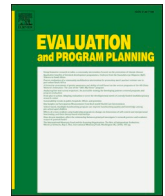


Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Evaluation and Program Planning

journal homepage: www.elsevier.com/locate/evalprogplan

What makes community sports programs successful? A group concept mapping study to identify effective elements

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ARTICLE INFO

Keywords:

Effective elements
Group concept mapping
Participatory research
Life skills
Community sports programs
Socially vulnerable adults

ABSTRACT

Adults in socially vulnerable positions can benefit from participation in community sports programs. However, there is a lack of knowledge about the effective elements of these programs. To identify these elements, we consulted three groups of stakeholders: social sports coaches, program coordinators, and social workers. The effective elements were systematically arranged by means of group concept mapping (GCM), a mixed-methods approach for organizing thoughts. The social sports coaches (n = 14) mentioned 152 effective elements, the program coordinators (n = 5) mentioned 81 effective elements and the social workers (n = 8) mentioned 115 effective elements. Overlapping effective elements were mentioned by all three stakeholder groups, such as the role of the social sports coach, a safe sports climate, and structure of sports programs. However, the sport-specific knowledge and skills of coaches were mentioned only by program coordinators. Moreover, only the social workers provided elements that were protective in nature, such as not overburdening the participants. Average importance scores differed for these elements within groups and between groups. In conclusion, various effective elements were deemed necessary for community sports programs to be successful. Moreover, GCM appeared a successful tool to systematically identify effective elements of an intervention from the perspective of relevant stakeholders.

1. Introduction

Individuals in a socially vulnerable position constitute a diverse group and face various challenges in their lives, such as low income, addiction, homelessness, and social isolation (Hede et al., 2019). At the same time, people in a socially vulnerable position tend to possess few resources, like social support and certain skills, that can help dealing with these challenges (Theeboom et al., 2008). One way to address this lack of resources is by offering participation in sports programs. Besides improvements in physical and mental wellbeing (Eime et al., 2013), sports participation has been shown to contribute to the development of various skills, like discipline and teamwork (Pierce et al., 2017; Camiré & Kendellen, 2019), which can help people to better deal with the stressors of daily life (Super et al., 2014; ter Harmsel-Nieuwenhuis et al., 2022). These skills have been referred to as life skills (Danish et al., 2004; Pierce et al., 2017; Camiré & Kendellen, 2019) and are defined as personal assets (i.e., psychosocial skills, knowledge, dispositions,

identity constructions/transformations) developed in sport that can be applied in settings such as school, work, home, and community (Pierce et al., 2017). The application of life skills in these settings is known as life skills transfer (LST).

While sports can facilitate life skills development (LSD) and LST, sports participation is low among individuals in a socially vulnerable position (Super et al., 2014; Vandermeersch et al., 2015; Van der Veken et al., 2020). For instance, in the Netherlands only 25% of adults with a low education and a low income reported to exercise weekly compared to 71% of the people with a high education and high income (Van den Dool, 2022). Eight percent of this former group reported to be a member of a sports club compared to 29% of the latter group (Van den Dool, 2022). Financial barriers, social isolation, and preoccupation with other concerns are important reasons why individuals in a socially vulnerable position fail to gain access to regular sports programs (Schailée et al., 2019). Community sports programs, also referred to as sport for development programs (Lyras & Peachey, 2011) or sport-plus

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<https://doi.org/10.1016/j.evalprogplan.2024.102420>

Received 28 June 2023; Received in revised form 7 March 2024; Accepted 8 March 2024

Available online 15 March 2024

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programs (Coalter, 2007), are specifically designed to reach socially vulnerable groups (Schailée et al., 2019; Van der Veken et al., 2020). These programs are financially accessible, primarily aimed at improving wellbeing and social inclusion, and often involve activities that facilitate the development and transfer of life skills (e.g., Turnnidge et al., 2014; Camiré et al., 2021). Community sports programs differ from the concept of health-promoting sports clubs, which refers to sports clubs that pay attention to health promotion but whose main goal remains, in contrast to community sport programs, optimizing sports performance and athlete development (Kokko, 2014).

1.1. Effective elements

A considerable amount of research shows positive outcomes of community sport programs for socially vulnerable youth (e.g., Hermens et al., 2017) and adults (ter Harmseel-Nieuwenhuis et al., 2022). Furthermore, an increasing amount of research has looked into the mechanisms that are responsible for these outcomes. As a result, various models, often anchored in a positive youth development perspective, have been developed, like the 5 C's model (Lerner, 2004) and the positive youth development through sport model by Holt et al. (2017). Although these models have greatly contributed to our understanding of the mechanisms that facilitate youth development and successful transitions from youth to adulthood (Bruner et al., 2021), scholars have recently also pointed at the shortcoming of these models, especially regarding their often strong and narrow focus on life skills as key developmental outcomes of sport participation (Camiré et al., 2023; Ronkainen et al., 2021). Moreover, since research in this domain is largely focused on youth development through sports, knowledge on adult development through sport is lacking. To address this knowledge gap, the present study focused on community sport programs for adults and the elements that make these programs successful. These so-called effective elements are defined as “the essential components that make the intervention work. Without these effective elements, the intervention does not work or is less effective” (Wartna et al., 2012 as cited by Mulderij et al., 2020, p. 2). Hence, knowledge about effective elements is crucial in developing more effective community sports programs.

Previous studies, most of which focussed on youth, have identified numerous elements that allow community sport programs to be effective: well-developed program design (Turnnidge et al., 2014), a supportive and non-judgmental attitude of the sports coach (Coakley, 2011; Coalter, 2013; Sherry & Strybosch, 2012; Super et al., 2018), a life skills education element and the opportunity for peer interactions (Anderson-Butcher & Riley, 2012), and challenging and interesting activities (Coalter, 2013). However, these elements were not identified as the main research outcomes. In fact, no empirical study has systematically identified the effective elements of community sport programs.

1.2. Study aim

This study aims to systematically identify the effective elements of community sports programs for adults in a socially vulnerable position. These insights can be used to further optimize community sports programs. To obtain as complete a picture as possible as well as to enhance the validity and credibility of our findings, we obtained the views from three key stakeholder groups, namely social sport coaches, program coordinators, and social workers. By comparing the views of these three groups of stakeholders, we also aim to provide insight in what these stakeholders may learn from each other regarding the effective elements of community sports programs. We chose Group Concept Mapping (GCM) as a tool to identify effective elements of sports programs with the help of these three groups of stakeholders.

2. Methods

This study is part of the Life Experience Through Sports (LETS)

research project funded by a Dutch research council called NWO (54–6003-001). In this four-year project, the societal value of community sports programs serving adults in a socially vulnerable position is investigated. Ethical approval was obtained from the Social Sciences Ethics Committee of Wageningen University and Research (03–03-2021).

2.1. Research setting

The current study took place in collaboration with the Life Goals Foundation, which organizes community sports programs for adults in a socially vulnerable position like homeless people, refugees, people with intellectual disabilities or an addiction (<https://www.stichtinglifegoals.nl/>). At the time of this research, programs of the Life Goals Foundation were running in 30 municipalities in the Netherlands, providing activities such as soccer, boot camp, and kickboxing. Three groups of stakeholders play a key role in the programs, namely social sports coaches, program coordinators and social workers. Social sports coaches are professionals who lead the sports activities. They are trained to focus on personal development rather than sport-specific developments. Program coordinators lead the program and are responsible for collaborations, finances, and the relationship with the municipalities. The social workers are professionals employed in social or health care and are responsible for the recruitment of program participants.

2.2. Group concept mapping

Data were collected and analyzed using GCM, which is a multi-step process that follows six steps: 1) preparation, 2) brainstorming, 3) structuring, 4) representation, 5) interpretation, and 6) utilization of maps (Fig. 1). GCM involves a mixed-methods participatory approach

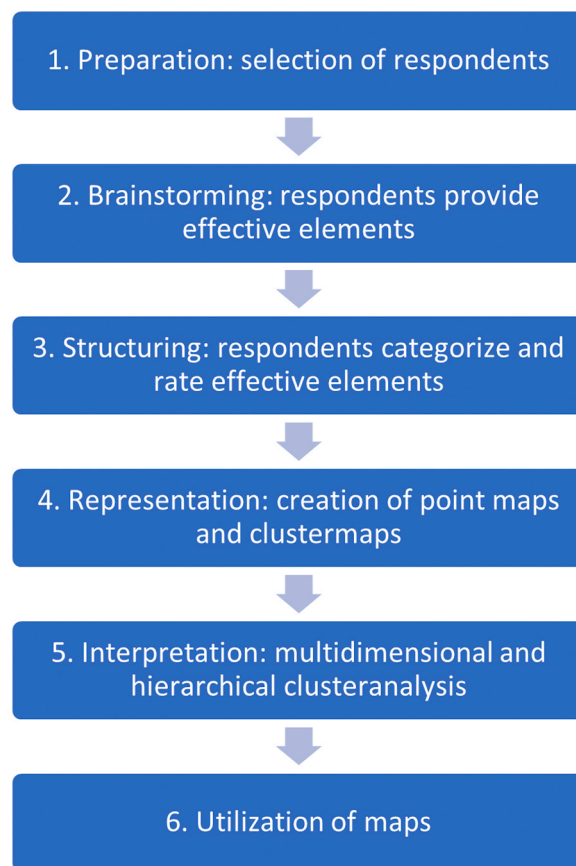


Fig. 1. Flowchart of the steps of GCM
Adapted from Trochim, 1989.

and helps visualize the relations between different concepts by ranking ideas in groups and in terms of importance (Davies, 2011; Trochim, 1989). This tool is useful for providing insights into how people think and organize their thoughts and priorities regarding a topic (Kane & Trochim, 2007), which in this study was the effective elements of community sports programs. GCM offers a method for compiling and arranging data from different stakeholders and is a widely used method due to its accessibility (Askelson et al., 2021).

