

# Chapter 1

## General introduction



## Introduction

These days, parenting support is a hot topic in the Netherlands. Television programs concerning parenting interventions, such as “The Nanny”, are broadcasted on a regular basis, the Dutch government invests extensively in parenting and family support programs (e.g., “Opvoedimpuls” in 2004-2008, by the Ministry of Health, Welfare, and Sport and the Ministry of Justice, 2005), and the number of implemented preventive interventions is rapidly growing (see e.g., Prinsen & De Vries, 2005). Dutch society clearly acknowledges the facts that young children may show difficult behaviors, that parenting can be a difficult job, and that parents should be supported in fulfilling this task if necessary. Not only in the Netherlands there is a growing attention for parenting support, the acknowledgement that prevention programs are a sound investment in society’s future is an international phenomenon (see e.g., Conroy, Hendrickson, & Hester, 2004; Weissberg, Kumpfer, & Seligman, 2003). However, both on a scientific level and from the view of field practitioners, several questions concerning the quality and effectiveness of parenting support programs remain to be answered. For example, Hinshaw (2002) indicates that the theoretical and conceptual foundations of treatments are often questionable, whereas Kendziora (2004) states that “too much work has focused on developing new programs at the expense of disseminating effective interventions” (p. 342).

Field practitioners are often enthusiastic about intervention programs. When implementing the programs, they meet parents who are happy with the support they are receiving for their problems and they may see progress in the child. In other words, they “feel” the intervention is having positive effects. Nevertheless, many intervention programs have not been studied for their effects, and intervention studies often suffer from methodological flaws. Bakermans-Kranenburg, Van IJzendoorn, and Juffer (2003) describe the ideal intervention study as consisting of large samples, a random group assignment, a dummy-intervention for the control group, a pretest to detect possible randomization failures, and a longitudinal design to test for long-term effects. The intervention itself should have a clear focus, should be carefully described in a protocol, and implementation and evaluation of the intervention should be independent. Moreover, research should not only focus on *whether* interventions work, but also on *what kind* of interventions and *which elements* of an intervention work for specifically *which type of children* and *what specific outcomes* are affected (Bakermans-Kranenburg et al., 2003; Campbell, 2002; Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2005a; Kendziora, 2004).

Although interventions in early childhood often aim at enhancing parental sensitivity (see Bakermans-Kranenburg et al., 2003), there is a lack of comprehensive treatment for preschoolers with behavior problems (Campbell, 2002). Intervention efforts regarding behavior problems have traditionally targeted children at school age or in adolescence. In research practices, however, the prevalence and clinical relevance of behavior problems in early childhood, such as non-compliance, temper tantrums, and aggression (labeled as externalizing problems), is now widely recognized; especially with respect to early prevention efforts (Conroy et al., 2004; Kendziora, 2004).

In short, there is a need for systematically developed, preventive interventions of early externalizing problems, with a strong theoretical foundation and an evidence based evaluation of potential intervention effects.

## Externalizing problems: A developmental psychopathology perspective

A growing number of studies have shown that externalizing problems, such as oppositional and aggressive behavior, increase the risk for future maladaptation, for example social and academic difficulties (for an overview, see Campbell, Shaw, & Gilliom, 2000). In order to develop focused preventive interventions, it should be investigated why some children develop normally, whereas others show these maladaptive developmental pathways. The developmental psychopathology perspective, defined by Sroufe and Rutter (1984) as “the study of the origins and course of individual patterns of behavioral maladaptation” (p. 18), focuses on determinants of individual differences in development. It considers continuity and change in the context of development, taking into account a broad range of biological, psychological, and social factors (Rutter & Sroufe, 2000; Sroufe, 1997; Sroufe & Rutter, 1984). According to this view, development is organized around a series of salient developmental issues a child must acquire (Sroufe, 1979; Sroufe & Rutter, 1984). Individual patterns of adaptation to those issues are crucial in the development of psychopathology. The developmental psychopathology perspective emphasizes the transaction between prior adaptation, maturational change, and subsequent developmental challenges. There is a constant transformation and reorganization of behavior in a developing child who is interacting with its environment. Moreover, in the developmental psychopathology perspective, the child and the environment are considered inseparable (Rutter & Sroufe, 2000; Sroufe, 1997; Sroufe & Rutter, 1984).

