Parenting support in community settings: parental needs and effectiveness of the home-start program
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2 Methodological Considerations

In the present chapter, some methodological considerations will be discussed. First, several methodological designs will be described, which are being used in evaluation research. Next, we will discuss what information sources have been used in the present studies. Finally, the theoretical background of the Home-Start intervention will be introduced and alongside, we will introduce some of the constructs that we have examined.

2.1 Designs in evaluation research

Several research designs have been used in order to evaluate the effectiveness of parenting support programs. First, there are non-experimental designs. The most important characteristic of a non-experimental design is that there is no control or comparison group. The disadvantage of non-experimental designs is that they do not allow us to determine whether changes are attributable to the intervention or to some other reason. Two non-experimental designs are: post-test only (cross-sectional) and pre-test/ post-test designs. The post-test only design is has many disadvantages and is therefore rarely used, for example, they do not allow us to draw conclusions regarding causality. An example of a post-test only study is the Home-Start program evaluation carried out by Van Dijke and Terpstra (1998). In a pre-test- post-test design, on the other hand, measurements take place before and after the intervention in an intervention group only - no comparison group is used. The pre-test-post-test design has for example been used in Frost et al.'s (Frost et al., 1996, 2000) evaluation of the Home-Start program.

A second design that is used to evaluate parenting support programs is the quasi-experimental design. In quasi experiments, there is a comparison group, however, the participants are not randomly allocated to treatment or comparison condition. An important problem with this approach is that one can never be sure that the intervention group is equivalent to the comparison group, because the two samples might be drawn from different populations. One can try to reduce this risk by matching participants at pre-test, so that the pre-test scores are equal.
The third design to be used in evaluation trials is the experimental design. In the experimental design, participants are randomly allocated to the program or to control conditions, or to different intervention conditions. Experimental designs with randomized controlled trials (RCTs) are considered the gold standard in evaluation research, because they reduce a number of threats to validity. Random assignment is supposed to result in equal groups at pre-test, and, therefore, possible intervention effects can be attributed to the program (Clingempeel & Henggeler, 2003). However, even this gold standard has its disadvantages. Whenever small sample sizes are used, there is a risk that there are still group differences at pre-test (Cook & Campbell, 1979). Another, even larger, problem is that it is often considered unethical to withhold treatment from families. This is especially problematic in evaluations of parenting support programs that are already broadly applied (Lipsey & Cordray, 2000). Some authors even object to randomized controlled trials (RCTs). They claim that RCTs operate from a restricted view of causality and predictability, and show unrealistic reductionism (Morrison, 2001). They emphasize the impossibility of keeping critical variables, which are supposed to be equal for both groups constant. RCTs ignore important contextual characteristics, which may be influential. Others stress the selection bias of families willing to participate in treatment and those willing to accept whatever condition they will be allocated in (Seligman, 1995).

In the current study, we used a quasi-experimental design with a matched comparison group. Since this study examined a practice-based, already-existing program, it was impossible, for practical reasons such as the duration of the program and the different moments of enrolment of families in the program, to withhold treatment from families, when they had already decided to participate. Additionally, in our case, the program coordinators considered it to be unethical to withhold treatment from families.

Nathan, Stuart and Dolan (2000) described the debate between efficacy and effectiveness studies. Research that focuses on the measurable effect of specific interventions is labelled efficacy research in this context. In efficacy research, Randomized Controlled Trials (RCTs) are the preferred research design, because replication and internal validity are main concerns. On the other hand, there is effectiveness research, in which clinical practice, rather than research design dictate the research method to be used. Effectiveness studies aim to determine whether treatments can have measurable, beneficial effects across broad
populations in real world settings. Nathan, Stuart, and Dolan (2000) conclude that efficacy studies, using RCTs have greater internal validity, and are easy to replicate, whereas effectiveness studies reflect more real life situations and allow for generalization of findings. Conclusion was that optimum results could be gained by using a combination of the two approaches (Nathan, Stuart, & Dolan, 2000). We attempted to use such a mixture, by selecting a comparison group with equal amounts of parenting stress and with, in addition, need for parenting support recruited in a region where Home-Start had not yet been set up. The present study can therefore be described as an effectiveness study.

