

Capacity building in participatory stakeholder groups: results from a German research consortium on active lifestyles

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Summary

To implement sustainable health-promoting structures in a setting, various agents must work together. In the Capital4Health research network, participatory stakeholder groups consisting of key persons, stakeholders, representatives of the target group, and facilitating experts are assembled in five settings (child care center, school, company, rural community, nursing home). In a Cooperative Planning process, the various groups meet regularly to plan and implement strategies to promote physical activity across different settings. This study evaluates whether participatory stakeholder groups have been established and also examines the capacity-building processes that took place in these stakeholder groups. For process evaluation, 78 group meetings were documented in 16 different stakeholder groups using a semi-structured protocol based on established capacity-building domains. For outcome evaluation, six semi-structured interviews (1–2 per setting) with facilitating experts were conducted. Data were analyzed by content analysis. Across all settings, capacity-building processes were successful to a certain degree (e.g. problem assessment, resource mobilization). However, in most groups it was difficult to broadly assess problems, to establish sustainable networks, or to find persons with leadership characteristics. Also, irregular participation, lack of motivation to take over responsibility, and minimal institutional readiness for structural and personal changes often hindered the progress of the projects. Stakeholder groups can actively involve setting members in the development of physical activity promotion programs. It seems challenging, however, to sustainably establish such groups that continue working independently without assistance from a facilitating expert.

Lay Summary

It is well known that public health programs are most effective when health experts, setting members and the target group work together in developing and implementing suitable interventions that fit the needs of the target group. Stakeholder groups are well suited to facilitate the regular exchange between the different agents and the health experts. Although stakeholders are experts in their various living environments, it is often necessary to expand various capacities in order to successfully plan, implement and maintain interventions in the long term. We are interested in what is required to successfully establish such stakeholder groups, and how the capacity-building processes will work in them, in order to understand which capacities are easiest to improve and in

which domains it is more difficult. Therefore, we monitored 15 different stakeholder groups over a time span of 3 years; these were assembled in five settings (child care center, school, company, rural community, nursing home) and addressed interventions for encouraging a physically active lifestyle. In total, 78 group meetings were documented using a semi-structured protocol based on established capacity-building domains. Afterwards, we held interviews with the health experts involved to identify barriers and enablers of the group processes.

Key words: capacity building, evaluation, physical activity, participatory approach

INTRODUCTION

Regular physical activity (PA) is associated with numerous health benefits. It can lower the risk of cardiovascular diseases, type 2 diabetes, obesity osteoporosis and cancer (Rütten and Pfeifer, 2017; WHO, 2010). Being physically active is important throughout one's life: in children and adolescents, regular movement can improve development (Hills *et al.*, 2007; Janssen and LeBlanc, 2010) and help control weight (Rütten *et al.*, 2013); in the elderly, physical activity is important for the prevention of falls (Abu-Omar and Rütten, 2006; Warburton *et al.*, 2006). Nevertheless, in western industrialized countries such as Germany, the prevalence of physical inactivity is high. Data from the World Health Organization (WHO, 2016) showed that, globally, 23% of men and 32% of women were physically active, but to an insufficient degree. Physical inactivity can be named as one of the core public health problems of the 21st century (Blair, 2009; Kohl *et al.*, 2012).

Physical activity programs should be gender-sensitive as well as tailored to the different needs of the various target groups and their respective living and working environments (Naylor and McKay, 2009; van Sluijs and Kriemler, 2016; Li *et al.*, 2017). Therefore, the promotion of a physically active lifestyle should be integrated into the contexts of various settings. Setting-based health promotion is a key component of the WHO, as outlined in the Ottawa Charter (WHO, 1986). It promotes changes in the physical and social environment of a setting that make the healthy alternative the easy one. These changes are best adapted to the specific needs of a setting and put into practice when setting members (e.g. professionals and key actors) are actively involved in the planning and implementation process (WHO, 1986). Participatory formats such as facilitated stakeholder groups can leverage structural changes through the engagement of diverse partners who know the local challenges, needs and resources best (Minkler *et al.*, 2003). Building networks to share knowledge and strengthening competence and awareness in setting members are

also core strategies of capacity building (Ubert *et al.*, 2017).