In the same vein, transactional models (e.g., Sameroff & Chandler, 1975) underline the multidirectional influences between the child and its caregiving environment. Campbell (2002) argues that it is the synergy among both risk and protective factors in the child and the environment that determines future child outcomes, such as the development of externalizing problems. Important to the intervention field is the fact that disorders are not regarded as arising from a singular, endogenous pathogen. The branching pathways model implies plasticity of the individual and the possibility of environmental manipulations in the treatment of externalizing problems (Sroufe, 1997).

Until relatively recently, externalizing problems in early childhood were often considered to be clinically irrelevant, as these problems were thought to be age-appropriate and transient. Indeed, certain externalizing behaviors are very common in preschool children (Achenbach & Rescorla, 2000; Koot & Verhulst, 1991). For example, Koot and Verhulst (1991) report that the prevalence (i.e., presence, irrespective of degree) in the Dutch general population of children aged 2 to 3 years is 78% for disobedience, 69% for angry moods, and 53% for temper tantrums. The first few years of life, which include the transition from infancy to preschool age, are an especially challenging period. The child experiences rapid developmental advances in cognitive, language, and motor skills. In combination with a growing need for autonomy and strive for independence, the new developmental accomplishments underlie the characteristically challenging and disruptive behaviors of preschoolers (Campbell, 2002). In most children, externalizing behaviors decline at school age (Achenbach & Rescorla, 2000; Tremblay et al., 1999), but not all children overcome their behavioral difficulties. Children who show high levels of multiple externalizing behaviors are at risk for a variety of problems in later childhood (Campbell et al., 2000; Mesman & Koot, 2001). Longitudinal studies have shown that the stability of externalizing problems is relatively high from the preschool period to school age and adolescence. Despite the overall decline in the *level* of behavior problems, children tend to maintain their rank order (Campbell, 1995). In addition, early externalizing problems are predictive of a range of negative child outcomes, including social, personal, and academic difficulties, delinquent behaviors, co-occurrence of internalizing problems, depression, and other forms of psychopathology (for an overview, see Campbell, 1995, 2002). Without intervention, early externalizing problems can become a lifelong concern (Kendziora, 2004).

As successful treatment of externalizing problems in school-aged children and adolescents becomes increasingly difficult (Kendziora, 2004), it is important to

examine from what age externalizing problems can be reliably assessed. Several studies have provided evidence that externalizing problems exist in children as young as 18-month-olds (e.g., Achenbach & Rescorla, 2000; Briggs-Gowan, Carter, Skuban, & Horwitz, 2001; Mathiesen & Sanson, 2000; Tremblay et al., 2004), and recent evidence even points to the existence of externalizing problem behaviors in children as young as 12 months old (Carter, Briggs-Gowan, Jones, & Little, 2003; Tremblay et al., 1999). Intervention at the earliest age may be most effective and may prevent harm to children, parents, teachers, and society at its earliest stage.

## Parenting and the development of child externalizing problems

One of the most proximal environmental factors related to externalizing problems in early childhood is parenting behavior. There is substantial evidence that a negative parent-child relationship predicts child externalizing problems (see e.g., Campbell, 1995, 2002; Rothbaum & Weisz, 1994). Adequate parenting behavior takes a central place in child development by supporting children in mastering their developmental issues, whereas maladaptive parenting strategies negatively influence child development. Moreover, emerging behavior problems are more likely to persist and even worsen over time in the context of a negative family climate, including negative parenting styles (Campbell, 1995, 2002).

As child development involves specific developmental issues, Sroufe (1979) also describes which caregiving behaviors are required at each developmental stage. Salient parenting issues during early childhood center around sensitive responsiveness and parental discipline practices (Rothbaum & Weisz, 1994; Sroufe, 1979). Two theoretical frameworks that are especially relevant to these parenting issues are attachment theory and social learning theory. Both theories describe parental contributions to the development of externalizing problems and explicitly include developmental and transactional features (Shaw & Bell, 1993).

