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Supporting teachers' relationships with disruptive children: the potential of relationship-focused reflection

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A relationship-focused reflection program (RFRP) was developed that targeted teachers' mental representations of relationships with specific children. Relative effectiveness was examined in a randomized comparative trial with repeated measures. Thirty-two teachers were assigned to the RFRP or the comparison intervention directly aimed at teacher behavior. Per teacher, two children ($N = 64$) were selected with above-median levels of externalizing behavior. Multilevel growth modeling was used to explore intervention effects on teacher-reported Closeness and Conflict, and observed Teacher Sensitivity and Behavior Management Quality. Teaching Efficacy was included as a moderator. The RFRP yielded changes over time in closeness for about half of the teacher–child dyads. In addition, teachers with high efficacy beliefs were more likely to report declines in conflict than low-efficacy teachers. Lastly, significant increases were found in observed sensitivity. These effects were different from those found in the comparison condition and provided preliminary evidence for the potential of in-depth reflection on specific relationships to promote teacher–child relationships.

Keywords: teacher–child relationships; externalizing behavior; intervention; teacher reflection; kindergarten children

Introduction

Researchers increasingly consider relationships between teachers and young students from an attachment perspective. It is believed that children use teachers as a secure base and haven, which fosters children's school adjustment and learning (e.g., Hamre & Pianta, 2001). Moreover, close teacher–child relationships (TCR) appear to buffer behaviorally at-risk children against more serious behavior problems (Meehan, Hughes, & Cavell, 2003; Silver, Measelle, Armstrong, & Essex, 2005). Therefore, researchers have called for interventions that are specifically aimed at TCR. The current study provides a first evaluation of an intervention designed to enhance relationships with disruptive students.

Relationships between teachers and disruptive children are often problematic. They are typically characterized by conflict and elicit feelings of anger and helplessness in teachers (Spilt & Koomen, 2009). Also teachers have been observed to be less sensitive and more controlling towards behaviorally-challenging children (Fry, 1983; Rimm-Kaufman, Early, Cox, Saluja, Pianta, Bradley, et al., 2002). Next

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to child behavior problems, TCR appears related to teachers' psychological functioning (Mashburn, Hamre, Downer, & Pianta, 2006). Teachers with low efficacy beliefs have, for example, been found to report higher levels of conflict with preschoolers than was expected based on the severity of externalizing problems (Hamre, Pianta, Downer, & Mashburn, 2008). Considering the difficulties teachers have with forming supportive relationships with disruptive children, the current intervention addressed teachers' affective experiences with individual, behaviorally-challenging children. Such programs are critically needed as there seems to be little systematic attention to interpersonal experiences in teacher training and consultation (Jennings & Greenberg, 2009; Williford & Shelton, 2008).

An important recent finding of attachment research is that the caregiver's capacity for reflection fosters secure parent–child attachment (Slade, Grienenberger, Bernbach, Levy, & Locker, 2005). Reflective functioning (RF) is the capacity to think about one's own and the other's behavior in terms of underlying mental states such as feelings and intentions (Fonagy, Steele, Steele, Moran, & Higgitt, 1991). Whereas actual maternal behavior could not fully explain linkages between mothers' and infants' attachments, there is some evidence that parental RF is the primary mechanism behind the intergenerational transmission of attachment (Slade et al., 2005; van IJzendoorn, 1995). Consequently, it has been argued that interventions should help mothers *think about and reflect on* their caregiving behavior to be able to improve this behavior (Slade et al., 2005). First evaluations of such programs suggest that enhanced representations of caregiving and increased capacity for RF indeed correspond with improved sensitive behavior (Suchman, DeCoste, Castiglioni, Legow, & Mayes, 2008). Likewise, Pianta (1999) asserted that enhancement of teachers' mental models of relationships with specific children promotes secure TCR.

Analogous to mothers' mental representations of relationships with their children, teachers are believed to construct mental models of their relationships with individual students. These models comprise sets of internalized affect and cognitions concerning the self as a teacher, various teaching roles, and the child in relation to the teacher (Pianta, Hamre, & Stuhlman, 2003). Insight in these models is critical as caregiver representations of relationships are considered determinants of behavioral sensitivity (van IJzendoorn, 1995). Consistent with findings of mother–child research (Button, Pianta, & Marvin, 2001), there is evidence that especially mental representations of negative affect are salient in teachers' relationships with disruptive children (Spilt & Koomen, 2009) and that these affect their behavior toward individual children adversely (Stuhlman & Pianta, 2002). Reflection of teachers on internalized feelings is thus especially warranted.

Importantly, representational models are believed to guide behavior through a process that operates largely outside conscious awareness. Pianta (1999) describes how representations of self and self-other relationships may reinforce themselves over time in a self-fulfilling way as people are inclined to seek information consistent with existing beliefs. In this way, mental representations can become highly stable and constraining on TCR. Therefore, rather than starting with changing the teacher's behavior, Pianta (1999) contends that consultation should first be directed at constructing more flexible and differentiated representations of the relationship with a student through a reflective process.