Capacity building has become a central element in the theory and practice of health promotion since the WHO published the Jakarta declaration in 1997 (WHO, 1997). Capacity building aims to build health structures and health services, to empower organizations and communities to solve their own problems, and, in terms of sustainability, to anchor programs in settings to prolong and multiply health effects (Hawe *et al.*, 1997; Crisp *et al.*, 2000). Capacity building is meant to make the involved settings responsible for, and more capable of, conducting and maintaining health promotion programs (Hawe *et al.*, 1997). Capacity building can take place on different levels: the individual level (e.g. training lay people to become coaches), the group level (e.g. improving the structure, functioning and learning environment of a project group), the organizational level (e.g. integrating competences and skills into processes of schools or sports clubs) and the broader system level (e.g. developing multi-sectoral partnerships between different stakeholders and organizations in a rural region) (Hawe *et al.*, 2000b; McIsaac *et al.*, 2016; Von Heimburg and Hakkebo, 2017). It focuses on structural development as a condition for social and organizational change as well as individual behavioral changes of the actors involved, either by working with existing groups and organizations, or by establishing new groups (e.g. in communities, schools or companies). These groups should be composed of key persons in the setting, that is, relevant stakeholders from policy and practice as well as other citizens.

In the literature, capacity building is acknowledged as an essential approach for health promotion; still, little research has focused on practical capacity-building processes, especially the collaboration between experts and setting members (Ubert *et al.*, 2017). Therefore, with this paper, we intend to contribute to this field of research by examining participatory stakeholder groups which were led by facilitating experts (Cooperative Planning) (Rütten, 1997) as a specific strategy for

Table 1: Planning groups composition in the Capital4Health-projects

Setting	Target group	Aim	Stakeholders involved	Nature of group organization	Number of stakeholder groups	Number of group meetings	Name, Source
Child care centers	Children	Increase PA levels of children	Educational staff in child care centers	Moderated participatory group meetings with educational character	2	3–8 per group	QueB (Dinter, 2019; Müller and Hassel, 2020)
School, University	Pupils	Develop sport-related health competence in pupils at secondary schools	Physical education teachers, pupils, college students, university lecturers	Operational manual with moderated participatory group meetings	6	3–7 per group	Health.edu (Prack and Tittlbach, 2018; Strobl <i>et al.</i> , 2020a; Sygusch <i>et al.</i> , 2020)
Company	Apprentices	Increase PA of apprentices during workhours	Apprentices and their teachers, company doctor	Open participatory planning process; moderated bottom-up group meetings	3	4 per group	PARC-AVE, (Carl <i>et al.</i> , 2020; Grüne <i>et al.</i> , 2020; Popp <i>et al.</i> , 2020)
Rural communities	Older men	Increase motivation and participation in physical activity programs	Local physicians, members of sport associations, mayor, senior citizens representatives	Open participatory planning process; moderated bottom-up group meetings	2	10 per group	ACTION4 Men, (Loss <i>et al.</i> , 2020; Strobl <i>et al.</i> , 2020b)
Nursing homes	Residents at nursing homes	Implement a structured physical activity counseling program	Members of the home management, physicians, nurses, social workers, home residents	Operational manual with moderated participatory group meetings	3	3 per group	PATEN, (Peters <i>et al.</i> , 2018)

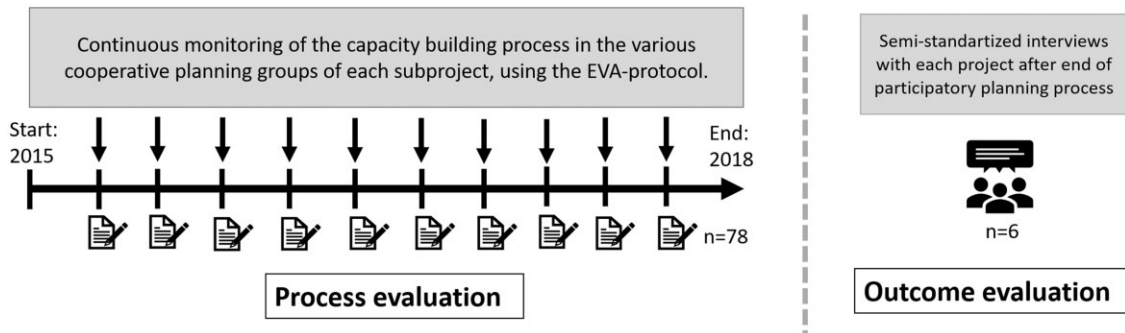


Fig. 1: Overview evaluation process.

fostering physical activity in different population groups. To achieve this aim, our study examined 16 different participatory stakeholder groups in five different setting types, which were founded to plan and implement physical activity interventions. The study ('EVA') was part of a German research consortium 'Capital4Health' (Rütten *et al.*, 2019), which engages stakeholders in different settings to promote a physically active lifestyle.

The study intended...