### 2.2 Sources of information

The next decision to be made in the design of a program evaluation is the selection of the source of information. There are several options: the participating family, program providers, or (preschool) teachers. The use of multiple information sources is desirable. In the current study we chose to focus on the mothers of the participating families. Although we were aware of the fact that parenting support as provided by Home-Start might affect the entire family and not just the mothers, fathers were left out. The first reason for this decision was that Home-Start is aimed at mothers (and indeed mainly mothers participate), especially single mothers (in the current study, 43% were single). The second reason was that mothers perceive parenting over preschool children as more difficult than fathers. Whipple and Webster-Stratton (1991) found that mothers reported more stress, depression, anxiety and child behavior problems than fathers. We therefore also expected the effectiveness to be largest for mothers. Alongside, for families who have difficulties with parenting, participation of one person in this study was considered to be enough of a burden for the family. We were afraid that the requirement of participation for both parents would lead to a significant lower number of referrals to the study.

The following issues concern the methods used to collect data. Previous evaluations of the Home-Start program have often used questionnaires or interviews (Frost et al., 2000; Hermanns et al., 1997; McAuley et al., 2004). Standardized questionnaires are considered to be reliable and valid measures of various aspects of perceptions of behavior and well-being of parents and children.
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As mentioned before, they do provide useful and relevant information concerning many topics. For example, perceived maternal competence can only be assessed by using a questionnaire, because it concerns the perception of the mother of herself. Information on how mothers experience themselves and their children is important and relevant, because this will largely guide their behavior. However, there are several disadvantages to the use of questionnaires. The first disadvantage concerns the risk that they mainly assess clients’ satisfaction with the program, or their perception regarding parenting practices, rather than actual behavior changes. Another disadvantage has been identified by the broad line of research that suggests that maternal reports of child behavior reflect more about the mothers’ own well-being than about the actual levels of child behavior problems. Depressed mothers, especially, tend to rate their child’s behavior as more disturbing than independent raters do (Breslau, Davis, & Parabucki, 1987; Youngstrom, Izard, & Ackerman, 1999). In order to avoid bias in outcome measures, we used both self-report and observational data to evaluate the effects of the intervention.

A final source of information were the volunteers of the Home-Star t program. In order to obtain information about the Home-Star t program we asked both mothers (using questionnaires and a semi-structured interview) and volunteers (using a questionnaire) to report on how the program was carried out.

2.3 Constructs

In the next section, we will examine the theoretical foundations of the Home-Star t program in relation to the constructs we assessed. In chapter 1 we discussed how various developmental perspectives have influenced the development of early intervention systems (e.g., Bronfenbrenner & Ceci, 1994; Sameroff, 1987; Sameroff & Fiese, 2000, Belsky, 1984). Since then, numerous variations of intervention models have been proposed, (e.g., Olds, Kitzman, Cole, & Robinson, 1997; Ramey & Landesman Ramey, 1998; Van Doesum, Hosman, & Riksen Walraven, 2005). In Figure 1.1, we present a model in which the possible relationships between parental characteristics, parenting behavior, and child behavior are presented, in relation to the possible paths of influence of Home-Star t.
The general idea is that when elements in family systems change (e.g., parental well-being, parenting behavior, or child behavior), this will have consequences for all other elements. An assumption of most parenting support programs is that, by supporting parents, child development will be stimulated and child behavior problems will be prevented. The intervention model presented here, suggests that the development of behavior problems is a consequence of the interplay of child characteristics and parenting behavior, which is influenced by parental characteristics. Parental characteristics, in turn, are influenced by family characteristics, such as parental well-being, social-economical status, number of life events, or amount of social support present in the family. Familial characteristics can also directly influence child characteristics. Each of the separate aspects of this model interacts with other aspects. In terms of Sameroff and Fiese (2000), there can be risk and protective factors present on the level of the child, on the level of the parent, or on familial level. In interaction with each other, they define child development.

