

## Research Article

# Community Engagement in Health Promotion: Results from a Realist Multiple Case Study

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Community engagement (CE) has long been endorsed by policy makers and health practitioners. However, uncertainties remain about the workings and outcomes of CE. This study aims to provide in-depth insights into them. In a multiple case study, we investigated three participatory health promotion projects for families in vulnerable situations in the Netherlands. We adopted a realist approach combined with a theory of change (ToC) model. We then analysed the qualitative data for context–mechanism–outcome (CMO) configurations to refine this ToC. Results show that CE can strengthen social networks, empower families, and increase perceived health. However, specific contexts in combination with CE project approaches may or may not trigger positive responses. Participants may feel that they matter when asked to actively contribute to a project, which in turn can enhance their self-confidence. In another context, we found that families were overwhelmed by the responsibilities given to them in the project, leading to feelings of stress and withdrawal from the project. We present a list of CMO configurations and refine the ToC accordingly. Our main conclusion is that flexibility is key when CE is implemented in health promotion. Also, our findings question physical health outcomes as a realistic ambition for CE projects with groups in vulnerable situations.

## 1. Introduction

Despite multiple efforts in line with public health policy in the Netherlands, health inequalities are persistent and specifically affect groups in vulnerable situations. Community engagement (CE) has long been endorsed by (public) health practitioners, policymakers, and researchers as a method for inclusive health promotion [1, 2]. Community engagement and similar terms have been defined and used in the literature in many ways; there appears to be no one definition of such active involvement in health promotion (Marent et al. [3]). In this study, we follow (Fienieg et al. [4]; p416) and refer to CE as “the active involvement of citizens in a programme that is meant to benefit the health of the community or population they belong to.” The active engagement of societal groups and individuals in health promotion can take many forms: online or offline, from consultation to community-led or volunteer-driven services,

from projects inspired and organised by professionals or community members, or a combination of these.

It is assumed that citizens’ active participation will encourage positive changes at the community level, such as improving and tailoring (health) services to the needs of the community [5]. In turn, such tailored services could improve community health. It is also assumed that CE will affect the health *behaviours* of community members [4, 6]. In the Netherlands, engaging communities in health promotion policy and practice is often perceived as a general effective mechanism [7]. Studies suggest that for instance, participation in community organisations [8] or participation in sports [8] can enhance well-being. However, many uncertainties remain about the precise workings of CE in health promotion and health and well-being outcomes [9]. It is still unclear how active participation in health promotion works to improve health, especially for specific vulnerable groups [5]. Moreover, studies have not been able to show

which routes link active participation in CE in health promotion activities to improvement in health outcomes [1, 6, 10].

Models for CE often seem to imply that there is a hierarchy in the forms of participation for specific groups and communities, in which consultation is seen as the least desirable form and community-led projects are seen as the most desirable. Such a “framed” perspective on CE could unnecessarily narrow findings of studies using CE models, in the sense that it could lead researchers to overlook the positive outcomes of forms of CE perceived as less desirable or the side effects of community-led initiatives [11]. Another important uncertainty lies in the knowledge gap around outcomes of CE for specifically groups in vulnerable situations [5]. While members of those groups (i.e., ethnically diverse, lower socioeconomic position, elderly, less-abled citizens) should benefit from health promotion activities, there is a lack of knowledge about what works (or not) for them [5]. Finally, it is quite challenging to design and implement evaluations of CE initiatives [12].

The aim of this study is to further unravel the mechanisms at play between CE in health promotion activities and individual- and community-level health-related outcomes, including social determinants of health. By conducting a (realist) multiple case study of three Dutch health promotion projects that engage with local communities, we aim to provide in-depth insights into the workings and outcomes of CE in health promotion for community members in vulnerable situations. The main research question is: *What works and how (and what does not and why) regarding community engagement for health promotion among families in vulnerable situations in the Netherlands?*

The health promotion activities we investigate include health outcomes related to the three dimensions of health: mental health, physical health, and indicators of changes in social health [13]. Also, we define “community” as the social, geographical, and/or cultural context of the target groups for the three projects. The projects were embedded in the Healthy Futures Nearby (HFN) programme funded by FNO, a Dutch nonprofit organisation that works to promote health among members of society in vulnerable positions [14]. FNO defined “vulnerable families” (in this article: families in vulnerable situations) as: “households in which at least one adult and one child live together, who experience multiple problems with finances, education, work, or well-being and who suffer health deprivation caused by smoking, heavy consumption of alcohol, or unhealthy weight, combined with a lower perceived health” [15].

Community engagement in health promotion is a very broad concept in the literature, relating to a range of theoretical models. The projects included by FNO have planned and implemented activities based on similarly diverse theoretical frameworks and expertise with regard to active engagement in health promotion by community members [16]. Therefore, we adopt a theory-based approach in this study. This enables the development of a “case-specific” base for evaluation, while taking into account projects’ underlying theories and assumptions.

## 2. Materials and Methods

This study is part of the bigger, overall evaluation of the HFN programme, which consists of 46 small-scale projects that focus on health promotion among families in vulnerable situations [14]. More information on the HFN programme and its overall evaluation, conducted by a consortium, can be found in the study protocol [17]. Previous steps in the evaluation also included a study to determine assumptions in each of the programme’s 46 projects. Following these assumptions, 38 projects prioritised CE as a strategy [16].

To unravel what works in complex community settings [18], this study uses a multiple case study design. It was guided by principles of realist evaluation combined with theory of change (ToC) [19, 20]. A realist approach ensures that existing assumptions about CE can be refined while adding valuable information about the mechanisms at play in these specific contexts. Furthermore, a combined ToC and realist approach allow us to focus on those parts of CE that matter [20] to the projects themselves, since the ToC is based on their assumptions. A ToC also provides a solid theoretical foundation for refinement [20], and a ToC can help unravel the interrelationships between the different activities, mechanisms, and outcomes [21]. The Rameses reporting standards for realist evaluations [22] were used as overall guidelines to report the available information, whereas the structure and order of information draws mostly upon the steps in the research design.

**2.1. Research Design.** Table 1 shows the five steps taken in this research and the methods, sources, who did what and outputs of each step. As a first step, we selected three cases (Step 1) from the 46 and collected four years’ worth of data about them (Step 2). Sources are telephone interviews (3 per project), group interviews (3 per project), and project documents. From these data, we extracted assumptions about CE to build a combined ToC for the three cases (Step 3). We used the ToC to make a code list to guide a thematic analysis based on realist principles (Step 4). Finally, we used the findings from the thematic analysis to draft a refined ToC (Step 5).

Steps 1 and 2 are described in this Methods section, complemented by a description of the analyses.

