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Practitioner Review: Dyadic teacher–child relationships: comparing theories, empirical evidence and implications for practice

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Background: Research on dyadic teacher–child relationships has grown rapidly. However, a review of relevant theories and its implications for assessment and intervention has been lacking so far. **Methods:** A selective review of theories, empirical evidence and interventions was conducted. **Results and Conclusions:** Different theories highlight distinct aspects of teacher–child relationships and have different implications for assessment and intervention. The attachment perspective on dyadic teacher–child relationships is most widely applied in psychological research. Also relatively well-known is self-determination theory. However, the interpersonal theory, though widely applied in educational research to teacher–class interactions, has been largely overlooked in research on dyadic teacher–child relationships. The overarching dyadic systems perspective, providing insight in the dynamic interplay between different aspects of teacher–child relationships, also deserves more attention. Recommendations to improve teacher–child relationships address the need for teacher sensitivity, relationship-based communication and flexibility in interpersonal behaviour in everyday teaching. **Keywords:** assessment; intervention; teacher–child relationships; theoretical review.

Introduction

Research on dyadic (one-to-one) relationships between children and their teachers has grown rapidly over the past 20 to 30 years. Apart from teacher–child interactions at the class level, the relationship between a teacher and an individual child plays a unique role in children’s school functioning and development. Children with high quality relationships with teachers are more engaged, more task-oriented and generally perform better at school. Also children have been found to benefit only from high-quality classroom instruction when they have a high-quality dyadic relationship with the teacher (Nguyen et al., 2020). The effects of dyadic teacher–child relationships (TCRs) are not limited to adjustment and achievement at school, but extend beyond the classroom to children’s psychosocial functioning and mental health. In particular children with special needs appear susceptible to the quality of the dyadic TCR (McGrath & Van Bergen, 2015).

Despite the rapid growth in research showing the importance of the dyadic TCR, a broad overview of leading theories, including translations into practice, is not available. Our first goal is to explain four leading theoretical perspectives on dyadic TCRs and to discuss the evidence base for each theory. Our second goal is to reflect on the implications of these

theories for practice. By combining different theories in this review, we aim to present a broad perspective on dyadic TCRs in different domains (i.e. developmental psychology, school psychology and educational sciences). This enables us to identify key mechanisms of change to inform practice.

We discuss four theories. The dyadic systems perspective is an overarching, organizational framework that provides a multi-component structure to describe the TCR as a dyadic microsystem. The interpersonal theory, the motivational perspective and the attachment perspective are theoretical frameworks that aid the interpretation and operationalization of the components of the dyadic microsystem. These three theories have explanatory power as they explain *why* TCRs are important for children’s development (Table 1). For each theory, we will outline implications for school psychology and teacher practices. We will conclude our review with practical recommendations for relationship building in everyday teaching.

Teacher–child relationships as dyadic microsystems

Guided by the developmental systems theory (Lerner, 1998), the Developmental Systems Perspective (DSP) has conceptualized the TCR as a ‘dyadic microsystem’ (Pianta, Hamre, & Stuhlman, 2003). Within this approach, the quality of the TCR is the

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Table 1 Overview of main theories explaining effects of dyadic teacher–child relationships (TCR) on child development