2.3. Step 1: preparation

In the first step of GCM, the researchers selected the participants and formulated the focus question (i.e., specific focus of the study). The participants in the present study received a detailed guide that described the steps of GCM, the focus question and our definition of effective elements of community sports program:

“What do community sports programs need to be successful? Success is the impact that a community sports program can have, such as the development of life skills among socially vulnerable adults and the transfer of these skills to other life domains.”

2.4. The participants

Three groups participated in all steps of this study: social sports coaches (n = 14), program coordinators (n = 5) and social workers (n = 8). Participants in the programs were not included. However, their voice was heard in a study on the developmental outcomes of community sports programs serving adults in a socially vulnerable (Alarslan et al., 2024a), and the factors that facilitate LSD and LST within these community sports programs (Alarslan et al., 2024b). Of the 29 potential participants who were invited by phone, 27 agreed to participate and were sent an email with further information.

In the present study, the first four steps of GCM were performed individually and online by the participants. The steps that required group discussion were organized online using Zoom (a videoconferencing platform) in conformance with COVID-19 measures.

2.5. Step 2: brainstorming

During the second step, participants were asked to list all elements that they considered essential to the success of a community sports program. To maintain the open character of the brainstorm, the researchers emphasized that there were no wrong answers and that the answers were anonymous. Moreover, the researchers encouraged the participants to give as many answers as possible. Participants were given two weeks to finish the brainstorming task individually and could re-enter the form as often as they wanted within this period. From the total list of elements that the researchers received, identical elements were removed, similar elements were combined into one element, and elements that included multiple elements were split.

2.6. Step 3: structuring

During the third step, participants performed two tasks. First, participants were asked to individually structure and categorize all the elements from the previous step. Participants were instructed to make their own categories, to assign each element to only one category, and not to put all the elements into one single category. Second, participants were asked to rate the effective elements using a five-point Likert scale (1 = not important at all, 5 = very important). The participants received two weeks to finish both tasks and were able to re-enter the online platform as often as they wished during this period. Except for one social worker, all participants completed the third step of GCM.

2.7. Step 4: representation

For the fourth step of GCM, we used the online platform GroupWisdom™ (<https://groupwisdom.com/>). This is a social research platform in which participatory research methods are employed to manage and analyze data. First, the researchers manually entered all data from the previous steps into the online platform. Second, the researchers used the platform to create cluster map solutions based on the categories (i.e., clusters) created by the participants in the third step of GCM. Elements that were most often put together by the participants were combined in a cluster by the software. The GroupWisdom™ software combined both clusters and the ratings for each element into one cluster map solution.

Finally, the researchers had to find the optimal number of clusters for each group. Starting off with the original clusters that resulted from using the Groupwisdom™ software, the researchers (GA, DJ, IH and KV) reduced the number of clusters to an optimal number. In this process, the GroupWisdom™ software combined two clusters with the most similarities, based on how often clusters were sorted together by participants. This process was repeated until the researchers could agree that the merging of two clusters was no longer realistic. The result was a cluster map for each of the three groups (Figs. 1–4). The optimal number of clusters for each group was five.

2.8. Step 5: interpretation

In the fifth step of GCM, the researchers discussed the final number of clusters for each group with group representatives. A total of three social sports coaches, four program coordinators and four social workers participated in this step. The discussions with members of each group took place as separate Zoom meetings. We asked whether the participants agreed with the final clusters and whether all the elements were in the right cluster. In addition, participants were asked to label the final clusters and invited to add elements that they thought were missing, which determined the final number of elements (Table 1). Adjustments were made to the clusters accordingly, thus establishing the final clusters and their constituent effective elements (Appendices 1–4).

2.9. Step 6: utilization

In the last step of GCM, we used definitive clusters and accompanying elements to formulate recommendations for local programs and shared these recommendations via factsheets, meetings, and conferences. This ensures that other sports programs can use this information to strengthen their local programs and the impact they make.

3. Results

During the brainstorming session, the social sports coaches mentioned 215 effective elements, while the program coordinators mentioned 79 and the social workers mentioned 142. After removing duplicates and splitting elements, the second step resulted in 152 unique elements for the social sports coaches, 81 for the program coordinators and 115 for the social workers (Table 1). Table 2 provides an overview of the clusters as created by the three groups, the number of elements per cluster, their average importance scores, and the range for these average importance scores.

3.1. Social sports coaches

The social sports coaches created five clusters: *the social sports coach, accessibility activity, the participant, organization, and external network* (Appendix 1). The importance scores for all clusters ranged from 3.40 to 4.90 (Table 2).

The first cluster, the role of the social sports coach, contained 58 elements. The average importance score was 4.20 (range: 3.50 to 4.80). The elements focused on the interpersonal skills of the social sports

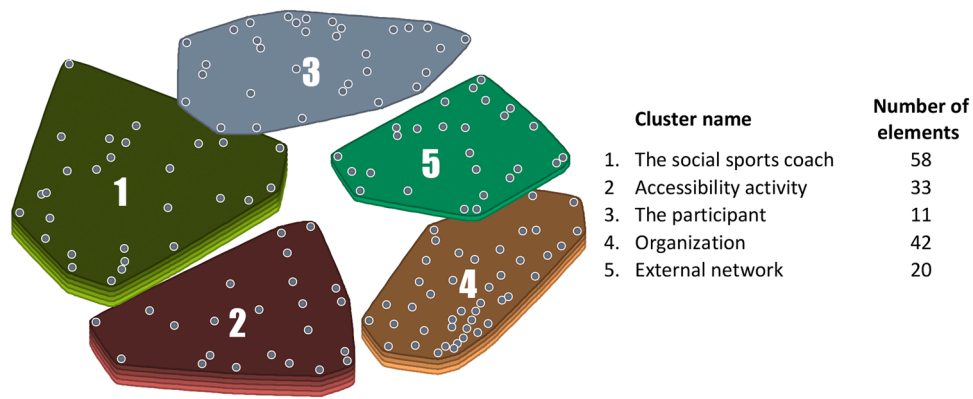


Fig. 2. Final cluster rating map for coaches.

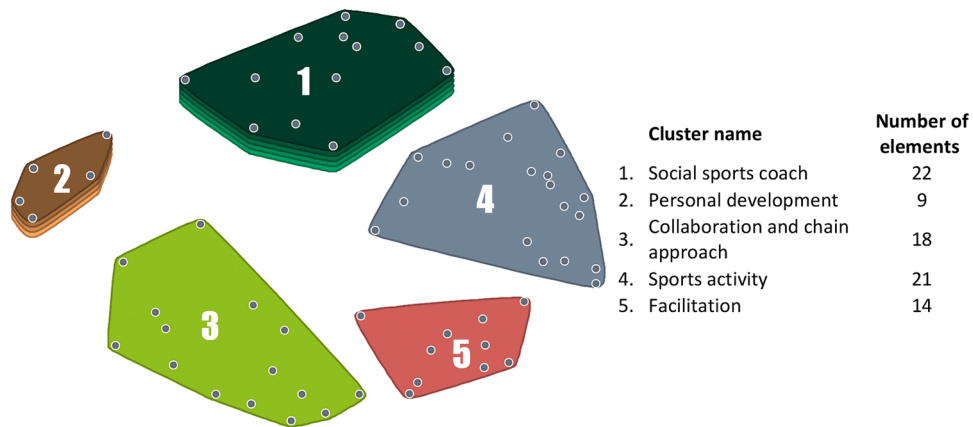


Fig. 3. Final cluster rating map for coordinators.