To engage teachers in a reflective process, relationship narratives seem the obvious tool. In the field of teacher education, narratives are presented as means to

facilitate reflection and professional growth: " ... the value lies in the fact that it can serve as a basis for teachers' reflection, or, what is the same, it offers the possibility of going from the irrational to the rational, from unawareness to awareness, from the implicit to the explicit, from ignorance and custom to knowledge and reflection'' (Clemente & Ramírez, 2008, p. 1257). When teachers narrate their relationship representations, Pianta proposes that consultants could help summarize and label these narrations in more general terms guided by scientific theory. The Teacher Relationship Interview (TRI; Pianta, 1999) is specifically developed to elicit and evaluate such relationship narratives. The current intervention utilizes this interview to facilitate teachers' reflection on relationships with individual children.

Present study

The aim of this research was to conduct a first evaluation of the relationship-focused reflection program (RFRP) to promote teachers' relationships with behaviorally at-risk children. The intervention was considered successful if it yielded changes in teachers' perceptions of TCR and improved teachers' behavior. Though at first sight declines in perceived relationship quality seem undesirable, such changes may not necessarily reflect a negative intervention effect. For example, a teacher could report more conflict in the relationship with a particular child not because of an actual increase in conflict but because of an increased awareness of his/her own negative emotions and interactions with the child. This increase in conflict could then be viewed as a positive result because it reflects a shift from "ignorance and custom" to "acknowledgement and reflection". We also observed teacher behavior because research demonstrates that mental representations of relationships guide actual behavior of caregivers, more specifically the degree of responsiveness to a child's unique needs. Accordingly, we predicted increases in the observed quality of teacher behavior.

To provide first support for the hypothesis that intervention directed at relationship representations is more powerful to enhance teacher–child relationships than intervention targeted at the behavioral level, we examined the relative effectiveness of the RFRP against an alternate intervention in a cluster-level randomized comparative trial with repeated measures. The alternate intervention was directly aimed at modification of teacher behavior and comprised a teacher training in caregiver–child interaction patterns labeled Interpersonal Skills Training (IST) that (1) was based on scientific theory about interpersonal behavior, and (2) could be delivered and tested using a similar design and delivery plan as the RFRP. In contrast to the RFRP, the IST did not include reflection on internalized beliefs and feelings about relationships and interactions with students, and did not focus on *specific* children.

Moderating effects of teaching efficacy beliefs were explored. We expected efficacy to be related to positive changes in TCR perceptions.

Method

Sample and selection

The sample consisted of 32 teachers and 64 kindergartners (45 boys) with above-median levels of externalizing behavior from 15 Dutch primary schools. Teachers were on average 40.0 years old ($SD = 11.9$) and had 13.4 years experience in

education ($SD = 10.8$). Children's mean age was 66.9 months ($SD = 5.3$). Informed consent was obtained from parents.

The study was part of a larger research project. In each class, children were categorized into four groups (1) "average children"; (2) "inhibited children"; (3) "disruptive children"; and (4) "inhibited-disruptive children". The median cut-off points were 1.33 and 1.21 on the Externalizing and Internalizing scales of the Preschool Behavior Questionnaire (see Measures), which were derived from a randomly-selected sample of kindergartners ($N = 1559$). From each group, one child was randomly selected to participate. This study included the selected children from group 3 and 4.

Teachers participated voluntary. They were informed about their participation in a short-term training but not about the alternate training, the selection procedure of the children, or the experimental design of the study. Teachers were assigned to either the IST (16 teachers, 32 children) or RFRP (16 teachers, 32 children) condition. Random assignment was conducted at the school level.

Design

The study took place from January to June. Data collections and intervention sessions were planned according to a fixed schedule that started after the selection procedure was completed (Table 1). Data were gathered in three phases: preintervention, between first and second blocks of intervention, and postintervention.

Intervention programs

Relationship-Focused Reflection Program (RFRP)

A relationship-focused reflection program was developed to help teachers think about their relationship with an individual student. Important ingredients were narration and reflection, with special attention for positive and negative emotions that teachers experienced in their daily work with a particular child.

Table 1. Time schedule of data collection and intervention delivery.

		Questionnaires (QS)	Observations (OBS)	Intervention sessions (IS)
Phase 1	Week 1	QS_0	OBS_{0a}	
	Week 2			
	Week 3		OBS_{0b}	
				IS_{1a}
	Week 4			IS_{1b}
Phase 2	Week 5	QS_1	OBS_1	
				IS_{2a}
	Week 6			IS_{2b}
Phase 3	Week 7		OBS_2	
	Week 8			
	Week 9	QS_2	OBS_3	

Note 1: QS variables were Closeness and Conflict, OBS variables were Teacher Sensitivity and Behavior Management Quality.
Note 2: In the analyses, Time was coded as 0, 1, and 2 for Closeness and Conflict, and 0, 1, 2, and 3 for Teacher Sensitivity and Behavior Management Quality.
Note 3: The mean of OBS_{0a} and OBS_{0b} was used in the analyses at T0.

