Employees with a low socioeconomic position as partners in workplace health promotion

How employees' lifeworld can shape intervention and evaluation

Hanneke van Heijster

Propositions

1. Employees' unique (work) circumstances rather than their socioeconomic position should be central in workplace health promotion interventions.
   (this thesis)

2. Defining the content of workplace health promotion together with employees is essential in making interventions relevant for them.
   (this thesis)

3. Insight into how participatory research processes contribute to change is scientifically more relevant than the actual changes in a specific context.

4. Researchers need to understand different scientific philosophies to be innovative in research.

5. Involving citizens in policy making is indispensable for tackling the current societal challenges.

6. Media coverage on community-driven initiatives is crucial to stimulate action regarding climate change and the energy crisis.

Propositions belonging to the thesis, entitled

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CHAPTER 1

General introduction

Background: socioeconomic health inequalities

The association between social determinants and health has become more and more apparent during the COVID-19 crisis. In the Netherlands, the risk of dying of COVID-19 was four times higher for people with low incomes than for people with high incomes [1]. Explanations for this trend were that people with low incomes work in sectors that have less opportunities to work from home, live more often in large cities where the risk of getting COVID-19 was higher, live in smaller houses with more people, and face non-communicable diseases more often than people with higher incomes [1]. Similar trends of inequal burden of COVID-19 by income were found in other Western countries such as the United States [2], England [3], France [4] and Sweden [5]. An infectious disease affecting people with different incomes unequally, is an illustrative example of the socioeconomic health inequalities that exist in most Western countries.

In the past decades concerns about health inequalities have increased. Socioeconomic health inequalities are often expressed in differences in life-expectancy and expectancy of years lived in good health between people with a low and high socioeconomic position (SEP). SEP is based on ones' income, educational and job level [6]. On average, people with a high SEP live approximately 4.5 years longer than people with a low SEP [7]. Also, there is a gap of 14 years in healthy life expectancy, i.e., the years someone is expected to live in good health [7]. Health inequalities are considered to be unjust, first, because of the unequal distribution of the social determinants that underly health inequalities such as income. Second, because of the potential consequences of health inequalities [8]. For example, people with a low SEP have higher chances of experiencing health-related stigmatization (e.g., because of negative associations that exist with regard to certain diseases such as diabetes type 2) and health-related unemployment. Also, people with a low SEP generally have less healthy years after reaching their pension age [8]. Also, health inequalities are an economic concern for governments [9]. The ethical and economic considerations have brought reducing health inequalities high on the agenda of governments in many developed countries.

To reduce health inequalities, it is important to understand its various causes. One of the ways to understand the causes of socioeconomic health inequalities, is through socioecological explanations, for example using the socioecological model (SEM) [10–12]. In this model, health is understood as a product of various influences such as family, work, community and the broader political context [13]. These influences translate into the various levels of the SEM, namely on an individual, interpersonal, community, institutional and level of public policy [12, 14, 15]. The influences vary among socioeconomic groups and can contribute to health inequalities when influences are more positive or negative for some groups than for others [16]. An example of an influence on health inequalities on the public policy level, are policies that impact income and wealth distribution [17], one of the root causes of health inequality [18]. On the community level, the neighborhoods where people live influence health inequality; people with a low SEP live more often in

poorer neighborhoods with lower living standards in terms of housing, and less access to health care and a healthy physical environment [19]. On the institutional level working conditions impact health inequality, because these are often poorer in low income jobs, e.g., physically demanding working conditions, flexible work schedules and less job control [20, 21]. On the interpersonal level, health inequalities are impacted by social support and social norms that encourage more or less healthy behavior. The social support and social norms that stimulate healthy behavior are often less present among families with a low SEP, compared to families with a high SEP [22]. On an individual level, health inequalities are influenced by health behavior, which is generally unhealthier among people with a low SEP than among people with a high SEP [23]. The different levels of SEM also interact; health behavior on the intrapersonal level is influenced by norms and social support on the interpersonal level, and could also be impacted by the institutional level through stress at work, or by the public policy level if policies contribute to financial stress of people. All things considered, the causes of socioeconomic health inequalities consist of a complex web of influences on various levels that also interact.

Workplace health promotion

Health promotion in various forms can be used to contribute to the reduction of health inequalities. Some settings for health promotion allow to reach various influences of the socioecological model (SEM), one of them is the workplace [11]. First, workplace health promotion (WHP) could be targeted on improving working conditions and creating a healthier working environment, and with that contribute to the institutional level of health inequalities. Second, WHP can also have an impact on the interpersonal and individual level of health inequalities through targeting the social environment of the workplace and enhance social support or change social norms regarding health [24, 25], or make changes in the physical environment that stimulate healthy behavior [26]. In addition to the possibility to intervene on various levels, the workplace has several practical advantages for health promotion. People spend much time of their lives at work, which offers the practical opportunity and physical infrastructure to reach people for health promotion [24, 25]. Also, in the Netherlands, about half of the people with a low SEP is employed (CBS, 2022), which allows for a large reach of people in diverse work settings. The possibility of targeting health on various levels of the SEM model and the existing physical and social infrastructure at the workplace, make it a promising setting for health promotion.

Although WHP could target health on various levels of the socioecological model, most WHP interventions have been focusing on changing individual behavior. WHP interventions targeted for example on increasing knowledge on healthy behavior, e.g., through education or counselling [e.g., 28]. Other interventions included changes in the physical environment [e.g., 29], or a combination education and changes in the physical environment [e.g., 26]. Although these interventions do incorporate changes in the

physical environment of employees, the ultimate goal is often still to change individual behavior rather than factors on other levels of SEM. Meta-analyses show sometimes a positive effect on these behaviors such as physical activity [30], others show limited effectiveness [31, 32]. Thus, despite the potential of WHP, it is doubtful WHP interventions focusing on changing individual behavior are living up to their potential.

In fact, the question raised whether WHP interventions might actually increase health inequalities rather than decrease them. Employees with a low SEP were reached less in WHP interventions, partly because organizations with employees with a high SEP were more likely to offer WHP interventions [24]. Also, if interventions were offered, employees with a low SEP also appeared to be less likely to participate in them [33]. Although no evidence was found for the hypothesis that WHP interventions increase health inequalities [34], it should be acknowledged that employees with a high SEP have more access to WHP interventions and are more likely to participate.

Challenges of workplace health promotion

Besides the limited effectiveness of WHP on health of employees with a low SEP, WHP is complex for several reasons. First, WHP involves many different stakeholders. In the Netherlands, stakeholders of WHP are for instance the employer, employees, the government, interventions providers, insurance companies, research and knowledge institutes and occupational physicians [33, 35]. Competition between different perspectives on WHP can affect the relevance and efficacy of WHP programs especially when WHP interventions are designed and implemented top-down, for example because employees associate WHP with safety while employers relate WHP to lifestyle [36]. Employees are usually not involved in the design and evaluation of WHP interventions [33, 36]. Not involving the employees with a low SEP in the design and evaluation of WHP interventions could explain less participation of these employees in WHP interventions, because the interventions are probably less well adapted to the unique challenges employees with a low SEP face at and outside of work, such as limited time and resources [24]. Still, there is generally little space for the perspective of employees amongst the more dominant stakeholders of WHP.

A second complicating factor of the workplace for health promotion is that it raises several ethical concerns [33, 35, 37]. For example concerns about physical privacy (e.g., biomedical measurement at the workplace), and voluntariness of participation in WHP considering the dependency relationship that exist between employer and employee [35, 38]. This dependency relationship might even play a larger role for employees with a low SEP, as they have fewer opportunities to change jobs [38]. Also, it has been argued that WHP interventions can be paternalistic, as health promotion could be left to primary care and it is not employers primary role to promote health of employees [38]. A study on the views of employers and employees on responsibility for health of employee showed that

employers associate responsibility with duty, whereas employees associate responsibility with autonomy [35]. If not treated as seriously, ethical concerns may have a negative impact on the relationship between employer and employee [35]. Also, ethical concerns can have a negative impact on participation in WHP interventions [39]. Therefore, deliberative attention for ethical concerns on WHP interventions is warranted.

A last complicating factor for WHP interventions is diversity amongst employees with a low SEP. Health and health inequalities are not only influenced by SEP, but by an intersection between SEP and other social categories such as gender, age, cultural background, (dis)ability, first language and literacy also impact health and health inequality [40, 41]. Employees with a low SEP in various other social categories in different situations may have different needs when it comes to WHP interventions. For example, a young male employee with a low SEP is likely to have different preferences with regard to WHP interventions than an older female office worker [42]. Diversity exists within organizations as well as between organizations. For example, occupations where people with a low SEP work are often highly segregated in terms of gender, for example male dominance in construction, and female dominance in care [43, 44]. However, few studies have investigated the role of diversity in the effectiveness of WHP interventions, and how diversity plays a role in the needs of employees with regard to WHP interventions.

Calls for innovative approaches in workplace health promotion

Several calls have been made to explore innovative approaches for WHP. For example approaches that, next to individual lifestyle factors, also address working conditions [24, 45] and other environmental, economic and social determinants of health [46]. Interventions that address a variety of factors are more likely to be effective [47], also in reducing health inequalities [48]. WHP interventions that take into account the interplay between work-related and non-work-related factors and are delivered at multiple levels are referred to as 'integrated approaches' [11]. Such integrated WHP interventions may be one of the promising directions for future research.

Potentially suitable as an integrated WHP intervention is stakeholder dialogue. This may be promising as dialogue allows employees to share different issues related to health from their lived experiences and elaborate upon the various factors influencing those issues [49]. Also, stakeholder dialogue invites various stakeholders to bring in their perspective, important considering the many stakeholders involved in WHP [36]. By sharing experiences, stakeholders learn from each other, and changes related to those learnings can occur on various levels such as the individual or the organizational level [50]. Different methods can be used to guide stakeholder dialogue, but some methods, such as moral case deliberation (MCD), allow to focus as well on the ethical concerns in certain situations [51]. MCD is a dialogue method originating from philosophy, that analyzes the ethical aspects of situations in various steps, identifying the norms and values of participants,

zooming in on the roles of the various parties involved, and looking for wat constitutes 'the right thing to do'. Situations from everyday life are central in this type of dialogue. MCD has been used among health care professionals and in military settings, but not yet in the work setting. All in all, MCD is a potential interesting WHP intervention that meets to various needs with regard to WHP interventions, such as the importance of centralizing the lifeworld of employees with a low SEP, taking into account the various stakeholders and pay attention to ethical issues.

Another direction for future research that should be considered are different approaches to evaluation of WHP interventions. Especially approaches that allow to involve employees with a low SEP in the evaluation of WHP interventions. One participatory evaluation method that should be considered in this respect and has been recommended for evaluation of public health interventions before is responsive evaluation [52]. This evaluation methodology has already been applied in the field of public health research [52–54], but is still less explored in the field of WHP. In responsive evaluation, stakeholders are actively engaged in defining the outcomes for evaluation as well as the relevant themes for interventions [52]. This matches well with the stakeholder dialogue intervention, as the relevant themes for the dialogues would also be defined together with stakeholder in the evaluation.

