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Stimulating parents' self-efficacy beliefs or verbal responsiveness: Which is the best way to decrease children's externalizing behaviors?

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ABSTRACT

This research aimed at determining which of two types of parenting variable, self-efficacy beliefs and verbal responsiveness, cause significant decreases in preschoolers' externalizing behavior – in particular motor activity, non compliance, irritability, aggressiveness and inattention – and to what extent. Two micro-trials were used to achieve this goal. The 45 parents participating were randomly assigned to an 8-week waiting list followed by an 8-week intervention condition focusing on self-efficacy stimulation, or to an 8-week intervention condition focusing on verbal responsiveness stimulation. It can be concluded from the results that the two manipulations were effective in decreasing aggressive behavior and non compliance. However, the improvement of self-efficacy beliefs has an effect on children's externalizing behavior across a slightly larger spectrum than the enhancement of verbal responsiveness since it was also effective in reducing irritability. Neither of the two manipulations resulted in a decrease of attention problems or motor activity. The results are discussed for their research and clinical implications.

Numerous types of intervention aim at reducing preschoolers' externalizing behaviors, including motor overactivity, non compliance, irritability, aggressiveness and inattention (Bongers, Koot, van der Ende, & Verhulst, 2004; Bornstein, Hahn, & Haynes, 2010; Hudziak, Copeland, Stanger, & Wadsworth, 2004). A large proportion of these interventions are oriented towards the parents rather than working directly with the target child. The rationale for working with parents is based on models such as the Social Learning Theory, in which EB[1] is related to problematic parenting (Dishion, French, & Patterson, 1995; Patterson, 1982, 2002; Patterson, DeBaryshe, & Ramsey, 1989; Snyder, Reid, & Patterson, 2003). In particular, negative cycles of interaction have been described in which EB may be more likely to emerge or persist when parents use inconsistent and overreactive discipline that reinforces children's problematic behavior. In these negative cycles, parenting externalized children is often described by parents as challenging and less rewarding than with other children, leading to lower levels of satisfaction or self-efficacy beliefs as well as to more negative parenting (Coleman & Karraker, 2003).

This parenting model has received considerable empirical support. First, longitudinal associations between parenting variables and children's behavioral outcomes have been demonstrated. Second, studies have shown the effects of parenting interventions on children's behavioral outcomes. Many of these come from an evidence-based framework (Briesmeister & Schaefer, 2007). They consistently demonstrate that working on parenting variables is beneficial in lowering the level of EB in children (Bodenmann, Cina, Ledermann, & Sanders, 2008; Gordon & Kogan, 1975; Kaminski, Valle, Filene, & Boyle, 2008; Scott et al., 2012; Turner, Sanders, & Lutzker, 2006). They show that parenting can be a powerful way to reduce child's EB, not because it causes it but primarily because parents are in the best position to induce and maintain a positive change for their child.

These studies support the validity of models considering parenting intervention as an appropriate treatment of children's behavioral problems. However they are unable to inform us about the parenting variables that specifically impact on EB. In the programs based on such studies, several parenting variables are usually manipulated together. The package usually encompasses cognitive aspects of parenting such as self-efficacy beliefs or stress, as well as behavioral ones such as a wide range of childrearing practices and sometimes even contextual aspects of parenting such as marital or sibling relationships, coparenting, and social support.

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[1] Externalizing behavior.

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For example, in the Triple-P, i.e. Positive Parenting Program, several core parenting skills are stimulated, such as giving praise or showing attention to the child (behavioral aspects of parenting), managing parenting stress (cognitive aspects of parenting), or supporting each other in the mother–father relationship (contextual aspects of parenting) (Bodenmann et al., 2008; Sanders & Markie-Dadds, 1996). With our present knowledge, it remains almost impossible to identify exactly what the parent programs stimulated in participants as well as to disentangle the specific effect of each of these parenting variables on behavioral issues in children. This is the problem with multimodal interventions, which prevent us from determining which components are responsible for change (Eisenberg, Champion, & Ma, 2004). The main goal of the current study is therefore to determine which parenting variable causes which effect in reducing EB. It is not only relevant for research but also from a clinical perspective, as it may provide useful information for selecting the most effective parenting variables to be manipulated in programs in order to improve their cost-benefit ratio.

Achieving such goal requires new research methods. Micro-trials provide a good opportunity to attain them (Leijten et al., 2015). They are defined as "randomized experiments testing the effects of relatively brief and focused environmental manipulations designed to suppress specific risk mechanisms or enhance specific protective mechanisms, but not to bring about full treatment or prevention effects in distal outcomes" (Howe, Beach, & Brody, 2010). Such a focused manipulation offers the opportunity to isolate a variable and disentangle its impact from that of covariates. In this way, they help distinguish between the less and more efficacious elements of parenting interventions, ascertain for whom and in what conditions these elements are the most efficacious and explore the potentialities of tailoring interventions to families' needs (Leijten et al., 2015).

