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Participatory Approach to Create a Supportive Work Environment for Employees With Chronic Conditions
A Pilot Implementation Study

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Objective: To evaluate a pilot implementation of an organizational-level intervention. The participatory approach (PA) was used to create a supportive work environment for employees with chronic conditions, with a key role for occupational physicians (OPs). **Methods:** Twenty-eight semi-structured interviews were conducted with OPs and stakeholders within their organizations. Furthermore, observational data and research notes were gathered. Data analysis occurred through content analysis. **Results:** Recruitment of organizations was challenging, with a reach of 25%. Dose delivered, dose received, and fidelity differed across the three organizations. Organizations were positive about the PA as a method to improve support for employees with chronic conditions. **Conclusions:** The PA could be of added value for creating a supportive work environment. However, research is needed on activating organizations to improve support for employees with chronic conditions.

Key words: work, chronic disease, organizations, implementation science, occupational medicine

BACKGROUND

Working is of importance for one's quality of life.[1] However, working with a chronic condition can raise challenges for employees due to fatigue, cognitive, as well as physical limitations.[2,3] At the same time, chronic conditions in the working population can have an economic impact on employers due to productivity loss and absenteeism.[4,5] The number of employees with chronic conditions is rising as a result of various reasons, such as the increase in retirement age, unhealthy lifestyles, and unfavorable working conditions.[5,6] Be-

cause the return to work after a long-term sick leave or a job loss has proven to be difficult for those with chronic conditions, preventing work-related problems and facilitating sustainable employment for this group are of significant importance.[7,8]

Much research has been conducted on factors that help prevent work-related problems and facilitate sustainable employment among employees with a chronic condition. Self-control at work is one such factor, which can help employees with chronic conditions to stay at work.[9,10] However, contextual factors are essential for the expression of self-control, for example, factors related to the work environment.[11] A supportive work environment could enable employees with chronic conditions to exert self-control behaviors (eg, disclose the chronic condition and ask for support) and may prevent problems in work functioning. Moreover, a clear organizational policy can aid employees with their requests for work accommodations and facilitate employers (eg, human resources managers and line-managers) to decide on which actions to take regarding the realization of these accommodations.[12,13] Both occupational health professionals and stakeholders within organizations could contribute to improving support and preventing work-related problems among employees with chronic conditions (ie, selective or indicated prevention).[14,15] In the Netherlands, occupational physicians (OPs) provide employees and employers with support and advice related to work and health. However, the share of preventive activities of OPs remains small, as a large part of their time is spent on absenteeism and return to work.[16–18]

A pilot implementation of an organizational-level intervention was conducted, using the participatory approach (PA), to create a supportive work environment and to develop an organizational policy, enabling employees with chronic conditions to exert self-control. The PA, an effective evidence-based six-step approach, helps to identify and address existing barriers within an environment, in which different stakeholders might have different perspectives regarding these barriers.[19,20] OPs fulfilled a key role in the intervention, by guiding organizations through the steps of the PA as process leader. By positioning OPs as process leader during the PA, they are in a better position to play a preventive role within the organization.[21] Besides OPs, the involvement of stakeholders within the organization is crucial for successful organizational change and is an important condition for applying the PA.

Research has shown that implementing organizational-level interventions is challenging because of the involvement of various stakeholders within organizations and the complexity of many of those interventions.[22] Stakeholders can shape and influence the implementation process and outcome.[23] Moreover, the implementation process of the same intervention can differ across organizations, due to contextual differences (eg, number of management layers within an organization). Evaluating organizational-level interventions is important to gain insights into whether and how these interventions could bring about change and to help identify possible causes for a lack of effectiveness.[23–25] The aim of this study was to evaluate the pilot implementation of the organizational-level intervention, including a process evaluation and feasibility study.

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METHODS

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Study Design

The pilot implementation of an organizational-level intervention was conducted between January 2019 and November 2020. A qualitative research design was used to evaluate this pilot implementation. Semi-structured interviews were held with OPs and stakeholders within organizations (employees and organizational representatives [eg, human resources managers, line-managers]). In addition, observational data and research notes were gathered. The consolidated criteria for reporting qualitative research (COREQ) were taken into account with the reporting of the study.[26]

The Intervention

Participatory Approach at the Organizational Level

The scope of this organizational-level intervention is to create a supportive work environment and develop an organizational policy with the use of the PA at the organizational level, thereby enabling employees with chronic conditions to exert self-control. The six steps of the PA have to be put into practice in an organization, with the OP serving as a process leader. During the development of the intervention, an implementation plan was made, specifying performance objectives for both OPs and employers (ie, organizations)[21] (see Supplementary Information, http://links.lww.com/JOEM/B84). Step 1 of the PA includes OPs approaching and convincing one of their organizations of the need of a supportive work environment and an organizational policy, using the PA as a method to achieve this, corresponding to performance objectives for both OPs and employers. Subsequently, the right preconditions for actually applying the PA have to be secured. One of which is the involvement of all relevant stakeholders in the organization, as a joint responsibility and effort increases the likelihood of successful organizational change.[19,20] Therefore, a working group with representatives of relevant stakeholders has to be assembled. Although according to the performance objectives OPs had a responsibility for identifying relevant stakeholders within the organization to be included, one or more project coordinators (eg, human resources manager) could be assigned to take on the practical arrangements for assembling the working group (ie, inviting specific stakeholders to participate in the working group) and subsequently planning meetings. In Step 2, a first meeting will be held in which the working group will identify barriers to the exertion of self-control behaviors in the organization. In a second meeting (Steps 3 and 4), the working group will brainstorm on solutions to these barriers and will draw up an action plan for implementation of the selected solutions. An important characteristic of the process leader during these meetings is the neutral position, that is, focusing on managing the process. In Step 5, the selected solutions will be implemented in the organization. These solutions contribute to the creation of a supportive work environment and provide input for the organizational policy. Implementation of solutions will be evaluated in a third meeting (Step 6). A more detailed description of the PA steps and the implementation plan are described in the development paper.[21]