### *Attachment theory*

Attachment theory (Bowlby, 1969) states that for evolutionary reasons all infants become attached to their primary caregiver(s). By showing attachment behaviors, such as crying and clinging, a child promotes and maintains proximity to its caregivers, who are the major source of comfort, protection, and support for the child in times of stress and fatigue. Attachment figures also provide the child with a secure base from which to explore the environment, by giving the child a

basic sense of security and trust. The degree to which the caregiver is available and sensitively responsive to the child's signals determines the quality of the attachment relationship (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969). Sensitive responsiveness comprehends the ability to accurately perceive children's attachment signals, and to respond to these signals in an adequate and prompt way (Ainsworth, Bell, & Stayton, 1974). Whereas secure attachment relationships are associated with positive child outcomes (e.g., Sroufe, Egeland, Carlson, & Collins, 2005), an insecure attachment relationship is predictive of less optimal child development (Greenberg, 1999). A number of empirical studies have shown that insecure attachment and parental insensitivity or unresponsiveness are both related to child externalizing problems (e.g., Denham et al., 2000; Greenberg, Speltz, DeKlyen, & Endriga, 1991; Olson, Bates, Sandy, & Lanthier, 2000; Shaw, Owens, Giovanelli, & Winslow, 2001).

Attachment theory suggests several processes associated with the development of externalizing problems (DeKlyen & Speltz, 2001). First, externalizing behaviors can be regarded as attachment strategies to gain attention and proximity to attachment figures that are unresponsive to other signals. In the short term, these behaviors may seem adaptive; however, in the long term they may contribute to the development of negative interaction processes and increase the likelihood of future maladaptive behaviors or externalizing problems. Second, externalizing behaviors may emerge because of the negative expectations an insecurely attached child holds regarding social interactions. Internal working models (i.e., representational models constructed from interaction patterns with attachment figures) serve to interpret and predict other people's behavior and to regulate the child's own behavior. As the internal working models affect perception, cognition, and motivation, they shape the way social situations will be approached (Bretherthon & Munholland, 1999). Hostile attributional biases, such as mistrust, anger, and anxiety, may predispose an insecurely attached child to the expression of externalizing behaviors. Related concepts include motivational processes and emotion regulation; once more, the quality of the attachment relationship determines how the child behaves in social interactions and whether externalizing behaviors will be displayed.

### *Social learning theory*

Social learning models also describe how parenting behaviors influence children's behavior. Patterson's coercion theory (Patterson, 1976, 1982), based on social learning principles, states that a combination of coercive child behavior

and ineffective parental discipline skills set the stage for maladaptive child development. According to social learning principles, reinforcement processes determine whether behaviors will persist and increase over time or whether they will decrease or even fade away. From this perspective, behaviors will continue when they have been proven to be effective. In coercion theory, this principle is specified in the context of coercive interaction cycles: externalizing behaviors will be displayed when they have been successful in forcing others to give up unwelcome demands or requests, or in obtaining what was wanted in the first place. It is the reinforcement of these negative child behaviors as well as the lack of reinforcement of positive behaviors that contribute to the development of child externalizing problems. Similar to what has been described from the attachment perspective, both child and parental behaviors may seem effective in the short term, i.e. conflict situations are terminated. However, both the child and the parent are reinforced in their (maladaptive) behaviors, which sets the stage for coercive interaction patterns with more frequent escalations and the persistence of child externalizing problems. Several studies have demonstrated the relevance of reinforcement processes in the development and continuity of externalizing problems, but generally in school-aged children only (e.g., Patterson, 1982; Prinzie et al., 2003; Snyder, Cramer, Afank, & Patterson, 2005).

