What works for whom: A realist synthesis of neighbourhood interventions for families in the community
ABSTRACT

Neighbourhood interventions are important for creating supportive structures for parents and children and for other community members. Little is known, however, about what works for whom in what situation. The aim of this study was to gain a better understanding of what works for whom in community interventions in the neighbourhood. Realist synthesis was used as a review methodology to examine community interventions. Six databases were searched for studies published between January 1st, 2000 and May 8th, 2020 and 28 community programs reported in 34 publications were included. Multiple rounds of coding and several discussions with experts and the project team were conducted to analyze these studies and programs, and to understand underlying assumptions of neighbourhood interventions. This resulted in the definition of ten important mechanisms of change in specific contexts. These were found on two levels: on an interpersonal level (e.g. social support) and on a community level (e.g. social norms). Positive mechanisms of change varied from supportive professionals to participants in the intervention, to co-production in developing the intervention. Negative mechanisms were only found on the community level and were related to professionals’ and community members’ skills. Mechanisms of change were found to be related to specific contexts, such as implementation strategies and the type of intervention. Professionals and municipalities can use these mechanisms of change to improve their interventions and neighbourhood practices.
INTRODUCTION

The potential benefits of community-based interventions for parents and children are increasingly recognised in western countries (Brand et al., 2014; Daro & Dodge, 2009; Van Dijken et al., 2016). The term community intervention generally refers to activities and interactions between various community members in complex systems (Hawe et al., 2009), often implemented in neighbourhoods (McLeroy et al., 2003). Community interventions can be framed in different ways; for example, some interventions (e.g. Bruce et al., 2017; McDonell et al., 2017) focus on the importance of community involvement for preventing child maltreatment, while other preventive interventions predominantly focus on the importance of a positive pedagogical climate around schools (e.g. Horjus & Van Dijken, 2017). Nevertheless, all these interventions share the goal to change community systems (Hawe et al., 2009) by providing parental support in order to strengthen parenting skills and fostering social support (e.g. McDonell et al., 2015; Stewart et al., 2015) and by contributing to positive behavioural outcomes for youth. For example, interventions may help to reduce problem behaviour of children and stimulate positive youth development (Lapalme et al., 2014; Melendez-Torres et al., 2016).

Previous reviews of community interventions with a focus on positive outcomes for parents and children (Brand et al., 2014; Molnar et al., 2021; Stockings et al., 2018; Van Dijken et al., 2016) have predominantly focused on the outcomes regarding child maltreatment prevention and physical outcomes (e.g. healthy weight) for children and parents. An important factor in reducing child maltreatment is changing the social environment (Van Dijken et al., 2016; Molnar et al., 2016), but conclusive empirical evidence that interventions can effectively contribute to this change is lacking. Reviews of community interventions with a focus on physical health outcomes for parents and children (Brand et al., 2014; Stockings et al., 2018) have reported mixed results. Furthermore, there has been an emphasis on interventions in ‘at-risk groups’ and on preventive parenting interventions with a focus on parenting skills and parent–child relationship (Gross-Manos et al., 2020; Leijten et al., 2019; Vlahovicova et al., 2017). Less attention has parents and children) in neighbourhoods (Daro & Dodge, 2009; Tricket et al., 2011; Van Dijken et al., 2016).

Because community interventions are quite complex, their implementation process requires attention from practitioners (Brand et al., 2014; Molnar et al., 2016). A recent review (Bach-Mortensen et al., 2018) focusing on the third sector (i.e., voluntary activities in the community) reported multiple influential factors. For example, existing structures such as institutions and the related organisational culture are important for the implementation process in neighbourhoods (Bach-Mortensen et al., 2018; Fazzi,
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Four types of community intervention are distinguished: community as a setting, community as a target, community as a resource, and community as an agent (McLeroy et al., 2003). The community as a setting often refers to a geographically defined community and location, whereas the community as a target refers to system changes in public policy, organisations, and community institutions. The third type is the community as a resource and refers to the importance of community ownership, institutions, and participation of community members for positive health outcomes. Community as an agent refers to the importance of strengthening the natural, supportive, and developmental capacities of communities, such as informal social networks or links with community organisations (McLeroy et al., 2003). The present study focuses on interventions that fit into the latter category.

In sum, previous studies focused predominantly on outcomes of community interventions, on parent–child relations or ‘at-risk groups’, while little attention has been paid to interventions that stimulate supportive and developmental capacities of community members (community as an agent) for parents and children in the neighbourhood. This is especially important because conclusive evidence for the importance of community interventions in reducing child maltreatment (and consequently the well-being of parents and children) is lacking (Van Dijken et al., 2016; Molnar et al., 2016). Understanding how and when community interventions are (in) effective (i.e., what works for whom, Jagosh, 2019) and what role various stakeholders (e.g. organisations, professionals, community members) play, is essential for gaining a better understanding of the complexity of this type of intervention and for fostering their implementation, which in turn could lead to positive outcomes for community members, including parents and children (Tricket et al., 2011).

THE PRESENT STUDY

A review of community interventions with a focus on the supportive and developmental capacities of communities that affect the well-being of parents, children and other community members is lacking. The research question of this study is: What works
for whom (i.e., parents, children, and other community members) in interventions focusing on communities as an agent of change? A systematic literature review was conducted in order to create an overview of existing community interventions, which were then further analysed.