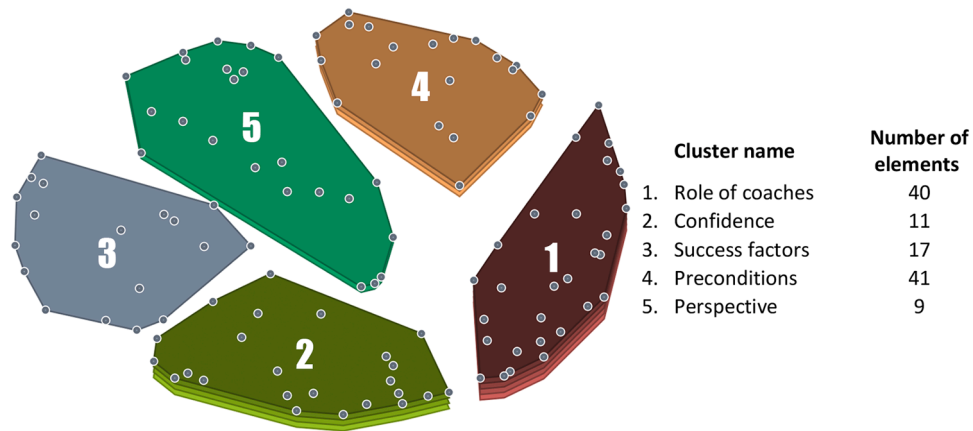


Fig. 4. Final cluster rating map for social workers.

coach (e.g., listening to participants) and the coach’s attitude (e.g., being committed). Moreover, some elements described what the social sports coach should do on a program design level, such as defining clear rules and providing activities with appropriate intensity. According to the social sports coaches, the coach should find a balance between two opposites: 1) establishing clear boundaries and discipline, and 2) giving participants freedom and ownership. This freedom and ownership can be provided by asking the program participants what they want and giving them responsibilities. Although various elements were related to giving participants ownership and responsibility, these elements had relatively low average importance scores. Additionally, only two

elements referred to necessary knowledge and sports skills of the social sports coach, which indicates that social sports coaches find their social role more important than their technical/coaching roles within various activities.

The second cluster, accessibility activity, contained 33 elements with an average importance score of 4.14 (range: 3.40 to 4.90). Elements related to creating a safe climate and having a positive atmosphere had the highest average importance scores. Lower-scoring elements were related to the group (e.g., group dynamics, group formation), the location, and the diversity and intensity of activities. Elements related to the opportunity for personal development of program participants also

Table 1
Number of effective elements per group.

Group	Elements generated	Average no. elements per participant (range from min-max)	Final no. unique elements
Social sports coaches	215	15.36 (5-29)	152
Program coordinators	79	15.8 (11-23)	81
Social workers	142	15.78 (4-23)	115

Table 2
Findings step 3 GCM – structuring.

Clusters created by the groups	Elements per cluster	Average importance score	Range of average importance score
Social sports coaches			
1. The social sports coach	58	4.20	50. – 4.80
2. Accessibility activity	33	4.14	3.40 – 4.90
3. The participant	11	4.08	3.80 – 4.20
4. Organization	42	3.95	3.50 – 4.60
5. External network	20	3.92	3.20 – 4.20
Program coordinators			
1. Social sports coach	20	4.25	3.20 – 4.80
2. Personal development	9	4.15	3.60 – 4.60
3. Collaboration and chain approach	18	4.12	2.40 – 4.60
4. Sports activity	21	3.91	2.00 – 4.60
5. Facilitation	14	3.73	2.80 – 4.20
Social workers			
1. Role of coaches	40	4.55	80. – 5.00
2. Confidence	11	4.49	4.00 – 4.70
3. Success factors	17	4.26	3.70 – 5.00
4. Preconditions	41	4.16	3.00 – 5.00
5. Perspective	9	3.60	2.80 – 4.20

scored relatively low on importance.

The third cluster, the participant, consisted of 11 elements and had an average importance score of 4.08 (range: 3.80 to 4.20). The elements within this cluster related to material aspects, such as possessing clothing and shoes, and to the background of the participant. Moreover, elements were mentioned focusing on personality and the attitude of the participant, such as intrinsic motivation, perseverance, and commitment. However, it was not clear whether these elements were considered as internal assets that participants should already possess or as assets that should be facilitated by the social sports coach. Nonetheless, the relatively high average importance scores showed that these elements were meaningful to the social sports coaches.

The fourth cluster focused on the organization of a sports program. This cluster included 42 elements with an average importance score of 3.95 (range: 3.50 to 4.60). The elements within this cluster related to structure and clarity of the activity, duration and time of the activity, and monitoring of impact. Also mentioned were elements related to the design of a sports activity, such as group composition and diversity in the sports activities offered. Only a few of the elements mentioned within the third cluster focused on the organizational level of a sports program, such as finances, location, promotion, and equipment. Nonetheless, the elements concerning the design of a sports program had the highest average importance score, which suggests that social sports coaches considered design elements most relevant within this cluster.

The final cluster, external network, contained 20 elements and had an average importance score of 3.92 (range: 3.20 to 4.20). Elements in this cluster were about building a network, particularly an integral collaboration between sports programs and health or social care organizations. None of the elements in the external network scored notably

high on importance. The highest-scoring elements were related to structure, the participants (e.g., reducing cost for participants, recruiting new participants), and collaborations between different organizations.

3.2. Program coordinators

The program coordinators created five clusters: *social sports coach, personal development, collaboration and chain approach, sports activity, and facilitation* (Appendix 2). The importance scores for these clusters ranged from 2.00 to 4.80 (Table 2).

With an average importance score of 4.25 and a range of 3.20 to 4.80, the first cluster was most important for the coordinators. This cluster, called the social sports coach, was the second-largest cluster and consisted of 20 elements. The elements were about the social sports coaches' knowledge (e.g., sport-technical knowledge), interpersonal skills (e.g., being involved, asking how things are going) and personality (e.g., empathy, fun). Most of the elements focused on the interpersonal skills of the social sports coach.

The second cluster on personal development had an average importance score of 4.15 (range: 3.60 to 4.60). This was the smallest cluster, with only nine elements. It encompassed elements that related to the personal development of the program participants in terms of identity formation, communication skills, health, and socialization. Two elements, a feeling of belonging and self-esteem, were more about prerequisites for personal development. Interestingly, elements related to mental and physical health scored low compared to the cluster average. The lowest scoring element was related to the formation of identity. The coordinators scored elements related to pleasure higher on importance than elements related to identity development or health.

The third cluster, collaboration and chain approach, consisted of elements that were related to the collaboration with external partners. This cluster consisted of 18 elements with an average importance score of 4.12 and a range of 3.80 to 4.40. This average importance score may indicate that program coordinators felt that bringing the sports domain and health care domain together was important for the success of a sports program. Some of the elements indicate that these collaborations with external partners should have a proper support base and clear agreements.

The fourth cluster was labeled sports activity and was the largest cluster with 21 elements. This cluster had the second-lowest average importance score of 3.91 and a very wide range of 2.00 to 4.60. The elements within this cluster could be divided into two groups, namely structure and the sports climate. Elements related to structure included fixed times and days, and fixed coaches. In addition, some structural elements were related to the coach and communication, such as clear communication, and clarity about rules and expectations. Elements related to the sports climate included a positive and informal environment and no pressure to perform. In other words, participants are not being forced to do things they do not want to do, thus enabling a positive sports climate. The elements related to the sports climate had a lower average importance score than the structural elements within this cluster.

The final cluster, facilitation, consisted of 14 elements. The average importance score of 3.73 (range 2.80 to 4.40) was the lowest of any cluster created by the program coordinators. The elements within this cluster were mainly about the design and organization of a sports program. Several elements were related to activities that should fit the group size, the needs of the participants, and elements related to the location of the activity and lowering the costs of the activity. These elements were all linked to the accessibility of a sports program. Several elements related to location scored low on importance, specifically the element about an indoor location. Within this cluster, the elements with the highest importance score were related to whether the activity was in line with participants' wishes, the group size, the structure of the activity itself, and the safety of the location.

3.3. Social workers

The social workers provided 115 unique elements and divided these elements into five clusters: *role of the coach*, *confidence*, *success factors*, *preconditions*, and *perspective* (Appendix 3). The importance scores ranged from 2.80 to 5.00 (Table 2). The social workers scored all elements high, which may indicate that they were either less critical than the other groups or that they were more certain that some elements were very important.

The first cluster, the role of the coach, contained 40 elements with an average importance score of 4.55 (range: 3.80 to 5.00). The high average importance score suggests that this cluster was important to the social workers. Like the previous groups, the social workers identified elements related to the social sports coach's personality and professionalism. Elements on the professional level were based on the knowledge of the coach. The elements that scored highest were related to the coach's personality, such as humor, intrinsic motivation, and respect. The social workers also had elements about protecting the participants, such as setting limits with participants, equality, and not asking too much of program participants. Creating fun had the highest importance score of 5.00.