However, when using responsive evaluation, the differences with traditional evaluation methodologies should be considered. Mixed methods can be used in responsive evaluation [55], but often evidence stems from qualitative data [52]. This differs from traditional methodologies such as the RCT that use mostly quantitative data. Because there is no control group and the data is at least partly qualitative, findings are not generalizable to other settings. However, they are transferable to other settings with similar contextual characteristics, provided that a thick description of the context of study is presented [56]. Still, it is important to acknowledge the differences between responsive evaluation and traditional evaluation methodologies and further explore what these differences mean for the scientific contribution of responsive evaluation.

Aims of this thesis

The overall objective of this thesis is *"to understand if and how an integrated intervention in combination with a participatory evaluation approach in workplace health promotion, can contribute to health of employees with a low socioeconomic position, and with this contribute to the reduction of health inequalities"*. This overall objective is divided into three sub aims:

Aim 1: Explore if and to what extent diversity among employees with a low socioeconomic position plays a role in the effectiveness of existing workplace health promotion interventions on self-perceived health

Aim 2: Develop and implement an integrated workplace health promotion intervention consisting of stakeholder dialogue in two organizations, and evaluate its perceived impact through responsive evaluation

Aim 3: Explore the potential scientific contribution of responsive evaluation as an innovative evaluation methodology in the field of workplace health promotion

Outline of this thesis

Figure 1 provides an overview of the various chapters and how they relate to each other. In **Chapter 2**, it is examined whether existing WHP interventions – mostly focused on promoting individual health behavior - promote overall health of employees with a low SEP, and if differential effects exist between employees with a low SEP with a different gender, age and marital status. With this, it was aimed to understand if different 'within' groups of employees with a low SEP react differently on existing WHP interventions. This might provide relevant insights for the intervention central in this thesis.

Before the intervention and evaluation were implemented in workplaces, a Study protocol was written **(Chapter 3)**, in which the design of the intervention is described, including the adaptations made in the method for stakeholder dialogue, moral case deliberation (MCD). Also, in this chapter the decision for the methods and planned activities in the responsive evaluation were explained. **Chapter 4** centralizes around the evaluation of the impact (i.e., perceived changes) of the stakeholder dialogue (consisting of MCD) in a harbor service provider, a large-sized organization in the Netherlands. The innovative intervention and evaluation were also studied in another workplace, a sheltered workplace, central in **Chapter 5**. In this organization, many WHP-related activities already existed. To prevent overwhelming the employees, it was argued that the stakeholder dialogue and responsive evaluation could be used to evaluate and improve the existing activities. In a process evaluation, the low participations rates stood central, as well as opportunities for improvement that could make the activities more relevant for employees.

Chapter 6 addresses the **aim 3** of this thesis. This chapter addresses the scientific philosophical grounds of responsive evaluation, and pays attention to the differences in aims, methods and types of evidence compared to traditional evaluation methodologies in the field of WHP, such as the RCT. The aim of this chapter is to show the potential added value of responsive evaluation compared to traditional evaluation methodologies.

In **Chapter 7** the conclusions of the different studies are provided, as well as a discussion on the findings, contributions and methodological decisions.

Figure 1 provides an overview of the three aims, corresponding chapter(s) and focus of those chapters, as well as the connections between the chapters.

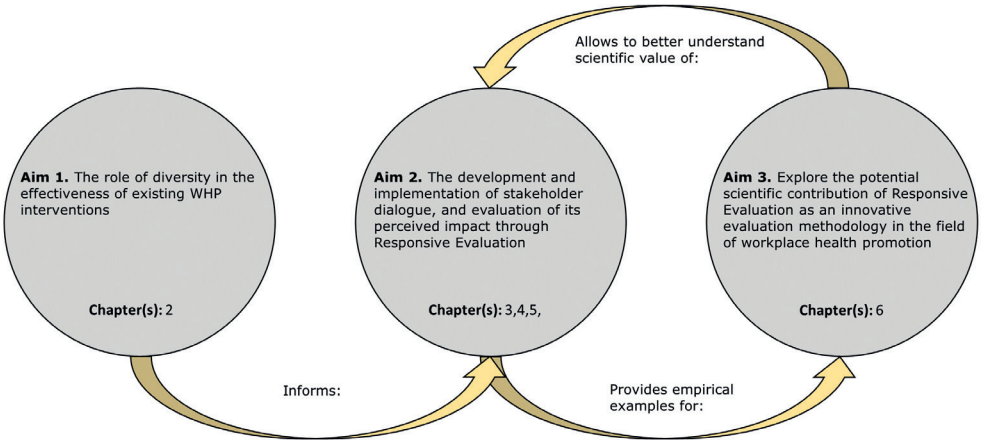

Figure 1. Overview of chapters and interrelationships

CHAPTER 2

2

The effectiveness of workplace health promotion programs on self-perceived health of employees with a low socioeconomic position: an individual participant data meta-analysis

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Abstract

The aim of the current study was to evaluate whether workplace health promotion programs improve self-perceived health of employees with a low socioeconomic position (SEP), and whether differential effects exist between individuals with a low SEP for gender, marital status or age. Individual participant data from six Dutch intervention studies aiming at promoting healthy behavior and preventing obesity in the work setting, with a total of 1906 participants, were used. The overall intervention effect and interaction effects for gender, marital status and age were evaluated using two-stage meta-analyses with linear mixed regression models. In the first stage effect sizes of each study were estimated, which were pooled in the second stage. Compared to control conditions, workplace health promotion programs did not show an overall improvement in self-perceived health of employees with a low SEP (β0.03 (95%CI: - 0.03 to 0.09)). Effects did not differ across gender, marital status and age. Future research could be focused on the determinants of self-perceived health next to health behavior to improve the health of employees with a low SEP.

Introduction

Individuals with a low socioeconomic position (SEP) generally have a poorer health than individuals with a high SEP [23]. Individuals with a low SEP have a shorter life-expectancy and live on average shorter in good health [6, 57, 58]. In Europe, differences in life-expectancy of more than 10 years between SEP groups within countries have been observed. Moreover, the observed difference in *healthy* life-expectancy between these groups even ranges from 10 to 23.1 years [59]. Health inequalities are also reflected in poorer self-perceived health in individuals with a low SEP compared to individuals with a high SEP [44], and self-perceived health is an important predictor of future morbidity and mortality [60].

Workplace health promotion programs aiming to promote healthy behavior are considered promising to improve self-perceived health of employees with a low SEP, as poorer health behavior, which is more common in individuals with a low SEP, is a known risk factor of a poor self-perceived health [61–64]. However, it has rarely been evaluated to what extent workplace health promotion programs focusing on promoting healthy behavior actually do improve self-perceived health of employees with a low SEP.

Studies on the effects of workplace health promotion programs on health behaviors of employees with a low SEP show mixed results. Interventions that provide convenient access to programs can be effective for employees with a low SEP [24]. For example, a workplace health promotion program in which fruit was offered for free at the workplace led to an increase in fruit and vegetable consumption in employees with a low SEP and their families on short-term (12 weeks) [65]. Also, a systematic review showed that workplace health promotion programs focusing on physical activity can be modestly effective for employees with a low SEP [32]. However, a recent IPD meta-analysis showed no long-term (6–12 months) effects on behavioral outcomes such as physical activity, dietary behavior and smoking [66, 67]. It is unclear whether the in general modest and small effects on health behavior can still impact self-perceived health of employees with a low SEP. As combined improvements in health behavior have a larger effect on self-perceived health than improvements in single health behaviors [68], modest improvements in various behaviors might still have an impact on self-perceived health. Next to that, workplace health promotion programs may also have an impact on other determinants of self-perceived health, for example when the programs improve social and emotional support or reduce distress [64, 69].

Some studies did report an improvement on self-perceived health from workplace health promotion programs focusing on health behavior. One meta-analysis showed modest improvements, although this was for employees in general, rather than for employees with a low SEP in particular [70]. Even though the attention in research on employees with a low SEP is growing, the group is still generally underrepresented [24], while they have a poorer health compared to employees with a higher SEP [71]. Therefore, it often remains

unclear whether employees with a low SEP profit from workplace health promotion programs. A recent study including cross-sectional data from nine European countries showed that participation in workplace health promotion programs is associated with a better self-perceived health in employees with a low SEP, if such programs consisted of a health check [72]. However, considering the cross-sectional character of the study, more research is needed to understand the causal relationship between workplace health promotion programs and self-perceived health of employees with a low SEP.

As the health potential is largest for employees with a low SEP, differences within the group of employees with a low SEP should be explored. Such within group differences in effectiveness are often not reported, while these insights are necessary to inform public policy and practice by formulating potential risk groups [73]. First, differences may exist for employees with a low SEP at different ages, as a meta-analysis found that younger employees profit more from workplace health promotion programs than older employees [70]. Second, gender and marital status may influence effectiveness, as differences in participation in workplace health promotion programs have been reported for these factors (as well as for age) [74]. Female employees, married employees and younger employees are more likely to participate in workplace health promotion programs. Although participation does not directly reflect differences in effectiveness, the extent to which certain groups are willing to participate in an intervention may influence the potential intervention impact. One of the facilitators to have a positive intention towards participation in workplace health promotion programs is thinking that participation is useful [75]. Groups that are generally more likely to participate in programs may profit more from programs because of the higher expectations they may have had about the usefulness of participation from the start.

The aim of this study is to evaluate whether workplace health promotion programs improve self-perceived health of employees with a low SEP, and whether differential effects can be found within employees with a low SEP regarding gender, marital status and age. As employees with a low SEP are generally underrepresented in research in the field of workplace health promotion [24] while they have a poorer health compared to employees with a higher SEP [71] the focus of this paper is on employees with a low SEP. For the analysis, data from a large dataset with individual participant data (IPD) on Dutch workplace health promotion programs will be used [76]. Using IPD has three advantages compared to data from a conventional meta-analysis. First, the availability of raw data in IPD allows to focus specifically on employees with a low SEP, by selecting out their data from the original studies. This is usually not possible in a conventional meta-analysis, because effects are only available on a group level, which often comprises employees in general. Second, an IPD meta-analysis allows to perform analyses that were not performed in the original articles, like the analyses of subgroup differences in effectiveness for gender, age and marital status. Lastly, IPD allows to report the effects on self-perceived health, an outcome that is often evaluated in the original studies as a secondary outcome, but is generally not reported in publications. Because of the strong predictive value for

future morbidity and mortality of self-perceived health [60], it was considered relevant to evaluate the effects on this outcome.

Methods

Search strategy and selection of studies

The current paper was prepared in accordance with the PRISMA-IPD guidelines [77]. Details of the composition of the IPD dataset were reported in the published protocol [76], which was registered in Prospero (register number: CRD42018099878).

A systematic approach was used to identify relevant studies aimed at workplace health promotion of health behavior and prevention of obesity. The search was performed in February 2018. Search terms were related to: health behavior, obesity, intervention, evaluation, and worker/workplace. For published studies, the following electronic databases were used: Embase, Medline Ovid, Web of Science, Cochrane Central and Google scholar. In addition, reference lists of relevant reviews and meta-analysis were checked. For unpublished studies, trial registers, databases of major Dutch funding agencies and the Dutch database for lifestyle interventions were checked. Only studies performed in the Netherlands were included, because of the occupational setting of the Netherlands in which employers are responsible for sickness benefits during the first two years of sickness absence. Including trial data from the same occupational setting allowed to make a fair comparison.