Figure 2.1 Working model of Home-Start intervention

*The model presented here is not exhaustive and insufficient as a model to explain child or family development. The model presented here is an intervention working model exclusively meant to explain the hypothesized working of the Home-Start intervention.*
In the current study, we examine the Home-Start parenting support program from this perspective. According to the developers of Home-Start, Home-Start influences maternal well-being, which is supposed to result in a decrease of negative parenting behaviors, which, in turn, will eventually result in a reduction of child behavior problems. This chain of events is depicted by the dotted arrows in Figure 1.1. Before discussing the specific constructs that were assessed in the current study in detail, it is important to note that there are various theories about parental well-being, parenting, and their relationship with child behavior problems. As described in the previous model, we assume that parental well-being will influence parenting behavior, which, in turn, will influence child behavior. Although the hypothesis that well-being influences parenting behavior is generally accepted, some authors, for example, Patterson, DeGarmo, and Forgatch (2004), propose the opposite direction of effects, i.e. that parenting behavior influences maternal well-being. The influence of Home-Start might work differently as well. Possibly, Home-Start influences parenting behavior directly, for example by volunteer modeling of more positive parenting behaviors, which parents imitate. Alternatively, Home-Start might influence child behavior problems directly, for instance when the volunteer applies clear and consistent discipline styles, while taking care of the children. However, since it is the assumption of the program itself that Home-Start will influence maternal well-being, and consequently parenting behavior, we discuss the constructs that we examine in the order of the presumed chain of change.

Parental well-being is supposed to influence both parenting behavior and child behavior problems. In order to assess these possible effects, we examined two aspects of maternal well-being: a positive one, particularly related to parenting behavior, competence, and a negative one: maternal depressive mood. There are several reasons to assume that maternal well-being might be a crucial factor in achieving behavior change. Several studies have reported associations between parental well-being and child behavior problems (Hay, Pawlby, Angold, Harold, & Sharp, 2003; Papp, Cummings, & Schermerhorn, 2004). Children, whose mothers reported higher levels of depressive symptoms were at heightened risk for development of behavior problems (Black et al., 2002). We expect maternal depressive mood to decrease as a consequence of the support Home-Start volunteers offer. Since the improvement of maternal self-esteem is one of the aims of the Home-Start parenting support program, we assessed maternal self-
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esteem with regard to parenting, perceived parenting competence. Perceived parenting competence can be defined as parents’ perception of their ability to positively influence the behavior and development of their child (Coleman & Karraker, 2000). Several studies found an association between lower perceived parental competence and maternal perception of child difficulties (Coleman, 1999; Halpern, Anders, Garcia Coll, & Hua, 1994; Johnston & Mash, 1989).

In addition to measuring maternal well-being, we also examined parenting behavior. There are various theories on parenting and its relationship with both maternal well-being and child behavior problems. For example, previous research has associated different kinds of parenting behaviors with different kinds of socio-emotional or behavioral outcomes. Ineffect parenting behaviors, such as a harsh and inconsistent discipline style, have been related to the development of behavior problems. On the other hand, supportive and positive parenting, especially a high level of sensitive responsiveness from the mother, promoted health development (Domitrovich & Bierman, 2001; Pettit, Bates, & Dodge, 1997). To date, researchers were not able to define a consensual and inclusive theory of parenting (O’Connor, 2002). The most robust theories relate specific parenting behaviors to specific child outcomes. It is nevertheless important to note that parenting behavior must also be considered in the light of the transactional model. Parenting behavior is determined by both parental characteristics (well-being, age), and by child characteristics (e.g., age and developmental status). For example, infants will need more nurturing parenting behavior, whereas parenting over toddlers will require more behavior control strategies.