METHOD

In this study, we used realist synthesis as a review methodology (Greenhalgh et al., 2011; Jagosh, 2019; Pawson et al., 2005) to examine complex community interventions. In realist reviews, systematic, interpretative, and theory-driven techniques are used to make sense of mechanisms in complex interventions, and complement traditional systematic Cochrane-style reviews (Greenhalgh, 2011). Mechanisms are defined as ‘underlying entities, processes, or structures which operate in particular contexts to generate outcomes of interest’ (Astbury & Leeuw, 2010, p. 368) and are generated by intervention strategies and the response of people to these strategies. These mechanisms are important for more detailed explanations of social phenomena and are influenced by the pre-existing characteristics of the context. Contexts help to gain insight into ‘under what circumstances for whom interventions work’ (Jagosh, 2019; Pawson, 2006). Realist reviews play an important role in theory development and can be used for programme development and to inform policy makers on how and when interventions work (Jagosh, 2019; Pawson et al., 2005). The review in this study, which allows an analysis of complex and different types of neighbourhood interventions, is described in this paper adhering to the RAMESES standards for reporting a realist synthesis (see Wong et al., 2013). The RAMESES standards include 19 items, including a rationale for the realist synthesis, a description of the literature search and a description of document characteristics, that should be reported in this type of review.

LITERATURE SEARCH

The databases PsycINFO, Medline, ERIC, SocIndex, and Web of Science were searched for studies published between January 1st, 2000 and May 8th, 2020. Multiple key words related to interventions in the neighbourhood were used: interventions, neighbourhood, educators, social behaviour, and children (see Appendix A for details).

This search resulted in 3925 references, 2423 after the removal of duplicates (see Fig. 3.1). Additional studies were searched by checking references (i.e., ‘snowballing’) and using Google, which contributed to overcoming the complexity of search strategies in the specific context of the broad and heterogeneous concept of community interventions (see Melendez-Torres et al., 2016; Van Dijke et al., 2016). The first author selected the titles and the abstracts were discussed with the second and third authors.
INCLUSION AND EXCLUSION CRITERIA

We used the following inclusion criteria: studies were conducted in western countries, published in English or Dutch scientific journals; study designs with qualitative, quantitative and mixed method design; studies had to report empirical data about community interventions; and, finally, the intervention focused on strengthening the community or neighbourhood structures (see Jenks & Dempsey, 2007, e.g. increasing social support, social networks) for parents and/or children and other community members (i.e., neighbours, paraprofessionals, volunteers, or other parents) as agents of change (McLeroy et al., 2003). Different types of study design were included in our review, as combining studies with different designs contributes to a synthesis of complementary perspectives and aims to provide a practical understanding of interventions, including critical contexts that serve as barriers and/or facilitators for implementation (Pluye et al., 2009).
Exclusion criteria were a focus on health or disabilities of children and/or parents/community members; interventions were only evaluated during school/in the classroom; programmes with a focus on children’s learning; and/or the intervention was a therapy or any other type of clinical programmes.

**CODING OF STUDIES AND ANALYSIS**

The realist synthesis involved an iterative process: multiple rounds of coding and discussions with experts and the project team were conducted to understand underlying assumptions of neighbourhood interventions (see Pawson et al., 2005; Wong et al., 2013). First, an overview of the included interventions was presented to an expert panel (Greenhalgh et al., 2011) of two professionals and two method developers in parenting support and outreach work. The experts discussed whether they recognised the type of interventions and whether there was a connection with their field. All experts recognised the type of interventions and confirmed that these were in line with their practice or neighbourhood.

In the next phase, an initial theoretical framework (Jagosh, 2019) with two levels of change was developed to guide the synthesis of these interventions (i.e., interpersonal level and community level, Bartholomew et al., 2016), whereas traditional reviews use standard data (e.g. effect size and confidence interval) from an a priori perspective (Pawson et al., 2004). The interpersonal level of change refers to *individuals or groups* with close connections to community members and their behavioural influence. Related to this level is, for example, the social support theory. The community level refers to *systems* in which people are organised in social networks and can help each other with problems. A theory related to the community level is, for example, the social norms theory. The two-level classification appeared to be well suited for this realist synthesis.

The third step was to encode the interventions. All studies were evaluated using the Mixed Method Appraisal Tool (MMAT, Hong et al., 2018) to assess the quality of qualitative, quantitative and mixed method study designs in our review and as an indicator of inclusion or exclusion. An example of an MMAT assessment question is ‘Are the qualitative data collection methods adequate to address the research question?’ Furthermore, an initial theoretical framework included codes for the intervention and handbooks on intervention development and implementation (Bartholomew et al., 2016; Damschroder et al., 2009; 2015; Fixsen et al., 2019), intervention methods (Mirza et al., 2018), and contextual and structural aspects of interventions (Goense, 2016). The coding scheme included four main categories: background information study (e.g. study design, ethnicity); description of general information on the intervention (e.g. philosophy, theories and levels of change, target group, contextual aspects);
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description of key functions defining the interventions (e.g. structural aspects such as duration or format) or methods to change behaviour (e.g. methods for creating awareness or changing attitudes). The last category was the outcome of the intervention. Four types of outcomes were coded: child behaviour (i.e., internalising or externalising problem behaviour), parenting (e.g. parenting skills, exchanging parenting knowledge), social influence (e.g., social support, community involvement) and other (e.g. participants’ general well-being, professionals’ role).