Inclusion criteria on the study level were: 1) a preventive intervention study aiming to promote health behavior and/or prevent obesity, 2) targeting at workers, 3) performed in the Netherlands, 4) from a study design with at least a pre- and post-measurement and a comparative reference group, 5) presents an indicator for SEP (e.g., educational level, job title or income). No restrictions in terms of year of publication were applied in the searches. Two independent reviewers (PC and SR) screened all records for eligibility in April and May 2018. In case of disagreement, consensus was reached in a meeting or by consulting a third reviewer (KOH). A total of 34 studies (with 88 articles) on health promotion programs were considered eligible for the dataset.

For the current meta-analysis, only studies measuring self-perceived health and with data on employees with a low SEP were used. Meta-analyses on body mass index [67] and lifestyle outcomes [66] were reported elsewhere.

Data extraction and methodological quality

The main researcher of each eligible study was contacted and asked to share the original individual participant study data. If the researchers agreed with sharing the data, they were asked to sign a data transfer agreement and to transfer their data, code books and

syntaxes. All study data were harmonized using definitions of each of the variables as formulated by the research team and described in a code book.

On a study level the following data were extracted from the eligible studies: study design, content and setting, and primary and secondary outcomes including measurement method. On a participant level, the indicator measured for SEP and characteristics of the participants such as gender, age and marital status were extracted. To evaluate the methodological quality of the selected studies, a modified version [75] of the Cochrane risk of bias tool [78] was used, consisting of nine criteria regarding randomization, blinding, similarity of groups, compliance, loss to follow-up, intention-to-treat, confounder adjustment, data collection methods, and follow-up duration.

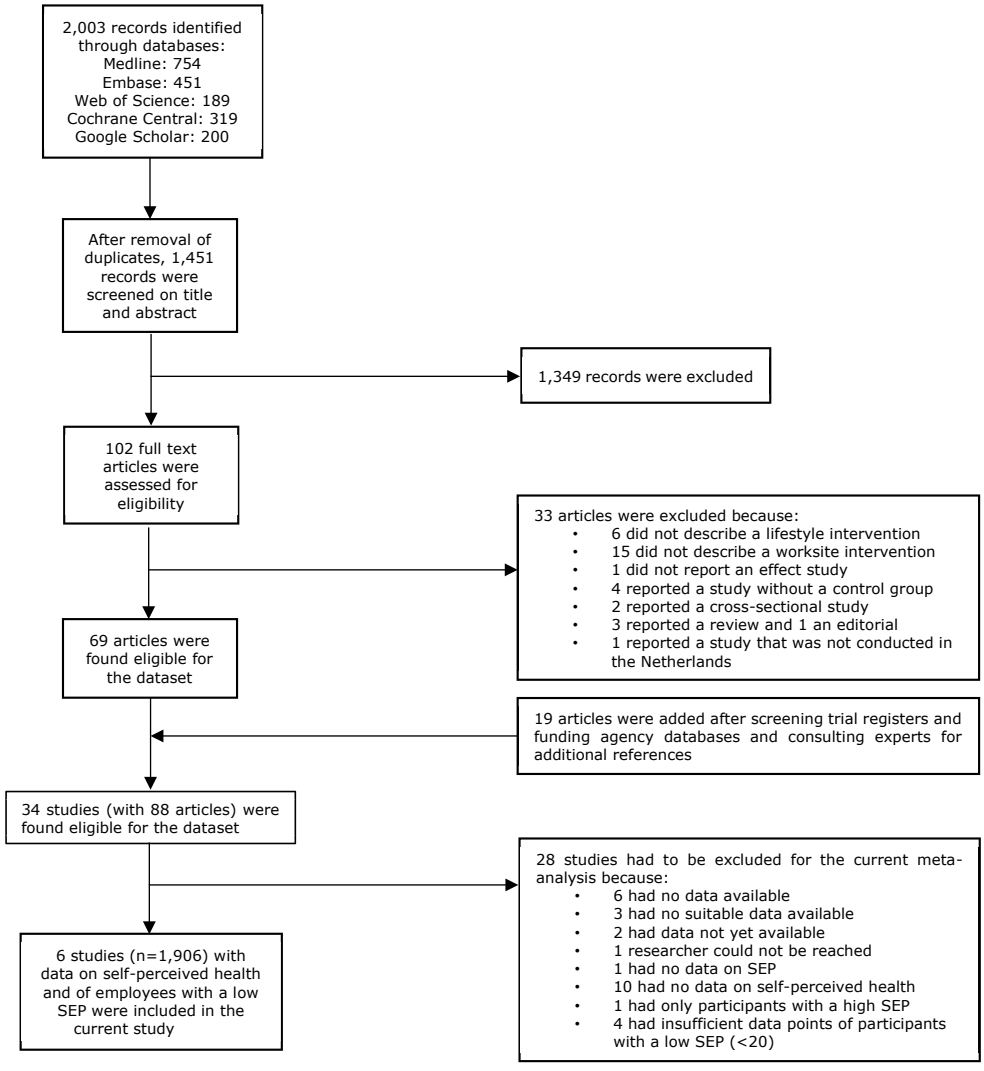

Figure 1. Flow chart describing the study inclusion process

Data harmonization

SEP: In most of the studies used in this meta-analysis, SEP was based on educational level. SEP was defined as low when the participants had a low educational level according to the 1997 International Standard Classification of Education (ISCED-97) (no education, primary school or lower vocational education). In one study among construction workers [79], no information was available on educational level. In that study, occupational class was used to define SEP, with blue collar workers being categorized as low SEP.

Self-perceived health: All studies measured self-perceived health with the first question of the RAND-36 item Health Survey [80], using the cluster 'general health perception'. This cluster consists of the following question: 'Overall, how would you rate your health?' with answer options a 5-point scale. Five studies used the US version of this scale [81], with different labels ranging from 'poor' (1) to 'excellent' (5), whereas one study [82] used the WHO version consisting of answer categories ranging from 'very bad' (1) to 'very good' (5). The labels were not recoded as doing so would have made no difference because a two-stage meta-analysis approach was used in this study (see statistical analysis for more details). Self-perceived health was a primary outcome in one study [82]. In the other five studies self-perceived health was a secondary outcome. For statistical analyses self-perceived health was treated as a continuous variable, to enable to detect subtle improvements in self-perceived health. Self-perceived health was measured at three moments: at baseline, directly after the intervention (immediate effects) and after the end of the intervention (sustained effects). Since the duration of interventions and follow-up duration differed between studies, immediate and sustained effects did not have the same absolute definition for all studies. In five out of six studies immediate effects were measured 6 months after baseline, while in one study the measurement of immediate effects took place after 24 months. In four out of six studies the measurement of sustained effects took place 12 months after baseline, and in two of the studies 24 months after baseline.

Gender, marital status, age: Gender was considered a dichotomous (men/ women) variable. Marital status was harmonized into a dichotomous variable with outcome categories married/living together and single (i. e. being single, divorced, widow/widower, and being in a relationship but not living together). Age was considered a continuous variable in order to minimize the loss of data due to an insufficient number of data points in the age categories.

Statistical analysis

A two-stage meta-analysis with linear mixed modelling was performed to study the effectiveness of the interventions on self-perceived health of employees with a low SEP, and to evaluate differential effects for subgroups for gender, age and marital status. In the first stage, for each study an effect size was estimated for the employees with a low SEP in that study. Also, the interaction effects for gender, age and marital status were assessed in each study within the group of employees with a low SEP. In the second stage, the overall

effect sizes and interaction effects of the individual studies were pooled using the Stata *Admetan* (Version 14) function. A study was only included in the statistical analysis when at least 20 data points of participants with a low SEP were available. Interaction effects were only estimated for those studies with a least 20 data points in each subgroup for which a differential effect was evaluated (for example group 'men' and group 'women'). If there were less than 20 data points, the study was excluded for the specific analysis.

Because no statistically significant difference was found between immediate effects (immediately after the intervention) and sustained effects (after the end of the intervention), both time points were added jointly to the model, and a random intercept for participant was added. As such, both intermediate and sustained effects were considered comparable and were statistically treated as such in the statistical model. This procedure enhances statistical power, while acknowledging the within participant dependence using random intercepts for participants. All models were adjusted for baseline values of the outcome. The model for the overall effect was also adjusted for age, gender and marital status, because all three are associated with self-perceived health [64].

For cluster randomized controlled trials, intra-class correlation coefficients (ICCs) were estimated to evaluate the variance within and between clusters. As no ICC values > 0.10 were found, random intercept for clustering was not added to the model. As described in the protocol paper, heterogeneity among studies was assessed in a sensitivity analysis in which each of the studies were subsequently left out of the analysis, assessing its impact on the effect size. For statistical analyses Stata (version14) was used, and Review Manager (version 5.3.5) was used for making forest plots to illustrate individual study effect sizes. In all analyses, the level of statistical significance was set at $p < 0.05$.

Results

Study selection

Of the 34 studies that were found eligible for the database, 6 were included in the current IPD meta-analysis (Fig. 1), which focused on employees with a low SEP. 28 studies were excluded because data were not available anymore (n = 6), no IPD were available (n = 3), data was not available yet (n = 2), the researchers could not be reached (n = 1), no indication of SEP was available (n = 1), no information on self-perceived health was available (n = 10), there were no participants with a low SEP (n = 1), there were not enough participants with a low SEP (<20) (n = 4). Data from 6 studies in which employees with a low SEP participated (n = 1906) were used for the current meta-analysis (Table 1). In these studies, the number of participants with a low SEP ranged from 66 to 990 per study, with a median of 381.

Table 1. Main characteristics of the studies included in this meta-analysis.

Author (year)	N (low SEP) (% of all participants in study)*	Organizational context	Study population characteristics					
			Gender		Marital status		Age (Mean (SD))	% good or better health on baseline
			Male (N, %)	Female (N,%)	Married/living together (N, %)	Single (N, %)		
Viester (2018)	361 (68%)	Construction	361 (100%)**	0 (0%)**	302 (83%)	39 (13%)	47.9 (8.8)	93.2
Van Wier (2011)	66 (5%)	Various (IT, hospital, insurance, financial, police)	43 (65%)	23 (35%)	54 (93%)**	12 (7%)**	47.5 (7.6)	90.0
Strijk (2013)	108 (10%)	Hospital	21 (19%)	87 (81%)	80 (74%)	28 (26%)	54.6 (4.8)	90.9
Groeneveld (2011)	990 (75%)	Construction	993 (100%)**	0 (0%)**	816 (82%)	139 (14%)	47.0 (8.9)	60.4
Robroek (2012)	247 (21%)	Various (health care, commercial services, executive branch of government)	145 (59%)	102 (41%)	191 (77%)	56 (23%)	47.3 (8.3)	90.7
Kouwenhoven-Pasmooij (2018)	134 (20%)	Military, police, hospital	117 (87%)**	17 (13%)**	124 (81.8%)**	10 (18.2%)**	52.0 (5.2)	72.4

* = concerns the number of participants with self-perceived health information from baseline and follow-up measurement(s)
** = excluded from subgroup analysis for either gender and/or marital status because there were not enough data points (<20 participants) in one of the subgroups

Study characteristics

Across the six included studies, the majority of the participants were men (88%), married or living together (82%) and had an average age of 48.0 (SD: 8.6) years. In two of the six studies, both in the construction industry, only men participated [79, 83], whereas in the remaining four studies both men and women participated. One of these studies was conducted in a hospital setting [84] and three studies were conducted in various occupational settings, including IT, health care, commercial/financial, police, and governmental settings [28, 82, 85].