Preparatory Training for Occupational Physicians

A training was developed that provided OPs with (*a*) theory and evidence on self-control behaviors for employees with chronic conditions (ie, [1] disclosure, [2] finding a healthy balance, [3] requesting work accommodations and support, and [4] management of symptoms and limitations in the workplace) and (*b*) practical information on how to guide organizations through the steps of the PA and act as a process leader. Three training sessions were held between January and May 2019. OPs were provided with a training manual, which also included a protocol with the PA steps and forms that could be used during the steps of the PA in practice.

Peer Review Meeting

After the initial training sessions, peer review meetings were planned (July–October 2019) in which experiences with applying the PA in practice were shared among OPs. OPs from the different training sessions were mixed in two peer review meetings based on their availability.

Recruitment

Recruiting Occupational Physicians

Due to their key role as process leaders in the intervention, OPs were recruited instead of organizations. OPs were recruited through the Netherlands Society of Occupational Medicine (NVAB) and a large Dutch occupational health service. In addition, OPs were recruited through the researchers' network and snowball sampling. OPs were provided with information on participation, which included attending a preparatory training session, a peer review meeting, and applying the PA in one of their organizations. All OPs working for an organization of which they thought might be open to applying the PA, regardless of work sector, were eligible for participation. OPs who signed up for participation were contacted by the primary researcher (author 1) by telephone for further clarification of the study. As OPs were recruited, the work setting (type or size of organization) in which the PA would be applied was not clear in advance. All OPs who participated in a training session were invited to participate in an interview to evaluate the pilot implementation.

Recruiting Stakeholders Within Organizations

For the evaluation of the pilot implementation, stakeholders within non-participating (ie, working in organizations that were not willing to apply the PA) and stakeholders in participating organizations (ie, working group members during the PA) were recruited. In non-participating organizations, stakeholders involved in the decision-making process of participation were reached through the OPs of the organization concerned. Within participating organizations, all working group members were approached through the project coordinator. All stakeholders were contacted by email and invited to participate in an interview.

Participants

Attempts were made to interview as many OPs and stakeholders within the organizations for evaluation of the pilot implementation. Thirteen OPs attended one out of three training sessions, of which 10 OPs agreed to participate in an interview. Of those, three worked for a participating organization. Eighteen stakeholders took part in an interview: 16 working group members and 2 stakeholders of non-participating organizations. Table 1 shows the characteristics of all interview participants. Ultimately, three OPs and four working group members who were contacted were not able to participate in an

TABLE 1. Characteristics of Interview Participants (n = 28)

Characteristics	Number
Sex	
Men	9
Women	19
Type of function	
Occupational physician	10
Human resources manager	4
Line-manager	6
Employee (with a chronic condition)	7
Strategic advisor	1
Working in participating organization	
Yes	19
No	9

interview, due to time constraints, long-term leave of absence, or because they were no longer working for the organization, or not responding to the invitation.

Data Collection

Semi-structured interviews, observational data, and research notes were used for the evaluation of the pilot implementation and to describe the three cases of applying the PA at the organizational level.

Process Evaluation and Feasibility Framework

Two frameworks were used for the evaluation. Components of the Linnan and Steckler framework were used for the process evaluation and included recruitment, reach, dose delivered, dose received, and fidelity. The operationalization of these components and how they were assessed (including some illustrative interview questions) are described in Table 2. Feasibility was based on the Bowen framework and was assessed by questions related to acceptability, practicality, and satisfaction with the PA.[27,28] In addition, a question was added on the promise of the PA being a successful method for creating a supportive work environment and ultimately improving the exertion of self-control behaviors among employees with chronic conditions.

Semi-Structured Interviews

Semi-structured interviews were conducted between April 2019 and November 2020. At the convenience of the participant, interviews were held at the organization's location or conducted by telephone or videoconference. Interviews lasted approximately 15 to 45 minutes. Interviews were held in Dutch and conducted by the primary researcher, a female health scientist who has experience in qualitative research. All interview participants already met the primary researcher before the interview, either through participation in the training or a meeting at the organization (ie, during the recruitment process or applying the PA). Moreover, the researcher maintained regular contact with the OPs and project coordinators to monitor progress, allowing for a prolonged engagement. Two interview guides were developed to aid the researcher and ensure comparability of the interviews, thereby increasing reliability. One interview guide contained questions for OPs and stakeholders of non-participating organizations, including questions on the barriers to recruitment of organizations. Another interview guide was intended for OPs and stakeholders of participating organizations, which included topics and open questions related to the components of the two frameworks described previously.

All interviewees signed informed consent forms, and information was provided to all participants on the confidentiality and anonymity of the results of the study.