Theory	Link with dyadic systems perspective (DSP) – focus on:	TCR quality dimensions	Main explaining mechanism	Proximal effects on child	Recommended teacher-mediated intervention
Interpersonal theory (IT)	<ul style="list-style-type: none"> Information exchange processes 	<ul style="list-style-type: none"> Affiliative behaviour (friendliness vs. hostility) Dominant behaviour (directivity vs. passivity) 	<ul style="list-style-type: none"> Complementarity in behaviour (vs. noncomplementarity) 	<p><u>Psychological effects:</u></p> <ul style="list-style-type: none"> Emotional security Positive feelings <p><u>Behavioural effects:</u></p> <ul style="list-style-type: none"> Responsiveness to directions Initiative taking Expressions of affiliation 	<ul style="list-style-type: none"> Promote complementary behaviour of teachers to disrupt self-reinforcing and rigid interaction patterns and to prompt favourable patterns
Self-determination theory (SDT)	<ul style="list-style-type: none"> Children's mental representations of the self Information exchange processes 	<ul style="list-style-type: none"> Teacher involvement Provision of structure Autonomy support 	<ul style="list-style-type: none"> Basic psychological need satisfaction (vs. need frustration) 	<p><u>Psychological effects:</u></p> <ul style="list-style-type: none"> Self-system beliefs of relatedness, competence and autonomy Autonomous motivation <p><u>Behavioural effects:</u></p> <ul style="list-style-type: none"> Learning engagement 	<ul style="list-style-type: none"> Promote need-supportive teaching strategies and beliefs^a
Attachment perspective (AP)	<ul style="list-style-type: none"> Teachers' and children's mental representations of the self, the other and the self-other relationship Information exchange processes 	<ul style="list-style-type: none"> Closeness Conflict Dependency 	<ul style="list-style-type: none"> Secure base and safe haven use 	<p><u>Psychological effects:</u></p> <ul style="list-style-type: none"> Emotional security Emotional self-regulation Self-worth Trust in others <p><u>Behavioural effects:</u></p> <ul style="list-style-type: none"> Exploration 	<ul style="list-style-type: none"> Stimulate reflective functioning and behavioural sensitivity of teachers

^aTo the best of our knowledge, the SDT has not been translated into (teacher-mediated) interventions that directly target dyadic teacher–child relationships.

outcome of a dynamic interplay between characteristics at different levels including the intrapersonal, interpersonal and contextual level. The dyadic microsystem of TCRs interacts with other (more proximal or distal) systems (e.g. a biological system regulating temperament, a peer-child system) in shaping children's development over time (Bronfenbrenner & Morris, 1998; Pianta et al., 2003).

Four components of the dyadic microsystem are discerned. The first component includes characteristics of the partners, for example gender, temperament, self-regulation ability and personality, and also the partners' relational history (Verschuere, 2015). Research shows that behavioural characteristics of children, in particular externalizing behaviour, are the strongest predictors of TCR quality, in particular of conflictual relationships (Hamre, Pianta, Downer, & Mashburn, 2008). But the prediction is far from perfect and, beyond other child characteristics, teacher characteristics play a role as well, for example teachers' self-efficacy, social-emotional competence, empathy and stress levels (e.g. Hamre et al., 2008).

A second component is the environment (Hamre et al., 2008; O'Connor, 2010), including characteristics of the classroom (e.g. proportion of children with behaviour problems, teacher-child ratios), the school environment (e.g. organizational-level stressors and resources, school discipline policy) and the interaction with the home context (e.g. parent-teacher relationships, socioeconomic status of the family), the neighbourhood (e.g. poverty and crime rates) and educational policy (e.g. teacher evaluation policy). The model implies that dyadic TCRs cannot be fully understood without taking the context (e.g. class, school) into account. Interventions aimed at improving dyadic TCRs should thus consider opportunities and limits at different contextual levels.

The third component includes processes by which information is exchanged between partners, that is the teacher and child in daily interactions. This component comprises behavioural interactions, language and communication, in which the qualities of exchange, for example tone of voice, proximity, timing and reciprocity, may be even more important than the behavioural expression in itself (Pianta et al., 2003). The DSP postulates that discrete behaviours can only be fully understood in light of the relational information that is exchanged between and received by the interaction partners.