The second cluster, confidence, contained 11 elements. This cluster had an average importance score of 4.49 with a range of 4.00 to 4.70. This score shows that it was also an important cluster for social workers. Although the cluster was labeled "confidence", the cluster contained elements that were about the feelings of the participant, such as feeling appreciated and being seen and heard. Additionally, some elements were more about the interaction between the coach and participant, such as getting the best out of participants and coach listens to participants.

The third cluster, success factors, contained 17 elements with an average importance score of 4.26 (range: 3.70 to 5.00). This cluster was a mix of elements that were not always related to each other and closely resembled the preconditions cluster from the same group. The cluster's name may indicate that social workers indeed found success factors to be the most important. The elements were related to the design of a program, the professionalism and personality of the coach, such as their attitude, and the relation between the coach and participants (e.g., positive approach on the part of the coach).

The fourth and largest cluster, preconditions, contained 41 elements and had an average importance score of 4.16 (range: 3.00 to 5.00). Elements were mostly focused on the accessibility and the structure of a sports program, or on the sports activity itself. The social workers attached particular importance to structure in terms of time, location and regularity of the activity. Besides the structure of the sports project, social workers generated numerous elements that were focused on the positive atmosphere of a sports program that might lead to better accessibility for participants. Moreover, the social workers stated that the sports activity itself should fit the target group and should be varied. Contradicting elements were also mentioned, such as providing challenging activities as opposed to the element that advises not to focus on performance. The latter scored low on average importance and was less important for most of the social workers.

The final cluster, perspective, included nine elements and had an average importance score of 3.60 (range: 2.80 to 4.20), a score indicating that this cluster was least important to the social workers. This cluster consisted of diverse elements that seemed not to belong together. Some of the elements were about the personal development of the participants by providing various courses (e.g., computer courses, language courses) and creating opportunities for program participants to grow. On the other hand, some elements were more related to collaborations with external organizations and looking at other programs with an eye to providing these courses and opportunities.

4. Discussion

To our knowledge, this is the first study that identifies the elements of a sports program serving adults in a socially vulnerable position that are necessary for its success. Data were collected among three groups of stakeholders (i.e., social sports coaches, program coordinators, and social workers) who followed the six steps of GCM. The three stakeholder groups generated many effective elements that contribute to the success of sports programs. Nonetheless, four overarching themes emerged from the clusters created by the study participants: importance of the social sports coach, preconditions for a sports program, external partners for the continuity of a sports program, and personal development of participants.

4.1. The social sports coach

All three groups, as reflected by their clustering and high average importance scores, emphasized the pivotal role of the social sports coach for the success of community sports programs serving adults in a socially vulnerable position. Newman et al. (2021) also underscored the crucial role of the coach. In their scoping review, the researchers aimed to identify facilitative coaching practices related to LSD and LST in youth sport settings (Newman et al., 2021). The authors made a distinction regarding the facilitative coaching practices in terms of implicit/indirect (e.g., coaching philosophy, using a strength-based approach, fostering positive relationships) and explicit/direct (e.g., discussing and teaching life skills, supplying direct feedback related to using life skills, providing opportunities to transfer outside of sport) approaches. Similarly, Carson and Gould (2008) argued in their literature review on sport programs for socially vulnerable youth that the coach is imperative when it comes to LSD and LST. They indicate that the coach's characteristics consist of the coach's philosophy, relational skills, competency, and openness. These coach characteristics show an overlap with the elements found in the present study. Interestingly, in our study the program coordinators mentioned sport-specific knowledge of coaches, whereas the social workers and social sports coaches stressed only the coach's interpersonal skills. Given that social workers and social sports coaches work more closely with the target group than program coordinators, and hence may know better what qualities a social sports coach should have, a focus on interpersonal skills rather than sport-technical knowledge may be advisable when selecting social sports coaches for community sport programs.

Similarly, Super et al. (2018) indicated that social sports coaches play a key role in creating optimal conditions for the development and transfer of life skills among socially vulnerable youth by offering fun activities. In fact, they listed fun, humor and providing enjoyable activities as a coach's responsibility (Super et al., 2018). These three responsibilities of coaches were also mentioned in the present study, which shows that fun and enjoyable activities are important not only for children and youth, but also for adults. Both the program coordinators and the social workers assigned the elements about fun and humor to a cluster related to the coach, whereas the social sports coaches themselves viewed fun as a precondition for a sports program. As such, the social sports coaches in the present study considered fun to be part of the activity rather than their own responsibility. Despite these differing views on fun as an effective element, all groups agreed on the importance of fun and humor, as shown by the high average importance scores for these elements.

4.2. Preconditions for a sports program

The second theme revolved around preconditions for the sports program. Elements within this theme centered around two topics: 1) the sports climate (e.g., safe, fun, informal); and 2) organizational elements of a sports program (e.g., rules, location, structure, additional activities). While competition may seem at odds with providing safe, informal, and

fun activities, all three stakeholder groups mentioned competition as an effective element. Hence, a good balance between these characteristics may be key to a successful and effective program. Moreover, elements regarding clear rules seem to contradict the elements about accessible activities, since overly strict rules might limit a sports program's accessibility. However, rules are primarily intended to establish structure and safety, which can foster an environment where all participants have equal opportunities (Stevens, 2022).

The finding that a safe sports climate is imperative for the success of adult community sports programs was also highlighted by Sherry and Strybosch (2012). They investigated the intrinsic benefits for marginalized adults participating in a sports program called 'Community Street Soccer Program' (Sherry & Strybosch, 2012). The authors indicated that an accepting and welcoming atmosphere was a facilitating element for the development of emotional life skills (i.e., coping skills). Furthermore, Alexander et al. (2011) reported that a safe sports environment facilitated the development and transfer of social life skills.

Similar findings were also reported in the sport-based youth development literature. For instance, in the scoping review by Newman et al. (2021), the establishment of a prosocial team culture was highlighted as one of the facilitative practices for the development and/or transfer of life skills. Their findings also showed that focusing on positives and strengths helps the development and transfer of life skills. Moreover, Anderson-Butcher et al. (2014) investigated the impact of a community sports program on the development of social skills among socially vulnerable youth and found that comfortable feelings among the participants facilitated the development of social skills (e.g., teamwork) and cognitive skills (e.g., self-control; Anderson-Butcher et al., 2014). In our study, the coordinators and social workers considered the sports climate to be part of the organization of the sports activity. However, the social sports coaches created a separate cluster for the sports climate, which suggests that they believed creating a safe environment to be a coach's responsibility. Nonetheless, the three stakeholder groups agreed on the elements that were important in creating a safe environment. They all stressed that it was crucial to have low-threshold activities and that sports participation can be positively influenced with an increased sense of safety.

Additionally, the stakeholder groups stressed that structure and group formation was linked to a safe climate. In relation to structure, community sports programs should provide clarity about location, time, coaches, and the activities. The elements related to group formation show that community sports programs should bring different target groups together and have proper group sizes. The importance of structure and group composition for the success of a sports program has also been recognized by other researchers. For example, Mulderij et al. (2020) investigated the effective elements of care-physical activity initiatives for adults with a low socioeconomic status. One of the identified clusters was related to the structure of a sports program (Mulderij et al., 2020). Moreover, Pink et al. (2020) explored the effects of a sports program called Kicking Goals Together (KGT) among migrant refugees. The authors reported that the diverse range of people included in the program offered participants the opportunity to meet with people from other backgrounds, thus facilitating the development of their social skills (Pink et al., 2020).

The opportunity to meet other people was also mentioned by our stakeholders. For instance, the social sports coaches and social workers mentioned an appropriate group composition as an effective element. Certain program components allow for such opportunities and are, therefore, instrumental in facilitating the development and transfer of life skills. Riley and Anderson-Butcher (2012), for instance, reported that the opportunity for peer interactions was instrumental in achieving positive program outcomes.

Finally, a diverse range of activities that fit the needs of participants was mentioned as an effective element. This was also reported by Pink et al. (2020), who stated that the organization of extra activities (e.g., barbecues) and additional components of the KGT program (i.e., the

skilled-up component) facilitated development and transfer of social skills among migrant refugees who participated in the program. Another study in the sport-based youth development field reported that the active and diverse nature of the program was decisive to the development of life skills among low-income youth who participated in sports programs (Riley & Anderson-Butcher, 2012).