Coding of the studies resulted in an overview of five types of interventions, all of which fit within the category community as an agent (McLeroy et al., 2003): peer-to-peer, skills training for community members, social norm-oriented interventions, community-wide interventions with a focus on implementation, and youth development interventions. Furthermore, we identified for each intervention mechanisms that produced intervention outcomes, both positive and negative. When the mechanism leads to a positive outcome, this could be considered a positive mechanism of change in the intervention; conversely, when the mechanism results into a negative outcome, this is a negative mechanism of change.

The fourth step was to develop a final coding framework, based on reviews of the literature and other studies on mechanisms of change, for the five types of interventions described above. Below, we describe the distinguished interventions.

Peer-to-peer The goal of peer support is understanding and ‘feeling’ each other’s situation through a shared experience and connection (Mead et al., 2001). In order to explore positive mechanisms in the included neighbourhood interventions, the four most frequently mentioned facilitators for implementing peer support work in health research (Ibrahim et al., 2020) were followed: organisational culture (i.e., clear goals, focus on recovery, reflective and communicative culture, openness to change, co-production), peer support training (i.e., emphasis on skill-building, ongoing training, and shadowing), role definition (i.e., clear definition and understanding of staff and peers), and staff capacity and willingness (i.e., positive, supportive, and knowledgeable response from the staff to peers). Negative mechanisms of change for peer support were (Ibrahim et al., 2020): organisational cultures with a focus on client risk, too little emphasis on co-production and no attention for recovery; no reflective, flexible, or accessible training or a lack of (sufficient) supervision; a mismatch and unclarity about the role of the staff and about individual boundaries. Negative mechanisms related to staff capacity and willingness were: insufficient contact or understanding, lack of mutual respect, discrimination, and staff’s inexperience in, and uncertainty about, working with peers.
**Skills training for community participation** In order to participate in the community and contribute to social structures, it is important to have sufficient skills (Bartholomew et al., 2016). To explore positive mechanisms of skills training, the most effective training strategies of Berkhof et al. (2011) were used, based on an overview of systematic reviews of communication skills. The effective elements of the communication skills training were duration (longer than one day), a focus on participant development, a restricted focus on practicing skills through role play, discussion and feedback. Furthermore, the self-efficacy of the participants was an important positive mechanism (Bartholomew et al., 2016) and continuing training is important to maintain skills (Bartholomew et al., 2016, Berkhof et al., 2011). Negative mechanisms for behaviour change were a strict focus on oral presentations, written information (e.g. in handouts), and modelling (Berkhof et al., 2011). Furthermore, participants not feeling confident in showing the desired behaviour is a negative mechanism for community participation (Bartholomew et al., 2016; Stevenson et al., 2020).

**Social norms in community interventions** Social norms are an important mechanism for influencing people’s behaviour, which are spread via the community or institutions (Melnyk et al., 2019; Smelser, 1998). Melnyk et al. (2019) distinguished in their meta-analysis various moderators for social norms. A first moderator is age: youth (<21 years) follow social norms relatively quickly, compared to the elderly (>50 years). Furthermore, behaviour of the majority of community members influences positive behaviour more than social norms spread by organisations and authorities. Third, concrete norms or rewards in social norms (e.g. tokens) do not significantly influence behaviour, whereas specified sanctions do. Additionally, Melnyk et al. (2019) mention that the duration of implementation for descriptive norms may influence the adoption of social norms, although this was not included as a moderator in their meta-analysis.

**Community-wide interventions** Neighbourhood interventions may be implemented in various community sectors. Implementation of intervention determinants facilitates or hinders the outcomes of interventions (Nilsen, 2015). In order to better understand how interventions work, it is therefore important to understand implementation determinants (Greenhalgh et al., 2011). Based on three studies (Belizan et al., 2019; Porteny et al., 2020; Stone et al., 2018), positive and negative mechanisms for the implementation of community-based interventions were identified. Positive mechanisms were: motivated community leaders, adapting the programme to the local context, training for staff, infrastructure to support continued training, intersectoral participation, connection with local resources, use of capacity-building strategies such as ‘train-the-trainer’, and funding. Negative mechanisms were the lack of: (skilled) personnel, lack of an infrastructure to support continued training, little
or no adequate programme funding, intersectoral participation, material resources, technical support, or local political support.

Youth development interventions Lapalme et al. (2014) found several positive and negative mechanisms for neighbourhood youth development interventions. Positive mechanisms were: understanding the neighbourhood in advance, partnership between community members’ organisations and the intervention, community support, and community involvement with intervention participants. Negative mechanisms were: lack of adequate funding, lack of supportive and interested community members, and interventions that interrupt existing activities.

Using the abovementioned steps, the included interventions were analysed and Context, Mechanism and Outcome (CMO) configurations of the interventions were identified. CMO configurations could be formulated as positive (+), negative (-), or inconsistent (+-). The last category (+-) refers to mixed findings within studies. Configurations were only included in our review if they were identified in at least three included studies from different authors (Pawson et al., 2011).

Finally, the initial CMO configurations were discussed with two independent experts (Pawson et al., 2005) with different backgrounds: an expert in community research from the Amsterdam University of Applied Sciences and an expert on youth and their living environment from the Hanze University of Applied Sciences. Based on this constructive peer review, the formulation of the CMO configurations was made more concrete.