Mental relationship representations are the fourth component of the dyadic microsystem (Pianta et al., 2003). This component is conceptually derived from the parent-child attachment literature (Main, Kaplan, & Cassidy, 1985). Teachers and children are believed to develop cognitive-affective mental representations (or internal working models) comprising a set of internalized expectations, beliefs, and affect about the self, the other and the self-other relationship. A child who experiences the

interactions with the teacher as close and supportive may internalize positive feelings of warmth and trust, will develop a sense of self (in particular the self as a student) as worthy of care and attention, and a belief in the teacher as a reliable caregiver and safe-haven in times of need. Likewise, teachers may internalize similar feelings of warmth and affection, develop a sense of effectiveness as a caregiver and instructor for the child, and attribute positive qualities to the child (Spilt & Koomen, 2009; Stuhlman & Pianta, 2002). The relationship becomes troubled when teachers or children internalize negative interaction experiences and feelings. Over time, mental representations, though open for new information, are believed to become increasingly stable and are thus more difficult to change when relational problems continue over longer periods of time.

The DSP emphasizes the *continuous interplay* between the four components. The subjective nature of the mental relationship representations (cf. fourth component) functions as a framework guiding the interpretation of new information in everyday interactions (cf. third component). Mental representations encompassing negative beliefs and affect may cause biases in teachers' perceptions and attributions of children's (mis)behaviours, like overlooking good intentions of a child or ignoring situational cues that may explain the child's behaviour (De Ruiter, Poorthuis, Aldrup, & Koomen, 2020), and hinder teachers' sensitivity to children's needs (Koenen, Vervoort, Kelchtermans, Verschuere, & Spilt, 2019), thereby further reinforcing child misbehaviour and teachers' self-fulfilling negative beliefs and feelings. Positive changes in behaviour and interactions, on the other hand, may provide new information about the relationship in such a way that the mental representation becomes positively modified.

The dynamic interplay between components thus implies that change in one component induces change in the whole system. An intervention can focus on positive teacher-child communication, thereby inducing change in the mental representations of the partners that in turn fuels more positive perceptions and feelings in everyday interactions. Alternatively, an intervention that focuses on the mental representation of the relationship may improve perspective taking and information exchange processes. However, an intervention that focuses on multiple components may have the strongest effects on the TCR.

Theoretical perspectives on dyadic teacher-child relationships

Whereas DSP provides an overarching framework for studying the interplay of relationship components and contexts at various levels, other theories provide more 'content' for these components. In this section, we explain three theories that specify what

constitutes high-quality TCRs and why they matter for child development (Table 1).

The interpersonal theory

The interpersonal theory (IT) is a leading theory in relationship research (Horowitz & Strack, 2011). According to this perspective, reciprocity in TCRs or interpersonal *complementarity* may promote child development through positive feelings and emotional security (cf. Kiesler, 1996; Locke & Sadler, 2007). Interactional behaviour between two partners is described along two orthogonal dimensions: dominance and affiliation. Dominance refers to the degree of power and control over the other ranging from ‘dependent’ to ‘dominant’. Affiliation refers to the degree of closeness between partners ranging from ‘hostile’ to ‘friendly’. In the school context, dominance of teachers is considered in terms of directivity (leadership) versus passivity (withdrawal), and dominance of children is considered in terms of taking initiative versus dependency or passivity (Wubbels & Brekelmans, 2005). Through their interpersonal behaviour or style, teachers elicit (intentionally or unintentionally) behaviours from children that maintain the teachers’ behaviours. A behaviour and its complement are considered to be similar with respect to affiliation and dissimilar with respect to dominance. Thus, friendly behaviour of teachers will elicit friendly behaviours from children, whereas hostility will elicit hostility. For example aggressive child behaviour elicits a negative response of the teacher (e.g. punishment), which in turn may strengthen negative child behaviour. With respect to dominance, complementarity implies that dependent behaviour of the child will elicit more directive or dominant teacher behaviour, which reinforces the child’s dependency. The relationship is considered positive when there is friendliness and flexibility in dependent-submissive and dominant-directive behaviour (Kiesler, 1996). The relationship becomes troubled when teachers and children get caught in inflexible, stable patterns of interactions (cf. Tracey, 2005).