4.3. External partners and the continuity of a sports program

The third theme involved collaboration with external partners and the continuity of the program. The elements within this theme focused on having consensus between partners about participant recruitment, financial aspects of the continuity of a sports program, cooperation between the sports program and the social work organization, collaboration between different domains within municipalities, and the creation of an informal network between involved parties. The need to establish a collaboration with external partners was also highlighted in a systematic literature review by Helsper et al. (2023). The researchers aimed to identify factors that influence the sustainable implementation of community-based, multilevel physical activity-related health promotion. Helsper et al. (2023) reported that the continuity of a program can be promoted by diverse and multisectoral partnerships on several levels. Especially the involvement of municipal and/or governmental level seemed to be relevant (Helsper et al., 2023).

To judge from the average importance score, this theme was important to the program coordinators (4.14) and to a lesser extent to the social sports coaches (3.90). Interestingly, the social workers mentioned only one element related to collaboration with external parties and did not create a separate cluster for this topic. One explanation is that program coordinators are responsible for the organization of collaboration between partners, whereas social sports coaches and social workers are not. Social sports coaches and social workers may therefore not be fully aware of the need for collaboration with external partners to maintain a sports program. For the success of a community sports program, a strong collaboration between sport and social care is particularly important (Hermens et al., 2017). Social sports coaches and social workers play a significant role in this process. Our findings showed that the awareness among social sports coaches and social workers about the importance of this collaboration and their role within this process could be improved. In addition to increased impact, our findings also showed that collaboration with external partners is necessary for community sports programs to be more successful, which was also mentioned by Hermens et al. (2017).

4.4. Personal development of participants

The final theme that emerged concerned the personal development of the program participants. The social sports coaches created one cluster about the participant and the program coordinators created one cluster related to the personal development of participants. However, the social workers were more focused on participants' personal growth and future perspectives than the social sports coaches and program coordinators. The social workers' choice of effective elements such as "not overburdening the participants" seemed to suggest that social workers were more protective of the adults in a socially vulnerable position than the other stakeholder groups.

According to our three stakeholder groups, one's motivation to participate in sports programs is an essential element of personal development. Various elements show that intrinsic motivation is especially important. Previous research also identified intrinsic motivation as a core element for the success of sports programs. For instance, Sandford et al. (2008) reported that continued involvement of participants is important to maintain positive improvements among them. In addition, Pierce et al. (2017) indicated that intrinsic motivation influences the ability and/or willingness of a participant to transfer knowledge and skills from one context to the other. Moreover, Jacobs

and Wright (2018) recognized that the success of a sports program, in the form of LST, was dependent on participants' motivation to use life skills in a different context than where they were initially learned.

However, previous studies show that the success of a sports program also depends on extrinsic motivation. For instance, Newman and Anderson-Butcher (2021) found that the success of a youth sports program was enhanced when staff provided extrinsic motivation in the form of medals as a reward. However, our groups of stakeholders did not mention elements related to extrinsic motivation. This may suggest that external stimuli are less important for adults than for youth. Notwithstanding, the elements of future perspectives and the opportunity to take a course (e.g., computer course, language course) can be considered as rewards that stimulate the external motivation of adults in socially vulnerable position who partake in community sports programs.

Furthermore, all three stakeholder groups agreed that setting goals and scheduling sufficient evaluation moments are crucial for the personal development of adults in a socially vulnerable position. Sandford et al. (2008) also found that effective features of a successful sports intervention include setting goals together with the participant and taking a moment to review the participants' progress. Furthermore, the present study's findings show that focusing on participants' future perspectives as part of the program design is an effective element for a program's success. This finding is in line with the study by Sherry and Strybosch (2012), who argued that focusing on achieving goals was important in the development and transfer of emotional skills.

5. Strengths and limitations

While much research attention has been devoted to sports programs for youth in a socially vulnerable position, this is the first study to systematically identify effective elements that contribute to the success of community sports programs for adults in a socially vulnerable position. This aim was successfully explored by using the concept mapping method. The software used allowed our research participants to individually complete the brainstorming and categorization activities at the time and place of their own choosing. This might have positively influenced our response rate.

However, our study has some limitations as well. According to Trochim, when conducting a GCM study the optimal number for a group is 10 to 20 participants (1989). Our groups of program coordinators and social workers were smaller. This may explain the wide range in average importance scores that we found within and between the three stakeholder groups. When groups become smaller, the importance score given by each participant weighs more heavily. Nonetheless, our choice to divide our participants in three diverse groups according to their job description, instead of treating them as one group, allowed us to determine whether there was a difference in how these groups view the community sports programs.

6. Lessons learned

GCM proved to be a useful tool to systematically gather data from key stakeholder groups with which effective elements were identified. The use of this tool is recommended to evaluate programs, especially when dealing with complex program structures or when aiming to capture a diverse range of key stakeholder opinions. GCM can enhance the comprehensiveness and depth of the evaluation process.

In the course of the present study, several key lessons emerged. Firstly, a well-defined focus question is of great importance. The clarity and unambiguity of the focus question are critical in guiding the participants of GCM and ensuring that the responses are relevant and meaningful to the research objectives. A vague focus question can negatively affect the input during the brainstorm sessions and subsequent steps. Indeed, the responses of the stakeholder groups (i.e., the elements they provided) were not always clear to the researchers, and hence, may also not have been clear to other members of the same

group. In other words, some elements could have been interpreted differently than the individual stakeholder intended. This was part of our motivation for organizing an extra meeting to perform a member check and clarify elements that were ambiguous. In future research, we recommend researchers to provide better instructions on how to write down elements so that these are more clear. We also encourage researchers to conduct additional interviews to better understand what meaning the stakeholders attach to each provided element and rename it as such.

Secondly, given that GCM is often conducted online, it is crucial for researchers to recognize that not all participants may possess advanced computer skills. The researchers of the present study had to provide step-by-step instructions in two instances. This digital nature can influence the participation rate and the quality of the input, potentially influencing the results. Researchers employing GCM in an online environment are encouraged to regularly ask the participants whether they are experiencing issues and whether help is needed. To ensure inclusive and comprehensive participation, alternative methods of engagement should be considered, such as in-person sessions. In doing so, involving adults in a socially vulnerable position in future research becomes also more feasible, a demographic group that was not included in the present study.

Lastly, the researchers of the present study confined their scoring to assessing the importance of the elements. Although this approach provided valuable insights, incorporating additional scales is recommended, such as those measuring criticality, feasibility, influentiality, or the current presence of an element within a program. By including additional scales, a more comprehensive evaluation and multidimensional understanding of a program can be achieved, which could offer a stronger basis with a more complete set of criteria for decision-makers.

7. Conclusion

This study aimed to systematically identify what elements of community sport programs were effective in producing positive outcomes among adults in a socially vulnerable position. Using group concept mapping, we created an overview of the elements that three groups of stakeholders deemed necessary for community sports programs to be successful. Although the three stakeholder groups mentioned effective elements that were different, several overarching themes were identified. Firstly, the social sports coach plays a pivotal role in the success of community sports programs. Therefore, it is advisable to train social sports coaches properly. Secondly, community sports programs should be perceived as a safe and positive learning environment, and program participants should be encouraged to work on their own personal goals without being compelled. Lastly, when setting up a community sports program, its continuity and success should be supported by collaboration with external partners, such as social care organizations and municipalities. Group concept mapping was a useful tool to systematically gather data from different stakeholders. Nonetheless, future research may include additional in-depth interviews with the stakeholders to obtain a better understanding of the effective elements. Moreover, future researchers may want to include program participants to provide an even more complete overview of effective elements.

Funding

The project was funded by the Netherlands Organization for Health Research and Development ZonMw, project no. 50-54600-98-210. The funders were not involved in the conduct of the study nor in the preparation of the manuscript.

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Kirsten Verkooijen: Writing – review & editing, Writing – original draft, Supervision, Funding acquisition, Conceptualization. **Sabina**

Super: Writing – review & editing, Writing – original draft, Conceptualization. **Dico de Jager:** Writing – review & editing, Writing – original draft, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Maria Koelen:** Writing – review & editing, Writing – original draft, Conceptualization. **Ivo van Hilvoorde:** Writing – review & editing, Writing – original draft, Conceptualization. **Güven Alarslan:** Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of Competing Interest

None.

Acknowledgments

We would like to thank all the stakeholders who participated in the

GCM procedure for their time and input.

Author agreement statement

We, the undersigned, declare that this manuscript is original, has not been published before, and is not currently being considered for publication elsewhere.

We confirm that the manuscript has been read and approved by all named authors. We also confirm that there are no other persons who satisfied the criteria for authorship. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We understand that the corresponding author is the sole contact for the editorial process. He is responsible for communicating with the other authors about progress, submissions of revisions and final approval of proofs.

