 - .83).

Sensitive Discipline

Sensitive discipline was assessed within the “Do and Don’t” paradigm (Kochanska et al., 2003). For the Don’t-task, a bag with attractive toys was given to the parent to place these toys in front of the child. The parent was instructed not to allow the child to touch the toys during two minutes. These two minutes were video recorded. Afterwards the Three Bags-procedure started. For the Do-task, 1 minute before the 15-minute playing session of the Three Bags-procedure ended, the parent was signalled that the toys needed to be cleaned.
up. The instruction was that children themselves should do the cleaning up as much as possible. Five minutes were recorded for coding.

Coding was done according to a manual of Verschueren and her colleagues (2006), based on Kochanska, Coy, and Murray's (2001) guidelines (see also Joosen, Bakermans-Kranenburg, & Van Ijzendoorn, 2012). The Do- and Don't-tasks were rated with four subscales for measuring physical discipline, harsh discipline, verbally harsh discipline, and laxness, on a 1 (“never”) to 5 (“most of the time”) scale, as well as with a supportive presence scale, on a 1 (“complete lack of support”) to 7 (“skilful support throughout the session”) scale. The internal consistency of the aggregate scale for measuring sensitive discipline was .70 for the Do-task and .65 for the Don’t-task at pre-test. Aggregates for sensitive discipline during the Do-task and sensitive discipline during the Don’t-task were further supported by high internal consistency and the results of factor analyses. All the recordings were rated by two out of three trained coders, blind to condition (intervention or control group), time point (pre-test, post-test or follow-up level), and any other participant data. The average intraclass correlation (two raters, absolute agreement) for intercoder reliability was .87 (range = .82 – .91).

**Parental adaptive functioning**

Adaptive functioning was assessed with the Dutch version of the Vineland Adaptive Behaviour Scales (VABS; Sparrow, Balla & Cichetti, 1984; Van Berckelaer-Onnes, Buyse, Dijkxhoorn, Gooyen, & Van der Ploeg, 1995) on three domains: Socialization, Communication and Daily Living Skills. Socialization refers to skills needed to get along with others and to regulate emotions and behaviour (134 items). Communication refers to receptive, expressive, and written language skills (133 items). Daily Living Skills refers to the skills needed to take care of oneself and contribute to a household and community (201 items). Raw domain scores were converted into developmental age scores. Furthermore, an Adaptive Behaviour Composite score (ABC-3; Van Duijn, Dijkxhoorn, Noens, Scholte, & Van Berckelaer-Onnes, 2009) was computed based on raw scale scores for socialization, communication, and daily living skills. The Cronbach’s alpha for ABC-3 within this study was .96.

**Data analysis**

Analyses were conducted using SPSS version 21. No outliers were identified ($z \geq 3.29$ or $z \leq -3.29$; Tabachnick & Fidell, 2007). Intention to treat was implemented for missing data at post-test and follow up as suggested by Fisher (1990). Missing scores, all resulting from drop-out, were replaced by pre-test scores for four families dropping out after pre-test and by post-test scores for four families dropping out after post-test. For all the analyses $\alpha$ level was set at .05.
Preliminary analyses of demographic and background factors checked for potential confounders. Next, a repeated measures ANOVA was conducted with condition (intervention or control) entered as between-subjects factor, and with time (pre-test, post-test, follow-up) entered as within-subjects factor in the model. The intervention effect was tested by examining whether the time x condition interaction effect was significant. Harmonious parent-child interaction (Three Bags-procedure) and sensitive discipline (Do-task and Don’t-task) were included as the dependent variables in three sets of repeated measures ANOVAs. Finally, moderation effects were tested by including either IQ or adaptive functioning as a moderator (i.e. covariate) in the repeated measures analyses of covariance (ANCOVA) and examining the three-way interaction effect condition x time x moderator. When a significant three-way interaction effect was found, estimated means were calculated to probe the direction of the moderator effect.