Research relying on the IT has mainly focused on class-level teacher–child interactions rather than dyadic teacher–child interactions (Wubbels & Brekelmans, 2005). A few dyadic studies have been conducted in kindergarten. Thijs, Koomen, Roorda, and ten Hagen (2011) showed that teachers and socially inhibited children both responded complementarily to each other on the dominance dimension. This could mean that a recurring pattern of teacher directivity, eliciting and reinforcing passivity, could be lurking for socially withdrawn children. In interactions with children with externalizing problems, teachers and children responded less complementarily on dominance and teachers (but not children) showed less friendliness in the interaction (Roorda, Koomen, Spilt, Thijs, & Oort, 2013). These studies on dyadic teacher–child interactions have

solely relied on observational methods to assess reciprocal interactions.

Implications for practice. The IT is helpful to understand the third component of the DSP: the information exchange processes. The IT describes information exchange processes along the dimensions of dominance and affiliation. Moreover, the theory provides clues for intervention. It explains how unfavourable and rigid patterns of interactions may be interrupted by a complementary behaviour (i.e. responding to child aggression with friendliness or to child dependency with lowering directivity). A quasi-experimental intervention study showed that a short training in IT and the complementarity principle could break negative interaction cycles between teachers and socially inhibited children (Roorda, Koomen, Thijs, & Oort, 2013).

In conclusion. The IT may explain important aspects of teacher–child interactions like (unproductive) patterns of affiliation, dominance and opposition. Moreover, the theory provides a model for improving interactions by using the principle of (a)complementarity. However, more research is needed to test if the predicted complementarity principle can be found in dyadic teacher–child interactions at different ages and in different task settings.

The motivational perspective

From the perspective of motivational theories, such as self-determination theory (SDT; Deci & Ryan, 2000), the quality of the TCR can be conceptualized as the attunement of the teacher to the basic psychological needs of a child. SDT posits three basic psychological needs: the need for relatedness, the need for competence and the need for autonomy. Fulfilment of these basic needs shapes children’s self-system beliefs of with whom they belong (‘I belong in class with my classmates and teacher’), what they can (‘I can manage my schoolwork’) and who they are (e.g. ‘I can express myself as a scholar’). The need for relatedness was inspired by attachment theory and relates to the idea that children have a basic need for emotional security (Connell & Wellborn, 1991). To fulfil the three needs, teachers should provide involvement, structure and autonomy support respectively. Involvement refers to showing affection to and understanding of the child, dedicating time and other resources to the child, and being available for support. Structure includes providing clear and understandable instructions, offering guidance and providing informational feedback on schoolwork. Autonomy support refers to providing meaningful choices, fostering relevance of learning tasks and showing respect for children’s perspectives. Research grounded in SDT has mainly focused on structure and autonomy support as predictors of motivation and engagement. Studies

that include all three dimensions signify the important role of involvement (Skinner & Belmont, 1993; Stroet, Opdenakker, & Minnaert, 2015).

Studies examining teacher–child interactions guided by SDT have mainly focused on children’s perceptions of teachers’ support to the class as a whole (Stroet, Opdenakker, & Minnaert, 2013). Only a few studies have focused on children’s perceptions of dyadic teacher–child interactions. Lietaert, Roorda, Laevers, Verschueren, and de Fraine (2015) showed unique effects of dyadic teacher involvement, structure and autonomy support (only for boys) on children’s engagement. Similarly, the cross-sectional study of Gao, Bao, Du, and Yan (2021) showed an indirect effect of children’s relationship perceptions on engagement via psychological needs satisfaction, including the fulfilment of the need for relatedness. Thijs and Koomen (2008) found that basic needs support from teachers contributed to improved task behaviour of individual kindergartners.