RESULTS

The literature search resulted in full-text reads of 44 publications. Ten publications were excluded, because they did not meet the inclusion criteria or quality assessment (n= 9) or were not obtained (n= 1). For example, the intervention Communities that Care was excluded because of its primary focus on guiding community stakeholders (e.g. training local organisations to choose evidence-based programmes that address the profile of the community, Hawkins et al., 2013) and local policy, rather than on community processes and, thus, on agents of change. The final set included 34 publications, which reported on 28 community programmes. The study of Kesselring et al. (2013) and McCroskey et al. (2010) involved multiple programmes (intervention 9.1 to 9.4 and 10.1 to 10.8, respectively, in Table 3.1). Table 3.1 describes the designs and type of participant per study.
### Table 3.1 Overview interventions and study characteristics

<table>
<thead>
<tr>
<th>Name intervention</th>
<th>Level of change</th>
<th>Country where study conducted</th>
<th>Sample</th>
<th>Study design</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACT-Project</td>
<td>Interpersonal-Level</td>
<td>United Kingdom</td>
<td>N=61 (Mothers, posttest)</td>
<td>Quantitative: questionnaires with pre-test</td>
<td>Brown et al., 2020</td>
</tr>
<tr>
<td>Mothers groups and playgroups</td>
<td>Interpersonal-Level</td>
<td>Australia</td>
<td>N=46 (39 Mothers 7 staff)</td>
<td>Qualitative: interviews and focus groups</td>
<td>Strange et al., 2014</td>
</tr>
<tr>
<td>ParentCorps</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=162 (T2, families: parents, children)</td>
<td>Quantitative: randomised controlled trial with pre-test</td>
<td>Brotman et al., 2011</td>
</tr>
<tr>
<td>Madres et Madres</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=194 (113 mothers with their children in the intervention group, 81 in control group)</td>
<td>Quantitative: randomised controlled trial with pre-test</td>
<td>Williamson et al., 2013</td>
</tr>
<tr>
<td>Adapting evidence-based interventions using a common theory, practices, and principles</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=Unclear (Parents)</td>
<td>Quantitative: Questionnaires</td>
<td>Rotheram-Borus et al., 2014</td>
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<tr>
<td>Mentor-child programme</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=174 (89 Children in intervention group, 85 in control group)</td>
<td>Quantitative: Randomised with pre-test (questionnaires)</td>
<td>Cavell et al., 2009</td>
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<tr>
<td>Knowing that you’re not alone</td>
<td>Interpersonal-Level</td>
<td>Canada</td>
<td>N= 85 (parents)</td>
<td>Qualitative: Focus groups and interviews</td>
<td>Stewart et al., 2018</td>
</tr>
<tr>
<td>Communities NOW</td>
<td>Community-Level</td>
<td>United States</td>
<td>N=745 (Community members who participated in Day 2 of the training)</td>
<td>Mixed method: Focus groups and questionnaires</td>
<td>Bruce et al., 2017; Lane et al., 2014</td>
</tr>
<tr>
<td>Allemaal Opvoeders</td>
<td>Interpersonal-Level</td>
<td>Netherlands</td>
<td>N=329 (Mostly parents, a few youth and families)</td>
<td>Quantitative: Goal Attainment Scale</td>
<td>Kesselring et al., 2013; Kesselring et al., 2015</td>
</tr>
<tr>
<td>Allemaal Opvoeders</td>
<td>Community-Level</td>
<td>Netherlands</td>
<td>N=21 (youth, adults)</td>
<td>Quantitative: Goal Attainment Scale</td>
<td>Kesselring et al., 2013; Kesselring et al., 2015; Netherlands Youth Institute, 2012</td>
</tr>
<tr>
<td>Name intervention</td>
<td>Level of change</td>
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<td>Allemaal Opvoeders</td>
<td>Interpersonal-Level</td>
<td>Netherlands</td>
<td>See 9.1</td>
<td>See 9.1</td>
<td>Kesselring et al., 2013; Kesselring et al., 2015</td>
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<tr>
<td>PIDP</td>
<td>Community-Level</td>
<td>United States</td>
<td>N= 2277 (2077 intervention participants in surveys, 200 interviews staff and additional interviews with parents, community centres, lessons learned)</td>
<td>Mixed method: interviews, focus group, Quantitative, with pre-test</td>
<td>McCroskey et al., 2010a; McCroskey et al., 2010b; McCroskey et al., 2012.</td>
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<tr>
<td>The Durham Family Initiative</td>
<td>Community-Level</td>
<td>United States</td>
<td>N= 2675 (Parents, T1: 1205, T2: 1470)</td>
<td>Mixed method: interviews and questionnaire with pre-test</td>
<td>Dodge et al., 2004; Daro et al., 2009</td>
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<tr>
<td>The Strengthening Families Initiative</td>
<td>Community-Level</td>
<td>United States</td>
<td>N=350 (Parents, network members, family. 115 in experimental group, 235 in control group)</td>
<td>Mixed method process evaluation: e.g., a site visit, interview, reports. Quantitative: randomised trial with pre-test</td>
<td>Social Entrepreneurs, Inc.</td>
</tr>
<tr>
<td>Community partnerships for protecting children</td>
<td>Community-Level</td>
<td>United States</td>
<td>N=646 (T2, 330 parents/caretakers; T2, 316 family workers)</td>
<td>Mixed method: Focus groups with volunteers, Interviews with implementation professionals, questionnaires caregivers/ professionals</td>
<td>Daro et al., 2005</td>
</tr>
<tr>
<td>The Peaceable Neighbourhood</td>
<td>Community-Level</td>
<td>Netherlands</td>
<td>N=297 (48 interviews professionals, 12 interviews children, 43 parents in focus group, 194 Children in T2 questionnaire)</td>
<td>Mixed method: focus groups and interviews, questionnaires</td>
<td>Horjus &amp; Van Dijken, 2017; Horjus et al., 2012; Pauw &amp; Verhoeff, 2012; De Winter et al., 2017. The Peaceable Neighbourhood (n.d.) The Peaceable School (n.d.)</td>
</tr>
<tr>
<td>YFIN</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=52 (37 families (i.e., parents and children) as experimental group, 15 families as control group)</td>
<td>Quantitative: Controlled trial with pre-test</td>
<td>Brisson et al., 2019</td>
</tr>
<tr>
<td>Name intervention</td>
<td>Level of change</td>
<td>Country where study conducted</td>
<td>Sample</td>
<td>Study design</td>
<td>References</td>
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<tr>
<td>Positive Behaviour Support in the Neighbourhood</td>
<td>Community-Level</td>
<td>Netherlands</td>
<td>N≈83 (Professionals, volunteers, parents)</td>
<td>Mixed method process evaluation: Qualitative interviews, questionnaires, expert meeting, reports.</td>
<td>Van Leeuwen et al., 2018; Positive Behaviour Support (n.d.)</td>
</tr>
<tr>
<td>Strong Communities</td>
<td>Community-Level</td>
<td>United States</td>
<td>7306 quotes; N=619 (T2 Intervention group: 327 parents; T2 Comparison: 292 parents)</td>
<td>Mixed method: Qualitative quotes of reports and randomised controlled trial with pre-test</td>
<td>Berman et al., 2008; Kimbrough-Melton &amp; Melton, 2015; McDonell et al., 2017</td>
</tr>
<tr>
<td>HEART of OKC Vietnamese youth development programme</td>
<td>Interpersonal-Level</td>
<td>United States</td>
<td>N=18 (8 Community leaders and parents, 10 youth who had been involved with the youth group)</td>
<td>Qualitative: interviews</td>
<td>Kegler et al., 2005a</td>
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GENERAL DESCRIPTION OF THE INTERVENTIONS