- i. to evaluate whether participatory stakeholder groups have been established in each of the five settings and
- ii. to monitor and examine the capacity-building processes that take place in these stakeholder groups in order to understand which capacities could be easily attained and for which domains capacity building was more difficult.

METHODS

Research consortium Capital4Health

Capital4Health is a German research network (FKZ01EL1421A) which focuses on physical activity promotion within different settings (child care centers, schools, companies, rural communities, nursing homes) (Rütten *et al.*, 2019). Five empirical projects established participatory group processes aimed at planning and implementing interventions to promote physical activity in the respective setting (Table 1). The Capital4Health-consortium is based on theoretical approaches such as interactive knowledge transfer (Jansen *et al.*, 2012), co-production of knowledge (Dunston *et al.*, 2009) and transdisciplinary research (Bergmann *et al.*, 2012), all of which require the active involvement of setting members, stakeholders and policy makers in planning and implementation. The involvement of different actors enables the networking of experts with setting members,

who jointly make decisions on content and strategies. Each setting acted as a case study to explore how co-producing active lifestyles works among the different settings using a transdisciplinary whole-system approach. The evaluation was intended to identify which challenges and success factors were generic, that is applied to all settings, and which were specific to some settings, but not for others. The funding period of the research network was from March 2015 to March 2018.

Design

For the purpose of this study, a longitudinal qualitative study design was chosen (Figure 1). The ethics committee of the University of Regensburg granted ethical approval for this study (15-101-0326). All five projects of the Capital4Health-consortium agreed to participate in the evaluation study.

Each empirical project of the Capital4Health-consortium consisted of setting members, local stakeholders, and (mostly) target group members, and were facilitated by health promotion and physical activity experts on the project staff. Group sizes ranged from 4 to 30 participants, with participant numbers decreasing in all projects as they progressed over time. The groups were initiated by the facilitating experts. The settings were selected and contacted by the respective project team, or they applied for participation in the project in response to an advertisement. The stakeholder groups met regularly, discussed the needs of the target groups, developed potential solutions, and collectively worked on implementing interventions in their setting ('co-operative planning process') (Rütten and Gelius, 2014). The facilitating experts gave informational input based on the idea of knowledge co-creation (Jull *et al.*, 2017) and took over (organizational) tasks when needed or requested. The facilitating experts helped the group

Table 2: Assessed domains of capacity building as suggested by Hawe *et al.* (Hawe *et al.*, 2000b), Goodman *et al.* (Goodman *et al.*, 1998), Laverack (Laverack, 2008) and Labonte (Labonte, 2002)

Participation	Participation refers to the group members' active involvement in the discussions and decision-making processes. Ideally, important stakeholders and key players are represented in the group, and all group members have an equal say during the meetings.
Leadership	Single participants of the Cooperative Planning group commit themselves to the topic and the group and advance the decision-making processes. They take over responsibility for the group and start setting the agenda for the meetings.
Problem assessment and solution	The Cooperative Planning group can identify problems and carries out actions to resolve the problems; the assessment is used to strengthen planning processes.
Critical awareness/asking why	The Cooperative Planning group can reflect on assumptions underlying their actions, and self-analyze and improve their activities over time. They evaluate their interventions and reflect on their own work.
Resource mobilization	The Cooperative Planning group can raise resources and decide on fair distribution. The resources can refer to competences and assets from within the group (e.g. specific knowledge, facilities) and to external resources (e.g. meeting sites/venues, technical support, funding).
Links to others	The Cooperative Planning group establishes partnerships and coalitions between their group and others, thereby generating resources and recruiting new members. Links or partnerships include the exchange of services, the pursuit of joint ventures or a common interest initiative to change public structures.
Program planning and relationship with facilitating experts/health promoters	The facilitating health promoters (or researchers, or experts) need to transform power relationships to the Cooperative Planning group, such that the group gradually assumes authority and makes their own decisions. The experts may play an important role in the beginning of the group processes, e.g. by giving an overview of the available evidence, presenting examples of good practice, or giving support and guidance for organizational tasks. Over time, the experts should reduce their contributions, for the Cooperative Planning group to gain more power of their discussions and decision-making. Thus, it is important to have clearly defined roles and responsibilities within the group, so the group is able to manage itself independently.

brainstorm possible interventions, prioritize goals, develop specific actions and finalize a list of actions. In addition, moderation by the facilitating experts was intended to ensure communication among the participating setting members on equal terms and to include all involved interests in the planning process. The facilitating experts were asked not to influence the content of the planned measures. All five projects approved using capacity-building strategies for planning the recruitment for and facilitation of the participating stakeholder groups.