Implications for practice. The SDT is useful to understand information exchange processes between teachers and children (cf. component 3 of the DSP). Do teachers communicate messages to children that tell them: ‘I know you can do this’ (support of competence beliefs), ‘I listen to your perspective and I acknowledge your emotions’ (autonomy support), ‘I enjoy spending time with you’ (involvement)? To know how these teacher messages impact children’s psychological needs satisfaction and self-system beliefs or mental representation of the self, it is crucial to assess individual child perceptions of teachers’ need-supportive behaviours. Although the SDT acknowledges the importance of teachers being involved in relationships with individual children, the majority of interventions developed from the SDT framework focuses on methods for teachers to provide structure and autonomy support to the class as a whole (e.g. Su & Reeve, 2011).

In conclusion. The SDT presents a multifaceted understanding of how teachers can contribute to children’s basic psychological needs by being involved, providing structure and supporting the child’s autonomy. There are numerous studies substantiating the importance of teachers’ relational, affective or emotional support for individual children (Roorda, Jak, Zee, Oort, & Koomen, 2017), aspects all closely related to the SDT concept of involvement. However, research is needed that includes all three aspects of teacher support (involvement, structure and autonomy support) in dyadic interactions with children and to examine both their unique contributions and interplay.

The attachment perspective

The attachment perspective (AP) on TCRs further specifies teachers’ involvement by its emphasis on

the secure-base and safe-haven functions of the dyadic TCR. The metaphor of the ‘secure-base’ refers to supportive behaviours in the context of exploration and learning. The ‘safe-haven’ metaphor refers to supportive and caring behaviours in times of distress. Although relationships between children and teachers are not as emotionally intense, exclusive and durable as parent–child relationships, the secure-base and safe-haven functions of the TCR have repeatedly been observed in classrooms and have been related to the emotion regulation function of teachers. For these reasons, the TCR is considered a ‘temporary’ or ‘ad-hoc’ attachment relationship (Verschueren, 2015; Verschueren & Koomen, 2012).

Guided by the AP, the TCR has been conceptualized as a multidimensional construct referring to interpersonal behaviours and feelings of both the teacher and the child along three dimensions: closeness, conflict and dependency (Pianta, 2001). Closeness refers to warmth, positive affect and open communication, and indicates that the teacher is attuned to the child’s needs while the child uses the teacher as a secure-base and safe-haven. Conflict refers to negativity and conflicted interactions and indicates that the child cannot use the teacher as a secure-base and safe-haven because the relationship is unpredictable, unreliable or hostile. Dependency refers to possessive and clingy child behaviours that are age-inappropriate and indicates that the child excessively and *ineffectively* uses the teacher as a secure-base and safe-haven. To assess these relationship dimensions, researchers have mostly used the Student–Teacher Relationship scale (Pianta, 2001). In addition to teacher questionnaires, observations, peer and child reports have also been used (see Verschueren, 2015 for an overview). Conflict has most consistently been related to children’s development above and beyond other predictors of development. Conflict predicts behaviour problems, low executive functioning, low self-esteem, school avoidance and underachievement (McGrath & Van Bergen, 2015). In particular, recurrent conflictual relationships with multiple teachers throughout the school career have been shown to have a strong negative effect on children’s school performance (Spilt, Hughes, Wu, & Kwok, 2012). In general, the results for closeness are somewhat weaker and less consistent than for conflict. There is in particular evidence for the importance of closeness as a protective factor for at-risk children (McGrath & Van Bergen, 2015). Dependency has been far less studied (Verschueren & Koomen, 2020). Overreliance on teachers and a lack of independent exploration appears to undermine children’s social and academic learning opportunities (Roorda, Zee, & Koomen, 2020).