The intervention comprised two blocks of two individual sessions with a consultant, each block focusing on one child. In session one (45–60 minutes), teacher's narratives about the relationship with the target student were elicited using the Teacher Relationship Interview (TRI; Pianta, 1999). In session two, the consultant helped the teacher to link up the narrated representation to actual interactions with the child using video-recordings (see Observed teacher behavior). After that, the consultant presented the teacher with a unique relational profile based on the teacher's narrative with strengths and weaknesses depicted in a bar graph (without scores) as a starting point for more in-depth reflection. The TRI coding manual was used to create the relational profile of strengths and difficulties representing sensitivity of discipline, providing a secure base, perspective taking and understanding of the child's needs, beliefs about efficacy, feelings of helplessness, negative affect, and positive affect (see also Spilt & Koomen, 2009). Consultant and teacher discussed the profile together and could make adaptations to reach agreement on the profile. The teacher reflected on dissonances between narrated practices and theoretical notions (e.g., importance of emotional security), personal feelings for the child, and identification of area(s) for improvement. In sessions three and four, the same procedure was followed for the second child.

Interpersonal Skills Training (IST)

The Interpersonal Skills Training (IST; Thijs, 2005) is based on the interpersonal communication model of Leary (1957). This theory, adapted to teacher–child interaction, was explained in a booklet. Vignettes and video fragments of interactions with the target children (see Observed teacher behavior) were used to train teachers to apply the theory in practice. In four sessions, teachers were trained to evaluate *and change* their actual behavior and interaction patterns with individual children in terms of the orthogonal dimensions affiliation (cooperation-opposition), and directivity (dominance-submission) and the complementarity principle (i.e., friendliness invites friendly behavior; dominance evokes submissive behavior; see Koomen, Verschueren, & Thijs, 2006; Thijs, Koomen, Roorda, & Ten Hagen, 2011, for a test of this framework).

Measures

Behavior checklist

The Dutch adaptation of the Preschool Behavior Questionnaire (Behar, 1977; Thijs, Koomen, De Jong, Van der Leij, & Van Leeuwen, 2004) comprises the broadband scales Externalizing Behavior (14 items; e.g., "Bullies other children", $\alpha = .91$) and Internalizing Behavior (15 items; e.g., "Shy or timid towards other children", $\alpha \geq .81$; Thijs et al., 2004). Items were rated by the teacher on a four-point scale (*absolutely not characteristic* [1] to *very characteristic* [4]).

Teacher–child relationship

The Student–Teacher Relationship Scale (STRS; Pianta, 2001) measures teacher perceptions of Closeness (warmth and open communication) and Conflict (negativity and discordance). Adequate psychometric properties have been reported for the Dutch version (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012; Koomen,

Verschueren, & Pianta, 2007; Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012). Items were rated on a five-point scale (*definitely does not apply* [1] to *definitely does apply* [5]).

This study employed shortened scales of Closeness (six items, e.g., "I share an affectionate and warm relationship with this child"; $\alpha = .78$) and Conflict (8 items, e.g., "This child and I always seem to be struggling with each other"; $\alpha = .86$).

Observed teacher behavior

Video-recordings of teacher–child interactions were made during a dyadic-interaction task in a small-group setting including the four selected children (see Sample and selection) in the classroom on regular school days (for the predictive validity of such structured observations above naturalistic observations, see Zaslow, Weinfield, Gallagher, Hair, Ogawa, Egeland, et al., 2006). Observer ratings of teacher behavior toward the two target children were based on the same videotaped fragments. The task consisted of series of pictures that reflected a sequence of events. Children had to place the pictures in a logical chronological order and explain the story to the teacher (Thijs & Koomen, 2008). Children completed parallel tasks between sessions; instructions for teachers did not differ.

An adaptation of the Classroom Assessment Scoring System (CLASS; La Paro, Pianta, & Stuhlman, 2002) was employed to observe interactions between teachers and *individual* children. The same version has been used for unstructured live classroom observations with individual children (Buyse, Verschueren, Doumen, Van Damme, & Maes, 2008; Verschueren, Van de Water, Buyse, & Doumen, 2006). Sensitivity measures the degree of teacher support adapted to a child's academic and socioemotional needs. Behavior Management comprises teachers' ability to prevent and redirect a child's misbehavior. The scales were rated on a seven-point scale by trained, independent coders who were unknown of the study purposes and procedures. The videotapes were coded in a random order. A random subsample was double coded ($n = 72$). Intraclass correlations ranged between .64 and .72, indicating adequate interrater reliability (Cicchetti, Bronen, Spencer, Haut, Berg, Oliver, et al., 2006).

Efficacy

The Teacher Efficacy Scale (TES; Deemer & Minke, 1999; Gibson & Dembo, 1984) measures teachers' efficacy beliefs, which is the degree to which teachers believe that their own capabilities influence children's learning and behavior (17 items, e.g., "When a student does better than usual, many times it is because I exerted a little extra effort"; $\alpha = .73$). A five-point Likert-scale similar to the STRS was used to ease completion.

Data analyses

The repeated measures design allowed for the assessment of intervention effects on *trajectories of change over time* instead of effects at a specific point in time. Growth models were analyzed for all outcomes with measurement occasions (level-1) nested within children (level-2), and children nested within teachers (level-3).