Observational Data and Research Notes

Research notes were made during the peer review meetings with OPs, to assess recruitment and reach. OPs were asked to point out possible facilitators to recruitment. Moreover, the primary researcher attended the PA meetings with the working group in the participating organizations, where research notes and striking observations, related to the other components of the Linnan and Steckler framework (dose delivered, dose received, and fidelity), were written down. Due to privacy reasons, the peer review meetings and PA meetings were not audio-recorded.

Data Analysis

Semi-Structured Interviews

All interviews were digitally recorded and transcribed verbatim by a specialized external agency. No member-checking was carried out, as the interviews were relatively short and the researcher ended each interview with a small summary of main points mentioned by participants. As data collection was spread over a longer period, data analysis and collection of new data ran parallel, allowing us to compare the new data with our initial findings. Data were analyzed using content analysis, with a combination of an inductive and deductive approach. Analysis consisted of reading and rereading of the transcripts, after which line-by-line coding of the transcripts was carried out. Qualitative data indexing software (ATLAS.ti) was used during the coding process. Next, data were searched for similarities and discrepancies, after which codes were grouped together based on the steps of the PA and the elements of the process evaluation and feasibility frameworks to be evaluated. Comparisons were made both within and across cases. All data were coded by the primary researcher. To increase reliability, a second researcher (author 3) carefully reviewed 30% the transcripts (several transcripts from OPs and all transcript from one of the three organizations). Findings were extensively discussed among the two researchers and members of the project team. Analysis resulted in rich descriptions of the application of the PA in practice. Representative quotes from the interviews were translated and added to illustrate the findings.

TABLE 2. Operationalization and Assessment of the Linnan and Steckler Components

Component	Definition	Assessment
Recruitment	Recruitment was defined as the procedures used to approach the relevant stakeholders in the organization and convincing them of the need of a supportive work environment and using the PA as a method to achieve this.	- *Observational data and research notes of the peer review meetings* - *Semi-structured interviews:* • How did you approach the organization? • Did you encounter barriers or facilitators to recruitment? • What are considered the most important reasons for the organization not to participate?
Reach	Reach was defined as the proportion of organizations that agreed to participate and was willing to apply the PA.	- *Observational data and research notes*
Dose delivered	Dose delivered was defined as the degree to which relevant stakeholders were included in the working group (by the project coordinators) and the attendance of working group members during the meetings (poor/sufficient/good).	- *Observational data and research notes* - *Semi-structured interviews:* • Did you attend all meetings?
Dose received	Dose received was defined as the degree to which selected solutions were implemented within the organization (poor/sufficient/good).	- *Semi-structured interviews:* • Were solutions implemented in the organization? And if so, which solutions were implemented?
Fidelity	Fidelity was defined as the degree to which the OP fulfilled the process leader role and guided the meetings as stated in the protocol (poor/sufficient/good).	- *Observational data and research notes* - *Semi-structured interviews:* • How did the OP fulfill the process leader role?

Observational Data and Research Notes

Observational data and research notes were reviewed with the focus to outline the context and to create an objective image of the process (recruitment, reach, dose delivered, dose received, and fidelity). Moreover, there were used to either confirm or invalidate interview findings.

Ethical Considerations

Written informed consent was obtained from all participants. All methods were carried out in accordance with relevant guidelines and regulations. The Medical Ethics Review Committee of the VU University Medical Center determined that an ethical approval was not required because the Medical Research Involving Human Subjects Act ("Wet Medisch-wetenschappelijk Onderzoek met mensen") does not apply to this study.

RESULTS

After analysis of the data, themes were identified on factors that influenced recruitment: organizational factors, the position of the OP, and establishing commitment. Reach was determined on the basis of observational data and research notes. Furthermore, the process evaluation and feasibility of the intervention within three organizations were described using the following themes: the process of applying the PA, reflecting on the OP as process leader, and satisfaction with the PA at the working group level.

Recruitment—Approaching Organizations to Apply the PA

The implementation plan specified the objectives of OPs for recruiting organizations, as well as objectives for organizations to apply the PA in order to create a supportive work environment (see Supplementary Information, http://links.lww.com/JOEM/B84). Analysis of the data showed that approaching and convincing organizations of the need of a supportive work environment (recruitment and Step 1 of the PA) turned out to be challenging for OPs. The themes that emerged (organizational factors, the position of the OP, and establishing commitment) illustrate the various barriers and facilitators that influenced recruitment at the level of the OP and the organization, for example, OPs' ease of making contact with the designated stakeholder and the role of the OP in policy setting. Moreover, according to OPs, too much focus on absenteeism instead of preventing work-related problems was an important barrier to recruitment. Table 3 shows an overview of factors that influenced the recruitment of organizations and the ultimate decision to whether or not participate and use the PA to create a supportive work environment.

The challenges of convincing organizations also became clear during the peer review meetings. Facilitators to recruitment of organizations that were expressed by OPs during these meetings are listed in Box 1.

Box 1. Facilitators to Recruit Organizations

- Presenting a business case: what is to gain from a focus on the prevention of work-related problems for employees with chronic conditions?
- Expressing mutual (employer and employee) benefits
- Storytelling: what can be learned from success stories?
- Expectation management: making sure managers know what to expect (eg, time investment, costs)
- Use current cases as examples to invigorate OPs' attempts.
- Pointing out the effect on improving corporate identity: with a good image, it is easier to attract new personnel.