The two dimensions of parenting behavior that have been studied most consistently are support and control (Grohnick, 2003; O’Connor, 2002). Our assessment of parenting behavior is also focused on support and control variables. Support variables can be defined as parenting behavior which expresses positive affect (Deković, 1991). In the current study, responsiveness and observed maternal sensitivity in interaction with the child were assessed. The presence of support is generally associated with positive child outcomes and fewer behavior problems (e.g., Denham et al., 2000). In previous research responsiveness was inversely related to child behavior problems (Johnston, Murray, Hinshaw, Pelham, & Hoza, 2002). The second dimension, ‘control’, can be defined as those parenting behaviors aimed at the management of child behavior. Control
dimensions have been labeled differently over the past years. For example, Baldwin (1948) defined control as the restrictions that were already clearly communicated to the child. Control in his definition is part of the democratic parenting style, consisting of high levels of verbal contact between parent and child and openness of communication. Baumrind (1968; 1996) distinguished authoritarian (restrictive) and authoritative (democratic) control. Later on, psychological control (attempts that intrude into the psychological and emotional development of the child) and behavioral control (management of child's behavior) were distinguished (Barber, 1996). More recently, Mansager and Volk (2004) proposed a three dimensional model of effective parenting, adding encouragement to authoritative and nurturing dimensions. Although the control dimensions have been labeled differently and concerned different kinds of parenting behaviors, overall we can state that parental control behaviors can be exerted both positively and negatively, and as a consequence can have negative or positive influences on child development. If control is defined as 'having control': being an authority, making age-appropriate demands, setting limits and monitoring the child's behavior, then control is positive (Grolnick, 2003). However, when control means controlling children, with compliance as a key value, pressurizing children towards certain outcomes, whereby punitive discipline styles and restrictions are used, then control can be negative (Grolnick, 2003). In the current study, positive as well as negative controlling behaviors were examined. Negative discipline techniques and high levels of rejection are associated with higher levels of disruptive child behavior (Murris, Meesters, & Van den Berg, 2003; Owens & Shaw, 2003; Spieker, Larson, Lewis, Keller, & Gilchrist, 1999; Thompson, Hollis, & Richards, 2003). On a more general level, we examined maternal consistency. The consistent use of positive or negative reinforcement of behavior immediately following the behavior, is a crucial factor in behavioral management, because non-consistent behavior might lead children to conclude that their environment is non-responsive to their behavior (Baumrind, 1996). Consistency can buffer the negative effects of stressors (Wolchik, Wilcox, Tein, & Sandler, 2000), and inconsistent maternal behavior is associated with child behavior problems (Solomonica-Levi, Yirmiya, Erel, & Oppenheim, 2001; Owens & Shaw, 2003). In total we examined more aspects of parental control than of support dimensions, because we expected that especially when children
are in the second or third year of life and discover autonomy (Woodworth, Belsky, Crnic, 1996) control might take a large place in the parenting process. Next to parental characteristics and parenting behaviors, we also examined a child outcome: child behavior problems. Child behavior problems were assessed with the Child Behavior Checklist /2-3 (CBCL/2-3, Achenbach, 1992; Koot, 1993). We chose the CBCL, because this is an extensively tested, well-validated instrument, which provides normed scores. We expected that by improving maternal well-being child behavior would also change, either as a consequence of increased well-being, or as a consequence of increased maternal well-being.

2.4 Outline of the thesis

In the following chapters three empirical studies will be discussed. Chapter three deals with the question whether parents in a community setting report a need for support and how this need for support is determined. The fourth chapter concerns the evaluation of the Home-Start parenting support program. The fifth chapter focuses on possible influences of the participants’ and program characteristics on the effectiveness of the Home-Start program. In chapter six the findings of chapter three, four and five will be summarized and discussed. We are aware of the fact that there is some overlap in the methodological sections of chapters three, four, and five. This is a consequence of the fact that the chapters have been submitted to journals separately, while the same measures have been used in the studies and while the studies in chapters four and five concern the same sample.
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