Assessment of capacity building

For the cross-cutting evaluation of the Capital4Health-consortium, a monitoring instrument for capacity building was developed for use in all stakeholder groups (EVA-protocol). The developing process of the EVA-protocol is described elsewhere (Sauter *et al.*, 2020). It is based on the most commonly described dimensions of

capacity building in the literature, [see (Goodman *et al.*, 1998; Hawe *et al.*, 2000a; Labonte, 2002; Laverack, 2008)], and can be downloaded from <https://eva.capital4health.de/wp-content/uploads/sites/42/2020/05/eva-protocol-english.pdf>. Table 2 gives an overview of the capacity-building dimensions covered in the instrument.

Process evaluation

Data were collected between July 2015 and February 2018. For this purpose, the facilitators of all five projects were provided the EVA-protocol for regular use in the meetings of their Cooperative Planning groups. The completed EVA-protocols were sent back to the evaluation team via e-mail after each meeting. A total of 78 completed EVA-protocols was returned by the five projects. If requested, members of the evaluation team were also present at the first meetings of the respective stakeholder groups to assist the project staff in completing the EVA-protocol. Three of the five projects made use of

this offer. After each meeting of the various stakeholder groups, the respective facilitating experts were contacted (via telephone or e-mail) to reflect upon the described contents and clarify ambiguous statements, if needed. The EVA-protocols were mostly filled out by one or two facilitators. The EVA-protocols were collected until the end of each project, that is, until the time when the meetings were discontinued or when the meeting facilitation was handed over to a local actor for the sustained group meetings.

Outcome evaluation

During the four months before the funding period ran out (12/2017–02/2018), we conducted six semi-structured interviews with the research staff of the five projects concerning the capacity-building process in the various Cooperative Planning groups. Because one project was located at two sites that followed slightly different approaches, the evaluation team conducted interviews with the respective project staff members at each site. Interviewing stakeholders and setting members can be challenging because they are not only involved in the proceedings of acquiring capacities, but must also evaluate their own work and competences. As a result, they were not included in the outcome evaluation. The interview guide was based on the described capacity domains shown in [Table 2](#), as well as on the theory of community and institutional readiness ([Castaneda et al., 2012](#)) and the approach of citizen participation ([Arnstein, 1969](#)).

Data analysis

All data (completed EVA-protocols, interview transcripts) were analyzed using deductive content analysis as recommended by [Elo and Kyngäs \(2008\)](#). The analysis process was based on the recommendations for qualitative research by [Mays and Pope \(1995, 2000\)](#). All documents were entered into the analysis software ATLAS.ti 7. Text passages of each document were coded deductively, using the concept of capacity building as the theoretical foundation. For this, the evaluation team developed a codebook with several codes for each of the capacity-building dimensions shown in [Table 2](#) (e.g. dimension ‘participation’ used codes: ‘equal say’, ‘regular participation on meetings’, ‘assistance in the implementation of measures’). After the end of the first coding round, the coded passages were discussed within the evaluation team until a consensus was reached, while continually returning to the coded quotes to check for meaning and context. Afterwards, final codes were brought into

chronological order to highlight the changes of the respective dimensions over time. Results of the individual projects were compared with each other in order to identify similarities and differences in the capacity-building process across projects, for example regarding the willingness of groups to take on tasks independently or the ability to develop solutions to an identified problem. Next, we aggregated findings to the overall project level of the Capital4Health-consortium, to check if findings were specific to various settings or recurring across different settings.

The progress of one capacity-building dimension in a Cooperative Planning group was determined by specific examples mentioned in the respective EVA-protocols or interview narratives, which showed progress in the overall goal to promote physical activity in the various settings.

RESULTS

All five projects had successfully built stakeholder groups (2–4 per setting) with different agents from the respective setting (e.g. educational staff in child care centers and schools, apprentices and their teachers in companies or physicians, nurses, home residents in nursing homes) that met several times. The project in the nursing home setting couldn’t implement any measures and discontinued the meetings after eight months. All five projects used a Cooperative Planning approach with participatory stakeholder groups that were organized and managed by the project teams. Meetings were moderated by the facilitating experts. The overall objective of all projects was to promote the physical activity of individual target groups in their settings. The project teams were free to determine how this goal was addressed and implemented in their individual stakeholder groups. In all projects, the stakeholder groups employed a participatory approach, so at a minimum, the stakeholders advised upon the future operations and were responsible for implementing the commonly planned actions in their settings. Some projects used a more structured format, in which the procedure was specified in advance. Other projects pursued a more distinctive bottom-up approach, in which working procedures and priorities were decided upon by the group itself as the meetings processed.

