

Establishment and management of a workplace health promotion network in rural areas: a case study

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Summary

Health is an increasingly important issue in the workplace, but the dissemination of health-promoting interventions in companies, especially in small and medium-sized enterprises (SMEs), remains limited. Inter-organizational networks seem to be a promising approach to promote and implement workplace health management (WHM) in SMEs. This study analyses the establishment and coordination of the network 'ERZgesund—Healthy Companies in the Ore Mountains' for WHM in SMEs in a rural area of Germany. The case study, which builds on a mixed method approach (expert interviews, participant observations and document analysis), finds that ERZgesund evolved from a top-down approach (politically initiated, regionally anchored and financed from promotional funds). The network's hierarchy is disproportionately vertical, and the project group has limited decision-taking power and limited opportunities to act, which has reduced their overall engagement in the network. We conclude that although long and stable relationships are important for successful networks, change—especially at the leadership level—can lead to increased engagement of network participants if the hierarchy within the network is horizontally aligned. The findings of this explorative case study contribute to the planning process, the development and implementation of network structures, and successful WHM interventions.

Keywords: workplace health promotion, small and medium-sized enterprises, social networks, network formation and management, case study design

INTRODUCTION

In view of falling birth rates and increasing life expectancy, the age distribution in Europe is shifting upwards. Currently, 20.6% of the EU-27's total population is 65 years and older (Eurostat, 2021). By 2050, this figure is expected to rise to around 28% (Strandell *et al.*, 2017). These demographic changes pose major challenges for companies: on the one hand, the workforce is increasingly ageing, and on the other hand, the shortage of skilled workers is worsening, leaving jobs in certain sectors unfilled (Brunello and Wruuck, 2019; Consult GmbH, 2021). This trend is particularly intensified in small and medium-sized enterprises (SMEs) in structurally weak regions, because a rising number of (young) people are migrating to

urban areas (World Bank, 2018; Bauer *et al.*, 2019). To safeguard productivity and competitiveness, companies have to keep their ageing workforce healthy for as long as possible and attract young employees (Cancelliere *et al.*, 2011; Wu *et al.*, 2017). Workplace health management (WHM) offers not only a strategy to address the challenges of demographic change, but also leads to a general improvement in employees' health, job satisfaction, motivation and well-being, thereby improving the company's overall image as a modern and health-conscious employer (Renaud *et al.*, 2008; Weiner *et al.*, 2009; Zwetsloot *et al.*, 2010; Nöhammer *et al.*, 2014; Goetzel *et al.*, 2016; Wiman *et al.*, 2016; Proper and van Oostrom, 2019). Health promotion is therefore often necessary to maintain the

company's competitiveness (Aldana, 2001; Lück *et al.*, 2009; Drupp, 2018).

Despite these realizations, the implementation of workplace health promotion (WHP) interventions in companies remains limited. Only a quarter to a third of European companies have implemented WHP intervention (Blum-Rüegg, 2018). In Germany, 27% of companies have implemented or financially supported WHP interventions (Hollederer and Wießner, 2014). A discrepancy between company size and level of WHP implementation is evident. The reasons why WHP implementation are particularly challenging in SMEs are the lack of organizational capacities such as finances, staff, time, infrastructural requirements, competences as well as a negative attitude towards (workplace) health (Wierenga *et al.*, 2013; Wiman *et al.*, 2016; Rojatz *et al.*, 2017; Hente and Schlesinger, 2021).

Specific strategies for SMEs in rural areas need to be developed to facilitate WHP implementation and to thus make them 'healthier'. In this context, networking through the establishment of inter-company cooperation appears to be a useful social innovation (Hauer *et al.*, 2018). Networking offers a variety of opportunities to sustainably advance companies' WHP based on collaboration between different actors and thus make WHP accessible to a larger number of employees. The potential outcomes of such networking include awareness raising, exchange of experience and information, best practice examples, synergy effects, saving resources (time, money and staff) and increased effectiveness (Siebert and Hartmann, 2007; Schibli *et al.*, 2010; Krajic, 2017).

The formation of networks is a key concept in health promotion (WHO, 1998; Dietscher, 2017). Several approaches exist in which various actors in a given region or community are linked together to develop health-promoting structures and capacities (Booth *et al.*, 2016; Heckes, 2016; Hogg and Varda, 2016; Kettner-Nikolaus, 2017; Fleuren *et al.*, 2020). The development, effectiveness and challenges networks built around specific issues face (e.g. alcohol, tobacco use) have also been analysed based on case studies (Shiffman, 2017; Shiffman *et al.*, 2016). However, studies on networks in the field of WHP are rare (Chu *et al.*, 2000; Broding *et al.*, 2010; Söling *et al.*, 2015). According to Schaefer *et al.* (Schaefer *et al.* 2016), over 50% of the companies surveyed for their study expressed interest in participating in a WHP network, predominantly as a platform for mutual exchange. Müller *et al.* (Müller *et al.* 2018) found that 88.1% of network members (companies) benefited from the exchange of experiences and 50% from networking. For SMEs to reap such benefits, the WHP network must be structured, well-coordinated and functional.