We sought to explain random slope variance at level-3 by testing cross-level interactions between slopes and Efficacy. In case there was still unexplained random slope variance, latent class growth analyses (LCGA; Nagin, 1999) were performed because this could suggest that there are unobserved subgroups of individuals that are differentially impacted by the intervention (e.g., one subgroup improves, while another remains unchanged). LCGA assumes a mixture of distributions representing unobserved groups (i.e., latent classes) of individuals that follow different slope trajectories.

Considering the sample size, the significance level was set at .10 to reduce the chance of Type-II error. Cases with missing scores on outcome variables are typically included in longitudinal analyses, whereas cases with missing scores on explanatory variables (i.e., efficacy) were removed.

Results

Preliminary analyses

Table 2 presents descriptive statistics, missing scores, and extreme values that were removed (Std.Residual > 2.5). The mean of the first two observations was reported for Time-1. No baseline differences between conditions were found examining missing data, study variables, and teacher characteristics. Correlations between variables were in the expected directions (Table 3).

Growth modeling

Growth modeling proceeded in four steps for each outcome (Hox, 2002). First, models with separate linear slopes for the IST and RFRP group were examined. There was no evidence of a quadratic growth factor for either of the models. Second, to test whether the IST-slope and RFRP-slope were significantly different, the slopes were constrained to be equal and the decrease in model fit was evaluated using the chi-square deviance test (two-sided). Third, random slope components were examined on a variable-by-variable basis to detect systematic differences in intervention effects across teacher–child dyads. Fourth, when significant slope variation was found across teachers, Efficacy was added to explain different rates of change. Table 4 presents the final models.

Table 2.   Descriptives of study variables (N = 64 children; 32 teachers).

Variables	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 3 *M (SD)*	Time 4 *M (SD)*	Missing *n (%)*	Extremes *n (%)*
Teacher reports						
Closeness	4.09 (.70)	4.14 (.65)	4.15 (.67)		7 (3.6%)	0 (0.0%)
Conflict	2.31 (.95)	2.23 (.91)	2.24 (.91)		7 (3.6%)	2 (1.0%)
Externalizing	1.78 (.55)				0 (0.0%)	0 (0.0%)
Internalizing	1.39 (.41)				0 (0.0%)	0 (0.0%)
Efficacy	3.84 (.43)				1 (3.1%)	0 (0.0%)
Observations						
Sensitivity	5.10 (.77)	5.07 (.87)	5.16 (.85)	5.15 (.86)	16 (6.3%)	6 (2.3%)
Behavior Management Quality	5.17 (.87)	5.21 (.89)	5.25 (1.07)	5.18 (.88)	16 (6.3%)	3 (1.2%)

Table 3.   Correlations between study variables at Time 1.

Variables	1	2	3	4	5	6	7
Teacher reports							
1. Closeness	–						
2. Conflict	− .48**	–					
3. Externalizing	− .42**	.58**	–				
4. Internalizing	− .09	− .13	− .01	–			
5. Efficacy	.19[a]	− .36**	.01	.02	–		
Observations							
6. Sensitivity	.10	− .12	− .03	− .01	.12	–	
7. Behavior Management Quality	.33*	− .39**	− .24*	.17	.16	.57**	–

Note 1: $*p < .05$, $**p < .01$, $^a p < .10$.
Note 2: Unlike the other variables, Efficacy was measured at the teacher level.

Table 4.   Multilevel regression models for relationship perceptions.

	Closeness B (SE)	Conflict 1 B (SE)	Conflict 2 B (SE)	Sensitivity B (SE)	Behavior MQ B (SE)
Fixed part					
Intercept (β_0)	4.08 (.09)**	2.29 (.12)**	2.29 (.11)**	5.08 (.10)**	5.21 (.10)**
Slope IST (β_1)	.03 (.04)	− .09 (.05)[a]	− .07 (.04)	− .03 (.05)	.03 (.06)
Slope RFRP (β_2)	.03 (.06)	.03 (.07)	.06 (.05)	.09 (.055)[a]	.00 (.06)
Efficacy (β_3)			− .55 (.13)**		
Efficacy × Slope RFRP (β_4)			− .17 (.10)[a]		
Random part					
Level 1 (occasions)					
σ_{e0}^2	.090	.125	.117	.559	.706
Level 2 (children)					
σ_{u0}^2	.266	.728	.697	.032	.030
σ_{u1}^2	.000	.000	.000	.000	.000
σ_{u2}^2	.045	.000	.000	.000	.000
σ_{u4}^2			.217		
Level 3 (teachers)					
σ_{v0}^2	.068	.000	.000	.000	.084
σ_{v1}^2	.000	.000	.000	.000	.000
σ_{v2}^2	.023	.054	.000	.000	.000
Deviance	258.6	338.2	293.8	367.0	560.6

Note 1: $*p < .05$, $**p < .01$, $^a p < .10$.
Note 2: MQ = Management Quality.
Note 3: Unstandardized β coefficients (B) are reported; Covariances between residual error terms (random part) were set free but not reported.

For Closeness, both the RFRP-slope ($\beta = .034$, $Z = 0.791$, *ns*) and the IST-slope ($\beta = .030$, $Z = 0.698$, *ns*) were non-significantly different from zero. When slopes were allowed to vary across individuals, the RFRP-slope only showed random

variance. The RFRP-slope varied systematically across children ($\Delta\chi^2(2) = 10.918$, $p < .01$) and teachers ($\Delta\chi^2(2) = 6.655$, $p < .05$). Efficacy could not explain this random slope variance ($p > .10$).