Reach—Participating Organizations

In the end, 3 of 12 approached organizations agreed to create a supportive work environment and develop an organizational policy,

using the PA. According to the Linnan and Steckler framework, *reach* equals 25%.[27] In all three organizations, the OPs started with identifying and contacting the designated stakeholder in the organization to discuss participation. In all cases, the human resources manager was the initial contact person. After showing interest to participate, the primary researcher together with the OP visited the organization for highlighting the urgency of a supportive work environment and further explanation of the PA (as also stated in the implementation plan). The project coordinators that were assigned were aided by providing examples of stakeholders, which could to be included in the working group (eg, employees with a chronic disease, line-managers, members of the work council). Furthermore, the project coordinators received the necessary information in the form of a copy of the training manual, to guide them with the practical arrangements. Box 2 provides the descriptions of the three participating organizations and the reasons that were pointed out by the project coordinators for applying the PA in the organization.

Box 2. Descriptions of Participating Organizations and Reasons to Apply the PA

Organization A is an organization in the cultural sector with less than 500 employees. Three departments of the organization participated in the pilot study. These departments together count 120 employees. The organization already had a significant focus on offering support and preventing work-related problems, applying the PA would increase the preventive actions in the organization. Moreover, the opinion of the OP on policy issues and preventing work-related problems was highly valued.
Organization B is a large organization in the health care sector. The PA was applied in one department of the organization, consisting of approximately 230 employees. High levels of sickness absence were already an important item on the agenda. A project on employees' vitality was therefore currently running. Applying the PA was seen as an addition to this project.
Organization C is also a large organization, but then in the logistics sector. This organization has around 400 employees working at the office and another 60 to 70 employees working in a warehouse. The organization wanted to be prepared for the growing number of employees with chronic conditions in the near future. In addition, applying the PA gave them the opportunity to reflect on their current activities and further improve support and actually develop organizational policy.

Applying the PA at the Organizational Level

Organization A

The Process of Applying the PA

Dose delivered was sufficient, and the application of the PA generally occurred according to the protocol. The project coordinator (ie, human resources manager) invited stakeholders to participate in the working group, either directly or through a line-manager, and planned the meetings (Step 1). All relevant stakeholders were represented in the working group (eg, human resources, line-managers, employees [with chronic conditions], member of the work council). The working group members got together in a first meeting to identify the barriers to the exertion of self-control behaviors (Step 2), followed by a second meeting to brainstorm about suitable solutions and to draw up an action plan (Steps 3 and 4). All working group members and OP attended the first meeting. In the second meeting, all group members were present, except for the line-manager. Working group members actively participated during both meetings. Although most working group members felt the liberty to speak their minds, it was also mentioned that the presence of the human resources manager and OP induced reluctance to express one's opinions and raised caution on what was said and how it was said.

> "But what I did find difficult was, because the occupational physician was involved, as was the human resources manager, some of the problems I wanted to raise also concerned them, so I didn't really dare to discuss them, because I didn't feel safe doing that." (Working group member, employee [with a chronic condition])

TABLE 3. Factors Influencing the Recruitment Process, With Subsequent Barriers and Facilitators, Including Representative Quotes

1. Organizational factors

Attitude toward prevention and need to support employees with a chronic condition	**Barriers** • No sense of urgency. • Persistent focus on sickness absence.	*"Yeah, I guess they didn't think it was urgent enough [to create a supportive work environment]."* (OP of non-participating organization) *"Still focused on those numbers, of absenteeism and those [numbers] need to be responded to. And I said, yes, we have to go the other way [toward prevention]…"* (OP of non-participating organization)
	Facilitators • Organizations already focusing on prevention. • An organization's intrinsic motivation to support employees with chronic conditions.	
Organizational policies	**Barriers** • No existing policy or an ad hoc way of problems solving within the organization.	*"That is a difficult point within the organization in the sense that there is policy, I say very carefully, but that can also fluctuate. They have very little policy on paper."* (OP of non-participating organization)
	Facilitators • An existing sickness absence policy (implementing the PA would result in a supplement focusing on prevention).	
The preconditions in the organization to be able to apply the PA	**Barriers** • Lack of resources (eg, time). • Current precarious situation of the organization (eg, economic insecurity, downsizing). • Having other priorities/other ongoing projects. • Personnel changes.	*"As a company keeping its head above water and keeping the departments above water, I mean it is an organization that is in an economically difficult situation…"* (OP of non-participating organization) *"There are so many changes going on, so you miss the continuity and you do need it for such a process."* (OP of non-participating organization)

2. The position of the OP

The role of the OP in policy setting	**Barriers** • Merely performing executive duties.	*"I work for an in-house occupational health service, which makes it a bit more difficult, yes with policy, that you are involved in it. You are much more doing executive duties [rather than policy setting]"* (OP of non-participating organization)
	Facilitators • Having a say in policy setting.	
OPs ease of making contact with the designated stakeholder	**Barriers** • Time constraints of the designated stakeholders. • Time constraints of OPs to initiate contact.	*"I first sent him an e-mail. Well, there was no response. And then I tried calling him and finally I was called back by a lady from human resources."* (OP of non-participating organization)
	Facilitators • An established and good relationship with the designated stakeholder.	
Degree of persuasiveness of OPs in convincing the organization	**Barriers** • Difficulty getting the message across when using solely the information in the training manual. • A lack of real-life cases or difficulty using them due to privacy reasons.	
	Facilitators • Using real-life cases to support arguments.	*"The moment you can actually draw on real-life cases, which helps a lot in getting the message across."* (OP of non-participating organization)

3. Establishing commitment

Attitude toward PA	**Barriers** • Doubts about the added value of the PA. • Doubts about cost-effectiveness. • Preferring or already using another method to address the issue.	*"What you noticed in the conversation with the Board of Directors was that they were not convinced of the added value for the organization as a whole."* (stakeholders of non-participating organizations)
	Facilitators • Positive attitude toward an organizational approach.	

| The need for approval from higher management | **Barriers**
 • A larger-sized bureaucratic organization or an organization with many management layers.
 • A fragmented organizational structure (ie, an organization with a headquarter and many different local offices).
 • A top-down management style.