A comprehensive understanding about factors that determine the establishment of and cooperation within WHP networks is crucial because such inter-company network can often fail. An overemphasis of (divergent) individual interests against the network's collective interests as well as a lack of leadership and collaboration are common causes for such failures (Isbell, 2012). Not only a multiplicity of, but also a lack of divergent interests in terms of important actors can cause a network to fail (Andersson *et al.*, 2011).

The initiation phase is crucial for the design and development of network structures (Petry, 2006). The current lack of scientifically grounded concepts and practical examples means that network structures, processes and interventions cannot be adequately planned, developed and implemented to achieve the desired network potentials. This study analyses the formation and coordination of a WHP network in a rural area of Germany based on a case study analysis to fill this gap.

THEORETICAL FRAMEWORK

Network development

Networks can either be designed bottom-up or top-down (Provan and Kenis, 2007). Bottom-up networks are initiated by multiple actors seeking a common benefit and are based on equal power distribution and cooperation. Top-down networks, on the other hand, are usually initiated by (political) external actors and are motivated by regional and/or innovation policies. In this case, network coordination tends to be vertical, and not horizontal as in bottom-up networks (Genske, 2013).

Network development consists of three phases: formation, operation and dissolution (Petry, 2006). Network formation entails the basic construction of the network and can be divided into sub-phases. In the first sub-phase, the network strategy is defined and potential partners are screened and selected. For this purpose, information on goals, finances, available resources, processes, potential weaknesses and their culture should be identified, evaluated and communicated (Parise and Sasson, 2004). The design sub-phase is intended for structuring and aligning the alliance's activities and goals (*ibid.*). The second phase, network operation, focusses on the network's management. Depending on network type, events are organized and information is shared. In addition, relationships are maintained or consolidated and, if necessary, existing partnerships are dissolved or new actors recruited to join the network (Petry, 2006). The third and final phase is the dissolution (Das and Teng, 1997; Parise and Sasson, 2004; Petry, 2006).

This paper's analytical scope focuses on the first two phases—network formation and operation—as these are crucial for a network's success (Petry, 2006).

Network characteristics and promoting factors

In addition to network development, other important network characteristics have emerged in the field of health (promotion). Individual network actors should '[be] organized on a non-hierarchical basis around common issues or concerns, which are pursued proactively and systematically, based on commitment and trust' [(WHO, 1998), p. 16]. In addition, they should be characterized by 'cooperative rather than competitive and relatively stable relationships' [(Sydow, 1992), p. 7]. Moreover, the characteristics of inter-organizational collaborations differ from market or other hierarchical relationships (Auschra, 2018). On the one hand, the partners pursue a common goal or purpose (Huxham and Vangen, 2000; Breuer, 2005; Popp *et al.*, 2013). On the other hand, the organizations involved are formally independent and autonomous, but are committed to their partners (Weber and Khademian, 2008). Such relationships promote and result, among others, from the exchange of experiences, information, skills, resources, activities and close social interactions; network partners make optimal use of these synergies to generate new knowledge, ideas and opportunities through networking (Provan and Kenis, 2007; Weber and Khademian, 2008; Hauer *et al.*, 2018). Common rules, norms and structures, committed promoters, a constant flow of information and solid coordination are indispensable for successful networking (Breuer, 2005; Berends *et al.*, 2011). Trust is the basis of cooperation between actors. A higher level of trust should therefore translate into more effective cooperation (Popp *et al.*, 2013). Not only the lack of trust hinders cooperation, but also insufficient communication hampering knowledge transfer and information exchange and may also lead to ambiguities in terms of responsibilities and the underlying goals of the cooperation initiative (Andersson *et al.*, 2011). Purpose, partner selection, structure and governance are also key elements of a successful network (Popp *et al.*, 2013; Hale and White, 2014). Networks can be based on different governance types (Milward and Provan, 2006; Provan and Kenis, 2007). The first type are networks with shared governance, which have no formal administrative unit, that is all participants are equally involved in the network's management and governance. The second type are networks with a lead agency, with the network manager and administrative unit being the main network actors. The third network type involves an administrative organization, with a separate administrative unit being established to manage the network.

Based on this knowledge, this paper analyses the following research guiding questions using a case study of a regional WHP network in Germany (ERZgesund):

- (1) How to found and develop a WHP network in a rural area?
- (2) How to create structures and inter-organizational relationships for a (successful) development of a WHP network in a rural area?
- (3) Which key factors influence the set-up and development of a WHP network in a rural area?