Understanding interpersonal-level and community-level interventions contributes to a better understanding of the CMO configurations. For that reason, an example of a typical intervention on each level is first briefly described in this study. An interpersonal-level intervention is Mothers’ groups and playgroups (Strange et al., 2014). This intervention focuses on strengthening supportive community connections by bringing new mothers together in groups. The focus of mothers’ groups is to share experiences, provide information, and encourage mothers to create a supportive network. The play groups focus on parent–child relationships. Both groups are supported by professionals (e.g. a nurse) or organisations (e.g. a church). An example of a community-level intervention is Strong Communities, which focuses on preventing child maltreatment and increasing child safety (McDonell et al., 2015). Under the motto ‘keep kids safe by watching out for each other’ (McDonell et al., 2015p. 81), outreach workers focus on community processes and first recruit volunteers, organisations, and local governments to develop and implement local action plans. During the second step of the intervention, the collected people support parents in building social networks in order to connect with young children and arrange support for families with needs.

Half of the included interventions were coded as interpersonal-level and half as community-level. At both levels, two things were important: the intervention goals/principles for the direction of the application of the intervention and the number of components in the intervention. A minority (22%) of the interpersonal-level interventions and the majority (78%) of the community-level interventions were guided by generic programme principles. An example of a principle is: ‘Outreach activities should be undertaken in a way that enhances parent leadership and community engagement’ (Kimbrough-Melton & Melton, 2015, p. 69). In contrast, most of the interpersonal-level interventions had more specific programme goals, such as: ‘an explicit focus on cultural values, beliefs, and norms, encourages parents to identify and work toward individual goals for their children and themselves that are meaningful and culturally relevant’ (Brotman et al., 2011p. 48). Furthermore, interpersonal-level interventions consisted of two components, except for one intervention which had one component. Most community-level interventions included multiple components (≥4), and only one intervention contained one component.

The interpersonal-level interventions were conducted at religious organisations, schools, the parent’s house, clubs or community centres. Community-level interventions were conducted at a variety of locations in the neighbourhood, for example, in and around schools, at child welfare organisations, religious organisations,
the parent’s house, a wellness centre or community centres. Furthermore, at the interpersonal level, professionals were involved in the intervention as trainers for paraprofessionals, group facilitators, or experts (e.g. a community health worker). In most community-level interventions, multiple types of professionals were involved, such as trainers/ coordinators of professionals, paraprofessionals, professional group facilitators (e.g. youth workers, teachers), experts (e.g. a child health nurse), or outreach workers.

**CMO CONFIGURATIONS**

Ten CMO configurations were identified (see Table 3.2). Six CMO configurations were distinguished on the interpersonal level, four on the community level. All interpersonal-level configurations had peer-to-peer parent groups as a context and revealed both positive mechanisms and positive outcomes in the expected direction. The outcomes of the first three configurations refer to parenting behaviour (i.e., increased interactions about parenting, exchanging experiences, and increased experience-based parenting knowledge). Co-production, a positive perception of the intervention content, and learning from exchanging experiences are all positive mechanisms that stimulate interactions about parenting (e.g. ‘The impact of this intervention was influenced by its flexibility and participant-centred focus…responded to the changing requirements of group members and deployed professional and material resources to reflect participant preferences and to facilitate group discussion,’ Stewart et al., 2018, p. 25). These mechanisms underscore the importance of designing peer support groups together with stakeholders to create interactions between parents and, through this, exchange experiences.