Appendix A. Final clusters with effective elements according to the social sports coaches

Clusters and their constituent effective element		Importance
1	<i>The social sports coach</i>	4.20
	1 Confidence of participants in coach	4.80
	5 Communicating with participants	4.40
	7 Letting participants come up with their own stories	4.00
	9 Giving participants responsibility where possible	4.20
	11 Giving Participants freedom	3.60
	29 Asking Participants what they want	3.80
	81 Providing a warm welcome	4.60
	95 Promoting social interaction among participants	4.30
	103 Discipline	4.20
	109 Social	4.50
	8 Complimenting participants	4.40
	12 Motivating participants	4.70
	53 Understanding personal situations	4.30
	62 Positive reinforcement of participants	4.30
	82 Being open to people	4.60
	16 Time and space for conversations	4.20
	28 Enabling personal growth	4.20
	65 Space for evaluation with participants	4.00
	97 Clear boundaries	4.30
	101 Seeing where improvement is needed	3.80
	114 Satisfying participant needs	4.40
	119 Trusting relationship between participant and coach	4.30
	145 Making individual agreements	3.80
	141 Knowing what participants' needs are	4.00
	17 Good supervision	4.50
	23 Right intensity	3.90
	57 Taking physical condition of participants into account	4.30
	99 Contact with other coaches for advice	3.50
	30 Working towards something with participants	3.80
	37 Creative sports coaches	4.10
	56 Bringing out qualities in participants	4.20
	68 Coach aligns rules of activity with group	4.20
	80 Providing good explanations	4.20
	123 Involving all participants	4.20
	127 Tracking personal development of participant	4.10
	146 Making agreements with the group	4.20
	31 Be a listening ear	4.20
	32 Being confident in front of the group	4.20
	34 Enthusiastic coach	4.50
	39 Energy	4.00
	41 Patience	4.10
	47 Expertise and knowledge	4.10
	49 Expertise about sport as a tool	3.90
	50 Positivity	4.40
	52 Individual focus within the group	3.80
	63 Committed coach	4.50
	71 Coach possesses basic skills	4.00
	78 Coach with empathy	4.00
	85 Showing attention and interest	4.30
	86 Motivating participants as coach	4.50

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Clusters and their constituent effective element		Importance	
	87	Maintaining contact with participants	4.40
	96	Involving participants and giving them tasks	4.10
	98	Mediating conflicts	4.10
	116	Listening to participants	4.60
	120	Coach is instructor and interlocutor	4.20
	121	Taking time for questions	4.20
	136	Be present at all times	4.50
2	Accessible sports activity	4.14	
	3	Open and informal atmosphere	4.00
	4	Participants should feel comfortable	4.70
	6	Participants should feel safe	4.80
	14	Equality	4.60
	20	Good group dynamics	4.20
	45	Group formation	4.00
	102	Respect	4.60
	110	Getting things done and don't complain	3.50
	113	Coziness	4.50
	115	Becoming aware	4.00
	13	Fun	4.90
	66	Safe sports climate	4.50
	107	Cooperation	4.30
	140	Honesty from everyone	4.40
	150	Self-reliance participants	3.90
	151	Relaxation	4.60
	43	Playing matches	3.40
	94	Working with themes from everyday life	4.00
	100	Having objectives	4.10
	118	Clear expectations	3.80
	135	Safety	3.50
	152	Don't always go full speed	3.50
	83	Adapt activity to the level of the athletes	4.60
	92	Good preparation	4.20
	69	Balance between fun and objectives	4.30
	46	Multiple game forms	3.80
	111	Balance between intensity and accessibility	4.10
	112	Music	3.70
	108	Accessible	4.20
	117	Possibility of training for participants	3.50
	137	Nice activities	4.20
3	The participant	4.08	
	156	Sports background (passion for sports)	n.d.
	157	Intrinsic motivation	n.d.
	158	Unconscious development	n.d.
	159	Success stories	n.d.
	160	Possession of correct clothing/shoes	n.d.
	91	Enthusiasm participants	4.20
	18	Personal goals	4.00
	40	Perseverance	3.80
	104	Love	4.20
	75	Commitment and presence	4.10
	76	Motivation to complete the course	4.20
4	Organization	3.95	
	2	Always someone present on time from organization	4.60
	10	Clear rules	4.40
	21	Appropriate sport for target group	4.20
	22	Structure within the activity	4.20
	24	Continuity	4.20
	70	Coaches get enough hours for the activity	4.00
	93	Time	4.00
	128	Dealing with Covid rules	3.90
	144	Good rules	3.90
	25	Good organization of activity	4.40
	48	Appropriate group composition	3.60
	54	Discuss lifestyle tools like sleep, nutrition, relaxation	3.60
	73	Combination between sport and theory	3.50
	89	Registration so you can keep in touch	4.20
	133	Monitoring	4.20
	142	Time for individual talks	4.00
	143	Not too many rules	3.50
	15	Experienced trainer	3.80
	154	Arranging funding	n.d.
	26	Good background coach	3.50
	38	Providing participants with perspective	4.30
	67	Coach with knowledge of first aid and rules of activities	4.30
	148	Being able to switch activities as a coach	4.10
	84	Possibility for connection within activity	4.10

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Clusters and their constituent effective element		Importance	
	126	Good coordination between coaches	3.80
	125	Dynamic offer	4.10
	124	Creative offer	4.20
	61	Variation in activities	4.00
	105	Events	3.50
	139	Diversity in offer	4.20
	51	Not too large group	3.70
	59	Limit travel distance for participants	3.50
	64	Indoor and outdoor sports facilities	3.50
	77	Sportswear for participants	3.50
	79	Suitable accommodation	3.90
	88	Good and safe equipment	4.30
	147	Sufficient material	3.80
	122	Being in several neighborhoods	3.80
	44	PR (promotion)	3.80
	60	Limit costs for participants	4.00
	132	Money for teaching	3.70
5	External network		3.92
	19	Right environment	4.10
	27	Certainty	4.20
	35	Supplying participants	4.20
	58	Collaboration with external parties	3.80
	129	Healthcare organizations supporting the activities	4.00
	130	Brainstorming	3.80
	138	Sufficient participants	4.10
	149	Good volunteers	3.80
	33	Good locations	4.00
	72	Sufficient sports moments	4.10
	106	Education for trainers	4.10
	134	Plan B	3.50
	36	Supporting organizations	4.20
	42	Good network	4.00
	44	PR (promotion)	3.90
	60	Reduce costs for participants	4.00
	131	Look at other municipalities	3.20
	132	Money for teaching	3.70
	55	Integral work, referrals	3.80
	155	Provide subsidy	n.d.

Appendix B. Final clusters with effective elements according to the coordinators

Clusters and their constituent effective element		Importance	
1	Social Sports Coach	4.25	
	2	Knowledge of coaches on offering sports activities	4.20
	4	Empathy of coaches and responding to that	4.60
	5	Coaches communicate clearly	4.60
	6	Positive attitude and appearance of coaches	4.80
	20	Adapting sport activities to level of the participant	4.00
	30	Contact with involved parties of the participant	4.40
	52	Involvement coach	4.40
	76	Creating trust with participants	4.20
	79	Skilled sports and exercise coaches	3.60
	3	Knowledge about dealing with participants	4.40
	11	Feedback positive developments of participant	4.40
	25	Good sports coach	4.00
	39	Knowledge about background problems of participants	3.20
	43	Good guidance	4.40
	22	Asking how it is going	4.00
	24	Celebrate success. extra attention for participants	4.60
	50	Fun	4.80
	62	Participation (from coach)	4.00
	56	Professional involved	4.20
	55	Participation (from participant)	4.20
2	Personal development	4.15	
	14	Participants feel like they belong somewhere	4.60
	51	Perspective	4.20
	57	Personal development	4.40
	58	Self-esteem	4.40
	66	Integration	3.80
	67	Identity formation	3.60
	68	Socialization	4.40
	70	Health (physical/psychic)	3.80