**2.1.1. Step 1: Selection of Projects.** In the first year of the programme, all projects were sorted into categories based on project strategies and assumptions [16]. Thirty-eight projects were categorised as using CE as a (primary) strategy for health promotion. We then used purposive sampling [23, 24] to select 3 of these 38 projects to further investigate CE in health promotion. Selection was based on: (1) belonging to the group of projects that work with a CE strategy, (2) participating in all the data collection methods used in the overall evaluation, (3) showing that they clearly implement (elements of) CE, and (4) displaying variation in the types of CE implemented (i.e., maximum variation sampling [24]). Such purposive sampling of cases, or more specifically, purposefully defining what is a meaningful case in a specific situation, resonates well with a realist perspective [25].

TABLE 1: Research steps, methods, sources, and primary outputs.

Step	What	Methods and by whom	Sources	Primary outputs
1	Case selection	Purposive sampling; selection based on four criteria (i) LH, LV, and MK	(1) Categorisation of projects (previous study) (2) Project proposals (3) Group interviews round 1	Selected cases, 3 from 46: Project A Project B Project C
2	Data collection	Multiple telephone interviews and group sessions (see also Tables 2 and 3) Collection of available project documents and reports (i) LH, LV, CL, and other researchers from the research consortium of the overall evaluation		
3	Identifying a combined ToC	Analysis of data using interpretive content analysis and primarily deductive coding of texts (i) LH	(1) Project proposals (2) Groups interviews round 1	(1) Visual representation of ToC (2) List with main assumptions
4	Thematic analysis based on realist principles	Analysis of data based on realist principles and guided by the ToC: identifying (related) mechanisms, context, outcomes, and inputs (ICMO configurations) that can be linked to parts of the ToC (i) LH and LV	(1) Group interviews round 2-3 (2) Telephone interviews round 1-3 (3) Progress reports (4) Final evaluation report by project	List of identified (i) CMO configurations
5	Creating a refined ToC	Linking identified (i) CMO configurations to the ToC when possible, to create the refined ToC (i) LH	List of identified (i) CMO configurations	Visual representation of parts of the refined ToC

\*LH, LV, and MK are authors and worked as researcher or project leader in the overall evaluation team. CL worked as a research assistant in the research consortium of the overall evaluation.

TABLE 2: Topics covered in telephone interviews with project leaders.

Interview round	Topics
I-2017	(i) Funder-defined outcomes (ii) Community/family participation (iii) Main project strategies (iv) Project-specific evaluation designs (v) Other developments
II-2018	(Additional to round I) (i) Project sustainability (embedding) (ii) Outputs, outcomes, and mechanisms (iii) Perceptions of funder communication activities
III-2019/2020	(Additional to round II) (i) In-depth reflection on mechanisms and outcomes (ii) Clarification of gaps in data

TABLE 3: Participants in group sessions and number of project participants from family members present.

Group sessions and methods	Project A		Project B		Project C		Mean
	<i>N</i>	Participants from families	<i>N</i>	Participants from families	<i>N</i>	Participants from families	
First round (EffectenArena approach)	7	—	5	—	5	—	5.7
Second round (timeline)	5	—	8	3	8	1	7
Final round (outputs, outcomes, and mechanisms)	5	—	11	4	8	2	8

Table 4 summarises the main characteristics of each project, which have been anonymised and will be referred to as Projects A, B, and C in this study. CE is defined broadly in our paper as involving communities (individuals from those communities) in decision-making and in the planning, design, governance, and/or delivery/implementation of health promotion-related activities and services. Projects under the umbrella of the HFN programme were asked to include participatory elements in their proposals. The extent to which individual projects included active involvement of communities differed, as well as the project phase in which such participatory elements were planned. Often, projects designed a preparatory project start, such as creating a participatory inventory of community assets and needs, and basing the design of the actual intervention on this inventory. The three projects selected all incorporated participatory elements in the implementation phase of their project proposals. What these elements look like for each project is summarised in Table 4.

*2.1.2. Step 2: Data Collection.* Data were collected through three telephone interviews per project with project leaders and three group interviews per project with project stakeholders. In addition, we reviewed progress reports written by project leaders that were sent to the funder three times a year; these provided information about wider processes around and within the projects. Analysis was primarily based on the verbatim transcripts of the nine telephone interviews and the comprehensive reports of the nine group interviews. The project progress reports were used as additional sources of information.

*(1) Telephone Interviews.* Three telephone interviews were conducted with leaders from the three projects. The telephone interviews, which each lasted around one hour, were semistructured, guided by a topic guide. The topic guide for each round was constructed by LH and LV. A verbatim transcript was made of the recordings of each interview.

The topics discussed in each round are summarised in Table 2. For the 2017 interviews (the projects had started a year before), the topic guide was based mainly on the funder's requirements for projects and on results of the first group interview. During the last round of telephone interviews, most projects had officially ended.

*(2) Group Interviews.* Three group interviews were held with participants from the selected projects. Participation in the group interviews was based on convenience sampling; the project leaders were asked to invite all stakeholders or representatives. This resulted in a variety of stakeholders taking part, including project leaders, health care and welfare professionals, educators, members of sports clubs and neighbourhood organisations, family members, researchers, and volunteers. Participants varied between projects and between interview rounds. In total, 62 people participated in the group interviews, with a mean group size of 7 (range 5–11, see Table 3). All interviews lasted 2–3 hours and took place at a location chosen by the project leaders, often close to where the projects were implemented.

Each group interview was facilitated by one researcher, while another took detailed notes. The second and third rounds of group interviews were also recorded. The notes and audio files were used afterwards to write a comprehensive report (3–5 pages) of the interview. In addition, for

TABLE 4: Project characteristics.

Project	Intervention/activities	Scale/target group	Relevant project characteristics
Project A	<p>Working groups of families organising activities/events (Assumed) CE elements:</p> <ul style="list-style-type: none"> <li>(i) Families working together with project team to create a plan (based on evidence-based interventions)</li> <li>(ii) Setting project goals together with project team</li> <li>(iii) Cooperation in working groups to organise and implement interventions</li> </ul>	<ul style="list-style-type: none"> <li>(i) Families in vulnerable situations (as defined)</li> <li>(ii) Specific neighbourhoods</li> </ul>	<p>The project consists of multiple parts, one of which is a CE project. The project was initiated by a consortium from the municipality and the local university. Health and community workers are also represented in the project team</p>
Project B	<p>Groups of single-parents organising activities/events (Assumed) CE elements:</p> <ul style="list-style-type: none"> <li>(i) Participation in a working group of parents, which will                             <ul style="list-style-type: none"> <li>(a) think of relevant activities and facilities for the single parents in the neighbourhood</li> <li>(b) Organise/implement such activities</li> </ul> </li> <li>(ii) Actively participate in the activities in the neighbourhood</li> <li>(iii) (Mentally) support other parents in similar situations</li> </ul>	<ul style="list-style-type: none"> <li>(i) Single parents (in vulnerable situations, as defined)</li> <li>(ii) Specific neighbourhoods</li> </ul>	<p>The project began as a primarily community-driven project directed by working groups of families/parents. After one year, project leaders shifted towards a professional-driven strategy</p>
Project C	<p>Families' initiatives are supported in design and implementation</p> <p>CE elements:</p> <ul style="list-style-type: none"> <li>(i) Participation in creating an "infrastructure" for neighbourhood inhabitants to realise their (so far not realised) initiatives</li> <li>(ii) The intervention is based on trust in families' taking responsibility for the activities</li> </ul>	<ul style="list-style-type: none"> <li>(i) Families in vulnerable situations (as defined), also more specifically children</li> <li>(ii) Specific neighbourhoods</li> </ul>	<p>The entire project is based on CE</p>