In sum, both attachment and coercion theory provide a strong theoretical and empirical foundation to preventive intervention efforts aimed at reducing early externalizing problems, as well as concrete indications of which parenting behaviors should be targeted. Both theories emphasize the importance of contingent and non-aversive parent-child interactions in the prevention of externalizing problems (Patterson, 1982; Rothbaum & Weisz, 1994). From the point of view of attachment theory, intervention efforts should target parental insensitivity in daily parent-child interactions, whereas according to coercion theory the main intervention target variables are coercive and inconsistent parental discipline tactics in conflict situations. As Campbell (2002) summarized: "A warm and supportive parent-child relationship, paired with firm, reasonable, consistent, and flexible childrearing practices, and a generally positive emotional climate in the home are seen as particularly important factors that facilitate optimal child development, especially when young children are irritable and demanding" (p. 276).

## Child temperament and the development of externalizing problems

Although children's development is embedded within their caregiving relationships, children are also active participants in their own experiences (Sroufe, 1979). Child temperament, generally defined as constitutionally-based individual differences in behavioral style, directly impacts on the child's development by predisposing the child to a certain, related developmental outcome (Goldsmith et al., 1987; Rothbart & Bates, 1998). For example, negative emotionality or a difficult temperament has been demonstrated to represent a predisposition for angry and aggressive behaviors (Sanson, Hemphill, & Smart, 2004). Also, some researchers have adopted the view that temperament extremes, for example extreme resistance to control, are equal to psychopathology (Bates, 1990; Rothbart & Bates, 1998). In that case, temperamental behaviors not only predispose children to the development of behavior problems, but become part of the problems. In addition to these direct influences on maladaptive outcomes, temperament is known for shaping children's environmental experiences; either through indirect processes, for instance by eliciting certain parenting behaviors, or through temperament-by-environment interactions, by heightening response strategies or buffering against risk factors (Rothbart & Bates, 1998).

It was Belsky (1997a, 1997b, 2005) who formulated a differential susceptibility theory, regarding the moderating effect of child temperament on the association between environmental influences and child outcomes. He argued that it makes evolutionary sense that some children are more susceptible to environmental influences than others. In a changing environment and an uncertain future, a diversification of investments (i.e., "fixed" versus "plastic" types of children) will reduce risk and maximize gain in the passing on of parental genes. Although some children may show mainly genotypically determined externalizing problems, environmentally reactive children mainly show externalizing behavior problems because of their rearing conditions. Belsky (1997b) speculates that negatively emotional children and children with difficult temperaments are most susceptible to rearing influences. If Belsky's theoretical assumptions would be proven to be true, intervention efforts should be especially targeted at parents of temperamentally difficult children, since these children will be especially vulnerable to maladaptive caregiving. In fact, Blair (2002) showed that an early intervention in low birth-weight, preterm infants was successful in changing the level of externalizing problems only among negatively emotional children, and she pleads for further

attention to child temperament in early intervention research. The present thesis presents the effectiveness of an early intervention of externalizing problems, taking into account the influences of child temperament.

## The SCRIPT study

The Dutch SCRIPT study (Screening and Intervention of Problem behavior in Toddlerhood) aims at the early detection and intervention of externalizing problems in early childhood, with the purpose of preventing antisocial behaviors and its many serious consequences in childhood and adolescence (Mesman et al., in press; Van IJzendoorn & Juffer, 2000; Van Zeijl, Stolk, & Alink, 2005). The study investigates the effectiveness of an early intervention program (Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline: VIPP-SD) aimed at reducing externalizing problems in 1- to 3-year-old children by enhancing parental sensitivity and adequate discipline strategies. It consists of a screening phase in a general population sample and a randomized case-control intervention