 Facilitators
 • The research team providing additional information to higher management in the form of a presentation. | *"How I look back on it [approaching the organization], look the best thing was that you just came to the rescue at a certain point, I think because that was helpful for the organization that someone from the research team came by."* (OP of participating organization) |

Moreover, it was mentioned that the elusive and abstract topic (self-control behaviors) made it difficult for working group members to identify actual barriers, and to come up with concrete solutions that contribute to a supportive work environment.

Dose received was good; all solutions that were selected were actually implemented in the organization (Step 5), that is, extending the organizational policy on preventing work-related problems and communication training sessions for both employees and line-managers. Employees were informed on the renewed policy during department meetings. All working group members were actively taking part in the implementation process, by planning additional meetings and discussing progress by email. A final meeting to evaluate (Step 6) the process and implemented solutions among working group members could not take place as a result of the COVID-19 pandemic.

Reflecting on the OP as Process Leader

Overall, fidelity was sufficient; the OP fulfilled her process leader role, followed the instructions in the training manual, and guided the meetings accordingly. From the start of the PA, the OP had regular contact with the project coordinator to guide and to monitor the process. Both OP and working group members were generally satisfied with how the meetings were guided.

> "I thought she did a good job in guiding the conversation and at the same time allowing people to be themselves and respecting their input, without cutting people off or, well, steering the conversation." (Working group member, member of the working council)

Occasionally, working group members strayed from the subject, losing sight of what really mattered. Although some working group members expressed that more steering of the meetings in the right direction could improve efficiency, one working group member complained of too much steering of the meetings.

The OP was satisfied with her role as process leader. However, executing the PA for the first time and making the PA your own was also challenging. Different opinions were expressed by working group members on whether the OP was the right person to act as process leader. However, some working group members pointed out that it was beneficial to have the OP as process leader, as it improved OP's visibility. Others mentioned that someone not associated with the organization would be a more suitable process leader, as an objective and unprejudiced point of view could facilitate the guiding process.

Satisfaction With the PA at the Working Group Level

All working group members had a positive attitude toward the PA. The involvement of the various stakeholders was highly valued. Moreover, the PA increased awareness on the impact of working with a chronic condition, and it was considered a quick and easy way of tackling barriers within an organization. Some members considered the meetings as intense because the topic (ie, self-control behaviors), which was difficult to grasp with no easy solutions. Moreover, participating in a working group was a different kind of work than some working group members were used to.

All working group members agreed that implementation of the solutions could have been even more extensive (eg, more communication training sessions). A temporary leave of absence of the project coordinator and lack of time of working group members complicated the implementation process. Although arranging practical matters by the project coordinator was doable and did not take a lot of time, it was an extra task on top of the other tasks. Having more than one project coordinator was suggested as point of improvement, so continuity of the different steps could be secured in case of absenteeism. Several working group members felt that the implemented solutions had contributed to more disclosure, a better working atmosphere and improvement in communication with line-managers within the organization.

Organization B

The Process of Applying the PA

In organization B, a human resources manager together with a line-manager served as project coordinators. Dose delivered was poor. The project coordinators experienced difficulties with identifying individual stakeholders (ie, employees [with chronic conditions]) to be included in the working group and how to reach them without stigmatization.

> "As managers, we do have suspicions that some people have chronic complaints, but I found it particularly difficult; how do you approach them? What tone, without stigma." (Project coordinator, line-manager)

Consequently, employees (with chronic conditions) were not invited for the first meeting, and thus not able to identify barriers to self-control behaviors within the organization (Step 2). Although it was agreed upon that the project coordinators would present the list with identified barriers (identified by working group members present at the first meeting) to several employees for approval and feedback, this did not occur. Thereafter, seven employees (with chronic conditions) were added to the working group by issuing a broad call for participation. However, doubts were expressed by the project coordinators whether the employees, who signed up, were the right employees to be included in the working group. A second meeting was held with all working group members to brainstorm about suitable solutions and make an action plan (Steps 3 and 4). This second meeting started with the expression of feelings of disappointment and frustration by employees (with chronic conditions) for not being invited for the first meeting, which negatively affected the atmosphere during the meeting. Moreover, instead of coming up with solutions, some employees used this meeting to vent their anger and dissatisfaction with the organization's management.

> "We, as it were, may have caused a stir, let me just call it that. But yes, apparently we had to express our dissatisfaction at some point, because who else would do something about it?" (Working group member, employee [with a chronic condition])

In addition, personal problems were raised, unrelated to the project.

Heated discussions arose on the to be implemented solutions. One working group member described to experience the meeting as unpleasant, not constructive, and demotivating.