the first round, the researchers drafted a flow diagram representing the main elements, processes, and expected results of each project. Both the comprehensive report and—after the first round—the diagram were presented to the project leader, who was asked to reflect on the accuracy of the documents. Table 5 summarises the methods, topics discussed and goals of each round.

At the start of each project, group interviews were held using the EffectenArena approach [26], which is a semi-structured approach to group interviews that focusses on activities, outcomes, conditions, investors and beneficiaries. It facilitates an open, informative discussion between stakeholders and thereby promotes learning and dialogue within teams. A second round of group interviews was conducted approximately mid-term. The creation of a project timeline with participants provided insight into what project stakeholders perceived as important highs and lows over the first years of the project [27, 28]. The timeline method has the advantage that “various individual experiences emerge and have a place, quickly and clearly. Everyone’s story matters” [29]. The last part of the interviews was a facilitated discussion about the elements of the timeline. What differences in perceived highs and lows were present among participants? During the final round of group interviews, most projects had either finished their subsidised activities or were finalising them.

**2.2. Analysis.** Two thematic analyses were performed. Both were conducted as iterative processes: data and findings were discussed and refined multiple times among the authors.

**2.2.1. Identifying a Combined ToC.** In a first (inductive) analysis, data from the first round of group interviews were analysed to look for all explicit and implicit assumptions related to CE. The focus was on assumptions about how CE works, including what is needed to make it work and what it could lead to. This was done in two rounds, where the first list of assumptions (by LH) was discussed with MK and LV before completing the list in a second round. The complete list of assumptions related to CE was then categorised and again discussed and summarised to be able to build a comprehensive ToC and related code list.

**2.2.2. Identifying Mechanisms at Play.** In a second, more deductive thematic analysis, a summary of that ToC was used as a code list. The code list also included the realist concepts of mechanisms (“a ‘causal force’ that makes an outcome happen” [30], p. 109) and context. Using this list, group session reports and verbatim transcripts of telephone interviews were analysed to create CMO configurations. Again, the resulting list of CMO configurations (by LH) was first discussed among the team (LV, MK, and LH) to further clarify and refine gaps where possible. The list of CMO configurations was shortened further by leaving out all configurations with severe gaps. For the sake of clarity, we then selected those CMOs that were mentioned more often than others or that we perceived as more

relevant for future design and implementation of health promotion.

### 3. Results

**3.1. Developing a Combined ToC.** We identified six categories of intended (positive) effects of CE on vulnerable families, as illustrated in the combined ToC in Figure 1. The local projects assumed that CE would (1) promote healthy lifestyles, (2) improve self-management (and affect related individual concepts), (3) improve control over one’s own/family life, (4) promote community involvement, (5) create supportive environments, and (6) directly influence health. There were many mentions of what CE was assumed to lead to, but less data on how CE was to inspire all these changes.

(1) *Promote healthy lifestyles* includes assumptions about engagement leading directly or indirectly to being less overweight, more aware of healthy lifestyles, and more engaged in exercise. (2) *Improve self-management (and affect related individual concepts)* or *control over personal circumstances* includes assumptions about the benefits of CE for strengthening the “power to solve,” self-reliance, self-control, self-directedness, and (cognitive) flexibility. (3) *Control over one’s own/family life* includes assumptions about how CE can reduce stress related to social, financial, and child-rearing issues, which in turn creates space to focus on health. Moreover, we found assumptions about CE positively affecting control over finances, child-rearing issues, social networks, and the physical environment. (4) *Promote community involvement* includes assumptions that families involved in CE would strengthen their ties with the (local) community, also beyond that specific project. (5) *Create supportive environments* includes assumptions that CE will benefit the physical and social environment of a community. (6) Finally, *directly influence health* assumes that CE will have a direct influence on the health status of families in vulnerable situations.

In turn, we found that more indirect effects of CE were assumed, relating social determinants to health indicators or social determinants to other (also social) determinants: (1) healthy lifestyles will lead to better health, (2) improved self-control will lead to healthier lifestyles and better health, (3) more control over one’s own/family life will lead to healthier lifestyles and better health, (4) community involvement will lead to healthier lifestyles and better health, and (5) the creation of supportive environments will lead to healthier lifestyles and better health. All assumptions are laid out in the combined ToC (Figure 1).

**3.2. Identified Context–(Intervention)–Mechanism–Outcome Configurations.** Hereafter, we present one or two complete context–(intervention)–mechanism–outcome (C(I)MO) configurations found per project. For reasons of clarity, the rest of the complete C(I)MO narratives are included in Appendix B.

**3.2.1. Context–(Intervention)–Mechanism–Outcome Configurations for Project A.** Nine complete (C, I, M, and O were identified) configurations were found for project A. Each

TABLE 5: Methods and topics in group interviews.