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Clusters and their constituent effective element		Importance	
3	85	Communication from participants	n.d.
	Collaboration and chain approach		4.12
	53	Alignment of social worker with collaborative partner	4.00
	80	Cooperation with partners	4.20
	9	Cooperation between different domains	3.80
	17	Clarity about assurance	4.20
	34	Continuity sports activity	4.40
	47	Financial assurance	4.20
	54	Support of ideas by cooperation partner	4.80
	19	Transport or buddy system to sports location	2.40
	32	Warm transfer from those involved	4.00
	71	Creating an informal network	4.00
	37	Clear contact person for those involved	4.20
	72	Activities should meet the wishes of target group	4.00
	59	Cooperation	4.20
	16	Clear agreements with partners	4.60
	82	Clear agreements with partners about recruitment	4.40
83	Clear agreements with partners about contact point	4.40	
84	Clear agreements with partners about arranging activities	4.40	
81	Clear agreements with partners about lead	4.40	
4	Sports activity		3.91
	12	No "have to" culture	3.40
	15	Positive culture sports program	4.00
	48	Goals to work towards to	4.00
	49	Informal	3.60
	60	Competition	2.00
	73	Time that suits the participants	3.80
	13	Fixed coaches	4.00
	21	Coffee/tea before or after	2.60
	40	Opportunity to meet	3.80
	41	Structure in day and time	3.80
	44	Clear communication	4.40
	75	Consistent presence of coaches	4.60
	28	Fixed structure sports activity	4.40
	33	Suitable time sports activity	3.80
	45	Clarity of expectations	4.60
	46	Safe sports environment	4.20
61	Accessible	4.00	
29	Clear structure of program	4.40	
36	Clear contact person for participant	4.20	
69	Structural approach	4.40	
77	Clear house rules	4.20	
5	Facilitation		3.73
	1	Sports activity is in line with wish participants	4.40
	26	Sports location	4.00
	27	Sport attributes	4.00
	31	Accessibility location	3.60
	42	Fitting sports activity	4.20
	74	Group is not too large	3.40
	7	Safe location of sports activity	4.20
	18	Duration of activity not too short	3.40
	23	Monitoring of experiences and further development	4.20
	63	A professional involved in the program	4.20
	78	Location indoors	2.80
	10	Low costs	3.40
	35	Money	3.60
	38	Needs assessments with participants	3.20
	8	Sport activity in hometown of participants	3.40

Appendix C. Final clusters with effective elements according to the social workers

Clusters and their constituent effective element		Importance	
1	Role of coaches		4.55
	1	Motivated coaches	4.50
	17	Simple language	3.80
	41	Focus on talents	4.20
	57	Sharing	4.30
	20	Asking participants about their impressions	4.30
	91	Being present for participants	4.70
	19	Interaction	4.50
	27	Fun. laughing. humor	4.80
	53	Giving compliments	4.80

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Clusters and their constituent effective element		Importance	
	62	Making contact	4.80
	75	Good guidance of players	4.80
	90	Responding to differences in level	4.30
	92	Putting participants in their power	4.70
	10	Respect everyone	5.00
	60	Equality	4.80
	69	Trust	5.00
	70	Respect	5.00
	78	Stability	4.80
	50	Tailored for each participant	4.30
	54	Setting limits with participants	4.50
	68	Process	4.00
	95	Sportsmanship	4.20
	100	Movement	4.80
	114	Not asking too much of participants	4.20
	15	Positive reinforcement	4.80
	83	Friendly coaches	4.50
	103	De-escalating work	4.70
	3	Connectiveness with participants	4.70
	34	Daring to fail	4.50
	42	Staying in touch with participants	4.50
	47	Focus on group forming	4.30
	51	Intrinsic enthusiasm of the coach	5.00
	55	Together	4.70
	63	Buddy/buddies	4.20
	67	Support	4.20
	79	Educated coaches	4.20
	110	Coaching without judgement	4.80
	112	Coach with humor	4.20
	105	Getting the best out of people	4.70
	113	Coach listens to participants	4.70
2	Confidence		4.49
	33	Daring to make mistakes	4.70
	65	Feeling appreciated	4.70
	89	Being seen and heard	4.70
	93	Success experiences of coaches	4.50
	96	Learn to deal with losing	4.00
	98	Getting to know people	4.30
	101	Involving the coaches	4.30
	105	Getting the best out of participants	4.70
	111	Contact on an individual level	4.50
	113	Coach with a listening ear	4.70
	57	Sharing	4.30
3	Success factors		4.26
	18	Dynamic	3.80
	24	Do not make it too heavy	3.70
	35	Seeing a long haul as beautiful journey	4.20
	64	Satisfaction	4.30
	71	Fun	5.00
	37	Putting participants in the spotlight	4.30
	49	Possibility to grow	4.00
	108	Coaches with knowledge of psychiatry	3.70
	26	Good professionals who let participants do the talking	4.20
	36	Celebrating successes	4.80
	43	Positive approach to the target group	5.00
	48	Giving space to participants who want to take up things	4.70
	52	Working towards something as a team/group	4.00
	66	Guts	3.70
	77	Offer perspective	4.20
	115	Knowledge transfer from coach about exercise and physical and mental health	4.00
	61	Warm reception. feeling welcome	4.80
4	Preconditions		4.16
	2	Accessible sports program	4.70
	22	Good materials	4.00
	38	Good accessibility	4.00
	39	Structural	4.70
	56	Sports location	4.00
	59	Group size	3.50
	76	Good admission of players	4.50
	88	Accessible	4.50
	94	Clear overview of different sports activities	4.70
	7	No focus on prestatation	3.20
	21	Fixed meeting place	3.80
	46	Conditions around sports activity are arranged	4.50
	58	Clarity about place	4.30
	74	Fixed place and time	4.30

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Clusters and their constituent effective element		Importance
80	Continuity	4.50
81	Familiar environment	4.30
85	Clear times	4.50
97	Not too difficult	4.00
109	Positive atmosphere	5.00
4	Low cost	4.00
8	Short exercises	3.20
28	Good website	3.00
44	Choose sports that the target group likes	4.50
82	Help with transportation	3.50
84	A clear program	4.30
86	Lots of mouth to mouth advertising	3.70
87	Invitation of vulnerable adults	4.30
104	Multiple choices in sports	4.20
106	Offer sports on a regular basis	4.20
107	Wide range of activities	4.00
5	Varied	4.00
6	Fun	4.30
11	Breaks in between	3.50
13	Casual	3.70
40	Flexible	4.00
72	Coziness	4.80
73	Challenging	4.50
102	Involvement of social workers	4.00
14	Safe environment	4.80
16	Good structure	4.50
9	Clear expectation management	4.50
5	Perspective	3.60
23	growth opportunities	3.30
25	Course opportunities for participants	3.50
29	Language courses	2.80
30	Computer courses	2.80
31	Looking at other programs	4.00
32	Collaboration with other organizations	4.00
45	Rewarding with a certificate	3.80
99	Making friends	4.20
49	Possibility to grow	4.00

References

- Alarslan, G., Ter Harmsel-Nieuwenhuis, L., van Hilvoorde, I., Koelen, M., Super, S., & Verkooijen, K. (2024a). Community Sports Programs Serving Adults in a Socially Vulnerable Position – What do they gain? Manuscript in preparation.
- Alarslan, G., Ter Harmsel-Nieuwenhuis, L., van Hilvoorde, I., Koelen, M., Super, S., & Verkooijen, K. (2024b). Life Skills Development and Transfer among Adults in a Socially Vulnerable Position: How does it occur? Manuscript in preparation.
- Alexander, M. G. F., Dummer, G. M., Smeltzer, A., & Denton, S. J. (2011). Developing the social skills of young adult special olympics athletes. *Education and Training in Autism and Developmental Disabilities*, 46(2), 297–310. (<http://www.jstor.org/stable/23879699>).
- Askelson, N., Ryan, G., McRee, A. L., Farris, P. E., Shannon, J., Hanson, J., Kenyon, D. B., Daly, E., & Avdic, L. (2021). Using concept mapping to identify opportunities for HPV vaccination efforts: Perspectives from the Midwest and West Coast. *Evaluation and Program Planning*, 89, Article 102010. <https://doi.org/10.1016/j.evalprogplan.2021.102010>
- Anderson-Butcher, D., Riley, A., Amorose, A., Iachini, A., & Wade-Mdivanian, R. (2014). Maximizing youth experiences in community sport settings: The design and impact of the LiFE Sports Camp. *Journal of Sport Management*, 28(2), 236–249. <https://doi.org/10.1123/jsm.2012-0237>
- Camiré, M., Newman, T. J., Bean, C., & Strachan, L. (2021). Reimagining positive youth development and life skills in sport through a social justice lens. *Journal of Applied Sport Psychology*, 1–19. <https://doi.org/10.1080/10413200.2021.1958954>
- Camiré, M., Santos, F., Newman, T., Vella, S., MacDonald, D. J., Milistedt, M., Pierce, S., & Strachan, L. (2023). Positive youth development as a guiding framework in sport research: Is it time to plan for a transition? *Psychology of Sport and Exercise*, 69, Article 102505. <https://doi.org/10.1016/j.psychsport.2023.102505>
- Coakley, J. (2011). Youth sports: What counts as “Positive Development”? *Journal of Sport and Social Issues*, 35, 306–324. <https://doi.org/10.1177/0193723511417311>
- Coalter, F. (2007). Taylor & Francis Group. *A wider social role for sport: who's keeping the score?*. London, UK: Routledge. <https://doi.org/10.4324/9780203014615>
- Coalter, F. (2013). ‘There is load of relationships here’: Developing a programme theory for sport-for-change programmes. *International Review for the Sociology of Sport*, 48, 594–612. <https://doi.org/10.1177/10126902124461>
- Danish, S., Forneris, T., Hodge, K., & Heke, I. (2004). Enhancing youth development through sport. *World Leisure Journal*, 46(3), 38–49. <https://doi.org/10.1080/04419057.2004.9674365>
- Davies, M. (2011). Concept mapping, mind mapping and argument mapping: What are the differences and do they matter? *Higher Education*, 62(3), 279–301. (<http://www.jstor.org/stable/41477852>).
- Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for adults: Informing development of a conceptual model of health through sport. *The International Journal of Behavioral Nutrition and Physical Activity*, 10, 135. <https://doi.org/10.1186/1479-5868-10-135>
- Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology*, 1(1), 58–78. <https://doi.org/10.1080/17509840701834573>
- Hede, B., Thiesen, H., & Christensen, L. B. (2019). A program review of a community-based oral health care program for socially vulnerable and underserved citizens in Denmark. *Acta Odontologica Scandinavica*, 77(5), 364–370. <https://doi.org/10.1080/00016357.2019.1572921>
- Helsper, N., Dippon, L., Birkholz, L., et al. (2023). What makes community-based, multilevel physical activity promotion last? A systematic review with narrative synthesis on factors for sustainable implementation. *Perspectives in Public Health*, 0(0). <https://doi.org/10.1177/17579139231186693>
- Hermens, N., Super, S., Verkooijen, K. T., & Koelen, M. A. (2017). A systematic review of life skill development through sports programs serving socially vulnerable youth. *Research Quarterly for Exercise and Sport*, 88(4), 408–424. <https://doi.org/10.1080/02701367.2017.1355527>
- Holt, N. L., Neely, K. C., Slater, L. G., Camire, M., Cote, J., Fraser-Thomas, J., MacDonald, D., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth development through sport based on results from a qualitative meta-study. *International Review Sport Exercise Psychology*, 10, 1–49. <https://doi.org/10.1080/1750984X.2016.1180704>
- Jacobs, J. M., & Wright, P. M. (2018). Transfer of life skills in sport-based youth development programs: A conceptual framework bridging learning to application. *Quest*, 70(1), 81–99. <https://doi.org/10.1080/00336297.2017.1348304>
- Kane, M., & Trochim, W. M. (2007). Thousand Oaks, CA: Sage Publications. *Concept Mapping for Planning and Evaluation*. <https://doi.org/10.4135/9781412983730>
- Kendellen, K., & Camiré, M. (2019). Applying in life the skills learned in sport: A grounded theory. *Psychology of Sport and Exercise*, 40, 23–32. <https://doi.org/10.1016/j.psychsport.2018.09.002>