The problems encountered with assembling the working group also influenced dose received, which was poor. Although the project coordinators stated to take on the responsibility to proceed with the implementation of solutions, implementation ceased and no solutions were implemented (Step 5). The project coordinators pointed out to have doubts about whether the correct solutions came out of the meeting. Furthermore, it was said that solutions were practically difficult to implement because of the organizational structure. No third meeting (Step 6) was planned as implementation ceased after the second meeting.

Reflecting on the OP as Process Leader

Although fidelity was sufficient, it was being impacted by the problems with assembling the working group. With the absence of employees (with chronic conditions) in the first meeting and turbulent interactions during the second meeting, it was difficult for the process leader to guide the meetings according to protocol and keep track of where the brainstorm was heading to. For the process leader, it became clear that it was important to be more involved in the preparatory phase (ie, assembling the working group). Moreover, it was pointed out by the OP that being a process leader was challenging, trying to remain in a neutral position and refraining from giving advice and offering solutions.

> "Well, I find it difficult; being a process leader is difficult for an occupational physician, because you always have a natural tendency to take on your expert role and start doing things." (Process leader, OP)

Opinions differed on the added value of an OP as process leader. According to some working group members, this role could also have been carried out by another member of the department, for example, a human resources manager or a corporate social worker. By using the OP as process leader, advice and substantive input of the OP on contextual factors within the organization were missed. Others pointed out that the role of process leader increased OP's visibility.

Satisfaction With the PA at the Working Group Level

On the one hand, working group members had a positive attitude toward the PA and improving support for employees with chronic conditions, but on the other hand, they were disappointed about how the application of the PA was carried out. Everyone agreed that this suboptimal course of applying the PA mainly originated from the problem with assembling the working group. Moreover, the expression of dissatisfaction and dissension during the second meeting made the process leader wonder whether the PA would be a more suitable method in an organization, which has its organizational structure and policy well under control, using the PA for further improvement of support.

For some working group members, it was insufficiently clear what the organization's long-term goal was concerning the prevention of work-related problems and how applying the PA would help achieve this goal. Moreover, it was felt that more preparation was needed to properly introduce this project to the department, with more explanation about the objective for the organization and expectations of participants. Furthermore, feelings of being the sole drivers of the process and a perceived lack of support from the rest of the organization (eg, management) for actually applying the PA were mentioned by the project coordinators.

> "What still sometimes bothers me is that I had the feeling that we were on our own [with the other project coordinator], that the two of us were doing it [the PA], and that the rest was actually too busy for everything, because there is no lack of enthusiasm, and neither is the will to participate, but then in reality, it is complicated." (Project coordinator, human resources manager)

A temporary leave of absence of one of the project coordinators contributed to the difficulty of continuing with the steps of the PA. It was noted that these driving forces were crucial to ensure progress of the project. A more clear and structured overview of what was expected of the project coordinators, and concrete guidelines for the practical arrangements (eg, pointers for inviting working group members) were mentioned as points of improvement.

Organization C

The Process of Applying the PA

Dose delivered was sufficient, with two project coordinators (ie, human resources managers) working in a structured way, to invite relevant stakeholders to participate in the working group and plan meetings. All relevant stakeholders were represented in the working group (eg, human resources, line-managers, employees [with chronic conditions], member of the work council). All working group members were present at the first meeting to identify the barriers to exert self-control behaviors, which was held at the organization's location. Thereafter, a second and a third meeting were held online (due to the COVID-19 pandemic) to come up with solutions and make an action plan (Steps 3 and 4). Irregular attendance of working group members during these online meetings was observed. It was pointed out that irregular attendance was a consequence of increased workload and time constraints, which hampered the sense of belonging to a group.

> "There was always someone who wasn't present, so then you don't really form a group with a sense of belonging in such a project, and I find that difficult." (Working group member, line-manager)

Especially during the first meeting, working group members actively participated. Participation was less active in the online setting, as the online meetings were less structured and working group members were more easily distracted. Most working group members felt the liberty to speak their minds during the meetings. However, factors were mentioned that hampered the expression of opinions. As not all working group members were familiar with the OP, feelings of unease were described. Moreover, for some employees with a chronic condition, it was difficult to talk in general terms, as they spoke from their own experience and related everything to their personal situation.

> "Then I think, yes of course it is broader than that. You all look at chronically ill workers and self-control and how that works in the organization. But then you really start to think about yourself, about your own situation and I always find that difficult." (Working group member, employee [with a chronic condition])

One working group member found it difficult to explain the significant impact of working with a chronic condition; as she was doing well at the time of the meeting, barriers were more difficult to identify. A lack of experience with participating in such a working group also made it sometimes difficult to express one's opinion. Finally, for some working group members, their role and the organizations' intended goal for applying the PA was not clear, which hampered the provision of input during the meetings.

Dose received was sufficient; the two project coordinators took on the responsibility for initial operationalizing the solutions (Step 5). A new organization's vision on working with a chronic condition and organizational policy were put on writing. Moreover, communication training sessions for line-managers were held. Due to other urgent matters and time constraints with the project coordinators, implementation of solutions took a long time, with not all solutions being implemented in the course of the study. However, a plan was made to embed and propagate the new organizational policy in the organization and to

launch a newly developed website with practical information regarding working with a chronic condition. As a result of this delay and ongoing implementation of solutions, no final evaluation meeting (Step 6) was held.