Interview round	Methods	Goal	Topics
I—at the start of each project	EffectenArena approach [26]-facilitates an open, informative discussion between stakeholders and thereby promotes learning and dialogue within teams	Identify main strategies to create a ToC	(Assumed) activities, outcomes, conditions, investors, and beneficiaries
II—approximately mid-term	Timeline method [27, 28]	Keep track of developments, (changing) perspectives and strategies, as well as (preliminary) outputs and outcomes	Reflection on project-specific ToC Perceived highs and lows over the first years
III—projects finished subsidised activities	Semistructured interview guide, additional project-specific preparation by researcher based on available data	Identify project outputs and outcomes, related mechanisms. Reflect on initial assumptions in ToC	Projects perspective on outputs and outcomes Possible mechanisms Reflection on ToC

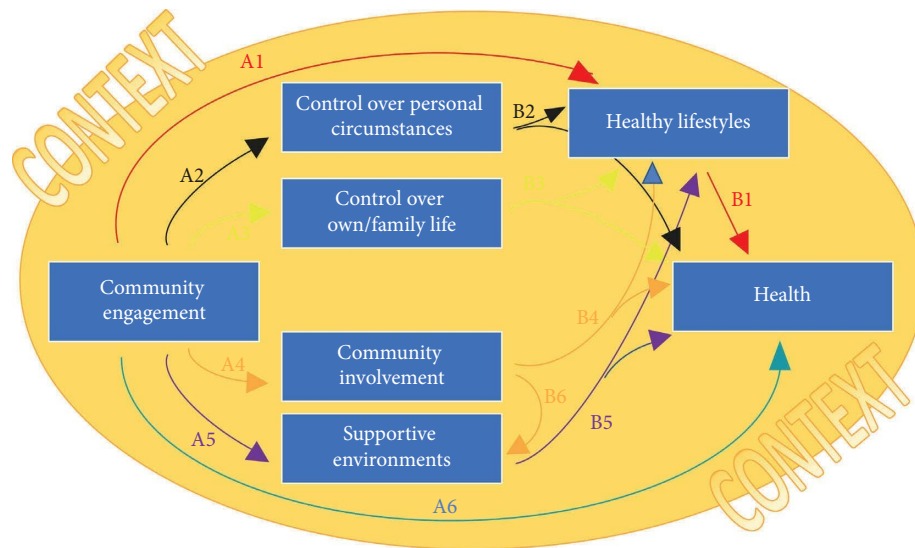


FIGURE 1: Combined ToC from three CE projects. Note: A1, A2, etc. Codes and colours refer to the concepts and assumed relations operationalised in the code list (Appendix A).

configuration is presented here as a short structured narrative. The identified relations between the C(I)MO elements are clearer for some configuration than in others. Within the project context, interventions or activities may fire positive (configurations A I, III, IV, V, VI, VII, and IX) and/or negative reactions (configurations II and VIII) among participants, translated as mechanisms in the narratives.

In project A, a core intervention element is the construction and implementation of a working group of project participants, supported, and coordinated by a member of the project team. Two configurations (I and II) relate directly to the processes of the working group, including positive and negative outcomes.

#### *C(I)MO A-I Two-sided configuration*

(C) Participants are neighbourhood inhabitants with varying backgrounds. What they have in common, is most lack experience in organising activities or events in a more or less professional setting, in cooperation with the municipality and with others. Also, some have negative experiences with support/help from the municipality and/or social work, while some have gone through drastic changes or events in their personal lives.

(I) Participants helped researching the needs of the neighbourhood community, in a previous phase of the project. Based on those needs, a working group of participants, coordinated by a member of the project team, organises activities and changes in the neighbourhood. The coordinator tries to structure the process where needed and helps the participants in finding how they can individually contribute best (as they all have different skills and knowledge). The composition of the working group is random, and participants were “recruited” through a previous phase of the research and via via among neighbourhood inhabitants.

(M-positive) Overall, several participants have felt that they had something they can contribute (M1) to the project, which motivates them to be/stay involved and help organise activities and events. Two participants are (even) more motivated (M2) than the rest and thereby help motivate others to make a contribution. These two seem to use the knowledge from experience gained by drastic changes in their lives (C). Also, they seem to know a bit better that it takes a few preparatory steps to organise something (C). These two participants also act as motivators for the rest of the group in their enthusiasm, in turn creating a positive context (C). Participants have also felt responsible (M3) for the actions needed to organise the things they want and need.

(M-negative) In the context of lacking experience with organisation of activities in community or more professional setting, participants have felt frustrated that organisation of activities takes preparation and time (and thus feel that “nothing is happening”) (M4). This has also led participants to feel they do not have the skills/power to initiate and organise activities (M5). Participants have also not felt responsible for the organisation or implementation of ideas (M6).

(O) Participants are involved in community activities (community involvement, O1), and supportive environments for community inhabitants are created (O2). On the other hand, participants who had previous negative experiences with the municipality or social work felt further confirmed in their attitudes (O3). This has somewhat hindered the creation of supportive environments for other neighbourhood inhabitants (O4).

3.2.2. *Context-(Intervention)-Mechanism-Outcome Configurations for Project B.* Fourteen complete (C, I, M, and O were identified) configurations were found for project



B. Similar to project A, each configuration is presented here as a short structured narrative. Again, the (causal) relations between the C(I)MO elements are clearer for some configuration than in others. Depending on context, interventions or activities may fire different reactions among participants, translated as mechanisms in the narratives, which in turn lead to multiple positive or negative outcomes.

The core target group of project B is single parents. The project uses various strategies to invite those parents to participate, either very actively in a working group or more passive in one of the activities initiated and organised by the working group. Already at the start of the project, it becomes clear that active and “successful” participation as a result of the projects’ interventions is not self-evident (C(I)MO B-I and C(I)MO B-II).

#### *C(I)MO B-I Stress and frustration*

(C) Participants are single parents that often experience stress in their (personal) lives, due to personal circumstances, stressful events, etc. At times when stress is high, drop-out occurs. While at times when there is less stress, they decided to participate.

(I) Active participation in a core/working group of single-parents organising activities for the target group (single parents). The focus is on collective action by the working group, single parents working together and receiving support—as a group—in that to organise the things they need.

(M) Participants (single parents) experienced no “room” for participation in the project (M1). Participants feel they need to prioritise dealing with the stressors at home. Also, participants (and professionals) feel frustrated (M2): when is the project really starting (while professionals wait for parents taking initiative).

(O) Because of the experienced lack of “space” to take on new things and the frustration felt among participants, participants do not initiate new activities and do not help in organising new activities. In turn, participants may drop out of the project, which can be translated as less community involvement.

#### *C(I)MO B-II Tailored support*

(C) Participants are single parents that often experience stress in their (personal) lives, due to personal circumstances, stressful events, etc. At times when stress is high, drop-out occurs. While at times when there is less stress, they decided to participate.

(I) Active participation in a core/working group of single-parents organising activities for the target group (single parents). The focus is on collective action by the working group, single parents working together and receiving support—as a group—in that to organise the things they need.

(M) Participants (single parents) experience no “room” for participation in the project. Participants feel they need to prioritise dealing with the stressors at home.

The collective support for the working group is not experienced as fitting or what they need.

(O) Because of the experienced lack of “space” to take on new things and the frustration felt among participants, participants do not initiate new activities and do not help in organising new activities. Also, the support provided by the project does not fit their needs. In turn, participants may drop out of the project, which can be translated as less community involvement.

*3.2.3. Context–(Intervention)–Mechanism–Outcome Configurations for Project C.* For project C, six complete (C, I, M, and O were identified) configurations were found. Again, each configuration is presented below as a short structured narrative.