Five out of six studies focused on workers that were defined as a risk group (indicated prevention), only including employees with higher risk on cardiovascular disease [79, 82], workers with overweight [28, 83] or older workers [84]. Five studies aimed to promote physical activity and a healthy diet [28, 79, 83–85], of which two also targeted other behaviors such as smoking cessation [79] and relaxation [84]. One study focused on various health behaviors depending on the risk profile of the participant [82]. All studies included a counselling component (e.g., coaching sessions, personalized feedback), and one study also included an environmental component consisting of offering fruit at the workplace [84]. The average self-perceived health at baseline was 3.03 (SD: 0.73).

Overall effect

Overall, no significant effects were found for self-perceived health among workers with a low SEP in the intervention groups compared to the control groups (beta: 0.03 on a 5-point scale (95%CI: β 0.03 to 0.09)) (Table 2). Moreover, none of the six underlying studies showed a statistically significant increase in self-perceived health in the intervention groups compared to the control groups (Fig. 2). The sensitivity analysis showed consistency across studies.

Table 2. Findings regarding the effectiveness on self-perceived health. Overall effects and interaction effects for gender, age and marital status are presented. Effect sizes are expressed in betas with 95% confidence intervals (95% CI).

	Studies N	Participants n	Effects on self-perceived health beta [95% CI]
Overall	6	1906	0.03 [-0.03 0.09]
Gender (interaction)			
Women vs. men	3	421	0.13 [-0.18 0.44]
Marital status (interaction)			
Single vs. married/living together	4	1647	0.08 [-0.11 0.26]
Age (interaction)	6	1906	0.00 [-0.02 0.01]

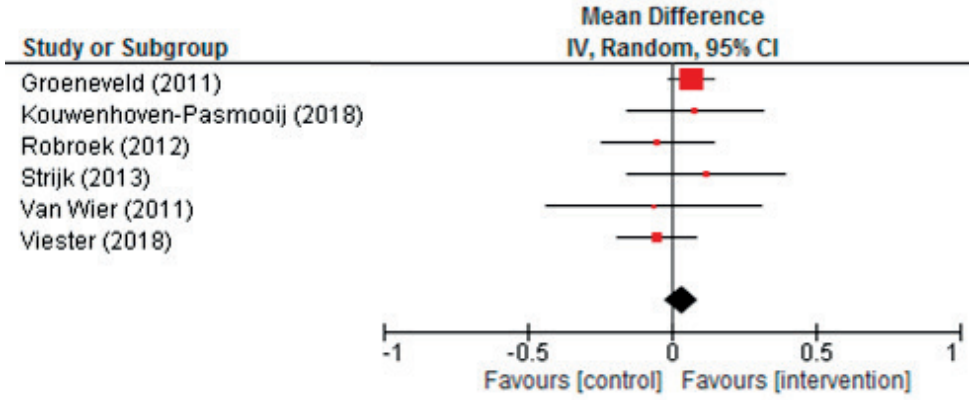

Figure 2. Forest plot depicting the individual and pooled study effects of the health promotion programs on self-perceived health

Subgroup analyses

Because of an insufficient number of participants (<20) in each stratum, studies had to be excluded when performing the subgroup analysis for gender and marital status (Table 1). For gender, three studies could be used for subgroup analysis [28, 84, 85], with 421 participants in total. For marital status, four studies could be used [79, 83–85] with 1647 participants in total. No significant interaction effects were found for gender β 0.13 [95%CI: - 0.18 to 0.44], marital status β 0.08 [95% CI: - 0.11 to 0.26], or age β 0.00 [95% CI: - 0.01 to 0.01].

Discussion

The aim of this study was to evaluate whether workplace health promotion program focused on promoting health behavior improve self-perceived health of employees with a low SEP and whether differential effects exist within this group for age, gender and marital status. The results show that workplace health promotion programs described in this study did not improve self-perceived health of employees with a low SEP, neither did these interventions have differential effects for subgroups of gender, marital status and age.

The expectations with regard to effectiveness of workplace health promotion program focusing on health behavior on self-perceived health were mixed. Some studies showed positive effects on health behavior of employees with a low SEP [24, 32, 65], but these effects were generally modest. Previous research did show modest effects of workplace health promotion programs focused on health behavior on self-perceived health for employees in general, such as one meta-analysis among eighteen studies [70]. The current meta-analysis did not provide evidence for this effect for employees with a low SEP in particular. In both the current study as the study of Rongen and colleagues, the

workplace health promotion programs often contained a counselling component, but in the latter mainly white-collar employees participated. Possibly, individual level components such as counselling are less suitable for employees with a low SEP [34, 47]. This may partly explain why the results from this study differ from previous research on the effects of workplace health promotion programs on self-perceived health. However, a factor that should be considered in the lack of effect, is the relatively high baseline scores of self-perceived health of the study samples (Table 1) compared to the average Dutch lower SEP population. In 2017, 58.4% of the Dutch individuals with a low SEP (based on educational level), perceived their health as 'good' or 'very good' [86]. In the current study, this percentage was 80.2%, being considerably higher than the country average (Table 1). This can possibly be explained by the fact that individuals with a job are known to have a better health than individuals with a low SEP that do not work [87], and who would not be part of the current sample. In addition, possibly the 'healthier' employees participated in the studies and the employees with the largest health potential were not reached [88, 89]. Future research on workplace health promotion should focus on the challenge of attracting also those employees with the largest health potential. Participative approaches have been recommended before [90], in which employees are involved in the development of workplace health promotion so that programs are developed in such way that they are considered relevant and feasible by employees with a low SEP, also by those with a poorer health.

Next to that, future research might need to take into account other risk factors of poor self-perceived health, next to health behavior. Research among older workers has shown that working conditions such as physical job demands, job control and job rewards influence self-perceived health as well, in some cases even more than health behavior [91]. Especially employees with a low SEP are generally faced with working conditions that can have an impact on health such as low job control and high physical demands [92]. The challenge for future research is to develop workplace health promotion programs that combine the various risk factors of self-perceived health for employees with a low SEP in order to improve health. Integrated approaches that combine health protection focused on working conditions with health promotion are considered promising in this regard [11] and could therefore be explored.

Methodological strengths and limitations

A strength of this meta-analysis in which only studies that were performed in the Netherlands were included, is that it allowed to compare different health promotion programs in a homogeneous occupational health context. In the Netherlands all employees have access to occupational health care through their employer, who is responsible for sickness benefits during the first two years of sickness absence. Because of this a specific context, a dataset including Dutch intervention studies only allowed to make a fair comparison.

A first limitation of this study is that there were relatively few studies that measured self-perceived health *and* consisted of employees with a low SEP. Also, participants with a low SEP were often limited in the eligible studies, which resulted in studies dropping out for analysis. However, it is doubtful if more data and thus power would have led to differential effects, because there was no (neither positive or negative) overall effect. A second limitation is the comparability between studies in terms of focus on employees with a low SEP. In two studies, the workplace health promotion programs were specifically targeted on employees with a low SEP [79, 83], while the programs in the other four studies were not focused on a specific SEP group. Possibly, the effects in our study would be different if all studies were targeting employees with a low SEP in particular. However, the effects reported in our forest plots as well as the sensitivity analysis did not show deviant effects in the studies that did focus on employees with a low SEP. A third possible limitation is that the large confidence intervals for the interaction effects for gender and marital status could indicate a power problem.

Conclusion

This meta-analysis did not find evidence for an effect of workplace health promotion programs on self-perceived health of employees with a low SEP. Also, no differential effects were found, indicating that the programs in their current form do not target the health potential of employees with a low SEP. Future research should focus on the determinants of self-perceived health next to health behavior to improve the health of employees with a low SEP.

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CHAPTER 3

3

Responsive evaluation of stakeholder dialogue as a worksite health promotion intervention to contribute to the reduction of SEP related health inequalities: a study protocol

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Abstract

Background: Large health inequalities exist in the Netherlands among individuals with a high compared to a low socioeconomic position. Worksite health promotion interventions are considered promising to reduce these inequalities, however, current interventions seem not to have the desired effects. This study proposes 'moral case deliberation', a form of stakeholder dialogue on moral dilemmas, as an integrated and inclusive intervention for worksite health promotion. This intervention takes into account three factors that are considered possible underlying causes of low effectiveness of current interventions, namely the lack of deliberate attention to: 1) the diverging values and interests of stakeholders in worksite health promotion, 2) the ethical issues of worksite health promotion, and 3) the connection with the lived experience (lifeworld) of lower SEP employees. Moral case deliberation will help to gain insight in the conflicting values in worksite health promotion, which contributes to the development of a vision for worksite health promotion that is supported by all parties.

Methods: The intervention will be evaluated through responsive evaluation, a form of participatory research. Key to responsive evaluation is that stakeholders are consulted to determine relevant changes as a result of the intervention. The intervention will be evaluated yearly at both fixed moments (baseline and annual evaluation(s)) and continuously. Mixed methods will be used, including interviews, participant observations, analyses of HRM-data and short questionnaires. In addition, the intervention will be evaluated economically, on both monetary and non-monetary outcomes.

Discussion: This protocol proposes an innovative intervention and a novel participatory evaluation in the context of worksite health promotion. The study aims to gain understanding in how dialogue on moral dilemmas on health and health promotion can contribute to heightened personal and mutual understanding among stakeholders and practice improvements in the work context. By evaluating the intervention in more than one setting, findings of this study will provide knowledge about how MCD can be adapted to specific work settings and what changes it may lead to in these settings.

Introduction

Background

Large health inequalities exist in the Netherlands between individuals with an high socioeconomic position (SEP) and individuals with a low SEP. Low SEP individuals are expected to live 7 years shorter than those with high SEP, and about 19 years shorter in good health [93, 94]. These SEP-related health inequalities can be explained by differences in conditions in the physical environment (e.g., housing and working conditions) and the social environment (e.g., social support), and by behavioral factors (e.g., lifestyle) [95]. Health inequalities are often discussed in terms of injustice: those who are already favored in wealth also have better chances of being healthy [9]. Individuals with poor health have less opportunities to live their life as they want to, because their health situation may impede social, economic or societal participation. Besides that, poor health is associated with higher societal costs [9], and decreased economic productivity in organizations [96]. In 2014, approximately 20% of Dutch individuals aged 25 and older had a low SEP [97]. Hence, it is warranted from an individual, organizational and societal perspective, to explore ways to promote health among low SEP individuals.

Worksite health promotion (WHP) is considered promising to promote health among lower SEP employees for two reasons. First, because the worksite gives access to the generally hard to reach low SEP population, as half is employed [27] and employees spend much time of their lives at work [15, 98]. Second, because the workplace facilitates an integrated or 'social ecological' approach for health promotion by allowing to target a combination of both individual and contextual factors that influence health [11], such as working conditions, social support and lifestyle [95]. Thus, the work setting can be enabling and facilitating for integrated approaches of health promotion to promote health of lower SEP employees.