METHODS

Contextual background

The regional network analysed in this study is 'ERZgesund—Gesunde Unternehmen im Erzgebirgskreis' [Eng: 'ERZgesund—Healthy Companies in the Ore Mountains']. This network was developed in the Ore Mountains, a district in the southern part of the Federal State of Saxony (Germany). With 334 948 inhabitants (115 753 employed persons), the Ore Mountain district has a population density of 183 inhabitants per km² (Wirtschaftsförderung Erzgebirge, 2020); Germany's average population density is 233 inhabitants per km² (Statistisches Bundesamt, 2020). Due to the migration of mostly younger people to western regions and bigger cities, demographic change is particularly pronounced in this region (Statistische Ämter des Bundes und der Länder, 2015), meaning the age structure is correspondingly high: with an average age of 49.1 years, the Ore Mountain district has one of the highest average ages among German districts (Statistische Ämter des Bundes und der Länder, 2021).

There are 15 363 companies in the Ore Mountain district (as of 2018). The majority of these companies (86.7%) are micro-enterprises with fewer than 10 employees. Small enterprises (10–49 employees) account for 10.7%; 2.4% are medium-sized enterprises (50–249 employees) and 0.2% are large enterprises (employing over 249 employees) (Wirtschaftsförderung Erzgebirge, 2020). The largest sector in the Ore Mountain district is the manufacturing sector (32% of all employees). The three major industries are wood, metal processing and textiles. The second largest sector is health and social work (17%), closely followed by trade (15%) (*ibid.*). Due to the region's rural structure and more traditional orientation, over 60% of enterprises have not implemented any WHP interventions, and there seems to be a discrepancy based on company size (Hente *et al.*, 2019). The ERZgesund network was established by a trade (association) in 2017, which promotes the companies' economic and political interests [Industrie- und Gewerbevereinigung Aue (IGA)], with the aim of sensitizing smaller companies to WHP and to offer them opportunities to implement WHP.

Research instruments and data collection

To analyse the ERZgesund network, a qualitative case study was conducted to understand its uniqueness. The network's characteristics and relationships were examined in depth to gain a deeper understanding of networking in the field of WHP (Stake, 2005; Yin, 2014). The analytical focus of case study is limited to the first two phases (network formation and operation). The period of analysis begins in 2018; while the preceding period was analysed retrospectively based on protocols, documents, records and interviews.

A document analysis was carried out to analyse the network's structures in a differentiated way. The focus was on documents that describe the processes, strategies and approaches of network-related interventions. Document analyses include a variety of artefacts that are to be understood as social constructs (Atkinson and Coffey, 1997), which are valuable in the process of uncovering meaning, understanding and developing empirical knowledge (Corbin and Strauss, 2008). Document analyses can also provide a deeper understanding of the historical roots of a specific issue and contextualize interview data (Prior, 2008). In our study, the documents collected included funding applications, meeting protocols, information on the ERZgesund website and newspaper articles.

In a second step, problem-centred expert interviews were conducted with select network actors along the main research perspectives to investigate the network's development in more detail. The interviews were semi-structured to address both specific topics, but also to ensure sufficient openness (Loosen, 2016). We targeted actors and decision-makers who possessed exclusive knowledge on the ERZgesund network's structures and who had direct access to information on processes and practices (Liebold and Trinczek, 2009). Interviews were conducted with eight out of nine members of the network's project group, who are either network leaders or advisors and were responsible for its establishment, content design and continuation. Only one company representative, who left the project group early, could not be interviewed. Instead, both the first and second network project coordinator were interviewed ($n = 9$). Participation in the interview was voluntary. The interviews focussed on the network's establishment and goals, its funding, management and coordination, and the characteristics and possibilities of the project group and network participants, communication and events. The interviews lasted between 20 and 75 min and were conducted between September 2018 and June 2019.

Participant observations (April 2018 to December 2019) were also conducted as part of the data analysis. We observed project group meetings, which focussed on network design and coordination, as well

as network events that were organized for the different companies and which represented the core component of the network's work. We were able to gain direct insights into the network's daily operations and to observe the network's interrelationships in a more differentiated way (Bachmann, 2009). We maintained an observation protocol for data collection purposes. All relevant observations were written down or recorded on an audio device to be included in the observation protocol. The observation protocol focussed in particular on the framework conditions that are essential for networking, namely meetings/events, the project group and its participants as well as communication/networking.

Data management and analysis

All interviews were recorded and transcribed with the respondents' agreement. After screening the material, the transcribed interviews were analysed by one person according to Mayring's content analysis approach (Mayring, 2015). The content of the interviews was analysed based on the following steps: (i) identification of categories and subcategories [deductive and (mainly) inductive]; (ii) establishment of criteria/coding rules for the categories; (iii) assignment of material to each category. The qualitative analysis software MAXQDA 2020 was used to handle the data sets (transcripts and coding).