In the following, the processes and outcomes of capacity building in all five projects are described according to the selected domains of capacity building ([Table 2](#)).

Participation

For recruiting, the five projects implemented different strategies adapted to the conditions of the respective setting. The spectrum ranged from using existing networks from former research projects, contacting central political institutions (e.g. the mayor of a municipality) and printing press releases in local newspapers. Once the participating settings were determined, the participating stakeholders were also recruited in different ways. The participants in some settings decided internally which employees should participate in the group meetings, while, in other settings, setting members were contacted by the project group and invited to a first meeting or organized information events to inform setting members about the project.

In all five projects, stakeholders and representatives from different disciplines and institutions participated in the initial meetings. Data clearly indicate that in all groups it was difficult to convince stakeholders of a participatory approach, and to explain that the measures would be (co-) developed by the group.

'The two participating students are reserved and must be explicitly involved by the moderator through questions addressed to them. Five employees of the educational institute regularly take part in the stakeholder group meetings. However, only two employees are willing to take on tasks outside the meetings in order to push the project forward.' (Project B, university A, meeting no. 5)

The majority of stakeholder groups included representatives of the target group, as well as health experts (e.g. pharmacists, physicians, representatives from health insurance companies). In two projects policy makers (e.g. mayor) regularly attended the group meetings.

In some settings, employees were ordered by their supervisors to attend the group meetings. In other settings, participation took place on a more voluntary basis or out of an intrinsic interest. The motivations to regularly attend the meetings over a longer period of time varied. On an individual level, many participants pursued diverse interests. Members of the sport associations, for example, hoped to gain new members for their associations. On an institutional level, some organizations received a certificate at the end of the project and hoped to create a positive image by participating in a health promotion program.

After the first 1–3 meetings, the variety of participants decreased. Some participants also missed meetings and attended the groups only irregularly, which slowed down (decision-making) processes. It proved challenging

to schedule group meetings that could be attended by all participants, according to the protocols. Participants discontinued coming to the groups for different reasons. Some felt uncomfortable within the stakeholder group (e.g. representatives not specialized in sports); some disliked disagreements that occurred between individual participants in the groups. Especially in the rural communities, sports clubs' members dominated in the group meetings, which led to a drop out of participants of other professions, as they felt their perspectives or needs were neglected.

Some stakeholders did not attend the groups as they did not expect to derive any personal or professional benefit from the meetings (e.g. parents from day care centers) or did not feel responsible for the topic 'active lifestyle' (e.g. firemen in the community). Also, lack of time (e.g. due to staff shortages), in particular in the child care centers, was given as a reason for nonattendance in several projects.

'The main reason for the woman from the physiotherapy center [not to attend to the meetings] was that she couldn't afford the time. When I called the fire brigade, I was told, "That's not a fire brigade issue, let others do the physical activity topic".' (Project D, IP05)

Some groups also had difficulties in reconciling different schedules and availabilities (e.g. in the school setting and company setting). Power imbalances were present in some stakeholder groups; for example, in one community group, the mayor dominated the discussions and set the agenda. Also, in schools and training companies, participation was more difficult for trainees and students due to hierarchical structures and dependencies. The training companies responded by dividing the group into two more homogenous subgroups, one consisting of company employees and external stakeholders, and one consisting of trainees. This approach doubled the organizational efforts for the research staff.

Some stakeholder groups appreciated the open approach with its opportunity to determine how the project aim should be addressed in their settings and how activities could be implemented successfully by themselves. Others found the approach disconcerting and would have preferred more guidelines and instructions from the project team, as they were seen as the 'experts'; this also led to drop-outs.

'Representatives of the local companies do not seem satisfied with the progress of the stakeholder group and doubt whether future meetings have any added value for them. Other participants also seem to be dissatisfied with the sluggish progress and would prefer a structured approach with concrete goals to be achieved in a given

timeframe. Participants do not seek for an open approach or to build new capacities or competences. Neither are they convinced that they should get actively involved into the project.' (Project D, community A, meeting no. 6)

Leadership

Most stakeholder groups did not succeed in developing leadership over time. According to the interviewed experts, many participants considered the stakeholder group as an 'add-on' to their other private or professional responsibilities, and may have had difficulties identifying with the group. Group members felt that the facilitating experts were responsible for managing and leading the project.

'Stakeholders are generally not willing to take over responsibility. The group shows a passive "consumerism": They want to get as much benefit as possible from the project, while showing as little initiative as possible.' (Project D, community B, meeting no. 7)

In single meetings, some participants temporarily appeared more dominant, especially those who were used to agenda-setting in their professional lives (e.g. manager of a company). Across all projects, there was only one stakeholder group in which a participant assumed a clear leadership role (the mayor in the community-based project) by setting the agenda of the meetings, coordinating the implementation of an intervention and taking care of its funding.