Yet, current literature gives reasons to doubt on whether WHP interventions in their current form can reduce health inequalities. A meta-analysis showed that WHP interventions that include a cognitive and educational component are more effective in promoting healthy lifestyle for higher SEP employees than for lower SEP employees [34]. Also, a systematic review showed that WHP interventions focusing on health education were ineffective in decreasing socioeconomic health inequalities [32]. Moreover, a summary of literature reviews on the effectiveness of WHP aiming at promoting healthy lifestyles of employees in general (rather than specific lower SEP employees), concludes that WHP interventions have positive, but small effects overall [99]. Consequently, it has been questioned whether these small effects are the result of the intervention itself (theory-failure), or of the way interventions are implemented or evaluated (program-failure) [100]. Therefore, it is warranted to look at the possible underlying causes of the small effects of WHP for employees in general, and for the even smaller effects for lower SEP employees in particular.

A first underlying reason for low effectiveness in general might be the lack of acknowledgement of diverging values and interests of the many stakeholders that are involved in WHP. Stakeholders such as the employer, employees, intervention providers, research and knowledge institutes and insurance companies, all have their own interests regarding WHP [36]. For example, employers may want to promote employees' health for cost-saving aspects, sustainable employability in the light of aging workforce, and good employment practice for company image building. Intervention providers at their turn want to sell their programs to employers, as that is how they derive their reason of existence [35]. For employees however, it is not self-evident that they receive WHP programs with open arms [101]. Employees go to work to for example earn a living, develop themselves, build on meaningful work relations with colleagues, and/or contribute to something valuable [102], but not necessarily to get their health promoted [33]. Interventions should pay attention to this multiplicity of values and interests at stake.

Following on this is the second possible underlying cause for small effects in general, which is the lack of awareness about the ethical side of WHP. Employees can experience WHP interventions as interference in their privacy, which in its turn can a play role in employees' decision whether to or not to participate [39]. On the other hand, as employees depend on their employer to maintain their job, employees might feel coerced to participate in WHP interventions [35]. Also, questions such as how far an employer can go in promoting employees' health often rises [39] as well as whether (and to what extent) employees are responsible for their health or whether their employer is [33]. To conclude, it is important to take into account the ethical questions and the conflicting values that come along with WHP, as they can influence participation in WHP and the relationships at the workplace.

A third possible reason for low effectiveness in general is that employees generally lack voice in WHP [33]. This is considered of particular importance for lower SEP employees because, although there is ample knowledge about the health issues that lower SEP employees generally face (e.g., unhealthier lifestyle or poorer working conditions), insight is scarce in how these people experience their work and health promotion interventions, and how to target their health effectively considering their lifeworld [99]. The possible influence of lifeworld, as conceptualized by Habermas [103], on WHP can be found in a qualitative study among low SEP individuals [104]. These individuals indicated they were aware of the negative consequences of certain health behaviors, yet changing these behaviors had no priority due to other problems in their lives for which they indicated to 'need' certain types of unhealthy behaviors. Similar patterns may be seen in WHP: lower SEP employees may find health and health promotion important, yet the specific work setting they are in as well as their personal situation may make them feel powerless or not interested to improve their health.

This project proposes an intervention that takes into account the aforementioned possible underlying causes, which together all add to the complexity of WHP. The intervention consists of stakeholder dialogues on moral dilemmas and underlying values, in which

various stakeholders of WHP are invited to discuss health and health promotion. Lower SEP employees play a central role in the dialogues, to make sure that health is being discussed from their lifeworld's perspective. A form of stakeholder dialogue that allows to take into account the aforementioned ethical dimensions of WHP is moral case deliberation (MCD) [105]. MCD is a form of stakeholder dialogue that originates from philosophy, with a theoretical background in pragmatic-hermeneutical and dialogical ethics [105]. The aim of MCD is to create a moral learning process, by bringing together and confronting diverging perspectives and sorting out underlying values and norms. By creating a moral learning process with various stakeholders about moral issues related to health and health promotion, MCD aims to enhance the personal and mutual understanding and support for WHP, in which moral dilemmas have been taken into account. This may lead to for example improved working relations and mutual understanding among stakeholders on short-term, to enhanced experience of control and autonomy of employees on medium term and to an improved perception of health and well-being on long-term.

The type of evaluation of this project, responsive evaluation, will be supportive in adapting MCD to the context of WHP, in which it has not been used before. Stakeholder participation is the starting point of responsive evaluation, allowing stakeholders to be consulted about their ideas, needs and wishes regarding the adaptation of MCD to their work setting. Responsive evaluation is a form of interactive, participatory research, making use of mixed methods [106] and aims to heighten the personal and mutual understanding of multiple stakeholders through dialogue, as the first step towards practice improvement. In responsive evaluation stakeholders are involved in the research process by formulating research objectives and relevant changes in consultation with them, and by continuously keeping stakeholders updated about findings during the research process. Additionally, responsive evaluation pays attention to silenced groups, such as employees in WHP, facilitating to take the lived experiences of lower SEP employees as the starting point for evaluation. Thus, the intervention and evaluation in this study are not isolated, but complementary and grounded in similar epistemological assumptions on the co-creation of knowledge [107].

Objectives

1) Develop an integrated worksite health promotion intervention consisting of moral case deliberation to discuss moral issues related to health and health promotion.

2) Evaluate the implementation of and changes due to moral case deliberation in the context of worksite health promotion, and the adaptations needed to make moral case deliberation relevant for the context of work health promotion and its stakeholders.

3) Evaluate the economic impact of moral case deliberation as an intervention for worksite health promotion on economic outcomes, both monetary (Budget Impact Analysis) and non-monetary (Social Return on Investment).

Methods

Aim 1: Develop an integrated intervention consisting of moral case deliberation (MCD)

Dialogue method

To structure a MCD session, a variety of dialogue methods can be chosen [108]. Within this project the 'Dilemma Method' will form the basis of the intervention. The method is considered suitable for the work setting, as this method offers the most tangible and down-to-earth approach of the situation, and it is suitable for both life-or-death decisions and everyday issues. The MCD sessions will be guided by trained facilitators (HvH, JvB). The facilitator functions as a non-directive facilitator as opposed to an expert and concentrates on the quality of the deliberation process by guarding the quality of the dialogue [105, 108]. In the MCD sessions, there are six to twelve participants.

Continuous adaptations intervention

Responsive evaluation allows for continuous adaptation of the intervention to the (changing) context and needs for the target population. There are some adaptations that can be expected upfront. Firstly, the level of the language used in the dialogue sessions and other forms of communication will be adapted to match the literacy level of the participants. Abstract use of (ethical) concepts will be avoided and all forms of communication will be adjusted to B1 literacy level. Secondly, to match the work context, the timing of the MCD sessions have to be adapted to be both feasible and relevant for the organization. The duration of the MCD sessions will therefore be reduced from the duration of 1,5 h (which is common in settings in which MCD is often performed, such as health care, detention, army), to 1 h. Further adaptations will be carried out throughout the evaluation period.

Recruitment

The aim is to include a maximum variety of stakeholders in the dialogues in order to capture a broad range of experiences and perspectives. Stakeholders will be contacted by means of a contact person in the participating organizations or directly and selected based on their willingness to participate.

Aim 2: Evaluate the implementation of and changes due to MCD

Study design

A responsive evaluation design will be used to evaluate the implementation and the eventual changes due to MCD. As described before, responsive evaluation is characterized by stakeholder involvement, yet the degree of involvement may range from collaborative evaluation, participatory evaluation and empowerment evaluation [109]. The evaluation in this project has the 'lightest' degree of participation, namely collaborative evaluation. In collaborative evaluation, stakeholders are consulted and involved in the evaluation, but the evaluator remains in mainly in charge of the decisions, thus power.

The implementation and impact of the intervention will be evaluated both at fixed moments as well as continuously. The fixed moments are at the beginning of the project (baseline) and a yearly evaluation. The minimum duration of the intervention is 1 year, with a maximum of 2 years. The baseline and yearly evaluation comprise mixed methods such as interviews, participant observations and analyses of HRM-data. Continuous evaluation comprises participant observations and short questionnaires. Figure 1 provides a schematic overview of the responsive evaluation. The overview includes the economic evaluation (aim 3).

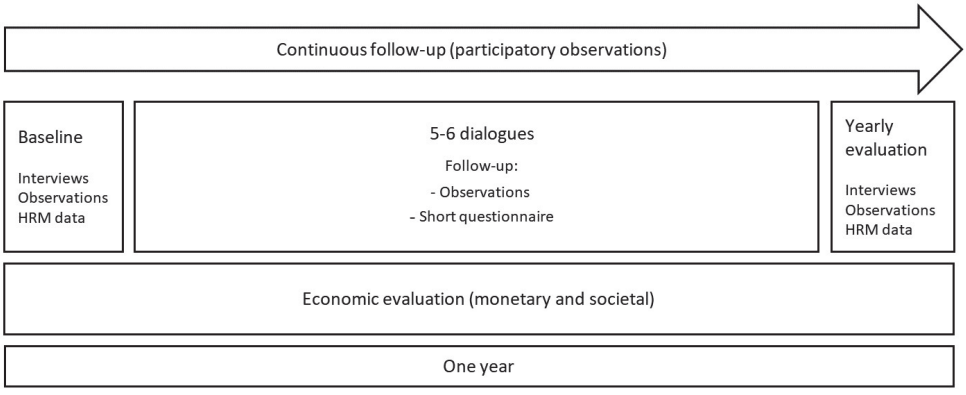

Figure 1. Schematic overview of the responsive evaluation

Study population

The study population consists of lower SEP employees within two Dutch organizations (maximum MBO 1 – comparable to middle school- or lower [97]). The intervention will be implemented in two organizations, namely a harbor service provider, and a sheltered workplace for employees with disabilities. Higher SEP employees are not excluded from the intervention: the intervention is based on the rationale that it should lead to changes in the context. Therefore, the entire all employees of the organizations should be allowed to participate. All employees may benefit from the intervention, however, as health problems are more prevalent for lower SEP employees, they are expected to benefit most from the intervention. Names of the organizations will not be made public, only in case of explicit written consent of each organization.

Data collection

Baseline

At baseline, information about relevant changes as a result of the intervention according to the stakeholders, prerequisites for participation and for the adaptation of the MCD sessions to the specific work context, and information about the work setting will be gathered. The three aims will be discussed separately below:

Relevant changes as a result of the intervention
Relevant changes are those changes that are considered important from the perspectives of the various stakeholders. For the management and staff, a relevant change might be improved job satisfaction, mutual understanding or general well-being of employees. Some examples of relevant changes for line-managers and employees might be for example learn about how to deal with stressful situation at work, improved communication in the organization or contribute to a culture in which a healthy lifestyle is promoted.

Prerequisites for participation and for adaptation of MCD to the work context
Prerequisites for participation are important, as it is not self-evident for employees to come to the table and talk about health. Also, other stakeholders such as the management might have time related restrictions in their possibilities to participate in the dialogues. Prerequisites include suitable timing of the MCD sessions, duration and composition of the group. As described before, the lower SEP employees are the starting point for the question who would they like to be in dialogue with. This will be re-evaluated throughout the intervention period.