Older children and adolescents generally report declines in teacher closeness and support in secondary school (Bokhorst, Sumter, & Westenberg, 2010). However, the quality of TCRs remains

important for adolescents (Tillery, Varjas, Roach, Kuperminc, & Meyers, 2013). Close TCRs could buffer the typical decline in motivation and engagement that is often observed after the transition to secondary school (Roorda et al., 2017). Research in adolescence has been less focused on dyadic teacher–child relationships. However, research indicates that it is important to distinguish between individual teachers and subjects in secondary education (Roorda, Torgensen, & Koomen, 2019). The few studies that did examine dyadic closeness and conflict in secondary education indicate that both play a role in adolescents' psychosocial adjustment, school functioning and achievement (Engels, Spilt, Denies, & Verschueren, 2021; Longobardi, Prino, Marengo, & Settanni, 2016; Roorda & Koomen, 2021).

Whereas the motivational perspective mainly focuses on the need supportive behaviours of teachers, the AP emphasizes the interactive behaviours and feelings of *both* the teacher and the child in the measurement of the relationship. According to the AP, it is the teacher's sensitivity to the needs of the individual child that is considered a key antecedent of high-quality TCRs. Teacher sensitivity in dyadic interactions has been shown to improve the positive task behaviours of kindergartners (Thijs & Koomen, 2008), and the exploratory behaviour and sociobehavioural development of children with emotional and behavioural disturbances in special education (Spilt, Vervoort, & Verschueren, 2018). Following attachment research, it has also been posited that reflective functioning of teachers plays a role in teachers' ability to build supportive relationships with children (Spilt, Koomen, Thijs, & van der Leij, 2012; Stacks, Wong, & Dykehouse, 2013).

The AP provides a framework to understand the fourth component of the DSP: the mental representation of the relationship (Pianta et al., 2003). According to attachment theory, mental representations are automatically activated in daily interactions and guide interpretations and responses to the behaviours of the partner (e.g. teachers' behavioural sensitivity). This automaticity implies that teachers are not always aware of their thoughts and feelings about the relationship with a particular child, which may be more implicit than explicit. Explicit cognitions can be measured using direct measures (e.g. questionnaires with closed questions). But more implicit feelings and cognitions require more indirect methods like narrative interviews. Within attachment research, there is a strong tradition that relies on narrative interviews to capture attachment representations of adults (Main et al., 1985). In line with this tradition, Pianta (1999) developed the Teacher Relationship Interview focusing on three dimensions of the mental relationship representation of teachers: content (what is being narrated), affect (emotional valence or 'colour' of what is being said) and process (the way in which the information is

presented). Similar attempts have been made to measure implicit feelings and cognitions on the part of the child, but now through drawings (Verschueren, 2015).

There is an important connection between mental relationship representations and the relational history of the individual (cf. first component of DSP). Insecure attachment experiences of teachers may be related to more insensitive discipline strategies and to less close TCRs (Riley, 2009). In addition, research indicates concordance or continuity between the quality of parent–child and TCRs (Verschueren, 2015). Children with insecure parent–child attachments may hold generalized representations of adults as unreliable, which may negatively bias their interpretations of teacher behaviour, for example by interpreting a mild reprimand of the teacher as a strong personal rejection. This may in turn increase the risk for conflictual TCRs characterized by misunderstandings, distrust and detachment (Jellesma, Zee, & Koomen, 2015). Teacher sensitivity, however, could break continuity between poor relationships (Verschueren, 2015).

Implications for practice. An AP on TCRs implies a basically broad assessment approach combining explicit measures with implicit measures, aimed at understanding information exchange processes and mental relationship representations of teachers and children. In addition, the subjective nature of mental relationship representations implies that inclusion of the perspective of both relationship partners is necessary (Hughes, 2011; Zee & Koomen, 2017).