Reflecting on the OP as Process Leader

Fidelity was poor, resulting from the OP's perspective on the process leader role. According to him, it was not his sole responsibility, but rather a shared responsibility with both human resources managers. It was said that OPs should preferably initiate the intervention and take on an advisory role, whereas human resources managers should take on the process leader role and policy development.

> "I actually think that the occupational physician can be the initiator and human resources should take this further within the organization as a process leader. But in the end I think the process leader role should ultimately lie with human resources and I think human resources should also make the policy. Then the occupational physician first as initiator, ultimately becomes the advisor." (Process leader, OP)

Consequently, the project coordinators (ie, human resources managers) took over the process leader role. Comparable to the other organizations, opinions differed on whether the OP was a suitable process leader. The OP as process leader allowed some working group members to get to know the OP. Others considered human resources managers more suitable process leaders, as this way OPs could take on an advisory role and actively participate during the meetings. An OP not associated with the organization or an external process leader were mentioned as other options. Moreover, it was pointed out that by making the training available to both OPs and human resources managers, the process leader role could be a shared responsibility among them.

Satisfaction With the PA at the Working Group Level

All working group members were positive about the PA and the fact that the organization was willing to spend time and resources on improving support for employees with chronic conditions. The project coordinators were considered important driving forces of the project. Although they had a clear goal in mind, time constraints and initial uncertainty of what was expected of them in terms of practical arrangements made it a challenging process. Moreover, the major role of the project coordinators in guiding the PA and implementing solutions resulted in uncertainty about the progress and state of affairs among other working group members. More extensive information on the tasks, expectations, and responsibilities of the different stakeholders in the working group was given as point of improvement.

Furthermore, support and commitment of upper management was considered crucial to ensure good embedding in the organization. This awareness resulted in a request for approval from upper management during the application of the PA. Despite this, there were concerns with some working group members on securing changes in the long-term and whether this approach will ultimately have any effect, especially on employees with chronic conditions in the warehouse.

> "In the end, how it will be embedded in the organization depends very much on how far you get everyone on board." (Working group member, line-manager)

DISCUSSION

This study described the evaluation of a pilot implementation, including process evaluation and feasibility study. Recruitment was difficult; convincing organizations of the need to create a supportive work environment for employees with chronic conditions and using the PA as a method to achieve this was a major challenge for OPs. Themes were identified on factors that influenced recruitment (organizational factors, the position of the OP, and establishing commitment), which highlighted barriers and facilitators, for example, organizations

not having a sense of urgency to prevent work-related problems and OPs having a say in policy setting. Only 3 of 12 organizations were willing to participate (ie, reach of 25%). Of the three participating organizations, one organization (A) generally applied the PA according to protocol. In contrast to the other two organizations (B and C), where dose delivered, dose received and/or fidelity were poor. Especially in organization B, problems with assembling the working group (Step 1) lead to a poor dose delivered and dose received. Overall, working group members were positive about the PA and improving support for employees with chronic conditions. Both barriers (eg, not being able to express one's opinion) and facilitators (eg, availability of driving forces) were identified that influenced the process of applying the PA. Although the process leader role increased OPs' visibility, opinions differed on the suitability of OPs as process leaders.

Convincing Organizations to Apply the PA

This study made clear that convincing organizations to create a supportive work environment, by applying the PA, turned out to be a major challenge. When looking at the objectives for OPs and organizations, as stated in implementation plan, especially objectives 2 and 3 (see Supplementary Information, http://links.lww.com/JOEM/B84) for the OP were difficult to achieve, posing important barriers to recruitment. A striking observation was that all three organizations that were willing to create a supportive work environment were already focused on offering support, preventing work-related problems and employees' health. This existing preventive focus and motivation to improve support for employees with chronic conditions could explain why these organizations were more open to applying the PA, unlike the organizations that did not see the sense of urgency to prevent work-related problems. A good relationship between OP and stakeholders within the organization further facilitated this process. Moreover, stakeholders valuing OPs input and advice were essential for convincing organizations to apply the PA. Research showed that an effective and strategic collaboration between occupational health professionals and organizations led to a shift toward a more preventive approach.[29]

Comparison of Participating Organizations

The Process of Applying the PA

Although in organization A no major problems occurred in the process of applying the PA, we observed poor dose delivered and dose received in organization B. We found that regular contact between process leader and project coordinator and close monitoring of the progress, as in organization A, facilitated the implementation process. On the other hand, when major problems occur early in the process of applying the PA, as in organization B, this can have major consequences for the continuation and level of success of the PA. Moreover, a skewed relationship between working group members was an important barrier to the selection and implementation of solutions. In organization C, dose delivered was influenced by the irregular attendance of working group members. The COVID-19 pandemic could have played a role in this, due to the online setting of the meetings. A joint effort and equal input and voice of all working group members in identifying barriers and selecting solutions are important aspects of the PA. With employees (with chronic conditions) or other stakeholders not being able to provide input in every step of the PA, the power of the approach could have been compromised.[19] When comparing our findings to the literature, one study using the PA showed much less deviation from the protocol and adequate dose delivered and dose received.[30] Although another PA study also described less implementation of solutions than initially expected.[31]