For Conflict, the RFRP-slope was non-significant ($\beta = .024$, $Z = 0.489$, *ns*). The IST-slope significantly decreased ($\beta = -.092$, $Z = 1.80$, $p < .10$). When the RFRP-slope and IST-slope were constrained to be equal, the difference was significant ($\Delta\chi^2(1) = 2.825$, $p < .10$). The RFRP-slope showed random variance across teachers ($\Delta\chi^2(1) = 8.941$, $p < .01$). Efficacy was added to explain this random slope variance ($\Delta\chi^2(4) = 44.374$, $p < .001$). A negative main effect was found on Conflict ($\beta = -.549$, $Z = -4.19$, $p < .001$) as well as cross-level interaction with RFRP-slope ($\beta = -.169$, $Z = -1.78$, $p < .10$), which explained all the variance in change rate between teachers. Higher levels of efficacy predicted decreases in conflict in the RFRP condition (Figure 1).

For Sensitivity, the RFRP-slope increased significantly ($\beta = .093$, $Z = 1.69$, $p < .10$), whereas the IST-slope was non-significant ($\beta = -.033$, $Z = 0.622$, *ns*). The RFRP-slope and IST-slope differed significantly ($\Delta\chi^2(1) = 3.654$, $p = .056$). Random slope variance was zero in both conditions.

No significant change was found in Behavior Management Quality in either IST ($\beta = .034$, $Z = 0.596$, *ns*) or RFRP ($\beta = -.002$, $Z = 0.003$, *ns*), nor was random slope variance detected.

Growth trajectory analyses of closeness

Because of unexplained random slope variance, LCGA was performed on Closeness in the RFRP condition. A three-class model showed the best fit (two-class BIC = 176; three-class BIC = 171; four-class BIC = 181; Figure 2). Classification quality was good (Entropy = .89; Posterior Probability = .89–.99). Fifteen dyads showed a high-stable pattern (intercept = 4.48, $p < .001$; slope = .06, *ns*), six dyads with low Closeness prior to intervention showed a declining pattern (intercept = 3.37, $p < .001$; slope = −.24, $p < .05$), and 11 dyads with low Closeness prior to intervention showed an increase (intercept = 3.63, $p < .001$; slope = .21, $p < .10$).
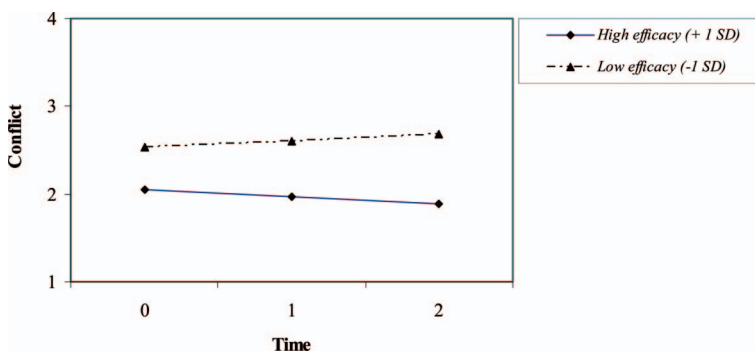

Figure 1. Efficacy as a moderator of changes in Conflict for teacher-child dyads in the Relationship-Focused Reflection Program (RFRP).
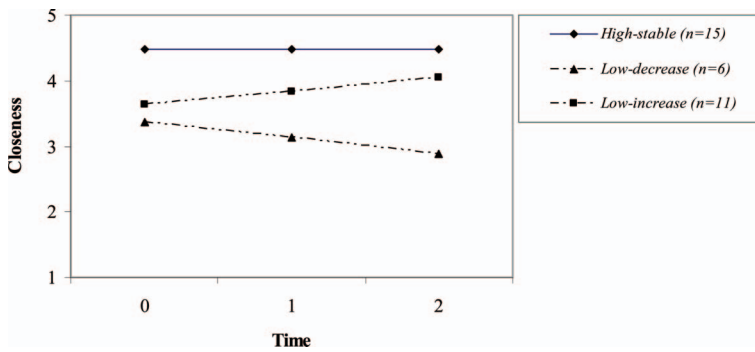
Figure 2. Latent class trajectories of Closeness for teacher-child dyads in the Relationship-Focused Reflection Program (RFRP).

Discussion

This study is among the first to address the repeated call for interventions specifically aimed at teacher–child relationships (TCR). Guided by attachment theory and Pianta's ideas about teacher consultation, we developed a relationship-focused reflection program (RFRP) to promote relationships between teachers and behaviorally at-risk kindergartners. The potential of the RFRP was supported by changes in perceived closeness for about half of the teacher–child dyads, and an increase in observed sensitivity across the whole group. Differential intervention effects on conflict could be explained by teaching efficacy beliefs. The alternate intervention (IST) yielded a decrease in conflict. There were no indications for improvements in observed behavior, differential subgroup effects, or an influence of teaching efficacy.