The analysis of the network development phase is based both on primary and secondary data. The observations and secondary data were primarily used to compare, verify and complement the interviews (Heaton, 2004). All of the collected materials (documents, interviews and participant observations) were used synergistically and linked in a targeted way to develop a holistic picture of network development, taking the underlying processes and mechanisms into account.

RESULTS

Development of the ERZgesund network

The main initiator and coordinator during the foundation phase was the IGA. In August 2016, this association elaborated the idea of a health network in the Ore Mountain district with the following goals: (i) raising awareness; (ii) (health) prevention; (iii) implementation of WHM/WHP interventions; (iv) information on reintegration; (v) establishing a services catalogue; and (vi) creating a health seal and qualification for companies in WHM.

The project group was created in October 2016. It included various authorities, companies and individuals from the public and private sector in the Ore Mountain district. The project group is responsible for

the network's content and organizational work. The project group members were selected in different ways: (i) several institutions (e.g. IHK, WfE) were contacted, whose daily work is strongly networked and which are aware of the demographic change problem and the increasing shortage of skilled workers; (ii) strategic partners, namely experts in health care and promotion (e.g. gym, med. technology), were invited to enrich the network's content, and (iii) partners for marketing activities were brought on board (marketing company, hospital). One of the institutions (AA) was selected, because it is well-networked and has expertise in the field of health and further education. Table 1 presents an overview of all project group members and their corresponding tasks and responsibilities.

In November 2016, the concept for establishing the ERZgesund network was submitted to the Sächsische Aufbaubank (SAB) for potential funding. In mid-February 2017, SAB pledge to financially support the network project ERZgesund for up to 3 years.

'It was all a matter of days, not months or years. That's what makes it so unique. And we were the first ones. And that's where its value lies. IGA developed this idea, no one else' (I1, pos. 81).

The next step of the project group up to May 2017 was to identify service providers (SPs) and service recipients (SRs) for the network, and to design the network's website and launch it. SPs are companies that offer health-promoting interventions or other interventions that have a positive influence on health. They were given the opportunity to introduce themselves and/or advertise their products/interventions at the network's various events. They were furthermore listed on the platform and included in the network's catalogue of services (six companies providing general WHM services and 51 companies providing individual health-related services, such as stress management, exercise/physical activity, addiction prevention, nutrition, occupational health and education and training etc.). No clear criteria were determined by the project group about which SPs were to be included in the catalogue and which ones not.

'The issue of the catalogue of services was also raised several times: what precisely the criteria are, who should be included and who shouldn't, and that is a bit, well, to put it this way, in my opinion, it should have been done more professionally' (I5, pos. 34).

Participating SPs could join the network and its events voluntarily in accordance with their own interests and potential for future business. The project

group actively contacted potential providers to ensure a broad range of providers with different areas of health promotion know-how (e.g. stress management, ergonomics, nutrition and physical activity) to strengthen the network's diversity and attractiveness for companies.

SRs are companies (mostly SMEs) interested in obtaining information about WHM and in implementing relevant interventions. Any SR could voluntarily join the network and participate in its events and thus gain access to know-how or partners to promote WHP within the company.

Network events were organized to foster the ERZgesund network's visibility and to recruit members. Such events are an important platform for communication and for creating connections defined by the project group in advance. A total of 19 events took place during the funding period (2017–19). The number of participants at these events ranged from between 20 and 120. At the events, the ERZgesund network was introduced, followed by expert and ad hoc lectures, workshops and practical sessions providing information, discussed previous experiences and presenting practical examples of WHM. The project group and participating companies also organized several themed events on exercise, nutrition, stress management, addiction prevention, workplace and fire safety, education and training, reintegration, leadership, funding opportunities and best practices. Interactions and exchange of information between the project group and other participants during these events served to familiarize potential interested parties with the network.

Over 300 different companies (SPs, SRs) participated in the network events during the observation period. They had been made aware of the network through information letters or invitations (via e-mail, letter or social media) and personal conversations, as well as press releases. The focus was first on companies that were already associated IGA members. Subsequently, other companies in the Ore Mountain district were contacted and included to expand the network. Companies also had the option of independently contacting the network.

The period from August 2016 to May 2017 can be described as the first phase, network formation. The subsequent months represented the network's second phase: network operation. Funding for the project ended in December 2019, and although the network still exists, no events have been organized since (as of early/mid-2021), although this may also be due to the COVID-19 pandemic. The network's timeline of milestones is presented in the [Supplementary Figure S1](#). The organized events were the network's nucleus, enabling the project group to attain the goals set out at the outset of network establishment.