The first configuration in project C (C–I) shows how one well-thought intervention element, a regular neighbourhood breakfast-reaching participant in specific contexts, can result in multiple positive outcomes: community involvement, (health) supportive environments, and healthy lifestyles. The following C(I)MO adds that time/learning while doing can be a key element in project to evoke such positive mechanisms and outcomes. In this case (C–II), participants initially felt frustrated by the responsibilities put on them to further develop their ideas for the neighbourhood, coming from a lack of knowledge about what already exists and a perception that such neighbourhood initiatives never succeed. The project team then scaled-up support for participants, which motivated them and made them feel “less lost.”

#### *C(I)MO C-I Visibility and motivation*

(C) People felt that they did not have a proper breakfast or that children in the neighbourhood did not have a proper breakfast. In the neighbourhood, professionals perceived the target group of inhabitants as difficult to activate or involve. Inhabitants did not think that it is possible to organise support of activities in their neighbourhood. There is an offer of health-related initiatives in the neighbourhood, but it seems that this is not known among neighbourhood inhabitants.

(I) A regular neighbourhood breakfast is organised, where ideas and knowledge (about what is happening in the neighbourhood) is being exchanged by inhabitants attending. Also, the breakfasts are a fun get-together, where people can relax and enjoy the contact with and company of others. Coordination is done by project professionals and/or project leader.

(M) People have seen for themselves what is possible or what is already on offer in the neighbourhood. People experience that initiatives in the neighbourhood (such as the breakfast initiative) can be successful and in turn feel motivated to become actively involved.

(O) Participants in the project have organised swimming lessons (and swimming hours) for women only/neighbourhood inhabitants. This is translated as outcomes: community involvement, creating supportive environments, and healthy lifestyles.

*C(I)MO C-II Feeling lost or enabling participation*

(C) People felt that they did not have a proper breakfast or that children in the neighbourhood did not have a proper breakfast. In the neighbourhood, professionals perceived the target group of inhabitants as difficult to activate or involve. Inhabitants did not think that it is possible to organise support of activities in their neighbourhood. There is an offer of health-related initiatives in the neighbourhood, but it seems that this is not known among neighbourhood inhabitants. During a previous preparatory phase in the project, all kinds of ideas and initiatives have been collected among inhabitants.

(I) Inhabitants have been asked to further develop the ideas from the initial inventory. This required (professional) skills, such as making a project plan/planning, finding network, and monitoring. Over the course of this “intervention,” the project team has scaled up the support for participants.

(M) Participants feel that it is difficult to organise something, and feel that they lack the skills to contribute (M1). However, with (more) support from the project team, inhabitants are motivated to further develop their initiatives and ideas. They feel less “lost” (M2).

(O) Initially, the responsibilities put on inhabitants led to participants becoming inactive, less community involvement. Later, support by the project team created a more enabling environment for participants who then started to actively participate.

*3.3. Mechanisms, Outcomes, and Context.* The main findings show that implementing CE projects could—in specific contexts—inspire feelings of self-worth, recognition, reward, a sense of being valuable or needed, a feeling of responsibility for something or someone, and self-esteem. In turn, the identified mechanisms can, again in specific contexts, lead to the following outcomes for individuals: community involvement, more control over personal circumstances and own/family life, more supportive environments, and healthy lifestyles. On the other hand, CE projects have also been shown to trigger negative responses among participants, such as feeling frustrated, overwhelmed, and stressed or feeling that individual needs are not being met. At the project level, such responses lead to participant drop-out or project delays and inactivity.

Contextual factors that play a role are families having no or ample experience in organising activities, participants rarely experiencing successes in their lives, participants experiencing stress from multiple problems, and the tendency to define participants as a group based on their lifestyle/behavioural or medical characteristics, while they are very different in every other way. Such contextual factors can trigger positive responses, for instance, when practitioners offer tailored support for CE to families who lack experience. Under the same circumstances, however, implementing CE that is neither flexible nor tailored may

cause families to have negative feelings and drop out of CE projects. The main intervention elements that were related to identified mechanisms were working in groups, both tailored and flexible facilitation of CE projects, and offering multiple and different types of roles and responsibilities.

*3.4. Developing a Refined ToC.* The last part of the results concern refining the ToC. Figure 2 shows which assumptions from the initial ToC for CE within these projects can be refined. Those visualised with a thicker solid line represent assumptions that were positively refined (what does work, under which circumstances) and those with an added dashed line were (also) negatively refined (what does not work, under which circumstances).

The detailed C(I)MO narratives discussed before and, in Appendix B, show the precise circumstances, intervention elements, and mechanisms at play for both positive and negative outcomes. Below, we summarise the refinements and provide an example from the data for each. We found information on “what works, under which circumstances” for:

- (1) A1: Community engagement can lead to healthy lifestyles. This is, for instance, the case when in project B, in a nested C(I)MO, meaning this outcome was identified after several consequential steps in the project. Single parents were able to participate in a working group, where participation was tailored to the participants’ possibilities and needs by a professional coordinator. This has made participants to experience they can actually do something within their own possibilities, leading to more self-esteem and control over personal circumstances. Following that, participants experienced that they are worth it to invest in a healthy lifestyle, and decide to take action to incorporate healthy behaviours in their lives.
- (2) A2: Community engagement can lead to improved self-management and related concepts, such as strengthening the “power to solve,” self-reliance, self-control, self-directedness, and (cognitive) flexibility or control over personal circumstances. In project C, neighbourhood inhabitants were invited to show their own ideas or initiatives and to contribute to low-key, accessible activities, enabling them to experience possibilities for initiative and participation do exist and can be successful. In turn, this has made participants feel more self-confident.
- (3) A3: Community engagement can lead to control over one’s own/family life. We have identified that, for instance in project B, when single parents were cooperating successfully in a working group (which was when the group work made them feel responsible for the project and other parents), the working group was able to address the needs of the bigger population of single parents in the neighbourhood, such as providing childcare at activities, thus leading to participants organising the things the