Systematic differences across teacher–child dyads were detected in effects of RFRP on closeness and conflict. This suggests that subgroups of teachers did report changes on those outcome variables. For closeness, the modeling of latent trajectory classes nicely advanced understanding of these random effects. The majority of dyads with relatively non-close TCR at the start of the intervention showed increases in closeness. For a small group of children with relatively non-close TCR, however, teachers reported decreases in closeness. For those teachers, reflection on the interpersonal relationship and affective experiences may have strengthened feelings of relational difficulties. This could represent a shift from ignorance to awareness of a lack of trust and warmth in the relationship with the child. Though a decline in closeness is a reason for concern, a positive effect could be that a teacher becomes more sensitive to the child's need for relatedness or that it may persuade a teacher to seek help from school mental health services. It is also possible that this immediate effect reflects a temporary period of destabilization and reorganization. According to a dynamic systems perspective, interventions can be means for creating chaos in a system in order for growth to emerge. This would be reflected in an unstable learning curve (ups-and-downs) in the short run but an improved, stable end-result in the long run. Small observation windows and long-term follow-ups are needed to uncover such change processes.

The detection of changes in closeness was in particular valuable because closeness is believed to reflect the teacher's and child's ability to social-emotionally connect with each other (Silver et al., 2005). Following the attachment framework, especially closeness can be interpreted as the extent to which the teacher functions as a source

of security for a specific child. It is therefore promising that changes in closeness were observed in all dyads with relatively low levels of closeness. Close relationships buffer at-risk children against serious maladjustment (Meehan et al., 2003; Silver et al., 2005).

The effects of RFRP on conflict appeared dependent on efficacy beliefs of teachers. Prior to intervention, low-efficacy teachers reported more conflictual relationships with disruptive children than high-efficacy teachers (Hamre et al., 2008; Mashburn et al., 2006). As anticipated, the RFRP seemed to enlarge these differences. For low-efficacy teachers, reflection and increased awareness may be stressful or discouraging because these teachers seem pessimistic about their ability to influence the relationship. Conversely, for teachers who hold strong beliefs about their ability to influence children's behavior and development, increased awareness and understanding of the relationship seemed to enlighten their views on relational conflict.

Importantly, improvements in sensitive behavior were observed for *all* teachers following relationship-focused reflection. Thus both low- and high-efficacy teachers profited in some way from the RFRP. This small but significant improvement was promising, especially in light of the generally observed declines in sensitivity over time in samples with behaviorally-challenging children (Fry, 1983). Moreover, emotional support from teachers can protect at-risk children against under-achievement and relational conflict (Buyse et al., 2008).

The RFRP was evaluated in comparison to the Interpersonal Skills Training (IST) that more directly targeted teacher behavior. The IST appeared successful in reducing perceived conflict, an effect independent of teacher efficacy. However, the RFRP affected both teacher-perceived and observer-rated behavior outcomes. The greater potential of the RFRP could be attributed to its focus on the *representational* level rather than at the *behavioral* level. Other explanations, especially when considering closeness and sensitivity, may be that the IST did not attend to negative affect, did not explicitly focus on *specific* children, and thus did not address teacher behavior *in relation to* a child's unique needs.

Both interventions did not impact teachers' behavior management. This suggests that other interventions based on different theoretical frameworks, for instance social learning theory, may be necessary to support teachers in adequately regulating the behavior of individual children.

Noteworthy, the sample included kindergartners with mostly mild behavior problems. Levels of Closeness appeared largely similar to those of a large normative sample and suggested a ceiling effect leaving little room for improvement for about half of the sample (Koomen et al., 2007). Levels of Conflict were moderately high. Future studies could use samples with more serious conduct problems. In addition, the RFRP was delivered in four sessions targeting two children. It remains to be examined whether two sessions on one target child yield similar effects. Furthermore, the length and timing of intervention need to be reconsidered. Pianta (1999) argues for a long-term focus to improve relationships, whereas attachment intervention research supports the efficacy of short-term programs (van IJzendoorn, Juffer, & Duyvesteyn, 1995). Also, intervention delivered in the Fall will possibly yield stronger effects as relationships may be more changeable earlier in the school year.

Several limitations should be noted. First, the study included a non-representative sample of modest size and the findings should be considered preliminary. Additionally, by setting the significance level at .10, the likelihood of a type-I-error increased. Second, a no-treatment control condition was not included. Though it is

possible that teachers' relationships with disruptive children improved through time alone, longitudinal research indicates significant increases in conflict and declines in teacher sensitivity over the course of a school year (Doumen et al., 2008; Fry, 1983). The advantage of the current study was that the alternate intervention was similar in its delivery plan and design and differed in content only. Intervention effects thus appeared to go beyond the simple effects of receiving attention or the expectation of change. Third, the validity of the CLASS in structured situations was not examined before. The observer scores should be interpreted in the context of a specific small-group task activity. Though this may be considered an adequate natural context to study dyadic interactions, it provides an incomplete assessment as interpersonal behavior could differ across contexts. Moreover, the distribution of variances across the three levels suggest large time-specific contextual influences and larger teacher- than dyadic-effects in teacher behavior.