Table 1: Project group members of the ERZgesund network; scope of tasks and activities in the network

Company/association	Field of activity of the company/association	Field of activity in the network and type of promoter	Statements about own work tasks
Industrie- und Gewerbevereinigung Aue e.V. (IGA)	Regional representation of interests of over 130 commercial enterprises in the city of Aue and the surrounding area	Coordinator: application, management, coordination, company support → power promoter WHM consultant (expert promoter): WHM consulting, company support → expert promoter	Coordinator: 'The position of coordinator [...] is relatively extensive. [...] On the one hand, it is about looking after the members [...]. And then it is also fundamentally about networking activities'. (pos. 9) 'Of course, we always try to determine the contents together [with the project group], to elaborate a larger plan for the year. [...] The organisation of these activities lie exclusively with me'. (pos. 11) WHM consultant: 'I am a consultant. So I advise the project coordinator as well as the project group and the company in general'. (pos. 32) 'My task was to supplement the content of the project'. (pos. 84)
Wirtschaftsförderung Erzgebirge GmbH (WfE)	SP for the region, advocates for the interests of entrepreneurs, tradespeople, start-ups or municipalities	Application, strategic and structural advice, dissemination → process and relationship promoter	'We are familiar with strategy and marketing, but not with WHM'. (pos. 6) 'We transferred the ideas that were put on paper into the funding application. [...] We also thought about how to divide the whole thing up over a three-year project period and what content could be included'. (pos. 8) 'I see my role as an advisor, but I also see myself as a partner who accompanies the whole project in terms of content, who contributes to the development of ideas, who helps establish contacts with companies, when considering who could be approached in which part and how the companies could be reached'. (pos. 10)
Agentur für Arbeit Annaberg-Buchholz (AA)	State authority that advises and supports employees and employers	Advice on education and training, speaker, dissemination → relationship and expert promoter	'I am mainly the contact person for the education and training pillar. [...] I am simply there to help or to be a speaker at events. [...] In the meetings, I was able to let ideas flow in, more or less in an advisory capacity'. (pos. 9)
Industrie- und Handelskammer Chemnitz Regionalkammer Erzgebirge (IHK)	Regional network for companies from industry and trade	Advice on education and training, speaker, platform provider, dissemination → relationship and expert promoter	'We are platform providers and establish linkages. [...] of course we do not have the competence to advise companies on the topic of WHM [...], we offer further training on the topic. [...] we have a large network'. (pos. 8) 'We have the great advantage of enjoying a certain amount of trust from the companies'. (pos. 10)
Helios Klinikum Aue GmbH	Hospital	Public relations and marketing advice → process promoter	'I am a member of this project group [...] and actually focus mainly on public relations. I had more of an advisory role when it came to events or the development of brochures or similar. [...] So I was less involved in content development. My part was really marketing and public relations'. (pos. 9)
Sportpark Aue	Fitness studio (gym)	WHM consulting (exercise, nutrition, workplace analyses), speaker → expert promoter	'We are professional advisors, especially for the physical training industry. We already have a lot of experience in workplace health management with companies. [...] We do different things like workplace analyses, hold lectures and bring in ideas'. (pos. 9)

Table 1. Continued

Company/association	Field of activity of the company/association	Field of activity in the network and type of promoter	Statements about own work tasks
Beuthner Grafik & Konzepte	Marketing company	Public relations, production of printed products and advertising materials → process promoter	'I am in charge of public relations, but I also produce all, let's say, printed products that are needed for this, including promotional gifts or advertising materials. We plan the marketing strategy, we also plan the publication of advertisements. I am partly involved in the development of the workshops and the organisation of large events. [...] We maintain the website and respond to press-related questions, etc., I am responsible, so to speak'. (pos. 7)
SUESS Medizin-Technik GmbH	Manufacturer of medical devices (blood pressure monitors)	Consulting in the medical field	No data available.

'In principle, it evolved as planned. But we could have probably reached even more, even more companies. Basically, we reached our milestones. We organised an unbelievable number of events to foster contacts. In this respect, I would say that, roughly speaking, yes, it was a good fit' (I2 pos. 173).

Structure of the ERZgesund network

The organizational structure, relationships, flow of communication and coordination were examined to gain a better understanding of the network in terms of its structure. Likewise, the network's key actions and factors such as facilitating, hindering and challenging factors during its formation and operational phase are summarized in the following.

The core of the network is the leadership, namely the IGA coordinator and a WHM consultant. They make up the project group that is responsible for the network's structural design and development, together with the other actors (WfE, AA, IHK gym, marketing company, hospital, med. technology). Each project group member was connected to all other members in the network.