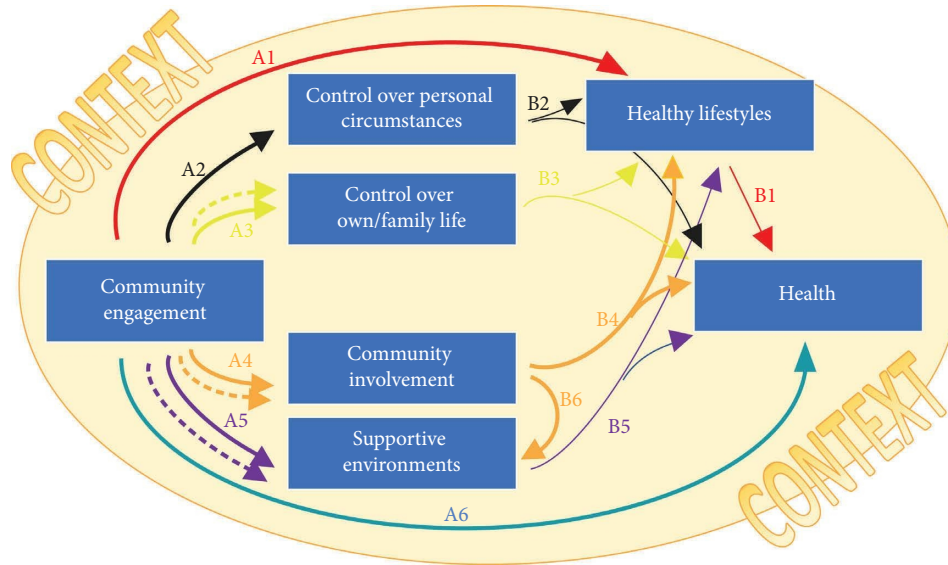


FIGURE 2: Refined and combined ToC from three projects. A thicker solid line represents assumptions that were positively refined (what does work, under which circumstances); a dashed line represents assumptions that were (also) negatively refined (what does not work, under which circumstances).

group needs to gain control over ones own and/or family life.

- (4) A4: Community engagement can lead to more community involvement, even beyond the current project. In project A, in a context where change was perceived as difficult by some participants, a swap shop lets participants contribute in various ways. Such broad possibilities to participate show that changing roles (from “asking for support” to “valuable contributor”) is possible. This can lead to community involvement by those who found their individual ways to contribute.
- (5) A5: Community engagement can create supportive environments. Refinement of this assumption was found for instance in project C. In the concerning neighbourhood, a regular joint breakfast was organised for inhabitants to meet up, see what activities are organised, initiate their own activities, and fund the support (for organising activities) to make them successful. This breakfast event showed inhabitants that initiatives can be successful and that support is provided, which in turn motivated inhabitants to organise women’s-only swimming lessons, thus creating a more healthy environment for (female) neighbourhood participants.
- (6) A6: Community engagement can lead to improved health. In project B, participation of single parents in a working group has shown them that they can share valuable skills and experiences to help others, as well as gaining self-confidence. Such mechanisms have in turn led to bigger social networks for these single parents. In a successive C(I)MO, these bigger social networks have led to more happiness, less

loneliness, and more self-reliance among some participants.

- (7) B4: Community involvement can lead to healthier lifestyles. Project A has provided refinement of this assumption. Neighbourhood inhabitants have been working together to organise activities. This co-operation has led to participants seeing and hearing how other neighbourhood inhabitants manage to do sports and/or how other parents have been able to organise participation in sports for their children. Participants have now started to do sports themselves, thus creating a healthier lifestyle.
- (8) B6: Community involvement can lead to more (health) supportive environments. In project C, project participants received tailored support to further develop their own initiatives for activities in the neighbourhood, including sports classes. This had increased the offer of accessible sports lessons for neighbourhood inhabitants including children, thereby creating a more healthy environment.

Furthermore, we found refinements on what does not work and under which circumstances for:

- (1) A3: Community engagement can lead to control over one’s own/family life. When, in project B, single parents participating in the working group received support as a group, they felt that this support did not fit their individual needs. They did not gain control over their own/family lives.
- (2) A4: Community engagement can lead to community involvement. In project A, neighbourhood inhabitants with varying backgrounds work together in groups to organise activities. Most lack experience in

organising activities in a municipal setting. Some participants are perceived by professionals as stuck in their role of “victim,” not seeing possibilities to take responsibility. In the working group, this leads to frustration (the feeling that nothing will change), in turn making participants drop-out of the project.

- (3) A5: Community engagement can lead to (health) supportive environments. Following the example above (A4), the working groups were assumed to create healthier environments through the organisation of, for instance, sports lessons. However, the working groups’ processes have led (some) participants to feel frustrated, lacking skills and no responsibility. The result was an inactive working group, with no actual tangible outputs for a healthier environment.

#### 4. Discussion

The research question for this study is: *What works and how (and what does not and why) regarding community engagement for health promotion among families in vulnerable situations in the Netherlands?* Our findings suggest that “what works” in CE for families in vulnerable situations—in the sense that it triggers positive feelings and experiences among participants in specific contexts—is, among other things, (1) *tailored* and (2) *flexible*. Such a tailored approach should ideally be combined with (3) a focus on (universal) mechanisms, such as feeling worthy, experiencing self-esteem, and receiving recognition for all contributions. Flexibility in terms of funding and types of CE allows for a focus on these mechanisms. We then argue that health promotion for families in vulnerable situations should always start with an investigation of what people *have* (to contribute) and what they *need* (to be facilitated) when actively engaging and learning by doing. Also, (4) CE projects for families in vulnerable situations may benefit from an experienced coordinator who pays attention to the “people behind the problem.”

CE being tailored and flexible is in line with the “fit-for-purpose” approach for CE that O’Mara-Eves et al. [10] proposed. Also, a recent review on family participation in health promotion stresses the importance of flexibility in the form of participation [31]. Adhikari et al. [32] also found that recognition, or “a sense of people being heard,” is a mechanism in CE, while Caló, Roy, Donaldson, Teasdale, and Baglioni [33] found that in (musical) engagement, “a sense of accomplishment,” “a sense of connection and identification,” and “feelings of safety and protection” are crucial mechanisms in the promotion of health and well-being among disadvantaged adolescents. When it comes to the suggestion of an experienced professional to coordinate and implement CE, the crucial role of the type and intensity of support for vulnerable groups was also recognised by De Weger et al. [5] in their review of successful CE.

CE or participation may also trigger negative processes and responses, leading people to drop-out of projects or leading to more long-term effects, such as distrust of professionals or municipal/neighbourhood workers. Other

researchers (e.g., [11]) have already illustrated the complicated processes that arise when working with communities. Using a realist approach in this study has offered detailed information on what specific contexts and intervention elements may trigger such negative responses. In turn, these insights show the importance of continuous attention to changes in context. This is in line with the approach to context that, for interventions “(…) successful implementation requires a process of matching and adapting interventions to different evolving circumstances” [34], pp. 592-593.

As regards the hierarchy assumed in some participation models, our findings suggest that a tailored approach may be more helpful than deciding beforehand that a specific type of participation is best or may be suitable for a group of participants in a specific project. This is in line with the conclusion of O’Mara-Eves et al. [10], who state that they cannot “conclude that one particular model of community engagement or theory of change is clearly more effective than any other.” It is also in line with other studies stressing flexibility and adaptation of involvement to personal circumstances [31]. Our findings show that aiming for more intensive forms of participation in certain contexts may trigger negative responses, leading to resistance and drop-out.