The outcomes in configurations 4–6 referred to increasing the supportive environment of the parents. Positive mechanisms for working on supportive environments for parents or increasing their network are: supportive professionals and frequent meetings to get to know one another (e.g. ‘Regular frequent meetings (weekly)…so that participating mothers have time both to be together and talk together casually while playing with the children…structured into workshops,’ Brown et al., 2020, p. 5). Creating supportive environments for parents can take time, and skilled professionals are needed to support these groups.

The community-level configurations revealed mixed facilitative and hindering mechanisms, mostly with positive and negative formulated outcomes, and four different types of contexts. For example, the type of community member and their confidence in their own skills to successfully intervene in parenting situations influence the level of community involvement, when conducted within the context: ‘training
community members’ (CMO configuration 7). Paraprofessionals feel confident to intervene in parenting situations, whereas predominantly parents are afraid of the response of other parents and, therefore, do not intervene. Supporting or interfering with other parents or their children remains a skill most parents still need to develop (e.g. ‘…most parents remain reluctant to address others. They continue to have difficulty addressing unknown children in the streets and indicate a need for further practice,’ De Winter et al., 2017, p. 31).
<table>
<thead>
<tr>
<th>CMO</th>
<th>Context</th>
<th>Mechanism</th>
<th>Outcome</th>
<th>Interventions</th>
<th>Type</th>
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<tr>
<td><strong>Interpersonal level</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Peer-to-peer parent groups</td>
<td>Community members, including parents, give input for (the development of) the content of the interventions (i.e. co-production)</td>
<td>Increase of interaction between parents about parenting: giving and receiving advice (e.g. piece of advice, being role models for others)</td>
<td>1, 7, 9.2</td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>Peer-to-peer parent groups</td>
<td>Parents have a positive perception of the intervention content because of the co-production between community members and intervention developers</td>
<td>Increase of interaction between parents about parenting: giving (implicit) and receiving advice (e.g. tips, being role models for peers)</td>
<td>1, 2, 7, 9.2</td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>Peer-to-peer parent groups</td>
<td>Parents learn from mutual exchange of parenting experiences</td>
<td>Increase of experienced-based parenting knowledge of parents</td>
<td>2, 7, 9.1, 9.2</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>Peer-to-peer parent groups</td>
<td>Parents attend frequent meetings (between 4-13 sessions of ≈ 2hrs) about parenting related themes and welfare</td>
<td>Increased social network of parents</td>
<td>1, 2, 7</td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>Peer-to-peer parent groups</td>
<td>Parents get to know each other during regular and frequent meetings (&gt;4 and &lt;13)</td>
<td>Increased social networks of parents involved in the interventions</td>
<td>1, 2, 7</td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>Peer-to-peer parent groups</td>
<td>Professionals give supportive response to peers regarding questions or group discussions</td>
<td>Increase of social support for parents</td>
<td>1, 2, 7, 9.1, 9.2</td>
<td>+</td>
</tr>
<tr>
<td><strong>Community level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Training community members to foster skills for community member support</td>
<td>Community members may have or may have not confidence in their own skills to achieve the expected behaviour</td>
<td>Increasing community involvement of participants involved in the intervention (i.e. responding in parenting situations)</td>
<td>8, 14, 16</td>
<td>+, +/-</td>
</tr>
<tr>
<td>8</td>
<td>Parents and children participate in social norms oriented bottom-up developed neighbourhood interventions</td>
<td>Institutional support over time contributes to normalization of participants’ actions</td>
<td>Increasing collective efficacy of community members involved in the intervention</td>
<td>17, 9.3, 14</td>
<td>+, -</td>
</tr>
<tr>
<td>9</td>
<td>Implementing of the community intervention with top-down and bottom-up strategies</td>
<td>Local organizations and professionals implement program principles in a pro-active and flexible manner</td>
<td>Adoption of the intervention principles in organizations</td>
<td>14, 16, 17</td>
<td>+</td>
</tr>
<tr>
<td>10</td>
<td>Social youth work organizations support professionals to collaborate with community members</td>
<td>Professionals collaborate (not) with parents in close relationships and with flexibility.</td>
<td>Facilitates positive encounters with professionals and parents from the target group</td>
<td>10.7, 14, 17</td>
<td>+, 14, 17</td>
</tr>
</tbody>
</table>

*The numbers refer to the interventions described in table 3.1. Interventions can have multiple contexts, mechanisms and outcomes and numbers may therefore appear in multiple CMO configurations. *Type refers to the outcome of the CMO configuration in the original report: + is positive; - is negative, and +/- was framed as inconsistent in the original report.*
The next CMO configuration reveals that the outcomes on collective efficacy (i.e., the perceived likelihood of the participants taking action in combination with social cohesion among community members, Sampson et al., 1997) are influenced by the length and institutionalisation of interventions. An intervention that lasts longer can have a positive effect on collective efficacy, unlike shorter interventions. This is especially the case when parents and children participate in social-norms-oriented, bottom-up developed neighbourhood interventions (e.g. ‘Restoring social relationships and fostering understanding and tolerance between the elderly and the young takes time. It is a process that requires investment over a longer period of time…In addition, it is not certain that the project will ultimately survive without support. So far, despite the efforts of the community worker, residents have not yet managed to develop independently supported initiatives,’ Netherlands Youth Institute (NJi), 2012, pp. 3–4).