The network's development and coordination was primarily managed by IGA and the project leader. The coordinator was highly committed and had numerous contacts and connections to several actors in the region. The coordinator can be described as a 'power promoter' due to the hierarchically legitimized power and the efforts invested in the network. The other project group members, who can be described as expert, process or relationship promoters, felt excluded at times and were not given the opportunity to properly

contribute to the network's development and direction due to the hierarchical leadership style.

'We don't have any authority, we don't have any executive power, but the network is a purely IGA baby and we were only the working group that ultimately accompanied it with know-how' (I7 pos. 49).

The coordinator's successor, who took over the network in September 2018 (due to the predecessor's retirement) increased the involvement of the project group in decision-making. Nevertheless, the ERZgesund network is a top-down network due to its characteristics (politically initiated, financed from public funds, vertical governance). It is a network with a lead agency, however, the guidelines were defined and agreed on by the project group in advance.

Exchanges within the network project group took place through monthly face-to-face meetings, which were convened and recorded. Topics included the network's status quo, upcoming tasks and event planning. The project group's information flow was maintained by phone (calls, text messages) and/or e-mail, as well as through other appointments. Communication also revealed a rather hierarchically organized network. Although a certain level of commitment and trust is evident within the project group (e.g. agreements are kept), there is room for improvement. This may have been the underlying cause for a decrease in meeting participation; for example some project group meetings only consisted of two people. Rules within the network were not formalized, with the exception of funding requirements. Standard rules, such as openness and honesty for successful cooperation, were applied.

The network's actual actors (SPs, SRs) are located on the periphery of the network's structure and participate in the network and its events informally and flexibly in line with their interests, needs and knowledge. Even actors that were not part of the project group were encouraged to submit suggestions and ideas to the project group, to ask questions or express any, which were addressed at later meetings and events.

The relationships between the project group members, SPs and SRs are quite diverse and informal. On the one hand, some companies have a history of collaboration with others and therefore have very close connections, while other companies expressed interest in developing their connections further.

'So between some of them the connection is very close. Both sides are therefore also committed. They're also actively and independently involved in the network' (19, pos. 65).

Some companies do not have any strong connections with others or have not yet had any interactions with other companies participating in the network.

Table 2 presents an overview of the establishment and development of the ERZgesund network in terms of facilitating, hindering and challenging factors.

DISCUSSION

This case study sought to analyse the ERZgesund network's structural design and how it developed. The focus was on coordination, communication and relationships.

The development of the ERZgesund network can be divided into the formation phase and the operational phase (Petry, 2006). First, the project group was established, resources and financial possibilities examined and a project proposal including the goals and milestones elaborated. Subsequently, the SRs and SPs were identified and the network was structured more closely in alignment with its goals and services provided.

The foundation of the ERZgesund network was politically initiated (addressing economic policy issues such as shortage of skilled workers and improvement of employee health) and was regionally anchored (Ore Mountain district). This 3-year project was publicly financed. The network's governance structure was rather vertically oriented through its leadership and the lead agency (IGA). Based on its characteristics, the ERZgesund network can be characterized as a top-down network (Provan and Kenis, 2007; Genske, 2013), which is an effective approach when initiating such a project for the first time, as neither the service-providing nor the service-receiving companies were required to invest much effort (in terms of time,

staff and finances) in developing the network's basic structures. In addition, the network was primarily designed to raise health awareness among SMEs and to highlight opportunities in the field of WHP. This was achieved through several network events. Nevertheless, interest and the (mutual) benefit have not yet been fully recognized by all companies in the region due in part to the network's external initiation and vertical orientation. Moreover, the network's effective actors (SPs, SRs) were only integrated later and were, for the most part, drawn from an already existing network. It is therefore questionable whether their interests were in line with those of the project group and network. This, however, is an important factor in gaining partners' long-term commitment (Parise and Sasson, 2004). Nevertheless, it can be assumed that the SPs' and SRs' goals roughly coincided with those of the network as they would have otherwise not joined the network. Furthermore, one advantage of already established contacts based on existing relationships is that many SPs and SRs were informed and recruited at the same time; these contacts had already developed connections and therefore trusted each other, which also plays an important role in network success (WHO, 1998; Popp *et al.*, 2013). Our observations revealed that some of the companies had already established a close relationship with each other. According to Wäsche *et al.* (Wäsche *et al.* 2021), the development of new collaborative relationships within an existing network is certainly more of an advantage than a disadvantage.