Taken together, this study provided first evidence for the relative effectiveness of a dyad-focused intervention comprising relationship-oriented reflection to enhance TCR for disruptive children. The intervention yielded changes in both relationship perceptions and observed teacher behavior. This suggests that teachers reorganized their mental representations and obtained new insights after in-depth reflection that affected their actual responsiveness to children's needs. According to attachment research, these processes could be keys to improve security in adult–child relationships (e.g., Slade et al., 2005). Yet, the intervention effects were not straightforward. Analyses not reported here indicated that teacher age, education, experience, intervention satisfaction, and perceptions of internalizing and externalizing behavior could not explain differential intervention effects. Future research could examine moderating effects of other child, teacher, and dyadic characteristics. In addition to teacher efficacy, psychological functioning (Hamre et al., 2008) or attachment styles of teachers (cf. Bakermans-Kranenburg, Juffer, & van IJzendoorn, 1998) can be potential moderators. Also, future research should include student outcomes.

The results corroborated Pianta's idea to facilitate teachers' reflection on their interpersonal and emotional experiences with individual children through helping them narrate their relationship experiences and to label and "mirror" those experiences (Pianta, 1999). The approach closely fits the contemporary emphasis on the consulting role of school psychologists. The TRI could provide starting points to set up consultation and engage teachers in a reflective process (Koomen et al., 2006; Stuhlman & Pianta, 2002).

In conclusion, in-depth relationship-focused reflection seems promising to support teacher–child relationships. In-depth reflection may change and promote teachers' perceptions of their relationships with disruptive children and improve teacher sensitivity.

References

Bakermans-Kranenburg, M.J., Juffer, F., & van IJzendoorn, M.H. (1998). Interventions with video feedback and attachment discussions: Does type of maternal insecurity make a difference? *Infant Mental Health Journal*, *19*, 202–219.

Behar, L.B. (1977). The Preschool Behavior Questionnaire. *Journal of Abnormal Child Psychology*, *5*, 265–275.

Button, S., Pianta, R.C., & Marvin, R.S. (2001). Mothers' representations of relationships with their children: Relations with parenting behavior, mother characteristics, and child disability status. *Social Development*, *10*, 455–472.

Buyse, E., Verschueren, K., Doumen, S., Van Damme, J., & Maes, F. (2008). Classroom problem behavior and teacher–child relationships in kindergarten: The moderating role of classroom climate. *Journal of School Psychology*, 46, 367–391.

Cicchetti, D., Bronen, R., Spencer, S., Haut, S., Berg, A., Oliver, P., et al. (2006). Rating scales, scales of measurement, issues of reliability: Resolving some critical issues for clinicians and researchers. *Journal of Nervous and Mental Disease*, 194, 557–564.

Clemente, M., & Ramírez, E. (2008). How teachers express their knowledge through narrative. *Teaching and Teacher Education*, 24, 1244–1258.

Deemer, S.A., & Minke, K.M. (1999). An investigation of the factor structure of the teacher efficacy scale. *Journal of Educational Research*, 93, 3–10.

Doumen, S., Koomen, H.M.Y., Buyse, E., Wouters, S., & Verschueren, K. (2012). Teacher and observer views on student-teacher relationships: Convergence across kindergarten and relations with student engagement. *Journal of School Psychology*, 50, 61–76.

Doumen, S., Verschueren, K., Buyse, E., Germeijs, V., Luyckx, K., & Soenens, B. (2008). Reciprocal relations between teacher–child conflict and aggressive behavior in kindergarten: A three-wave longitudinal study. *Journal of Clinical Child and Adolescent Psychology*, 37, 588–599.

Fonagy, P., Steele, M., Steele, H., Moran, G.S., & Higgitt, A.C. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, 12, 201–218.

Fry, P.S. (1983). Process measures of problem and non-problem children's classroom behaviour: The influence of teacher behaviour variables. *British Journal of Educational Psychology*, 53, 79–88.

Gibson, S., & Dembo, M.H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569–582.

Hamre, B.K., & Pianta, R.C. (2001). Early teacher–child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, 72, 625–638.

Hamre, B.K., Pianta, R.C., Downer, J.T., & Mashburn, A.J. (2008). Teachers' perceptions of conflict with young students: Looking beyond problem behaviors. *Social Development*, 17, 115–136.

Hox, J.J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NJ: Lawrence Erlbaum.

Jennings, P.A., & Greenberg, M.T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79, 491–525.

Koomen, H.M.Y., Verschueren, K., & Pianta, R.C. (2007). *Leerling Leerkracht Relatie Vragenlijst: Handleiding* [Student Teacher Relationship Scale: Manual]. Houten: Bohn Stafleu van Loghum.

Koomen, H.M.Y., Verschueren, K., van Schooten, E., Jak, S., & Pianta, R.C. (2012). Validating the Student-Teacher Relationship Scale: Testing factor structure and measurement invariance across child gender and age in a Dutch sample. *Journal of School Psychology*, 50, 215–234.

Koomen, H.M.Y., Verschueren, K., & Thijs, J.T. (2006). Assessing aspects of the teacher–child relationship: A critical ingredient of a practice-oriented psycho-diagnostic approach. *Educational and Child Psychology*, 23, 50–60.