Reflecting on the OP as Process Leader

In this study, OPs were deployed as process leader, which meant that they had to take a neutral position, refraining from using

their expertise and providing advice. As shown in organization C, fidelity was difficult. In the Netherlands, OPs have an advisory role, which required them to adjust to their new role as process leader. Moreover, doubts were described in all three organizations on the suitability of OPs as process leader. The attitude toward OPs could have contributed to this. Feelings that OPs are on the side of the employer, as described in one of our earlier studies among employees with chronic conditions,[10] could have hampered the expression of opinions, out of fear that it will be used against them. On the other hand, the role of process leader increased OPs' visibility, which might improve the use of OPs' support (eg, using preventive consultation hours). Furthermore, the PA enabled OPs to proactively initiate and pursue prevention within an organization, whereas OPs currently largely focus on reducing sickness absence.[32] In contrast, in another PA study, using occupational nurses as process leaders, no doubts on the suitability of the process leader were expressed.[30]

Satisfaction With the PA at the Working Group Level

Despite the encountered difficulties, working group members in all three organizations were satisfied and positive about the PA. The involvement of all stakeholders, a key feature of the PA, was highly valued. Our study also showed that human resources managers in all three organizations took on most of the work, for example, in project coordination and the progress of the PA. These driving forces were crucial for applying the PA, which was also found in another study implementing a participatory program.[33] However, project coordinators have to feel supported by higher management and other stakeholders in the organization, which was clearly not the case in organization B. Literature also shows the importance of commitment of higher management on retaining employees with disabilities.[34]

Although the intention was that the implemented solutions contributed to a supportive work environment and the development of an organizational policy, we found that there was a need for a clear organizational goal at the start of the PA (ie, in organizations B and C). That way, the PA could be used to work toward that goal and could help identify barriers and select solutions, instead of the solutions determining the end goal. This need for a clear goal could be related to the complexity of self-control behaviors, being a more difficult topic compared with addressing more concrete problems, such as preventing hand eczema.[30]

Strengths and Limitations

This study showed the challenges of implementing an organizational-level intervention and illustrated the factors that can influence the process of applying the PA at the organizational level across different organizations. This is valuable information that can be used to further optimize and develop the intervention. Using qualitative research methods yielded understanding of how attitudes and actions of OPs and working group members as well as contextual factors affected the implementation process. However, also limitations of the study must be mentioned. The most important limitation was that only 3 of 12 organizations agreed to participate and applied the PA, resulting in an incomplete picture of the application of PA at the organizational level. Only organizations that were motivated to support employees with chronic conditions and prevent work-related problems participated in the study. Applying the PA in organizations that did not already have a focus on preventing work-related problems would have yielded other valuable information. Furthermore, in some cases there was a long time (>1 year) between the PA meetings and the final interview, which increased the chance of recall bias. Another barrier of this study was the COVID-19 pandemic. Recruitment and reach were not impacted by the COVID-19 pandemic, as recruitment occurred before the start pandemic (ie, 2019). However, COVID-19 influenced the implementation of the PA and its evaluation in the organizations. The effect of the pandemic varied, depending on how organizations were affected by COVID-19 regulations, such as switching to online meetings thereby influencing dose delivered. Moreover, having less resources (eg, time) to implement solutions impacted dose received.

Implications for Practice and Research

The results of this study imply that the PA could be of added value for organizations in creating a supportive work environment and developing organizational policy, enabling employees with chronic conditions to exert self-control. However, convincing organizations to create a supportive work environment and apply the PA is a first major challenge. Exploring how to activate and persuade organizations to improve support for employees with chronic conditions and take a preventive approach would be an important next step. The literature already shows the need for more knowledge and awareness on the impact of having a chronic condition on work within organizations,[8] which is currently often insufficient. OPs should take on a proactive role in improving knowledge and raising awareness by providing advice to employers. Moreover, good employer practices and corporate social responsibility should include preventing work-related problems and facilitating sustainable employment for employees with chronic conditions. Financial and economic considerations could play an important role in many organizations when deciding on supportive actions.[35] Showing the economic benefits of preventing work-related problems among employees with chronic conditions and preventive activities might facilitate an organizational change to a preventive approach. Furthermore, OPs must persist in their attempts to increase prevention within organizations. Their increased visibility might lead to organizations more often obtaining OPs' expertise on preventing work-related problems.

When looking at the process of applying the PA within the organization, this study has provided several points of improvement and aspects to consider. For this study, OPs were the professionals who attended the training sessions. Seeing the great involvement of human resources managers and their responsibility for coordinating the PA, opening up the training to OPs as well as human resources managers could improve the implementation process. Moreover, by tailoring the training sessions to the competencies of OPs and human resources managers, both professionals could act as process leader within an organization. In addition, more research is needed to evaluate the role of other professionals as process leader, such as an external expert (eg, OP not associated with the organization) to guide the process.

Furthermore, information provision for project coordinators in the training manual should be elaborated. In addition, a clear overview of what is expected of all stakeholders involved during the PA needs to be added to the training manual. Knowing what is expected of every working group member might improve input and could counteract the irregular attendance of working group members during meetings. Finally, as having a clear goal in mind from the beginning of the PA is helpful for the implementation process, more attention must be paid in the training session to shaping and composing the intended goal for the organization.

CONCLUSIONS

The PA could be of added value as a method for creating a supportive work environment and developing an organizational policy for employees with chronic conditions. However, we only reached a small number of motivated organizations. Convincing organizations to improve support for employees with chronic conditions and prevent work-related problems, by using the PA, is challenging and requires further research. Moreover, it is not self-evident that OPs must fulfill the process leader role; this role should be tailored to the organizations' needs.

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