Insight into the work setting
Insight into the work context (type of work, the working conditions, terminology) of the organization is necessary for better and correct interpretation of the data. To obtain the information for the baseline, the following methods will be used:

Interviews
Interviews will be held with approximately 6 stakeholders. The interviews will be audio recorded and transcribed verbatim.

Participant observations
Job shadowing (i.e., participating in meetings and work routines) will be performed by the researchers, as a means to help interpret interview findings [56]. In addition, participant observations are a means to build trust in the organizations. This trust is important to create a safe communication climate in the dialogues [106, 108]. The quantity of participant observations at baseline will depend on the possibilities and flexibility within the organizations. Field notes will be taken during or shortly after the observations. Researchers (HvH and JvB) will discuss their observations afterwards.

HRM-data analyses
HRM data will be used to analyze relevant changes that were formulated by stakeholders. These changes will be evaluated yearly. The type of data depends on the changes considered relevant by the various stakeholders, but could for example include indicators such as job satisfaction.

Change evaluation
The goal of the change evaluation is to gain insight in perceived changes, personal experiences, and attitudes towards the intervention according to the stakeholders [110]. The methods of that were used at baseline will partly be repeated, including interviews, participant observations, and HRM-data. Additionally, transcripts of the MCD sessions will be used as input of the further process, subtract feedback, intermediate findings and relevant topics for subsequent MCD sessions.

Data analysis of qualitative data
Qualitative data will be analyzed through thematic content analysis [111]. For the baseline and MCD data, the data will be the starting point of the analysis instead of a theoretically-driven or predefined coding scheme (inductive approach). Within the inductive approach both semantic and latent strategies will be used. Semantic strategies (descriptive codes), are used to code practical information about the work context and terminology. The latent strategy (codes that require interpretation) will be used to analyze underlying ideas, mechanisms and values.

For the annual evaluation, a deductive inductive approach will be applied. First, a deductive approach will be applied to analyze the data on the existence of changes. The division of levels of aims/outcomes of MCD will be used (case, individual, team and organizational) [50]. Subsequently, an inductive approach will be applied in order to analyze any underlying mechanisms, mechanisms and values in the data.

Enhancing quality of qualitative data
To enhance quality, reliability and validity of the qualitative data, several techniques will be taken into account [56]. First, interpretations of interviews will be presented to interviewees to verify correctness (member check). Also, multiple data sources (such as interviews and participant observations) will be used and combined in analyses (data triangulation). Third, data will be coded by (at least) two researchers (HvH, JvB) and discussed within the multidisciplinary research team (investigator triangulation). Fourth, the researchers (post-doc and PhD) will keep a diary to reflect on their role and influence in the research process (reflexivity). Finally, researchers (HvH and JvB) will document decisions and developments, and the underlying reasons (audit trail).

Data analysis of quantitative data
Change indicators of HRM data are monitored over time, taking into account different organizational levels and subgroups of employees. Therefore, these quantitative data will be analyzed according to principles of longitudinal multilevel regression analysis. Change will be determined from the perspective of all employees, but there will be a specific focus on the health-related changes among lower SEP employees (subgroup analyses).

Aim 3: Economic evaluation of the stakeholder dialogue intervention

The intervention will also be evaluated economically, through a Budget Impact Analysis (BIA) and a Social Return on Investment (SROI) analysis.

Budget impact analysis (BIA)

A BIA is a means to analyze the financial changes after the adoption of a new intervention, by comparing costs before and afterwards the intervention [112]. Examples of costs that can be compared pre and post intervention are productivity related costs or absence and presenteeism related costs. Which costs will be chosen depends on what data is available in the organization. A possible change in costs will be measured yearly compared to a baseline measure. The eventual change in costs will be compared to the investment made for the intervention. For this project the investment comprises the costs for the MCD sessions, such as costs for the time stakeholders spent on participating in the intervention, for training and implementation of facilitators, and for overhead.

Social return on investment (SROI)

The non-monetary economic evaluation will be performed through Social Return on Investment (SROI). SROI is a framework for measuring change in social, environmental and economic outcomes that are relevant to stakeholders and uses monetary values to represent them [113]. Data for the SROI will be gathered yearly by interviewing stakeholders that are relevant for the specific context of the participating organization. Stakeholders of SROI are defined as people or organizations that experience change, whether positive or negative, as a result of the activity being analyzed [113].

Data for SROI

In order to perform a SROI, data needs to be collected on input, output, outcomes, indicators, financial proxies and contribution of the intervention [113]. Input refers to what investment the intervention entails for each stakeholder, such as time or money. Output refers to what is concretely delivered as part of the intervention, such as a certain amount of stakeholder dialogues. The outcomes are the changes perceived by stakeholders, as established in the responsive evaluation. General examples of outcomes given by the SROI Guide (2012) [113] are 'reduced social isolation', or an 'increase in recycling'. Indicators are the concrete expression of the outcome, such as 'frequency of social contact with friends' and 'amount of waste going to landfill'. Once the outcomes and indicators are mapped, financial proxies i.e., monetary values have to be given to the defined outcomes. There are several strategies to find these financial proxies (SROI guide). An example of a strategy is 'Revealed Preference', in which financial proxies are defined by inferring valuation from the prices of related market-traded goods. At last, data should be collected on the extent to which the intervention has contributed to the outcomes (attribution, drop-off and displacement). These factors are measured as percentages and are used to make a more accurate estimate of the total value of the outcomes.

Ethics approval and consent to participate

This study is approved by the Social Ethics Committee, on behalf of Wageningen University and Research. Potential participants are asked to participate in the research via a contact person in the participating organizations. They communicate their decision to the contact person, so consent to participate will be given orally. Before each interview and MCD session, participants will be asked to give written informed consent to record the interviews and MCD sessions. The information will be presented in a level of literacy that is considered acceptable for all employees (B1 literacy level). For observations, there will be an oral informed consent, given by the person in charge of the situation that is being observed. If anyone objects against observations, the researchers will not perform the observation. Both informed consent forms state that data from interviews, MCD sessions and observations will only be accessible for two researchers in this project (HvH, JvB).

Discussion

This paper describes the study protocol of the development and evaluation of moral case deliberation (MCD) as a worksite health promotion (WHP) intervention. MCD was chosen as a form of stakeholder dialogue because it pays attention to the multiplicity of values and interests in WHP and moral dilemmas at stake, employees' lived experiences and power asymmetries in the work context. Responsive evaluation was proposed as the type of evaluation of this study. This study will add to the current body of literature of WHP, as it provides a novel intervention as well as an original type of evaluation in the field of WHP.

The strength of this study is that responsive evaluation allows to respond to the dynamic and ambiguous context of the work setting. Organizations are constantly changing due to internal and external developments, which also changes the context in which WHP interventions are being performed. In order to maintain appropriateness of the intervention in a changed situation, responsive evaluation as well as the intervention offer the flexibility to adapt research goals and activities during the research process [52, 114, 115]. Ambiguity in the work setting is a result of power relations such as the dependency relationship between employer and employee. These power relations are also reflected in WHP, where the employer is in charge and the employee has little or no voice in WHP. The starting point of responsive evaluation is a bases of equality among various stakeholders [52], as well as special attention to silenced voices such as employees in WHP, which makes this type of evaluation very suitable for the work setting.

To date, responsive evaluation is considered innovative in the field of WHP, where a Randomized Controlled Trial (RCT) is the gold standard. A RCT aims to evaluate causality by randomizing participants in an intervention and control group, and correcting for bias in the analysis [116]. One important difference between both types of evaluation is that responsive evaluation does not aim to evaluate causality. Instead, responsive evaluation aims to support the stakeholders in the setting under study to better understand

their context themselves, which allows and supports them to make relevant practice improvements.

Responsive evaluation results in context-specific outcomes. In the field of social sciences and health promotion, there have been discussions about the external validity of such context-specific outcomes [52, 117, 118]. In her commentary, Carminati (2018) proposes transferability as an alternative term for generalizability for research that comprises only or mainly context bound data instead of quantitative data. Transferability means that outcomes of a study can be 'transferred' to other contexts by the readers through extrapolation and application of the 'thick description' of the findings [118]. In this project, findings will provide organizations and researchers knowledge about how MCD was adapted to two different work settings, and what changes MCD led to in those settings. To ensure quality of transferability in this study several measures will be taken [56], such as discussing findings' resonance with existing literature from different settings.

In the present study, health inequalities associated with socioeconomic position (SEP) are the starting point of this study. We acknowledge that intersectionality between SEP and other social categories such as gender, age, ethnicity, disability and first language, also influence chances on good health and thus health inequalities, due to various factors [40, 41]. The intersection between social categories should eventually be the starting point of interventions that aim to reduce health inequalities. Although the intervention and evaluation method of this study allows to adapt to the context of an organization, including its population, it can be questioned whether diversity in all its facets is optimally taken into account, as the main focus is on SEP.

Additionally, WHP interventions alone cannot reduce SEP related health inequalities, as only half of the low SEP population is working [27]. This means that the other half does not have a job and therefore cannot be reached through the work setting. Moreover, these low SEP individuals do not profit from the positive effects of work on health and general well-being [119]. Therefore, these non-employed low SEP individuals presumably deal with poorer health conditions than employed lower SEP employees. Therefore, it is highly recommended to develop health promotion interventions, which may include dialogue methods as well, for non-employed low SEP individuals through other settings.

This protocol describes the development and evaluation of a worksite health promotion intervention consisting of moral case deliberation. The findings of this study may contribute to the body of literature about worksite health promotion and health inequalities, by evaluating moral case deliberation in two different work settings. Also, this study will provide novel insights into the suitability of responsive evaluation in worksite health promotion as an alternative to RCT. The results of this study are expected to be available in 2021–2022.

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CHAPTER 4

Stakeholder dialogue on dilemmas at work as a workplace health promotion intervention including employees with a low SEP: a responsive evaluation

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Abstract

Background: The aim of this study was to evaluate the perceived changes of an innovative workplace health promotion intervention and evaluation. In this study, a bottom-up approach was taken to define the central themes and relevant outcomes of an intervention. These central themes and relevant outcomes of the intervention were defined together with stakeholders, including employees with a low socioeconomic position.

Methods: The intervention consisted of a series of structured stakeholder dialogues in which dilemmas around the – by employees defined —health themes were discussed. The intervention was implemented in a harbor service provider with approximately 400 employees. Over a two-year period, 57 participants engaged in eight dialogues of one hour. 15 interviews and six participant observations took place for the evaluation of the intervention.

Results: Together with the stakeholders, high workload and mental health were defined as central themes for the dialogue intervention in the male-dominated workplace. The dialogue intervention contributed to changes, on different levels: individual, team, and organization. Overall, the stakeholder dialogues advanced the understanding of factors contributing to high workload and mental health. In reply to this, several actions were taken on a organizational level.

Conclusions: Taking a bottom-up approach in WHP allows to understand the health issues that are important in the daily reality of employees with a low socioeconomic position. Through this understanding, workplace health promotion can become more suitable and relevant for employees with a low socioeconomic position.

Background

Significant health inequalities between individuals with low a socioeconomic position (SEP) and a high SEP exist in most Western-European countries [23, 120]. Life expectancy of individuals with a low SEP can be up to 10 years shorter than of individuals with a high SEP [6]. Also, individuals with a low SEP live between 10 to 23 years shorter in good health [59]. Workplace health promotion (WHP) is considered promising to improve health of employees with a low SEP. The workplace gives access to part of the generally hard to reach low SEP population, as half is employed [27] and employees spend much time of their lives at work [15, 98]. Also, the workplace offers a physical and social infrastructure necessary for health promotion [11]. Therefore, WHP has the potential to contribute to the reduction of health inequalities.