Results

Descriptive results

Table 1 gives descriptive statistics on the pre-test for moderator and control variables. Differences between the randomised intervention group and the control group on the hypothesized moderators and background factors were not significant. Table 2 presents the descriptive statistics of the dependent variables at different time points.
Table 1. Demographic background and moderators descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Experimental (N=43)</th>
<th>Control (N=42)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Parent Gender</td>
<td></td>
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</tr>
<tr>
<td>Female</td>
<td>43 (100)</td>
<td>28.06 (6.72)</td>
</tr>
<tr>
<td>Parent age (year)</td>
<td></td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td>20.75 - 45.17</td>
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<tr>
<td>Educational level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary special school</td>
<td>5 (11.6)</td>
<td>2 (4.8)</td>
</tr>
<tr>
<td>Secondary special school</td>
<td>19 (44.2)</td>
<td>21 (50)</td>
</tr>
<tr>
<td>Lower secondary education</td>
<td>9 (20.9)</td>
<td>10 (23.8)</td>
</tr>
<tr>
<td>Other</td>
<td>10 (23.3)</td>
<td>9 (21.4)</td>
</tr>
<tr>
<td>Paid job</td>
<td>15 (34.9)</td>
<td>10 (23.8)</td>
</tr>
<tr>
<td>Single parent</td>
<td>17 (39.5)</td>
<td>17 (40.5)</td>
</tr>
<tr>
<td>Parity</td>
<td>2.20 (1.40)</td>
<td>1 - 6</td>
</tr>
<tr>
<td>Parent IQa</td>
<td>1.23 (8.61)</td>
<td>50 – 87</td>
</tr>
<tr>
<td>Parental adaptive functioning</td>
<td>812.50 (42.68)</td>
<td>722 – 883</td>
</tr>
<tr>
<td>(VABS)b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours support (weekly)</td>
<td>5.20 (5.61)</td>
<td>0.50 - 24</td>
</tr>
<tr>
<td>Type of housing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing with on-site support</td>
<td>11 (26)</td>
<td>19 (45)</td>
</tr>
<tr>
<td>Target Child Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>22 (51.2)</td>
<td>22 (52.4)</td>
</tr>
<tr>
<td>Target Child age(year)</td>
<td>3.32 (1.33)</td>
<td>1.08 - 6.33</td>
</tr>
</tbody>
</table>

*VABS: Vineland Adaptive Behaviour Scales

*aMissing data for 3 (experimental group) and 3 (control group) parents

*bMissing data for 5 (experimental group) and 1 (control group) parents

Note. Groups were not significantly different on background nor moderator variables (p > .05)
Table 2. Descriptives of dependent variables (intention to treat overall scales) at baseline, post-test, and follow-up per condition