The network's governance can be described as the lead agency type, because the network manager (in this case, the coordinator) and the administrative unit (the project group) are the main network pillars (Milward and Provan, 2006; Provan and Kenis, 2007). Individuals within the project group assumed certain roles such as power, expert, process or relationship promoters (Witte, 1973; Hauschildt, 2004; Hölzle and Gemünden, 2011). The actual network actors (SPs, SRs) have only minimal co-decision rights, but are the network's target group, and use the network to connect to others, to be sensitized and to gain access to information. Contrary to the existing literature that all network actors should play an equal role (WHO, 1998), the ERZgesund network was conceived rather vertically, with a dominant leadership building the essential structures and promoting the network process. A vertical alignment seemed to have been an effective option in this case, as the network was able to sensitize many companies to the issue of employee health. Nevertheless, both the interviews and observations revealed that the project group would prefer a more participatory approach. The low level of participation and decision-making rights could be one of the reasons why participation in the network decreased over time.

Table 2: Summary of key actions and facilitating, hindering and challenging factors for the ERZgesund network during its formation and operational phase

Phases	Key actions	Facilitating factors (+)	Hindering factors (–)	Challenging factors (±)
Formation phase				
Find sub-phase				
	Development of ideas/avision and choosing a clear strategy	+Participatory process to create a shared network vision to address the problems identified		
	Identification of project partners	+Sufficient group heterogeneity in terms of skills and resources +Commitment and trust of key actors		
	Conducting initial project meetings	+Regular consultations of the project group		
	Assessment and accumulation of further resources and capacities for the network project	+Identify funding opportunities (application and approval of funding by SAB) +No financial expenditures for SPs and SRs		±Funding ends after 3 years
Design sub-phase				
	Goal definition for the project	+Elaborating network goals in depth +Members with the same goals		
	Determining milestones	+Milestone definition and action plan to reduce complexity (avoid overwhelming of actors) and plan resources		
	Structuring the project group	+Identification of key actors as power, expert, process and relationship promoters of the network	–Dominant character of single person as project leader –Many tasks assigned to the leadership	±One actor takes over the network's leadership and development ±Top-down network ±Raise awareness of WHP (main goal) ±Low effort for SPs and SRs ±Involvement especially of project group members ±Governance too vertically oriented ±Little right of co-determination and decision-making (even less for SPs and SRs than for the project group) ±Different development of interests and goals (conflicts and interest divergences)
	Identify first SP and SR	+Recruitment of actors from the IGA network as well as from other networks/associations as participants +Participants with the same goal	–No defined criteria for SPs	
Operational phase				

Table 2. Continued

Phases	Key actions	Facilitating factors (+)	Hindering factors (–)	Challenging factors (±)
	Project group meetings	+Regular (monthly) meetings (project group) with protocols +Transparent communication +Open and cordial interactions +Various communication channels	–Relatively hierarchical communication within the project group –Little say and opportunity for action (project group) → reduced engagement –Declining interest within the project group –No defined and regulated procedures and work steps for network processes –No systematic recording of data (e.g. participants, procedures)	
	Planning of measures and events for network promotion (contacting and recruiting SRs and SPs)	+Publishing and updating the network's website +Recruitment/contacting of existing and new SPs and SRs +Generating services catalogue +Varied (formats and topics) and well-organized events +External consultants/speakers +Best practice examples +Small (informal) breaks to talk and eat +Time to network +No expenditure for SPs and SRs +SPs can present their measures/products +Giveaways and further information (e.g. flyers, business cards) +Possibilities for advice in WHP as a service for companies		±SPs and SRs are only indirectly involved in the network ±Time and duration of events
	Create seal (certification) and award companies for their WHP measures	+Structured application process +Award/honour for health-promoting companies		±Assessment criteria and evaluation

This implies that all sectors and their representatives should be actively involved in the process of steering the network from the very beginning (Fleuren *et al.*, 2021). Therefore, vertical and dominant leadership styles within networks are viewed with ambivalence; on the one hand, key actors who initiate the network are useful and someone has to assume responsibility, set clear goals and drive the network forward so that the network idea turns into reality (Breuer, 2005). On the other hand, there is a risk that dominant key actors will thwart the initiatives and activities of other actors to exchange ideas within the project group, thereby potentially weakening actors' commitment to the network. The change in coordinator in our case study increased the project group's voice and involvement.

Although stable and long-term relationships are an important component of successful networks (Sydow, 1992), change can lead to increased engagement, especially if the leadership becomes more horizontal.

As the existing literature shows (Sydow, 1992; WHO, 1998; Popp *et al.*, 2013), equality and trust in the network are key for its success. Networks should therefore aim to increase participant involvement and foster more engagement. Trust within the project group also needs to be bolstered. Network actors and partners voluntarily participated in the ERZgesund network and were formally independent, hence they could easily leave the network due to lack of participation opportunities and decision-making rights. Nevertheless, a complete transformation of the top-down network

into a more organic bottom-up network, as is the case, for example in the Hannover Health Region (Kettner-Nikolaus, 2017), does not seem feasible at the moment, as the ERZgesund network's focus is on raising awareness and on knowledge transfer in the field of WHP. A clearly defined leadership role and responsibilities seem necessary, especially in the development phase, for ERZgesund to be able to implement solid structures and promote the networking process to sensitize companies in the region. In the long-term, however, the network would have to become self-supporting due to the lack of available funding. The network's leadership should increase the involvement of both the project group and its actual actors (SPs, SRs) and pursue a horizontal coordination so decisions can be made jointly, and to strengthen communication within the project group. A clear distribution of tasks within the project group could also help improve the level of participation.