Few micro-trials are described in the parenting literature. However, several recent examples provide evidence of the relevance of this quasi-experimental method. For example, the improvement of mothers' self-efficacy through the false feedback technique in laboratory sessions was found to have an immediate effect not only on parenting behavior but also on children's behavior (Mouton & Roskam, 2014). These findings are the first to convincingly point to a causal effect of the manipulation of the mothers' self-efficacy beliefs on children's behavioral outcomes. A complementary micro-trial compared the effect of positive versus negative feedback on parents (Cassé, Oosterman, & Schuengel, 2015) using a cry interpretation task. Results showed that positive persuasion led to higher parenting self-efficacy than negative persuasion, but could undermine its long-term resilience. In another piece of recent research, increasing parents' verbal responsiveness in a one-session intervention was found to lead to better balance in parent/child turn-taking (Brassart & Schelstraete, 2015). Along the same lines, the current study is based on a comparison between two micro-trials in which parenting variables which had previously been related to children's EB were manipulated. In the first micro-trial, parents' self-efficacy beliefs were stimulated; in the second, parents' verbal responsiveness was enhanced.

For the first micro-trial, parents' self-efficacy beliefs were defined as parents' self-perceived competence in their role covering the beliefs, thoughts, values and expectations which are activated when one is in charge of a child's upbringing (Coleman & Karraker, 2003). This concept plays a very central role in parenting, since both indirect and direct relationships have been documented between self-efficacy beliefs and child behavior. With regard to their indirect effect, parental beliefs are mainly thought to encourage the use of specific parenting behaviors. Strong associations have been identified between high self-efficacy beliefs and high parental support or low negative control (Jones & Prinz, 2005; Leerkes & Crockenberg, 2002; Meunier, Roskam, & Browne, 2011). Research has suggested that the possession of a sense of personal competence can be a critical buffer against adversity, enabling parents to cope effectively even with 'hard to manage' children (Meunier et al., 2011; Mouton & Roskam, 2014; Sofronoff & Farbotko, 2002). Parenting behaviors have therefore been seen to mediate the influence of self-efficacy beliefs on children's behavioral adaptation. High levels of positive beliefs have been found to predict supportive behaviors in parents, which in turn encourage children's adjustment, while conversely low levels of positive beliefs tend to promote EB by increasing the use of controlling behavior (Brody, Flor, & Gibson, 1999; Shumow & Lomax, 2002; Zimmer-Gembeck & Thomas, 2010). In addition to such indirect influence, parental self-efficacy has been directly related to better adjustment in children of all ages (Ardelt & Eccles, 2001; Coleman, 2003; Jones & Prinz, 2005). Strong empirical evidence has been provided for concurrent and longitudinal associations between high self-efficacy beliefs and children's behavioral adjustment, or conversely for low self-efficacy beliefs and EB (Janssens, 1994; Jones & Prinz, 2005; Junttila, Vauras, & Laakkonen, 2007; Mouton & Tuma, 1988; Oelofsen & Richardson, 2006). Highly confident parents are likely to be more secure when interacting with their child, so that they enjoy the interaction more, are reaffirmed in their relationship and seek to spend frequent quality time together.

For the second micro-trial, the literature has shown that a higher level of EB is frequently associated with poor communication skills (Gallagher, 1999; Monopoli & Kingston, 2012; Van Schendel, Schelstraete, & Roskam, 2013). First, poor communication skills can cause behavioral problems, as difficulties in both understanding and producing verbal responses appropriate to the social context may lead to non-compliance and aggressiveness (Kaiser, Hancock, Cai, Foster, & Hester, 2000). Second, behavioral difficulties can contribute to language problems, since children displaying such problems may be socially isolated and lack opportunities to practice their communicative abilities. Moreover, parents' verbal responsiveness has been shown to predict early language learning (Hart & Risley, 1995; Pungello, Iruka, Dotterer, Mills-Koonce, & Reznick, 2009; Vernon-Feagans & Bratsch-Hines, 2013). Verbal responsiveness includes the importance of responding promptly, contingently and appropriately to the child's communication attempts: modeling of language use, labeling the environment, encouraging the child's communication attempts and creating an interactive environment in which children can experiment with language (Tamis-LeMonda, Bornstein, & Baumwell, 2001). The literature has highlighted the effectiveness of parent-based responsive language interventions, aiming to increase the caregiver's verbal responsiveness, on children with language or behavioral problems (Hancock, Kaiser, & Delaney, 2002). In these programs, parents learn to apply strategies during their daily routine with their child, aiming at being responsive and sensitive to the child's behavior at a level appropriate to his/her development. Such strategies often consist of following the child's lead, maintaining face-to-face interactions, balancing turn-taking, adapting vocabulary and grammatical structures to the child or using language modeling strategies. Previous research has shown that these interventions increase parents' verbal responsiveness, children's language development, initiative and engagement, and frequency of play (Kong & Carta, 2013; Roberts & Kaiser, 2011). For example, Kim and Mahoney (2004) demonstrated that mothers' responsiveness was associated with children's active engagement in a task. In addition, recent studies suggest that verbal responsiveness facilitates children's emotional behavior (including positive and negative affect) and cognitive outcomes (Landry, Smith, & Swank,