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Pre-test</th>
<th></th>
<th></th>
<th>Post-test</th>
<th></th>
<th></th>
<th>Follow-up</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>Range</td>
<td>M (SD)</td>
<td>Range</td>
<td>M (SD)</td>
<td>Range</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Harmonious parent-child interaction (Three Bags-procedure)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Interventiona</td>
<td>4.74 (0.78)</td>
<td>2.85-6.13</td>
<td>4.62 (0.74)</td>
<td>3.20-5.98</td>
<td>4.80 (0.63)</td>
<td>3.20-5.98</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Care As Usualb</td>
<td>4.91 (0.67)</td>
<td>2.53-6.10</td>
<td>4.67 (0.84)</td>
<td>2.53-5.78</td>
<td>4.84 (0.71)</td>
<td>3.00-6.20</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Totalc</td>
<td>4.82 (0.73)</td>
<td>2.53-6.13</td>
<td>4.65 (0.79)</td>
<td>2.53-5.98</td>
<td>4.82 (0.66)</td>
<td>3.00-6.20</td>
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<tr>
<td>Sensitive discipline (Do-task)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Interventiona</td>
<td>4.53 (0.65)</td>
<td>2.56-5.38</td>
<td>4.50 (0.53)</td>
<td>2.94-5.31</td>
<td>4.44 (0.59)</td>
<td>2.31-5.19</td>
<td></td>
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<tr>
<td>Care As Usualb</td>
<td>4.34 (0.60)</td>
<td>2.44-5.13</td>
<td>4.34 (0.59)</td>
<td>3.00-5.25</td>
<td>4.43 (0.63)</td>
<td>2.31-5.19</td>
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<tr>
<td>Totalc</td>
<td>4.44 (0.63)</td>
<td>2.44-5.38</td>
<td>4.42 (0.57)</td>
<td>2.94-5.31</td>
<td>4.43 (0.61)</td>
<td>2.31-5.19</td>
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<tr>
<td>Sensitive discipline (Don’t-task)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Interventiona</td>
<td>4.23 (0.72)</td>
<td>2.44-5.31</td>
<td>4.19 (0.73)</td>
<td>2.50-5.25</td>
<td>4.41 (0.63)</td>
<td>2.56-5.31</td>
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<td></td>
<td></td>
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<tr>
<td>Care As Usualb</td>
<td>4.14 (0.59)</td>
<td>2.94-5.13</td>
<td>4.20 (0.57)</td>
<td>3.13-5.31</td>
<td>4.21 (0.57)</td>
<td>2.63-5.38</td>
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<tr>
<td>Totalc</td>
<td>4.18 (0.66)</td>
<td>2.53-6.13</td>
<td>4.20 (0.65)</td>
<td>2.53-5.98</td>
<td>4.31 (0.61)</td>
<td>3.00-6.20</td>
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</table>

aN = 43; bN = 42; cN = 85

Tabel 3. Intervention effectiveness on harmonious parent-child interaction and sensitive discipline

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>Harmonious Parent-Child Interaction</th>
<th>Sensitive Discipline: Do-task</th>
<th>Sensitive Discipline: Don’t-task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three Bags-procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>$F$ (df1, df2)</td>
<td>$p$</td>
<td>$\eta^2$</td>
</tr>
<tr>
<td>3.89</td>
<td>(2, 166)</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>Time x conditiona</td>
<td>0.49</td>
<td>(2, 166)</td>
<td>.61</td>
</tr>
<tr>
<td>Time x condition x moderator: IQb</td>
<td>2.19</td>
<td>(2, 150)</td>
<td>.12</td>
</tr>
<tr>
<td>Time x condition x moderator: Parental Adaptive Funct.c</td>
<td>3.18</td>
<td>(2, 150)</td>
<td>.04</td>
</tr>
</tbody>
</table>

aN Based on repeated measures ANOVA with time, condition and time x condition as within-subjects effects
b Based on repeated measures ANOVA with time, condition, time x condition, time x IQ and time x condition x IQ as within-subjects effects, and IQ as between-subjects effect
c Based on repeated measures ANOVA with time, condition, time x condition, time x parental adaptive functioning and time x condition x parental adaptive functioning as within-subjects effects, and parental adaptive functioning as between-subjects effect
**Intervention and moderator effects**

Results did not support intervention effects for the full intervention group. The time x condition interaction factor was not significant for harmonious interaction nor for sensitive discipline. Findings for the three way interactions between the within-subject factor 'time', the between-subject factor 'condition' (intervention or control group) and the two moderators parental IQ and parental adaptive functioning are shown in Table 3. The moderation by IQ was not significant. The interaction factor time x condition x adaptive functioning was significant for harmonious interaction. To probe parental adaptive functioning as moderator of the intervention effect on harmonious interaction, estimated means were plotted for the intervention and control group at each time point for varying levels of adaptive functioning, 1 SD below mean (low), average level (mean) and 1 SD above mean (high) (Figure 2). This revealed that the strongest intervention effect occurred for parents with relatively low adaptive functioning.