The mechanism from CMO configuration 9 is that organisations and professionals are proactive and flexible with respect to the programme principles. For example, in study 14, participants tried to adapt the intervention tools to fit their context (‘In daily practice, the community centre in the Feijenoord district often switches to an approach in which the children earn a reward for directly observed desired behaviour, without token interventions,’ Van Leeuwen et al., 2018, p. 299). This is especially the case when the context is a ‘top-down and bottom-up strategy’, which refers to a consciously chosen implementation strategy of the intervention in the community. On the one hand, the outline of the intervention is delivered top-down. On the other hand, the content of the intervention can be determined bottom-up, for example, by parent groups. This latter context enables participants to adopt interventions in their organisations (e.g. ‘…move from participation in particular activities (for example, helping to set up a community lunch) to adoption of Strong Communities as a way of life,’ Kimbrough-Melton & Melton, 2015, p. 74). Furthermore, studies 14 and 16 reported that local organisations could find it difficult to apply programme principles in a structural fashion, also to existing activities.

Positive mechanisms for professionals’ contact with parents are: collaboration and being flexible and close proximity to the parents (CMO configuration 10) (e.g. ‘Partner/resident community projects provide opportunities…to sit at the same table and work collaboratively…it deepens relationships,’ McCroskey et al., 2010a, p. 70). Whenever these mechanisms were lacking or absent, this hindered contact with parents during the intervention. Within this CMO configuration, there was a supportive organisational context. Mixed results were found in two interventions studies (14 and 17).
PEER REVIEW
The participants of the academic peer review session recognised the identified CMO configurations, based on their knowledge of the literature and their own professional practice. They emphasised that configurations are often not embedded in a single context but in various other contexts. Hence, they highlighted the importance of processes that may precede each CMO configuration.

DISCUSSION
This study focused on what works for whom in community interventions, with a focus on strengthening the community/neighbourhood structures for parents, children, and/or other community members (i.e., neighbours, paraprofessionals, volunteers, or other parents) as agents of change. Using the realist synthesis methodology, two intervention levels were identified: the interpersonal level and the community level. Mechanisms of change leading to specific outcomes were identified in specific contexts, resulting in a better understanding of ‘under what circumstances interventions work for whom’ (Pawson, 2006; Jagosh, 2019). Mechanisms for positive outcomes for participants ranged from (on the interpersonal level) co-productivity and frequent meetings in which parents learn from exchanging experiences to (on the community level) skilled professionals (e.g. flexibility and proximity to parents) and proactive and flexible organisations. Mechanisms for negative outcomes were only found on the community level and were related to professionals’ skills (e.g. lack of flexibility or no proximity to parents) and community members’ skills (e.g. no normalisation of actions and a lack of the confidence in their skills required to achieve the desired behaviour). The synthesis also showed some important contexts related to the identified mechanisms from community interventions: the use of peer-to-peer groups, training of community members, supportive organisations, and a top-down and a bottom-up strategy by implementing the community intervention.

Our review shows that what works in community-level interventions is complex and depends on the local context. Specifically, on the interpersonal level, it was found that the importance of co-production of the intervention (indicated in two CMO configurations) is in line with the literature suggesting that co-production facilitates peer-to-peer interactions (Ibrahim et al., 2020). Especially when parents have a positive perception of the intervention content as a result of the co-production, this is an important mechanism for facilitating interactions between parents. However, co-production might be more complex when different types of participants are co-producers. Van Eijk (2018) shows that co-production between community members and professionals is a very complex concept, as mutual perceptions influence
the developmental process. Gaining insight into the underlying processes of co-
production would help to further strengthen community interventions.

Another important mechanism for positive parenting interactions in interperson-
level interventions is the exchange of parenting experiences, which leads to an
increase in experience-based parenting knowledge (Kesselring et al., 2015; Strange
et al., 2014; Stewart et al., 2018). This could also be related to the attitudes of parents,
as Claeijs et al. (2016) showed in their study. When parents are open to tips from other
parents, this could have a positive effect on the exchange of parenting experiences.

Furthermore, a higher frequency of meetings stimulates parents to get to know
each other (indicated in two CMO configurations), which can increase the exchange
between participants. Professionals also have an important role within these meetings,
as they need to provide supportive responses (Brown et al., 2020; Kesselring et al.,
2015; Stewart et al., 2018; Strange et al., 2014). Both these findings are in line with the
results of the literature review of Rumping et al. (2019) on elements that stimulate
exchange in collaboration.

In sum, this study found the following important mechanisms on the interperson-
level for positive outcomes for parents: getting to know each other, exchanging
experiences, co-production, a higher frequency of meetings, and supportive
professionals. These mechanisms are important for implementing and developing
interventions, specifically peer-to-peer interventions with a focus on strengthening
supportive community structures.

At the community level, this study found that the type of participant (e.g.
paraprofessionals, parents) and their relevant skills are important mechanisms for
responding in parenting-related situations (Bruce et al., 2017; De Winter et al., 2017;
Van Leeuwen et al., 2018). Paraprofessionals have the confidence to intervene in
parenting situations, whereas this is more difficult for parents due, for example, to a
lack of confidence in their own skills. This underscores the importance of skill training
for parents and discussing which different types of community members should be
involved in intervention training.

Another finding at the community level was that the proximity and flexibility of
professionals in collaboration with parents is an important mechanism to establish
positive contact. This is especially the case when support professionals (e.g. outreach
workers) collaborate with community members. This finding shows that a shift
from service-oriented towards support-oriented organisations is a pre-condition
to collaborate effectively with community members (see e.g. Kimbrough-Melton & Melton, 2015; McCroskey et al., 2010b).