Attachment-based interventions targeting closeness and conflict in TCR take a strong interest in improving teacher sensitivity. Banking Time exists of a series of one-on-one nondirective, child-centred play sessions (Driscoll & Pianta, 2010). The role of the teacher is to observe and narrate children's feelings and emotions, to communicate relational messages of care and acceptance and limit teacher-directed practices. By following the child's lead and limiting behaviour to relational communication, information exchange processes (cf. third component of DSP) are altered and new interaction patterns may emerge that contribute to children's mental representations of basic trust and feelings of security. Playing-2-gether is an adapted and extended version of Banking Time (Vanraeyveldt et al., 2015). After the child-centred play sessions, a series of sessions focusing on teacher guidance and behavioural management follows. Teacher–Child Interaction Therapy (McIntosh, Rizza, & Bliss, 2000) also consists of both child-directed and teacher-directed sessions. In child-directed sessions, teachers are trained to describe, imitate and praise child actions. In the teacher-directed sessions, teachers are trained in effective behaviour management.

Interventions that primarily focus on changing teacher behaviour and communication may have

only limited or temporary effects when teachers have internalized negative feelings and beliefs about the child that hinder perspective taking. This hypothesis is bolstered by parent–child attachment research that suggests that it is the caregiver’s capacity for reflection on caregiver behaviour in relation to the child’s needs that contributes to secure caregiver–child relationships (Slade, 2007). In-depth reflection is necessary for teachers to understand how cognitive-affective representations of the relationship with a child influence everyday interactions and may explain teacher–child discordance. In this context, the Teacher Relationship Interview (TRI) is more than only a tool for assessment. The TRI can facilitate assessment for intervention (Pameijer, 2017) because it helps to identify what a teacher needs to be able to repair a damaged or discordant TCR. In addition, it can stimulate teacher reflection on cognitive-affective representations of the relationship in the context of teacher-directed intervention following the assessment phase (Pianta, 1999). The LLInC program (Leerkracht Leerling Interactie Coaching in Dutch or Teacher Student Interaction Coaching) is a coaching method for psychologists, consultants or coaches that is built around the TRI (previously described as the Relationship-focused Reflection Program by Spilt, Koomen, et al., 2012). The coach facilitates teacher reflection by summarizing and labelling the teacher’s narrative elicited with the TRI in more general terms, guided by scientific theory (Pianta, 1999). The method can be used both in (pre)primary and secondary education (Bosman, Zee, de Jong, & Koomen, 2021). Key2-Teach is a more extensive coaching program that combines LLInC with functional behavioural analysis, video interaction guidance and synchronous coaching (Hoogendijk et al., 2018).

Most interventions have been tested in (pre-) primary education (Kincade, Cook, & Goerdt, 2020). Intervention studies in secondary education that directly target individual TCRs are virtually nonexistent. The Establish-Maintain-Restore (EMR) method is an exception (Duong et al., 2019). In the first phase ‘Establish’ the teacher engages in individual time with the child based on the Banking Time principles. The aim of the ‘Maintain’ phase is to have a 5:1 ratio of positive to negative interactions. When the relationship is damaged, the teacher engages in restorative communication with the child in the ‘Restore’ phase.

In conclusion. In comparison to SDT, the AP provides a more differentiated picture of the affective quality of the TCR by not only assessing the positive dimension (emotional involvement or closeness) but also negative dimensions, that is conflict and dependency. Distinctions between positive and (one of more) negative aspects of TCR quality are also found in the IT and also in TCR measures that are based on social support theory (Hughes, 2011). In addition,

the conceptualization within attachment theory recognizes the dyadic nature of the TCR by including both the interpersonal behaviour and feelings of the teacher and of the child in its measurement. Moreover, attachment theory stresses the importance of understanding cognitive-affective mental representations of TCR that are automatically triggered in everyday interactions. Key antecedents of TCR quality are teacher sensitivity and reflective functioning. Almost all interventions that directly target dyadic TCRs are grounded in the AP. There is a need for research that combines explicit (e.g. questionnaires) and implicit measures (e.g. interviews, drawings), and research that addresses the relational needs and school context of adolescents (e.g. multiple teachers teaching different subjects).