- Kokko, S. (2014). Sports clubs as settings for health promotion: Fundamentals and an overview to research. *Scandinavian Journal of Public Health*, 42(15_suppl), 60–65. <https://doi.org/10.1177/1403494814545105>
- Lerner, R. (2004). Diversity in individual - context relations as the basis for positive development across the life span: A developmental systems perspective for theory, research, and application. *Research in Human Development*, 1(4), 327–346. https://doi.org/10.1207/s15427617rhd0104_5
- Lyras, A., & Peachey, J. W. (2011). Integrating sport-for-development theory and praxis. *Sport Management Review*, 14(4), 311–326. <https://doi.org/10.1016/j.smr.2011.05.006>
- Mulderij, L. S., Wolters, F., Verkooijen, K. T., Koelen, M. A., Groenewoud, S., & Wagemakers, A. (2020). Effective elements of care-physical activity initiatives for adults with a low socioeconomic status: A concept mapping study with health promotion experts. *Evaluation and Program Planning*, 80, Article 101813. <https://doi.org/10.1016/j.evalprogplan.2020.101813>
- Newman, T., Black, S., Santos, F., Jefka, B., & Brennan, N. (2021). Coaching the development and transfer of life skills: A scoping review of facilitative coaching practices in youth sports. *International Review of Sport and Exercise Psychology*, 16(1), 619–656. <https://doi.org/10.1080/1750984X.2021.1910977>
- Newman, T. J., & Anderson-Butcher, D. (2021). Mechanisms of life skill development and life skill transfer: Interconnections and distinctions among socially vulnerable youth. *Journal of the Society for Social Work and Research*, 12(3), 489–519. <https://doi.org/10.1086/715890>
- Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer. *International Review of Sport and Exercise Psychology*, 10(1), 186–211. <https://doi.org/10.1080/1750984X.2016.1199727>
- Pink, M. A., Mahoney, J. W., & Saunders, J. E. (2020). Promoting positive development amongst youth from refugee and migrant backgrounds: The case of Kicking Goals Together. *Psychology of Sport and Exercise*, 51, Article 101790. <https://doi.org/10.1016/j.psychsport.2020.101790>
- Riley, A., & Anderson-Butcher, D. (2012). Participation in a summer sport-based youth development program for disadvantaged youth: Getting the parent perspective. *Children and Youth Services Review*, 34(7), 1367–1377. <https://doi.org/10.1016/j.childyouth.2012.03.008>
- Ronkainen, N., Aggerholm, K., Ryba, T., & Allen-Collinson, J. (2021). Learning in sport: From life skills to existential learning. *Sport, Education and Society*, 26(2), 214–227. <https://doi.org/10.1080/13573322.2020.1712655>
- Sandford, R. A., Duncombe, R., & Armour, K. M. (2008). The role of physical activity/sport in tackling youth disaffection and anti-social behaviour. *Educational Review*, 60(4), 419–435. <https://doi.org/10.1080/00131910802393464>
- Schaillée, H., Haudenhuyse, R., & Bradt, L. (2019). Community sport and social inclusion: International perspectives. *Sport in Society*, 22(6), 885–896. <https://doi.org/10.1080/17430437.2019.1565380>
- Sherry, E., & Strybosch, V. (2012). A kick in the right direction: Longitudinal outcomes of the Australian community street soccer program. *Soccer & Society*, 13(4), 495–509. <https://doi.org/10.1080/14660970.2012.677225>
- Stevens, J. (Ed.) 2022. *Safe Sport: Critical Issues and Practices*. Ecampus Ontario. <https://ecampusontario.pressbooks.pub/safesport> Licensed under CC-BY-NC-SA 4.0.
- Super, S., Hermens, N., Verkooijen, K., & Koelen, M. (2014). Enhancing life prospects of socially vulnerable youth through sport participation: A mixed methods study. *BMC Public Health*, 14, 703. <https://doi.org/10.1186/1471-2458-14-703>
- Super, S., Verkooijen, K., & Koelen, M. (2018). The role of community sports coaches in creating optimal social conditions for life skill development and transferability—a salutogenic perspective. *Sport, Education and Society*, 23(2), 173–185. <https://doi.org/10.1080/13573322.2016.1145109>
- Ter Harmel-Nieuwenhuis, L., Alarslan, G., van Hilvoorde, I., Koelen, M., Super, S., & Verkooijen, K. (2022). Life skills development and transfer amongst socially vulnerable adults through sports: A systematic review. *International Review of Sport and Exercise Psychology*, 1–41. <https://doi.org/10.1080/1750984X.2022.2135125>
- Theeboom, M., De Knop, P., & Wylleman, P. (2008). Martial arts and socially vulnerable youth. An analysis of Flemish initiatives. *Sport, Education and Society*, 13(3), 301–318. <https://doi.org/10.1080/13573320802200677>
- Trochim, W. M. (1989). An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning*, 12(1), 1–16. [https://psycnet.apa.org/doi/10.1016/0149-7189\(89\)90016-5](https://psycnet.apa.org/doi/10.1016/0149-7189(89)90016-5)
- Turnidge, J., Côté, J., & Hancock, D. J. (2014). Positive youth development from sport to life: Explicit or implicit transfer?. *Quest*, 66(2), 203–217. <https://doi.org/10.1080/00336297.2013.867275>
- Van den Dool, R. (2022). *Deelname sport en bewegen van mensen met een lage sociaaleconomische status: De achtergronden van de deelname*. *Mulier Instituut Utrecht* Accessed on 19 December 2023.
- Van der Veken, K., Lauwerier, E., & Willems, S. J. (2020). How community sport programs may improve the health of vulnerable population groups: A program theory. *International Journal for Equity in Health*, 19(1), 1–12. <https://doi.org/10.1186/s12939-020-01177-5>
- Vandermeerschen, H., Vos, S., & Scheerder, J. (2015). Who's joining the club? Participation of socially vulnerable children and adolescents in club-organised sports. *Sport, Education and Society*, 20(8), 941–958. <https://doi.org/10.1080/13573322.2013.856293>
- Wartna, J., Vaandrager, L. L., Wagemakers, M. A. E., & Koelen, M. (2012). Er is geen enkel werkzaam principe dat altijd werkt. *Een eerste verkenning van het begrip werkzame principes*. Wageningen University,. (<http://edepot.wur.nl/212691>).

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