'The mayor assumes the function of a "leader" within the stakeholder group; he has great support among all participants and leads the group in cooperation with the facilitating experts.' (Project D, community B, meeting no. 5)

Problem assessment and solution

In all stakeholder groups, the participants identified problems and difficulties in their environment which prevented people from being physically active. The facilitating experts provided inputs in order to stimulate and inform the discussion about solving these problems.

In the community and the school settings, for example, facilitating experts or external experts gave presentations with best-practice examples and suggestions for promoting physical activity in the respective target group.

Still, many groups struggled to define concrete goals for their work. The protocols show differences between projects which employed a classic bottom-up approach with the stakeholder groups (e.g. in the community

setting) and projects whose stakeholder groups had a more structured character with coaching elements (e.g. in the day care centers); the more open the approach was, the more difficulties arose when trying to decide upon a common goal. For example, a stakeholder group in the community could not agree on a common approach for a long time, and similar discussions were held repeatedly, such that some participants lost interest in the project and only one measure could be implemented. In the day care center setting, the facilitating experts initiated a process in which the group participants were supported to set SMART goals, which guided the stakeholders throughout the Cooperative Planning process and helped them implement their measures in a structured way.

'They [stakeholders] couldn't handle the fact that we didn't set off with a clear concept, but that it was they who were supposed to develop something by themselves, and to help implement it [in the community], and that the interventions were not prescribed by us. In any case, their expectations were different [from ours].' (Project D, IP05)

The protocols show that many stakeholder groups among all settings often produced no results and were not oriented toward solutions. Stakeholders were often satisfied with implementing one or two (small) interventions in their setting, but were not willing to address further problems.

'The teachers report about their PA-classes and it shows that they stick to their conventional previous experiences and methods of teaching PA-lessons. New ideas are only rarely considered.' (Project B, school 3, meeting no. 3)

Critical awareness

In many projects, the stakeholder groups repeatedly reflected upon and discussed how their interventions were accepted and used by the target group. For example, in the community setting, the stakeholder group had initiated a trial offer of a range of courses among sports clubs, at a low price without membership. After six months, the group evaluated the reach of the offer, and concluded that the SportCard should also be available to women, so they could motivate their husbands to participate in the program in order to reach more men of the target group.

'[The participants suggested the] possibility to involve the wives and partners into the intervention by promoting a PartnerCard. This is considered a solution-oriented action, and it integrates the aspect of social support.' (Project D, community B, meeting no. 8)

Resource mobilization and links to others

In most stakeholder groups, mobilization of resources was connected with the search for allies and persons or institutions that would support the implementation of intervention. Four out of five projects have succeeded in establishing links and coalitions with other (local) partners in order to secure funding, obtain personnel support, increase dissemination (e.g. through advertisement of sports events), and applying for financial support from health insurance companies. For example, external funds could be mobilized for the production and printing of leaflets listing suitable courses suitable for men over 50 from the local sport clubs. Also, the stakeholder groups of the child care setting were able to find partners who were willing to financially support conversion measures in the day care centers or to implement new movement activities for the children. In two stakeholder groups, contacts to external partnerships were established through the facilitating experts (e.g. inviting PA-experts who coached the stakeholder groups). In general, the stakeholders did not seek to implement larger or longer-lasting networks. Some groups were reluctant to grant external actors much insight into their work processes and potential conflicts within the team (e.g. some child care centers). Others doubted that external partners could make a difference in achieving project goals (e.g. the school setting, community setting).

The [facilitating] research team proposes to contact other organizations in which many men usually come together [in order to increase the reach of the interventions], but this is not considered necessary by the group members present at the meeting. The stakeholder group cannot think of any adequate contact persons at those organizations either, who could be useful for them. (Project D, community B, meeting no. 10)

Program planning and relationship with facilitating experts

For the most part, the relation between the facilitating experts and the stakeholders was described as a partner-like relationship. The experts kept the group meetings running, scheduled new meetings, planned the contents of the group meetings and moderated them. Stakeholders saw no need to change this distribution of tasks and take on more project management tasks. Stakeholders always had a say and were enabled to make final decisions on the interventions to be implemented. Some of the facilitating experts found it challenging to keep the balance between a bottom-up approach, knowledge transfer regarding physical activity (interventions), and the expectations of the

stakeholders to obtain guidance and clear advice from the experts.