Creating collective efficacy in communities appeared to be a difficult process in community-level interventions (e.g. NJi, 2012). It requires a lot of time and effort to encourage community members to take action; only participation in social norms-related activities (e.g. parenting groups) as a mechanism of change was not enough. As other studies and implementation literature have shown, it may also require other facilitators (Belizan et al., 2019; Porteny et al., 2020; Proctor et al., 2011; Stone et al., 2018), such as sufficient funding from local governments to work on sustainable interventions. Other studies (Brown et al., 2020; Kesselring et al., 2015) on community interventions showed that trusting relationships are also vital for social support and collective efficacy.

Furthermore, professionals require new skills to adopt intervention principles. Professionals and their organizations must be flexible and proactive in implementing and using the intervention principles. This is in line with implementation frameworks (e.g. Damschroder et al., 2009) and previous studies (Belizan et al., 2019; Porteny et al., 2020) that focused on the implementation of community interventions, which have underlined the importance of professionals’ skills in community-based interventions. Furthermore, a mix of top-down and bottom-up implementation strategies in community-level interventions was found to be an important context for the adoption of intervention principles in organisation.

**IMPLICATIONS FOR NEIGHBOURHOOD PRACTICE**

This realist synthesis highlighted the importance and practical relevance of ten important mechanisms of change in specific neighbourhood contexts. When the aim of the peer-to-peer intervention (i.e., interpersonal level) in neighbourhoods is to increase social support or social networks, attention of organisations may be required to the amount of meetings and the supportive role and related skills of professionals regarding group support. When it comes to increasing interaction between parents in peer-to-peer groups, organisations may focus on the level of co-creation and parents attitude into exchanging experiences. On the community level, it may be required to pay more attention to implementation strategies, developing trust within community interventions, the adoption of intervention principles and proximity and flexibility in collaboration skills of professionals. For example, it may be important for organisations to develop implementation strategies (Nilsen, 2015) and so-called *practice profiles* (Metz, 2016) to operationalise the tasks of community professionals, as implementation frameworks are often described in a too generic...
fashion (Nilsen, 2015). This may also be the case for interventions on the interpersonal level. Furthermore, organisations and professionals may reflect on and evaluate their own flexibility and proactivity regarding programme principles, as this is important to adopt interventions (Damschroder et al., 2009).

**STRENGTHS AND LIMITATIONS**

Earlier reviews of community interventions predominantly focused on preventing child maltreatment or on peer support groups in general (Daro & Dodge, 2009; Ibrahim et al., 2020; Van Dijken et al., 2016). This study focused on interventions that could strengthen wider community structures for parents, children, and/or other community members and included both themes (i.e., focus on preventing child maltreatment, peer support) in order to gain new understanding of developing supportive communities for researchers, policy makers, intervention developers, and other professionals. Furthermore, the use of an extensive coding scheme in an iterative process has reinforced the findings of this study.

There are also important limitations. First, despite an extensive literature search (Alexander, 2020), relevant interventions may not have been included due to the fact that they were not published in a scientific journal. Additionally, most of the interventions were conducted in the United States or the Netherlands, and it is uncertain whether the outcomes of these interventions are representative of other western countries. Furthermore, some interpersonal-level configurations were interrelated, and as such each separate mechanism may not do justice to the complexity of community interventions. Moreover, only 13 of the 28 included interventions were used for the development of CMO configurations, because we included only configurations identified in at least three studies by different authors. For example, only one intervention (Kegler et al., 2005a) included youth development interventions and as a result, this type of intervention was not included in the CMO configurations.
Our methodological principle supports the identification of working mechanisms with adequate empirical support, but also has a conservative bias. The studies may not have reported all important contexts and, hence, our review may not have sufficiently examined all important contexts. Moreover, more attention is needed for the effects or experiences of different populations in programmes. Finally, the mix of studies with different designs and intervention resources available may have influenced the identified CMO configurations. Further research into neighbourhood interventions and extensive intervention descriptions are needed to examine underlying mechanisms in depth. This further research should clarify how parents and nonparental adults in neighbourhoods can live together and support children to reach their full potential.

Appendix A Search strategy

1) Interventions
   training/ OR intervention/ OR community services/ OR community development/ OR outreach programs/ OR (community service* OR community development* OR outreach program* OR tool* OR training* OR intervent*).ti,ab,id.
2) Neighborhood
   Neighborhoods/ OR (neighborhood* OR neighbourhood* OR communit* OR village*).ti,ab,id.
3) Educators
   parents/ OR fathers/ OR mothers/ OR mentor/ OR coaches/ OR (Parent* OR father* OR mother* OR volunteer* OR tutor* OR trainer* OR unpaid worker* OR paraprofessional* OR neighbors* OR neighbours* OR dad* OR mom* OR coach* OR mentor*).ti,ab,id.
4) Social behavior
   externalization/ OR internalization/ OR prosocial behavior/ OR aggressive behavior/ OR “depression (emotion)”/ OR anxiety/ OR social skills/ OR (social psych* behavior* OR social psych* behaviour OR prosocial behaviour OR aggressive behaviour OR aggression OR internali* behavi*r OR external* behavio*r OR positive youth development OR steal* OR depress*).ti,ab,id.
5) Children
   (Child* OR infant* OR toddler* OR youth OR kid*).ti,ab,id.