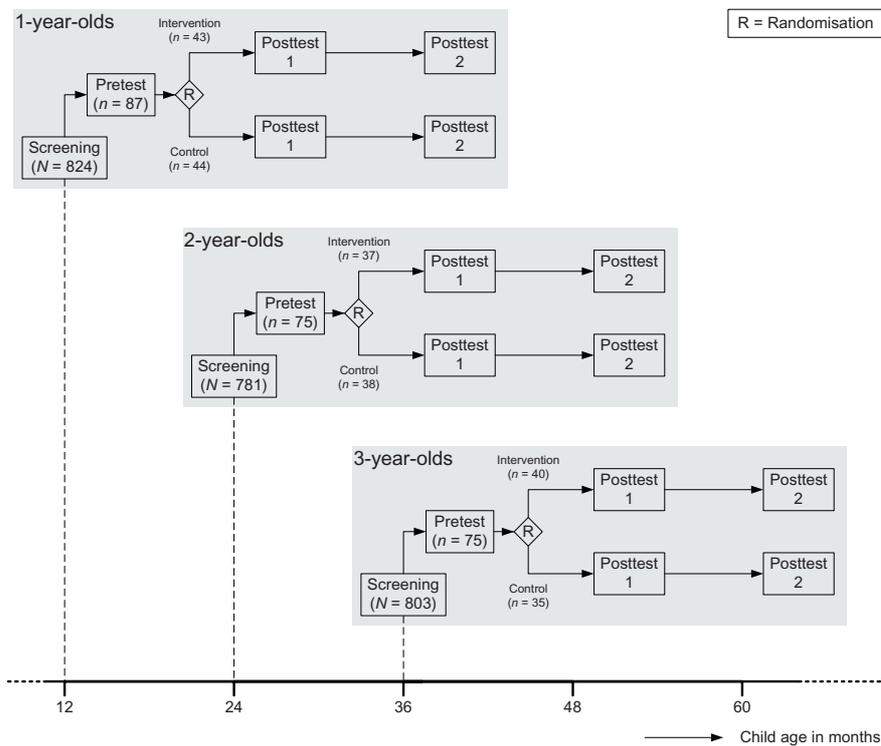


Figure 1.1: Design of the SCRIPT study (see Van IJzendoorn & Juffer, 2000)

phase in a selected subsample of children with high levels of externalizing behavior problems (see Figure 1.1, on page 18). To obtain a sample of 1-, 2-, and 3-year-old children showing externalizing problems, a general population screening was conducted using the Child Behavior Checklist for children aged 1½-5 years (CBCL/1½-5; Achenbach & Rescorla, 2000). Children with scores above the 75<sup>th</sup> percentile on the CBCL syndrome Externalizing Problems were selected and invited for a pretest in the laboratory. After the pretest, families were randomly assigned to either an intervention or a control group. Approximately one and two years after the pretest, families from both the intervention and control group visited the laboratory for a posttest. The SCRIPT study was specifically designed on the basis of current knowledge regarding early externalizing problems and intervention studies.

### *Aims of the study*

The general aims of the SCRIPT study are (a) to test the effectiveness of the VIPP-SD intervention on parental sensitivity and discipline; (b) to test whether the enhancement of parental sensitivity and discipline abilities leads to a decrease in child externalizing problems and an increase in empathic concern; (c) to investigate whether earlier preventive interventions are more effective than interventions at preschool age; and (d) to study the development of externalizing problems from age 12 to 60 months. In this thesis the following specific research questions are addressed:

1. Can externalizing problems be assessed in children as young as 1 year old?
2. Is child temperament a moderator of the association between parenting behaviors and externalizing problems in children aged 1 to 3 years?
3. Is the VIPP-SD intervention effective in enhancing parental sensitivity and adequate discipline strategies and in decreasing the level of externalizing problems in children aged 1 to 3 years?

### Outline of the present thesis

*Chapter 2* focuses on the assessment of externalizing problems in infancy and presents the occurrence, cross-informant agreement, 1-year stability, and context characteristics of externalizing behaviors in 1-year-old children, as compared to 2- and 3-year-olds. In *Chapter 3* Belsky's differential susceptibility theory is empirically

tested by examining the interaction of child temperament and maternal discipline strategies in the prediction of externalizing problems in 1- to 3-year-old children. *Chapter 4* describes the effectiveness of the VIPP-SD intervention program on both parental attitudes and behaviors regarding sensitivity and discipline as well as on child externalizing problems. The influences on possible intervention effects of child age (1 to 3 years) and child temperament were also investigated. Finally, in *Chapter 5*, the main findings regarding our research questions are integrated and discussed.