'When you integrate coaching elements, it [the cooperation with the stakeholder group] follows more of a top-down approach. But I think that a few top-down elements are not completely wrong, because [the group members] ask for it.' (Project A, IP02)

Establishing sustainable stakeholder groups as an independent structure in the settings proved to be difficult in all projects, regardless of a top-down or bottom-up approach, as responsibilities for (organizational) tasks and project management remained by the research team until the end of the funding period. Some of the groups never adopted the project as their own, but rather continued to consider it as an initiative of an external group of scientists. The facilitating moderators were expected to take over the main responsibility as well as the scheduling and agenda-setting if they intended 'their' project to continue successfully.

'Sometimes I had the feeling that if we hadn't taken the initiative, if we hadn't arranged some action in the company, set a new group meeting, the whole thing would have tailed off. Recently I also heard from the company, "Currently we're not doing anything," and somehow I have the feeling that this is not really going to continue.' (Project C, IP04)

'Single participants are very committed. However, the organization and moderation of the meetings is still exclusively handled by the facilitating expert. It is expected that the project will end when the experts withdraw.' (Project D, community A, meeting no. 9)

DISCUSSION

Principle findings

In all five settings, participatory stakeholder groups that met regularly for a certain amount of time to talk about physical activity interventions for their respective setting were successfully established. Except of one, all projects successfully implemented local measures for increasing physical activity among different target groups (kindergarten children, apprentices, pupils, men aged 50+). At the beginning of the Cooperative Planning process, most stakeholders struggled with the participatory and open approach that was pursued by the facilitating experts. There were diverging expectations and misunderstandings about the roles and responsibilities of facilitators and group members. Over time, the structuring of meetings and the joint setting of goals helped form a cohesion among group members and between group members

and the facilitating experts. Stakeholder meetings that followed a pronounced bottom-up approach had more difficulties in achieving progress, which led to the frustration and drop out of some group members. Capacity-building processes were successful to a certain degree (e.g. problem assessment, resource mobilization). Still, the readiness to change (themselves, their setting) was low among some stakeholder groups such as school teachers, or company employees. Many stakeholders were also reluctant to assess problems in a broader way for example by learning more about the environmental impacts on physical activity in their respective setting. Most groups could effectively build (temporary) networks and mobilize resources, which helped implement physical activity interventions. The groups anchored a project idea in their setting and made other setting members aware of the relevance of a physically active lifestyle. However, the issue of physical activity did not achieve a particularly high priority in most settings, which may explain why commitment and readiness for change was unsatisfying. While rating the issue as interesting, the stakeholders didn't always consider it as relevant to their context or within their personal responsibility. The stakeholder groups were not motivated to take an active and responsible role and had less of a steering function but more an informing and guiding character. Sustaining the stakeholder groups for a longer period of time seems challenging, especially when the facilitating experts withdraw at some point in time.

Strengths and limitations

This study focused on the capacity-building processes among stakeholders from different settings. The continuous documentation of capacity-building processes using the EVA-protocol yielded a comprehensive and rich data set. The protocols have proven to be a suitable method for facilitating experts to check on progress in capacity building, in order to identify the specific needs of the group. Findings from this study are, in some aspects, specifically adapted to German conditions and reflect specific German situations (e.g. the German school or training system) and may not be easily transferable to other countries. One main drawback is that the procedures in the different settings were not standardized across projects, but were adapted to the respective needs in the particular context. There were significant procedural differences in terms of project duration (ranging from 6 months to 1.5 years), goal setting (increase daily steps among children, increase awareness of sport-related health skills among pupils and apprentices, create sports opportunities for men 50+ years),

participation (voluntary or by hierarchical order) and available skills and competences among stakeholders (due to age, professionalism, learning skills). Therefore, the comparability of the capacity-building processes between the various settings and between the different stakeholder groups may not be entirely provided.

However, the selected target groups were not always a representative reflection of the respective settings (e.g. apprentices are only a subgroup in the company setting), while other employee groups might have been better represented.

Comparison with other studies

There are only a few studies that have monitored the capacity-building process of participatory stakeholder groups simultaneously in different settings with the aim to promote a physically active lifestyle.