The regular monthly meetings at which all relevant topics and the organization of events were discussed are a valuable tool and indispensable for communication. Because several project group members also collaborate outside of the network and meet at other events, these meetings were also used for ad hoc agreements, supported by regular telephone calls or emails, so communication within the ERZgesund network seems to be open and cordial. Nevertheless, the network's relatively vertical orientation needs to be emphasized, because it has a limiting effect on participation and open communication.

The network's goals (awareness raising, prevention, implementation of WHM interventions, information on reintegration, development of a service catalogue, creation of a health label and the qualification of companies with it) were achieved through varied and well-organized events. Open interactions between both the project group and the SPs and SRs, as well as between the SPs and SRs was evident. This gives network participants access to the wide range of services offered by the network, such as exchange of experience and information, best practice examples, synergy effects, saving of resources (time, money, staff) and increased effectiveness (Siebert and Hartmann, 2007; Schibli *et al.*, 2010; Krajic, 2017).

All in all, the ERZgesund network seems to have been a success story because it has achieved its goals. Our case study shows that the formation phase and power promoters have had a strong influence on the network's direction and coordination, and that special emphasis should be placed on this aspect during development. A participatory process involving key actors from the very beginning is important for fostering engagement and for identifying common goals and further developing the network. Several skills and resources can

be covered if the project group has a certain level of heterogeneity. Designating a leadership position might also be useful, but all project group members must be involved and must have the right of co-determination and decision-making. Trust and commitment are also indispensable for a successful network and can only be created if there is sufficient transparency and equality.

Limitations

To our findings, further research could investigate WHP networks in more detail. Our analysis of the ERZgesund network is based on an explorative case study in one specific region. Therefore, the results cannot be generalized or transferred to other networks without restrictions. Due to the specific structure of ERZgesund and the low number of studies in the field of WHP networks, it is also very difficult to draw any comparisons with other WHP networks. Future research should therefore consider other networks in the field of WHP to validate our findings or to identify other characteristics and (facilitating) factors for the establishment of successful networks. It can be assumed that network analyses in this thematic field would provide further valuable insights, especially on the mechanisms that determine the process of network development (problem of theoretical saturation). This study focusses in particular on network development, hence centrality measures, which are part of the classical terminology of social network analysis, were not considered. This is mostly because the ERZgesund network was analysed very early on in its development, and the network structures had not yet been properly formed and manifested. Hence, network measures should be considered in further research.

Moreover, the qualitative method might have reduced the validity of our study's results in terms of authenticity or socially desirable response behaviour (Möhring and Schlütz, 2010). The participant observations were only conducted by one person, which may have influenced the perception and authenticity of the responses, as this observation was also known to the network partners from the beginning. Future research should also pay more attention to the participants' perspective (SPs, SRs). In this regard it would be interesting to review the interaction density and frequency of the different network actors, on social and task-related network coherence or how conflicts arising from divergent interests between actors are dealt with.

Furthermore, an analysis of the network's achievements in relation to its general objectives is also important. On the one hand, this means addressing the challenge of demographic change in SMEs with WHP and, on the other, the specific benefits for the various network actors. This would require the theoretical lens to be narrowed down, and the possibilities of empirical

network analysis to be further exhausted. Nevertheless, our study provides valuable insights into the factors of facilitating, hindering and challenging factors that need to be considered when establishing and developing a WHP network.

CONCLUSION

Health in the workplace has been gaining increasing momentum, yet the implementation of health-promoting interventions in SMEs is still limited. WHP networks offer a good opportunity for SMEs to gain information about health promotion, to exchange ideas and get support to implement health promotion interventions. Our findings represent a first explorative and more holistic approach to exploring the formation and development of a WHP network in a specific region by focussing on promoting and hindering factors. This study shows that the formation phase and the resulting type of coordination play a particularly important role in the development of a WHP network. The most important features include the selection of network partners, transparency, co-participation and co-decision rights, as well as trust. The project group and the actual actors—in this case, the SPs and SRs—should not be ignored. The opportunities, problems, goals and interests of the companies involved should be carefully considered. Having a voice and participation are key for successful and sustainable network development.

Supplementary Material

Supplementary material is available at *Health Promotion International* online.

Supplementary Fig. S1: Development and event milestones of the ERZgesund network; orange indicates network formation and green indicates the operational phase including events.

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