However, it is doubtful if WHP in its current form does contribute to the reduction of health inequalities. Recent Individual Participant Data (IPD) meta-analyses on in total 15 Dutch WHP intervention studies, showed no effects on BMI [67]—except from small effects for high risk groups under specific conditions—and no effects on lifestyle behaviors of employees with both low and high SEP [66], and no effects on self-perceived health of employees with a low SEP [121]. A meta-analysis including mainly intervention studies from the US found some evidence that physical activity interventions at work may be effective in reducing health inequalities, but the evidence base was small and of low quality [32].

Three possible underlying reasons for the disappointing effects of current WHP have been described before [122]. First, the lack of acknowledgement of diverging values and interests of the many stakeholders involved in WHP, such as employers, employees, intervention providers, research and knowledge institutes and insurance companies [33]. These perspectives may often be competing, possibly affecting the effects and relevance of WHP [36]. Second, WHP evokes ethical questions. For example about who is responsible for employees' health and what this responsibility entails [35], whether and to which extent interference in privacy of employees is acceptable, and about voluntariness of participation while power dependencies between employer and employee in the workplace exist [33, 35, 123]. Third, employees with a low SEP generally lack voice in the design and evaluation of WHP [33], being rather researched upon, than with [36]. Involving employees in WHP—those with first-hand experience of the particular workplace—may increase its relevance [36]. This first-hand experience is especially relevant when it comes to employees with a low SEP, as insight in how to target their health effectively considering their lifeworld, is scarce [99]. WHP may be more suitable when deliberate attention is paid to the aforementioned underlying reasons.

This study involves an innovative WHP intervention and evaluation in which the underlying reasons for previous limited effects are taken into account. A bottom-up approach is taken to define the central themes for the intervention, where special attention is paid

to involve employees with a low SEP through a participatory approach to evaluation: responsive evaluation [106]. In responsive evaluation stakeholders are active partners in defining central themes and relevant research changes [55]. To date, it has been more common in WHP that central themes and outcomes of an intervention are defined by the researchers [33]. Also, being involved in defining central themes may enhance the relevance of WHP for employees with a low SEP [55], thereby offering a possible solution for low participation of employees with a low SEP [24, 124].

The intervention consists of a series of structured stakeholder dialogues, in which participants discuss dilemmas around the central health themes. Participants bring in experiences from their daily experiences [122]. Rather than an educative or counseling component, the experiences of participants are central in the intervention. By bringing together and confronting a variety of perspectives in the dialogues, a learning process can emerge and shared insights can be gained. This learning process can take place at various levels, including the case, individual, team and organizational level [125].

The aim of this study is to evaluate stakeholder dialogue as an intervention for WHP in two ways. First, together with stakeholders, themes for and the desired outcomes of the dialogues will be defined. Second, it will be evaluated with stakeholders whether and which changes are perceived during and after the stakeholder dialogue.

Methods

An extensive description of methods was provided in the Study Protocol of this study published elsewhere [122].

Setting

During two years, the study was conducted in a harbor service provider (industrial sector) with approximately 400 employees, in The Netherlands.

Design

The intervention was evaluated through responsive evaluation, a participatory form of evaluation [55]. Responsive evaluation constitutes a iterative research process in which data collection and analysis partly overlap [106]. More details about this form of evaluation are described elsewhere [122]. Methods in the two-year evaluation were interviews, participant observations and HRM-data (Fig. 1). These methods were used for two purposes. First, to define the themes and relevant outcomes for the stakeholder dialogues. Second, to evaluate changes after or during the stakeholder dialogues, as perceived by the stakeholders.

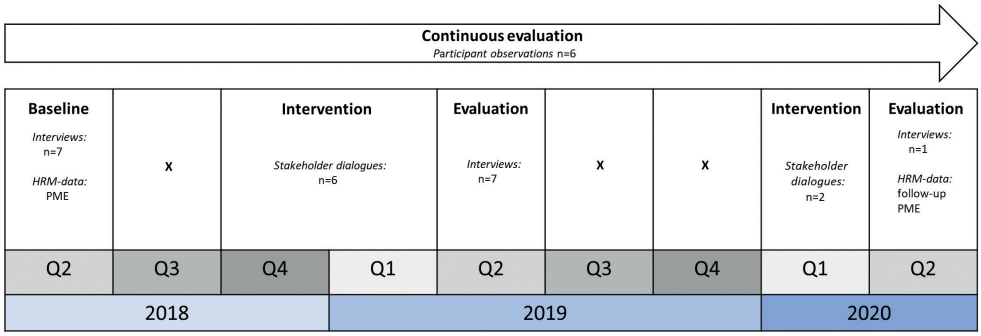

Figure 1. Schematic overview of the responsive evaluation and intervention. PME=Periodic Medical Evaluation. **x** indicates that there was no research activity during this period.

Intervention

The aim was to perform five to six stakeholder dialogues per year [122]. Base for the stakeholder dialogues was a form of moral case deliberation (MCD), namely the Dilemma-method [108]. In short, in a dialogue according to the Dilemma-method, participants bring in dilemmas they face in their daily work (e.g., should I as for help if I'm too busy, while I think this is not accepted in the culture of this organization?). The dialogue facilitator helps participants to look at the different perspectives (interests, values, norms) on this dilemma, for example the perspective of the employee, employer, client and colleagues. After evaluating the different options for action in this dilemma, all participants formulate what they would to in the situation. Differences between solutions are discussed according to the rules of dialogue (e.g., postpone judgments). Also, the participants deliberate about the individual and/ or organizational actions that are necessary to act in the desired manner. The emphasis on mutual learning among participants and the focus on the ethical dimensions of issues and experiences of participants differs MCD from similar methods such as focus groups and health circles [126]. This form was considered best suitable for the purpose of the project [122].

The Dilemma-method was adapted in various ways to make it suitable for the work setting and its employees. To date, the Dilemma-method has not been used specifically for workplace health promotion and with employees with a low SEP. The method is traditionally used for health care professionals to deliberate about dilemmas they encounter in their daily care-practices [127]. Several adaptations were made to make the dialogue method feasible for the setting of this study. These adaptations are explained in Supplementary file 1, which includes the dialogue guide and also describes the adaptations made throughout the evaluation based on advancing insights.

Sampling and recruitment

A proportionate universalism approach was taken to recruit participants [128]. This means that all stakeholders were eligible to participate. However, special attention was paid to

include employees with a low SEP, as they generally participate less in WHP interventions. Employees with a higher SEP were not excluded from the intervention, because the intervention was based on the rationale that context changes would benefit employees with low SEP the most. In other words, the entire organization was eligible for participation as they constitute the (social) context.

Stakeholders could participate in the intervention (stakeholder dialogues) and evaluation (interviews, participant observations), but also to one of both. Participants were recruited for the intervention and evaluation via contact persons in the organization. Participation was based on willingness to participate. Operational employees were asked to indicate with whom they would feel comfortable enough to have the dialogues with, as a prerequisite for a safe communication climate. Mixed groups with employees and direct supervisors from different departments were preferred.

Participants received an email from the researchers (HvH, JvB) with information about the dialogue (duration, location, aim) and explanation for preparation. Participants were invited to think of a dilemma related to the central themes, that were defined earlier in the responsive evaluation. The aim was to have six to twelve participants per dialogue.

Participants

In total there were 16 participants in 15 interviews. Participants worked at various departments in the organization (management or support staff (7), supervisors (4), and operational employees (5)). Participant observations were performed at two operational departments during three toolbox sessions, that were attended by operational employees. In the dialogues, 57 participants participated over eight dialogues. The number of participants in the dialogues ranged from four to 11. The majority was male (90%). 20.5% of all participants were operational staff with a low SEP (low educational requirement).

Educational requirement was defined by the researchers and was based on the educational level required for the job. Participants were not asked for their educational level to avoid stigmatization. Educational requirement was used as an estimation. The group composition of the dialogues was determined based on the preferences of operational employees [106].

In the first year, six dialogues took place, and two in the second year. The lower number of dialogues in the second year was the result of 1) a merge of locations, reducing the number of locations where dialogues could be performed, 2) saturation in terms of central themes and new learnings in the dialogues.

Data collection

Central themes and desired changes of the intervention were defined with stakeholders and continuously monitored throughout the evaluation. Perceived changes of the

intervention were evaluated both at fixed moments (i.e., after one and two years) and continuously (Fig. 1).

Semi-structured interviews and participant observations were used to define the central themes and desired changes of the stakeholder dialogues according to the stakeholders (Fig. 1, baseline), and to evaluate the perceived changes during and after the stakeholder dialogues (Fig. 1, evaluation 1 and 2). Topics of the interviews at baseline and at evaluation moments are described in the Study protocol [122]. Periodic Medical Examinations (PME) were used as an additional source of data to verify the scope of the central themes throughout the organization. In addition, all forms of communication with stakeholders (e-mails, logs of phone calls) served as an additional source of data for evaluation.

Data analysis

Thematic content analysis was performed to analyze data from interviews and dialogues. Analysis about the relevant themes for and desired outcomes of the stakeholder dialogues (baseline) and the perceived changes (evaluation 1 and 2) proceeded inductively. Perceived changes were categorized into changes on four levels, namely case, individual, team, organizational level. These levels were based on the four aims of MCD, the type of stakeholder dialogue used in this study [108], and the EURO-MCD classification [125]. All interviews were first individually coded. Subsequently, comparisons and differences between interviews were made. Atlas.ti 9 Windows was used for qualitative analysis (Coding trees can be found in the Supplementary file 2). Analysis of the stakeholder dialogues also proceeded inductively, and perceived changes of the dialogues were also categorized into the aforementioned four levels.

Quality measures

Several quality procedures for qualitative research were taken, as recommended by Frambach et al. (2013). These measures are described in the Study Protocol of this study [122] and reflected upon in the discussion. More details about the methods can be found in the Study Protocol.

Results

The results are presented in two parts, following the research aims. Part I describes the central themes that were defined with the stakeholders. Part II describes the desired changes before the intervention, and the perceived changes during and after the intervention.

Part 1 – Central themes

Two relevant health related themes stood out throughout the entire evaluation period: high workload and mental health.

High workload

This reoccurring theme was often attributed to the unpredictable nature of the work, leading to high peaks and insufficient numbers of personnel. For operational employees, high physical job demands (working with dangerous goods) and mental job demands (multitasking, prioritizing on the spot) also contributed to perceiving a high workload. According to employees, high workload influenced health by disturbing the work-life balance, working less safe, reduced job satisfaction or mental pressure of the potential consequences of mistakes and unsafe working (e.g., losing clients). Working less safe (not fully according to the safety regulations) was especially a concern for younger employees with little experience according to supervisors:

"Those young boys that just got employed, you have to tell them: dude, calm down. They think: how can I do this as quickly as possible? And then they start running and flying, but you shouldn't do that. Because with doing that in this job, you risk your safety. They are like oh I forgot to put my helmet because I was too busy."- Supervisor, baseline interview 1.