![Figure 2](image-url)  
*Figure 2* Intervention effectiveness on harmonious parent-child interaction moderated by parental adaptive behaviour (VABS, ABC-3)
Discussion

On average, a tailored video-feedback intervention (VIPP-LD) based on attachment and coercion theory did not improve harmonious parent-child interaction nor sensitive discipline of parents with mild intellectual disabilities or borderline intellectual functioning. Intervention effects did not depend on parental IQ, which was in line with other studies (Llewellyn et al., 2003; Willems et al., 2007; McGaw et al., 2010). Unexpectedly, relatively low parental adaptive functioning was significantly associated with stronger positive intervention effect on harmonious parent-child interaction. The findings regarding IQ and especially adaptive functioning showed that low intellectual or adaptive functioning in itself did not limit the effectiveness of parenting support.

Juffer and her colleagues (in press) reviewed the randomised controlled studies on the benefit of VIPP-interventions over care as usual, and found that effect sizes on observed sensitive parenting varied between $d = 0.25$ and $d = 0.78$, with an average effect size of $d = 0.47$ ($k = 12; N = 1,112$). The six studies focusing on parents at risk reported an effect size of $d = 0.54$, indicating that high-risk status does not necessarily lead to lower effectiveness. The meta-analytic effect size also indicates that the current study had sufficient statistical power (.99) to detect a statistically significant time $x$ group interaction effect. One potential explanation for the overall lack of effectiveness in our study may be that while the parents were considered at risk due to their MID and high parenting stress, the observed quality of parent-child interactions was moderate, not low. The parents interacted with their children already reasonably well, thus creating a possible ceiling effect for part of the sample. This may have been especially the case in this population, as parents with MID may feel that their parenting is under heightened scrutiny (Aunos & Feldman, 2002) and they therefore showed their best possible parenting behaviour during the video recordings. Consistent with the potential ceiling effect is that lower harmonious interaction at pre-test was found for parents with low adaptive functioning ($r = .24; p = .03$). Parents with low adaptive functioning may have had more room to improve, which explains why VIPP-SD offered a benefit for these parents. Another explanation may derive from the decision to select parents who experienced high parenting stress, because participation would be of direct potential benefit to this vulnerable group. However, it cannot be excluded that parents who were randomised to the control group sought alternative support for their parenting problems, diminishing a potential effect of the VIPP-LD intervention. Finally, for the sensitive discipline scales, the marginal internal consistency of the aggregates may have attenuated the effect sizes.

Strengths and limitations

The current study adds to the limited set of randomised controlled studies of parenting support effects on parents with MID (Coren et al., 2010). While sample size was sufficient
yet modest, it was larger than other studies on this population to date, which enabled testing of moderators of effectiveness. One important limitation was that parents were recruited through care organizations. It is therefore not known whether the intervention may be of benefit to parents not receiving any form of support. Another limitation is that the follow-up period of three months was kept relatively short, given the high parenting stress in the waiting list control group. It is unknown whether overall effects may be visible over the long term as a sleeper effect, nor whether the increase in harmonious interaction among parents with the lowest levels of adaptive functioning was maintained after follow-up. A final limitation is that generalization of effects, especially to parenting of other children in the family, was not tested.

In conclusion, harmonious parent-child interaction tended to improve more through a relatively brief (15 sessions) home-based intervention for parents with relatively low adaptive functioning, while benefits of this intervention for parents across variation in MID or borderline intellectual functioning could not be demonstrated. The assumption that lower IQ or lower adaptive functioning predict less or no benefit from parenting support appeared unwarranted, which further supports recommendations that in child protection cases, determination of parental competence and decisions on out of home placements are to be based on assessments of parenting itself, and not merely on distal indicators such as intellectual or adaptive functioning (Benjet et al., 2003). Further research is needed to develop or adapt interventions for parents with MID or borderline intellectual functioning and high parental stress.

**Key messages**

- Parenting behaviour and parent-child interactions for parents with MID or borderline intellectual functioning on average did not improve from an intervention based on attachment and coercion theory.
- Intervention effects did not vary by parental IQ.
- Parents with lower adaptive functioning benefited significantly more from video feedback intervention than parents with higher adaptive functioning.
- Low parental IQ or lower adaptive functioning lack support as contra indicators of parenting support.
- More work is needed to improve intervention effectiveness for parents with MID or borderline intellectual functioning.

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References