In a review about community capacity building for physical activity promotion, [Ubert *et al.* \(2017\)](#) described that, typically, a wide range of partners were involved, such as representatives from the municipalities, local health departments, ageing units, community organizations, peers (older adults) and sports clubs. This is comparable to our study, which found that the stakeholder groups were formed of various representatives and key persons. [Ubert *et al.*](#) also pointed out that the coalitions' function and degree of formalization varied considerably, from a formalized partnership with clearly defined responsibilities, to a more participatory approach wherein the coalitions decided which preventative actions they would take. Also, within our sample (five projects), the capacity-building concept was implemented in varying grades of the openness and active inclusion of stakeholders and their ideas and decisions. For example, the intervention in the day care centers had a substantial training component that educated the staff about the steps to take. A similar procedure was followed in a Canadian capacity-building intervention for increasing physical activity and decreasing sedentary behavior among children ([Hassani *et al.*, 2020](#)). They used a multi-level training procedure, consisting of a 'train the trainer' program and a website-based toolkit to assist stakeholders in program planning and to provide weekly active play ideas.

However, there are several studies that address barriers similar to those found in our study, which may not use the term 'capacity building', but follow comparable participatory approaches (e.g., community-based participatory research, community-academic research) by establishing working groups with setting members as co-researchers and academic investigators to develop and

implement setting-appropriate interventions. Gaining the trust of setting members by simultaneously convincing them of the efficacy of a participatory approach with an unknown outcome has also been acknowledged as challenging by a school health promotion intervention with local school working groups (Verjans-Janssen *et al.*, 2020). This Dutch project also described the crucial role of the involved health promotion advisors, who needed to find adequate partners, and to work out the right balance between bottom-up and top-down strategies for a working group. This process is reflected in the several loops between top-down and bottom-up approaches that were observed in various stakeholder groups of the Capital4Health-consortium.

Implications for policy and practice

Participatory stakeholder groups can be an effective way to implement local interventions for promoting physical activity among different target groups and to raise awareness for physical activity promotion among organizations. Our results also show that participatory processes may be a gold standard for public health experts (Minkler and Wallerstein, 2011), but are not common, to date, for stakeholders in our study and appeared challenging, as participation was unstable and sometimes discontinued. Based on our findings, we recommend the following actions: First, be transparent about the tasks, roles, and responsibilities of each agency and the facilitating experts, both for the short-term as well as long-term processes, to prevent incorrect expectations and miscommunications (Mayer *et al.*, 2017). Second, sharing resources, advice, information, and connection between participants can push a project forward and help to improve capacities (link to others, resource mobilization) (Simmons *et al.*, 2015). Third, build trust between all participants, including citizens, and prioritize the needs of the target group. Fourth, using system science methods can also be another promising way to identify different agencies of a system, how they interact with each other, and which emergent effects these interactions produce (Luke and Stamatakis, 2012). System thinking can be a useful tool to help identify and articulate the interests and roles of all actors in a system who should be involved in a prevention program and can further foster an inclusive, collaborative and open process that encourage diverse views and helps develop a shared understanding and joint commitment of aims and causes and mobilizes knowledge for solving problems (Wutzke *et al.*, 2016; Haynes *et al.*, 2020). Fifth, select a person with leadership characteristics before starting a stakeholder group, as opposed to our method, which

demonstrated that no particular stakeholder, evolving over time, to adopt the responsibility of becoming a leader. In the Dutch FLASH intervention, Van Dongen *et al.* (van Dongen *et al.*, 2019) demonstrated the positive effects referenced below. This school-based capacity-building project established a healthy school coordinator, who acted as a leader for the project. He was responsible for creating a network of people representing the setting and support for prioritizing and designing health promotion interventions. In this way, responsibilities for the project were anchored in the setting from the outset, which helped to create acceptability by the setting members. Finally, don't expect stakeholders to do everything voluntarily and without compensation. Funding agencies often do not provide reimbursements for local project partners. It can be difficult for a (paid) research team to explain to local partners, why they should actively participate in achieving program goals and implementing interventions absent any form of incentive. The appreciation of volunteer work can be expressed, for example, by providing child care, covering travel costs, supplying financial incentives or offering scholarships to participate in training programs (Leeman *et al.*, 2015; Nelson *et al.*, 2004).

CONCLUSION

Establishing participatory stakeholder groups in a setting can be an effective way to raise awareness for the promotion of physical activity in living and working environments. Involving stakeholders can help to spread the project idea within the setting and can be supportive in implementation and advertising interventions. On the other hand, establishing participatory stakeholder groups as independent, sustainable working agencies seems difficult, especially when it requires voluntary work or extra working hours. Thus, the project coordinators must be aware that it requires much effort to establish and manage such groups, and that not every participant is interested in extending his or her capacities. Promoting responsibility, leadership or novel networks seems challenging.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest. The funding body was not involved in the design of the study, nor the collection or analysis of data.

ETHICS

The Ethics Committee of the University of Regensburg granted ethical approval for this study (15-101-0326).

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