La Paro, K.M., Pianta, R.C., & Stuhlman, M.W. (2002). *Classroom Assessment Scoring System (CLASS)*. Charlottesville, VA: University of Virginia.

Leary, T. (1957). *An interpersonal diagnosis of personality*. New York, NY: Ronald Press Company.

Mashburn, A.J., Hamre, B.K., Downer, J.T., & Pianta, R.C. (2006). Teacher and classroom characteristics associated with teachers' ratings of prekindergartners' relationships and behaviors. *Journal of Psychoeducational Assessment*, 24, 367–380.

Meehan, B.T., Hughes, J.N., & Cavell, T.A. (2003). Teacher–student relationships as compensatory resources for aggressive children. *Child Development*, 74, 1145–1157.

Nagin, D.S. (1999). Analyzing developmental trajectories: A semiparametric, group-based approach. *Psychological Methods*, 4, 139–157.

Pianta, R.C. (1999). Assessing child–teacher relationships. In R.C. Pianta (Ed.), *Enhancing relationships between children and teachers* (pp. 85–104). Washington, DC: American Psychological Association.

Pianta, R.C. (2001). *Student–teacher relationship scale. Professional manual.* Lutz, FL: Psychological Assessment Resources.

Pianta, R.C., Hamre, B., & Stuhlman, M. (2003). Relationships between teachers and children. In W.M. Reynolds & G.E. Miller (Eds.), *Handbook of psychology: Educational psychology*, *Vol. 7* (pp. 199–234). Hoboken, NJ: John Wiley & Sons.

Rimm-Kaufman, S.E., Early, D.M., Cox, M.J., Saluja, G., Pianta, R.C., Bradley, R.H., et al. (2002). Early behavioral attributes and teachers' sensitivity as predictors of competent behavior in the kindergarten classroom. *Journal of Applied Developmental Psychology*, *23*, 451–470.

Silver, R.B., Measelle, J.R., Armstrong, J.M., & Essex, M.J. (2005). Trajectories of classroom externalizing behavior: Contributions of child characteristics, family characteristics, and the teacher–child relationship during the school transition. *Journal of School Psychology*, *43*, 39–60.

Slade, A., Grienenberger, J., Bernbach, E., Levy, D., & Locker, A. (2005). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Development*, *7*, 283–298.

Spilt, J.L., & Koomen, H.M.Y. (2009). Widening the view on teacher–child relationships: Teachers' narratives concerning disruptive versus non-disruptive children. *School Psychology Review*, *38*, 86–101.

Stuhlman, M.W., & Pianta, R.C. (2002). Teachers' narratives about their relationships with children: Associations with behavior in classrooms. *School Psychology Review*, *31*, 148–163.

Suchman, N.P., DeCoste, C.M.S., Castiglioni, N.B.A., Legow, N.P., & Mayes, L.M.D. (2008). The mothers and toddlers program: Preliminary findings from an attachment-based parenting intervention for substance-abusing mothers. *Psychoanalytic Psychology*, *25*, 499–517.

Thijs, J.T. (2005). *Teachers' relationships and interactions with socially inhibited children* (Unpublished doctoral dissertation). University of Amsterdam, Amsterdam.

Thijs, J.T., & Koomen, H.M.Y. (2008). Task-related interactions between kindergarten children and their teachers: The role of emotional security. *Infant and Child Development*, *17*, 181–197.

Thijs, J.T., Koomen, H.M.Y., De Jong, P.F., Van der Leij, A., & Van Leeuwen, M.G.P. (2004). Internalizing behaviors among kindergarten children: Measuring dimensions of social withdrawal with a checklist. *Journal of Clinical Child and Adolescent Psychology*, *33*, 802–812.

Thijs, J.T., Koomen, H.M.Y., Roorda, D.L., & Ten Hagen, J. (2011). Explaining early teacher–child interactions: An interpersonal theoretical approach. *Journal of Applied Developmental Psychology*, *32*, 34–43.

van IJzendoorn, M.H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the adult attachment interview. *Psychological Bulletin*, *117*, 387–403.

van IJzendoorn, M.H., Juffer, F., & Duyvesteyn, M. (1995). Breaking the intergenerational cycle of insecure attachment. A review of the effects of attachment-based interventions in maternal sensitivity and infant security. *Journal of Child Psychology and Psychiatry*, *36*, 225–248.

Verschueren, K., Van de Water, G., Buyse, E., & Doumen, S. (2006). *Adaptation of the Classroom Assessment Scoring System-Kindergarten to measure the individual teacher–child relationship.* Unpublished manuscript, Centrum voor Schoolpsychologie, K.U. Leuven.

Williford, A.P., & Shelton, T.L. (2008). Using mental health consultation to decrease disruptive behaviors in preschoolers: Adapting an empirically-supported intervention. *Journal of Child Psychology and Psychiatry*, *49*, 191–200.

Zaslow, M.J., Weinfield, N.S., Gallagher, M., Hair, E.C., Ogawa, J.R., Egeland, B., et al. (2006). Longitudinal prediction of child outcomes from differing measures of parenting in a low-income sample. *Developmental Psychology*, *42*, 27–37.