We thus argue for flexibility and tailoring to circumstances, needs, and skills. First, participants may be grouped by their medical problems or lifestyle (behaviour), but they are different in many more ways and thus need specific and varying approaches. Successful CE offers flexible levels of participation (at the start of and during the project) to ensure that the CE sustainably triggers positive responses among participants, such as fulfilment and self-esteem. Second, we found that participants responded positively to types of participation that some models categorise as “low” or least desirable. Serving coffee that has already been made in a location that has been booked and setup for the event is the type of participation some people prefer. Moreover, CE that triggers positive experiences requires the availability of support that is wise (i.e., can judge what participants need at any moment in the process) and that is tailored to individuals when needed but can also signal and steer/support group dynamics. However, such flexible CE can also mean that, in the end, the project is not really participatory. That in turn has consequences for professionals, volunteers, expectations about who does what, outcomes, and budget.

Our findings provide evidence that in specific contexts, a relationship between individual participation in CE activities and improvement in mental and social health outcomes is possible, such as community engagement leading to control over personal circumstances and to community involvement. The results show that many other positive outcomes can also be achieved by CE, such as control over own/family life, more supportive environments, and healthy lifestyles. Such changes do require time and continuous attention from everyone involved. The programme under study here was too short to measure improved physical health outcomes. Moreover, both the overall evaluation and the project-specific evaluation did often not include

measures of physical health outcomes. Therefore, our findings question the focus on measurable, more distal health outcomes as a realistic ambition for CE health promotion projects among groups in vulnerable situations. Rather, we would suggest to (co)identify proximal, more realistic outcomes for future programmes or design programmes and evaluations that run longer (such as the “Samen kansrijk en gezond” programme 2021–2030 [35]). This is in line with a recent review on family participation, in which the authors conclude that a participatory approach “has many effects that will, over time, trigger behaviour changes in the family and the respective environment or community” [31], p. 13. Future research could further determine how proximal outcomes may translate into measurable health outcomes in the long term. However, following Huber et al. [36], a focus on proximal outcomes such as societal participation or self-control may be more realistic as well as relevant for prevention programmes.

With regard to the combined ToC and realist approach we took in this study, our experiences were positive overall. Finding the project’s ToC as a first step was insightful and helped us find existing assumptions about CE. Also, because project strategies often entailed more activities than CE, creating a combined ToC was useful in narrowing the scope of this study. As Rolfe [20] argues, particularly for complex interventions targeting multiple outcomes, this combined approach—realist and ToC—is helpful to focussing within an evaluation. Our findings were presented to the funder, and both project monitoring during the programme and the design of the new programme have been based on the learnings from this study. A theory-based approach “can strengthen programme design and implementation, as well as promote policy and practice learning” [21], p. 19.

The design of the (overall) evaluation aligned with crucial principles for evaluation of health promotion interventions as stated by the World Health Organization European Working Group on Health Promotion Evaluation [37, 38]; fit the complex nature of HP interventions, using a “broad range of information-gathering procedures” from a “variety of disciplines”; and designed appropriately participative and empowering (capacity-building). However, more radical use of the realist approach, for instance through the use of the realist interview technique, might have “strengthened trustworthiness” [39] of our study.

## 5. Conclusion

The aim of this study was to further unravel the relationships between CE activities and individual- and community-level health-related outcomes, including social determinants of health. We succeeded in finding in-depth insights into the workings and outcomes of CE for community members facing vulnerability. Our main conclusion is that flexibility is key when CE is implemented in health promotion. Also, our findings question health outcomes as a realistic ambition for CE projects with groups in vulnerable situations. Context appears crucial, in combination with the types of activities implemented, for either positive or negative mechanisms to be “fired.” By providing these insights, we add clarity to how

active participation of community members may work in health promotion and what it can offer, especially for vulnerable families.

## Data Availability

The interview data used to support the findings of this study are restricted in order to protect participant privacy. Data are available from the chairgroup Health and Society, Wageningen University and Research for researchers who meet the criteria for access to confidential data.

## Additional Points

*What Is Known and What This Paper Adds?* (1) Community engagement is implemented widely in health promotion, but its outcomes for vulnerable families often remain uncertain. (2) CE can strengthen social networks, empower families, and increase perceived health, when applied in specific contexts. (3) For successful CE, flexibility in ambitions and implementation is crucial.

## Conflicts of Interest

The authors declare that there are no conflicts of interest.

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## Supplementary Materials

Appendix A: code list for thematic analysis. Appendix B: C(I)MO narratives per project. (*Supplementary Materials*)

## References

- [1] B. Milton, P. Attree, B. French, S. Povall, M. Whitehead, and J. Popay, “The impact of community engagement on health and social outcomes: a systematic review,” *Community Development Journal*, vol. 47, 2011.
- [2] J. Popay, “Community Engagement, community development and health improvement,” *A Background Paper prepared for NICE*, vol. 12, 2006.
- [3] B. Marent, R. Forster, and P. Nowak, “Theorizing participation in health promotion: a literature review,” *Social Theory & Health*, vol. 10, no. 2, pp. 188–207, 2012.
- [4] B. Fienieg, V. Nierkens, E. Tonkens, T. Plochg, and K. Stronks, “Why play an active role? A qualitative examination of lay citizens’ main motives for participation in health promotion,” *Health Promotion International*, vol. 27, no. 3, pp. 416–426, 2012.
- [5] E. De Weger, N. Van Vooren, K. Luijkx, C. Baan, and H. Drewes, “Achieving successful community engagement: a rapid realist review,” *BMC Health Services Research*, vol. 18, no. 1, p. 285, 2018.
- [6] A. O’Mara-Eves, G. Brunton, S. Oliver, J. Kavanagh, F. Jamal, and J. Thomas, “The effectiveness of community engagement in public health interventions for disadvantaged groups:

- a meta-analysis," *BMC Public Health*, vol. 15, no. 1, pp. 129–223, 2015.
- [7] Rivm, "Betrek inwoners bij lokaal gezondheidsbeleid," 2023, <https://www.loketgezondleven.nl/aanpak-gezonde-gemeente/werk-samen/betrek-inwoners>.
- [8] C. Corvino, S. Martinez-Damia, M. Belluzzi, D. Marzana, and C. D'Angelo, "Even though we have different colors, we are all equal here: immigrants building a sense of community and wellbeing through sport participation," *Journal of Community Psychology*, vol. 51, no. 1, pp. 201–218, 2023.
- [9] B. Adhikari, R. Vincent, G. Wong et al., "A realist review of community engagement with health research," *Wellcome open research*, vol. 4, p. 87, 2019.
- [10] A. O'Mara-Eves, G. Brunton, D. McDaid et al., "Community engagement to reduce inequalities in health: a systematic review, meta-analysis and economic analysis," *Public Health Research*, vol. 1, no. 4, pp. 1–526, 2013.
- [11] S. E. Dempsey, "Critiquing community engagement," *Management Communication Quarterly*, vol. 24, no. 3, pp. 359–390, 2010.
- [12] N. Wallerstein, M. Minkler, L. Carter-Edwards, M. Avila, and V. Sanchez, "Improving health through community engagement, community organization, and community building," *Health behavior: Theory, research, and practice*, pp. 277–300, 2015.
- [13] Who, *Constitution of the World Health Organization*, Who, Geneva, Switzerland, 2022, <https://www.who.int/about/governance/constitution>.
- [14] Fno, "Gezonde toekomst dichterbij," 2015, <https://www.fnozorgvoorkansen.nl/afgeronde-programmas-fno/gezonde-toekomst-dichterbij/>.
- [15] Fno, *Call "Gebiedsgerichte Gezondheidsaanpakken – Fase 1" Voor Programma Gezonde Toekomst Dichterbij*, 2015.
- [16] L. Hogeling, C. Lammers, L. Vaandrager, and M. Koelen, "What works for vulnerable families? Interpretations of effective health promotion," *Health Promotion International*, vol. 37, no. 1, 2022.
- [17] L. Hogeling, L. Vaandrager, and M. Koelen, "Evaluating the healthy futures Nearby program: protocol for unraveling mechanisms in health-related behavior change and improving perceived health among socially vulnerable families in The Netherlands," *JMIR research protocols*, vol. 8, no. 4, p. e11305, 2019.
- [18] J. South, D. Button, A. Quick et al., "Complexity and community context: learning from the evaluation design of a national community empowerment programme," *International Journal of Environmental Research and Public Health*, vol. 17, no. 1, p. 91, 2019.
- [19] E. M. Kabongo, F. C. Mukumbang, P. Delobelle, and E. Nicol, "Combining the theory of change and realist evaluation approaches to elicit an initial program theory of the Mom-Connect program in South Africa," *BMC Medical Research Methodology*, vol. 20, no. 1, pp. 1–11, 2020.
- [20] S. Rolfe, "Combining theories of change and realist evaluation in practice: lessons from a research on evaluation study," *Evaluation*, vol. 25, no. 3, pp. 294–316, 2019.
- [21] K. Judge and L. Bauld, "Strong theory, flexible methods: evaluating complex community-based initiatives," *Critical Public Health*, vol. 11, no. 1, pp. 19–38, 2001.
- [22] G. Wong, G. Westhorp, A. Manzano, J. Greenhalgh, J. Jagosh, and T. Greenhalgh, "RAMESES II reporting standards for realist evaluations," *BMC Medicine*, vol. 14, no. 1, pp. 96–18, 2016.
- [23] S. Campbell, M. Greenwood, S. Prior et al., "Purposive sampling: complex or simple? Research case examples," *Journal of Research in Nursing*, vol. 25, no. 8, pp. 652–661, 2020.
- [24] I. Etikan, S. A. Musa, and R. S. Alkassim, "Comparison of convenience sampling and purposive sampling," *American Journal of Theoretical and Applied Statistics*, vol. 5, no. 1, pp. 1–4, 2016.
- [25] D. Byrne, "Researching complex large-scale nested interventions," *Doing Realist Research*, Sage, London, UK, 2018.
- [26] J. Deuten, "Gebruikershandleiding effectenarena," 2009, <https://docplayer.nl/8594875-Gebruikershandleiding-effectenarena.html>.
- [27] H. K. Adriansen, "Timeline interviews: a tool for conducting life history research," *Qualitative studies*, vol. 3, no. 1, pp. 40–55, 2012.
- [28] M. Herens, A. Wagemakers, L. Vaandrager, J. van Ophem, and M. Koelen, "Contexts, mechanisms, and outcomes that matter in Dutch community-based physical activity programs targeting socially vulnerable groups," *Evaluation & the Health Professions*, vol. 40, no. 3, pp. 294–331, 2016.
- [29] E. Wielinga, W. Zaalink, R. H. M. Bergevoet et al., "Networks with free actors: encouraging sustainable innovations animal husbandry by using the FAN approach (Free Actors in Networks): networking is sensing opportunities," 2008, <http://edepot.wur.nl/22956>.
- [30] G. Wong, "Getting to grips with context and complexity—the case for realist approaches," *Gaceta Sanitaria*, vol. 32, no. 2, pp. 109–110, 2018.
- [31] M. Kuchler, M. Rauscher, P. Rangnow, and E. Quilling, "Participatory approaches in family health promotion as an opportunity for health behavior change—a rapid review," *International Journal of Environmental Research and Public Health*, vol. 19, no. 14, p. 8680, 2022.
- [32] B. Adhikari, C. Pell, and P. Y. Cheah, "Community engagement and ethical global health research," *Global Bioethics*, vol. 31, no. 1, pp. 1–12, 2020.
- [33] F. Caló, M. J. Roy, C. Donaldson, S. Teasdale, and S. Baglioni, "Exploring the contribution of social enterprise to health and social care: a realist evaluation," *Social Science & Medicine*, vol. 222, pp. 154–161, 2019.
- [34] J. Greenhalgh and A. Manzano, "Understanding "context" in realist evaluation and synthesis," *International Journal of Social Research Methodology*, vol. 25, no. 5, pp. 583–595, 2022.
- [35] Fno, "Uit welk gezin je komt mag voor je gezondheid niet uitmaken," 2021, <https://www.fnozorgvoorkansen.nl/samenkansrijk-en-gezond/programma/>.
- [36] M. Huber, J. A. Knottnerus, L. Green et al., "How should we define health?" *BMJ*, vol. 343, no. 2, p. d4163, 2011.
- [37] M. A. Koelen, L. Vaandrager, and C. Colomé, "Health promotion research: dilemmas and challenges," *Journal of Epidemiology & Community Health*, vol. 55, no. 4, pp. 257–262, 2001.
- [38] I. Rootman and M. Goodstadt, *Evaluation In Health Promotion: Principles and Perspectives: WHO Regional Office Europe*, WHO, Geneva, Switzerland, 2001.
- [39] F. C. Mukumbang, B. Marchal, S. Van Belle, and B. van Wyk, "Using the realist interview approach to maintain theoretical awareness in realist studies," *Qualitative Research*, vol. 20, no. 4, pp. 485–515, 2020.