Relationship building and communication of interest and care in everyday teaching

Research on what teachers actually do to build high-quality relationships with children in their everyday teaching is limited. Recently, Kincade et al. (2020) distilled the ‘common practices’ of the available universal intervention programs (school- and class-wide) that were found to significantly improve TCR. They identified 44 practices that directly or indirectly contributed to TCR quality. Direct proactive practices were intentional behaviours that communicate trust and care, for example through use of praise, coaching and validating emotions and attempts to get to personally know children, for example through objective observations and 1:1 time. Indirect practices included for example classroom management (e.g. creating a predictable and safe environment) and proactive teaching and modelling of socioemotional coping skills (e.g. modelling of respect and appropriate emotion expression). Attachment-based interventions that embrace principles of Banking Time to improve teacher sensitivity and the secure-base/safe-haven functions of the TCR (e.g. EMR and Playing-2-together) included most of the direct practices and also appeared most effective.

The UC Berkeley’s Greater Good Science Center (GGSC, 2019) developed ‘hands-on’ evidence-based activities that closely align with the direct practices identified by Kincade et al. (2020). Examples of activities are check-in/out rituals to communicate interest and care, dialogue journals to get to know children personally, positive events calendars to promote sharing and mentally send good wishes to promote empathy. Moreover, in line with theoretical claims concerning the importance of teacher reflection on (negative) emotions and caregiving behaviour, the GGSC also developed (reflective) activities addressing coping with (strong) emotions and the setting of healthy boundaries to emotionally support teachers in the process of relationship building.

Final reflections and conclusions

TCRs are important for children's academic development and psychological wellbeing. This appears particularly true for vulnerable children with developmental or learning problems. Yet, the most vulnerable children often have a poor relationship with their teacher, which exacerbates initial risks and problems. To date, there are multiple interventions to improve TCRs. Most of these interventions focus on teachers' contributions to the TCR, acknowledging the responsibility of teachers as 'agents of change' in the school context. By promoting high-quality TCRs, these interventions foster protective social mechanisms in children's natural environments that contribute to children's resilience and engagement in everyday classroom life. Best practices of these interventions can be implemented by teachers in their everyday teaching. This investment in the TCR as a protective social mechanism aligns with the recent eco- or multi-systemic conceptualization of resilience from a systems perspective rather than a child-focused perspective (Twumantwi, Jefferies, & Ungar, 2020). The eco-perspective on resilience signifies that the 'single most important factor is a strong relationship with at least one adult' and that 'this rests on the wellbeing' of the adult (Matsopoulos & Luthar, 2020, p.75). This implies that intervention models targeting TCRs should pay sufficient attention to the wellbeing of the

teacher as well. A review of the effects of dyadic TCRs on teachers' psychological and professional wellbeing is beyond the scope of this article. Yet, there is accumulating evidence that conflictual TCRs can have a profound impact on teacher stress and wellbeing (Evans, Butterworth, & Law, 2019; Spilt, Koomen, & Thijs, 2011). Caring for TCRs thus also implies caring for teachers and recognizing teachers' internal struggles and needs in order to provide the necessary support to teachers. Dyad-focused interventions that start from the teacher's perspective have been found not only to restore conflictual TCRs but also to improve teacher self-efficacy and reduce emotional exhaustion (Bosman et al., 2021; Hoogendijk et al., 2018). A focus on TCRs thus benefits both children and teachers for the good of all.

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Key points

- Consider child emotional and behavioural problems from a transactional-relational perspective.
- Use best practices from intervention programs to build high-quality TCR in everyday teaching.
- Employ a multi-informant perspective on TCRs including the perspectives of the teacher and the child as insiders in the relationship.
- Combine explicit measures (questionnaires) with implicit measures (e.g. narrative interviews) to facilitate assessment for intervention.
- Focus assessment and intervention on multiple components of the dyadic systems model or make a well-argued choice for one of the four components.
- Consider teachers as primary agents for breaking vicious cycles of behavioural and relationship problems (but not as primary causes of relationship problems).
- Guided reflection is an important component of successful interventions.

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