The consequences of mistakes, i.e., not following the safety rules or other mistakes because of a perceived high workload, could be far-reaching. Employees seemed to have a feeling of responsibility regarding the reputation of the organization.

"We are talking about cargos of over hundred million sometimes. If you make a mistake because you are mentally out of the world for a moment, yes then…" … "If something happens at our plant, [name organization] will take the blame." – Operational employee, baseline interview 2.

Mental health

Employees and management noticed an increase of colleagues that were absent because of a burn-out or stress symptoms. Periodic Medical Evaluations (PME) that were performed during the course of the project (June 2018 & April 2019), showed that employees with a low SEP scored below national averages on aspects of mental health such as work engagement and above on burn-out and stress. Masculine norms were reported as a contributing factor to burn-out. Keeping the image of being a strong worker and preferable not showing vulnerability impeded employees to speak up at an early stage, even though it was mentioned that the organization is helpful when someone has mental complaints.

"They are, after all, a bit young guys, uh yes how do you say that politely? Hard working people, you see? It is really what you see in the news, the Rotterdam mentality." – Supervisor, baseline interview 1.

"We are here with kind of tough men and it's not cool of course to say, yes, things are not great at home or I don't feel so good."… *"Usually, we see it when it's too late. You notice that people*

are mentally absent, and then all of a sudden, they have a burn-out." – Operational employee, baseline interview 2.

Topics for moral case deliberation

Based on the overarching themes high workload and mental health, topics for the dialogues were formulated. The researchers searched for concrete examples of the formulated central themes in the data. The topics were discussed with the contact person of the organization. Table 1 presents an overview of the topics and dilemmas of each session is presented.

Table 1. Topics and dilemmas in the dialogue sessions

Session	Topic	Dilemma discussed (brought in by participants)
1	Balance between working fast and safe	Being a good employee and colleague *or* working safe and healthy
2		Protecting reputation *or* protecting health
3		Being a good employee and colleague *or* working safe and healthy
4	Discussing (health and safety) issues with colleagues and supervisors	Speaking up *or* being a good employee and colleague
5		Speaking up *or* being a good employee and colleague
6		Own responsibility *or* strict regulations
7	Discussing burn-out with colleagues and supervisors	Help a colleague with burn-out symptoms *or* protect his reputation
8		Protecting own reputation *or* receive support

Part 2 – Perceived changes

Desired changes before intervention

Stakeholders were asked what they considered relevant changes of the intervention. Interviewees were interested in learnings, either non-specified (i.e., cross pollination about how other departments deal with problems), or more specified (e.g., about how employees in other departments experienced the high workload). In addition, employees from various departments indicated that the dialogues could help defining shared experiences and/or structural issues that require improvement. The dialogues could be a means to jointly come up with ideas for improvement for the decision makers, thereby creating bottom-up support:

"I mean, if everyone says the same thing.. then the organization has something to work on." – Operational employee, baseline interview 6.

The management team was also interested in learnings for improvement. For example, they indicated that it was relevant for them to learn how to could communicate more effectively with the 'shop-floor'.

Perceived relevant changes after intervention

Changes were perceived on all four levels (case, individual, team, organizational). Table 2 presents an overview of all perceived changes with a thick description of the context showing the relevance of the changes for the stakeholders. Below, one change per level is described in detail. We selected changes that were not a single event, such as the purchase of a safety means, but were assumed to have a longer-term duration (e.g., perceived enhanced mutual understanding).

Case level

Agenda setting

Some dialogues led to follow-up discussions about topics similar to the ones discussed in the dialogue. These follow up discussions were initiated by the organization, rather than by the researchers. For example, after a dialogue in which the peak of workload at that moment was discussed, 'toolbox' sessions were organized about the experience of high workload. In these sessions it was discussed how to prioritize tasks and how to deal psychologically with high workloads. One operational employee that participated in a dialogue mentioned in the evaluation that the effort to reduce (the experience of) high workloads increased strongly directly after the dialogue. Yet, it was emphasized that this attention decreased after some time when the workload increased again. Nevertheless, changes on other levels occurred that were also related to the experience of high workload.

Individual level

Recognition and learnings

The dialogues led to recognition of issues for the participants of the dialogues. Participants realized that colleagues, either from the same of from different departments, experienced similar issues, such as the high workload. It was reassuring for participants of various departments to realize that their department was not the only one experiencing high workload, but that it is a companywide issue. Also, the dialogues revealed that the prevailing masculine norms like being a strong worker, preferably not showing vulnerability, prevent employees from asking help. Participants indicated that they realized during the dialogue that asking for help in times of very high workload is a legitimate thing to do. Participants also realized that it may also be helpful for other employees not participating in the dialogues to know that it is not a problem to ask for help and that this should be communicated more actively.

Team level

Perceived enhanced mutual understanding

Participants mentioned that the sessions contributed to enhancing the mutual understanding between departments. Tensions between departments, that are strongly interdependent for their core activities, was a factor that contributed to the experience of high workloads. Participants of the dialogues indicated that they sometimes got surprised by the perspectives of employees from other departments. Insight in their perspectives and working conditions enhanced understanding for certain situations that contributed to

the experience of high workload. Moreover, the organization implemented an exchange program between departments to enhance the mutual understanding further.

Organizational level

Organizational learning process

The dialogues helped the management to better understand the underlying factors of the central themes, high workload and mental health. From the perspective of the management, there were no signals about an increase in workload; there was no increase in requests from clients. However, during the course of the project, members of the management team started to learn via the dialogues what were the underlying reasons for the perception of high workload. Insight in these reasons, such as the sometimes-compelling communication and tensions between departments, allowed the management to take targeted actions. For example, the management implemented a communication training for supervisors to promote respectful communication and proactiveness of employees in order to involve them more in daily practice. Other actions that were taken by the management were the implementation of an exchange program with the aim to learn about each other's work, initiatives to enhance the engagement of employees in organizational developments and stimulating a more preventative approach on burn-out by making supervisors aware that they are the ones that can signal symptoms at an early stage.

Table 2. Perceived changes of the dialogues [H2S = hydrogen sulfide, MCD=Moral Case Deliberation]

Level	Outcome	Exemplifying quotes context
Case	**Awareness of work pressure** High work load was an issue of concern in the organization that was reported from the start of the study. However, during the course of the study there were moments that the work load increased even more, among other things because a competitor started to 'steal' experienced employees from the organization under study. When this work load was discussed in one of the dialogues, it remained an issue of concern for a while afterwards. Attention was paid to work pressure in the form of toolbox sessions. Toolboxes did already take place every month but some were now especially organized to help employees cope with the high workload. Some interviewees were, however, critical on the content of the toolboxes.	*"We see that people just resign due to work pressure."* Operational employee – MCD-session IV *"We did pay some attention to it in one of the toolboxes, work pressure and how you deal with it and what the symptoms are, etcetera. The story we were told was: tell it to your manager, talk about it and don't surpress it."* Safety manager I – Yearly evaluation interview I *"They say: you shouldn't feel pressure'. But look, if you are with too men less, you have to walk a little faster. If you start working normally, you leave the work for hte next shift, next shift, and it just keeps piling up."* Operational employee – Yearly evaluation interview I

Level	Outcome	Exemplifying quotes context
Individual	**Give voice** Various dialogues showed examples of misunderstandings between management and the operational employees. Overall, the management wanted the operational employees to be more proactive, whereas the employees said that the management was unreachable for them when they wanted to raise their concerns about something. The dialogues were a way for operational employees to raise their concerns with regard to health to the management, provided that a summary of the main points discussed was given to the management team.	*'Well, I finally managed to get raincoats after one year of asking."* Operational employee, MCD-session I *"You hardly see the management. I don't think they really know what it's like out here in our world."* Operational employees, MCD-sessions V *"I think it's good that they (the management) eventually hears about what is discussed in this dialogues. If it doesn't reach them, why did we do it?"* Operational employee, MCD session VI
	Recognition and learnings Employees from various departments reported that they had too much work. Sometimes, this led to burn-out. The - mostly male - employees were holding back in asking for help when they felt they could not handle their work load anymore, partly to keep up their reputation in the masculine environment. Through the dialogues, employees said to realize that everyone was sometimes struggling with high work load. Through this recognition, some realized that asking help, for example in prioritizing work, is a legit thing to do in times of high work load.	*'Well, it's all go, go, go, run. You're a man and go."* Supervisor - MCD-session VII *There are plenty of people here that are afraid to cross that threshold (to speak up/ask help). And if you (as a supervisor) just say: 'you know, it's no problem', it will be easier for them."* *Supervisor – MCD-session VII* *"I think perhaps after this, after such conversation, one can think 'Oh, I cán discuss things. If something bothers me I can say to my colleague or my immediate supervisor: well, I am with"..."I need help with something."* Support staff employee, MCD-session II
Team	**Enhanced mutual understanding** The different departments in the organization were highly interdependent to perform their core tasks. However, employees from the different departments put pressure on each other to work faster, which contributed to the perception of high workload. Participants of the dialogues noticed that through the dialogues they started to better understand the work of the other departments. Also, they realized that other departments also experience high work load. Because of this they had the intention to approach each other more gently.	*"Being called every time, that just doesn't work"..."If you tell the [function title of employee from other department], dude, one request take me two hours, and you expect me to do two in three hours.."* Operational employee - MCD-session V *"I don't know exactly what happens in the other departments. I don't know all that. But now you hear everything a bit and then you can also empathize a bit them, like, take these people into account."* Operational employee – MCD-session IV "*You would say that some departments are less busy, but no. They all experience that high pressure. That does make you think."* Supervisor – Yearly evaluation I

Level	Outcome	Exemplifying quotes context
Team	**Shared insights** Few consultation moments were brought forward as an issue of concern in several dialogues. Participants said that there were few moments of consultation with colleagues and supervisors. Especially in times of high work load. Consultation moments were considered important to give the operational employees the chance to raise their concerns. The management took initiatives to promote consultation moments (See organizational level outcomes).	*"I've already told the manegement, go sit down with the shifts every six weeks"..."That you all get the feeling again, guys, we are going that way."* Support employee - MCD-session V *"People miss information. That's what I take from this conversation. And that it is very important that people feel heard."* Safety manager II – Field note observation *"You just realize that sometimes the employees could use a listening ear a little more frequent"..."And that it would be nicer if that would take place more often, so that can people pour out their hearts a little more."* Safety manager I - yearly evaluation interview I
Organizational	**Organizational learning process** The management indicated to have a better view of the daily experiences of operational employees. For example when it comes to the doubts of employees with little experience when judging the safety of a situation. Understanding this stimulated the management to emphasize more that the employees can use a symbolic card to stop working temporarily when in doubt of the safety of the situation. Also, signals from employees seemed to be taken more seriously. For example with regard to the experience of employees of high workload. At first, the management couldn't match this experience with the amount of orders from clients. But by listening to the feedback from employees through the dialogues, they found out what factors did actually contribute to the experience of work pressure.	*["Researcher: what were insights you gained during this study?"]..."Well, discussing things like, even though we emphasize constantly on things like [the symbolic card to stop working temporarily when doubting about the safety of a situation], that in practice this is of course different than when you write it down so formally."* Member of management team – Yearly evaluation interview I *"You see in request from clients that compared to last year that it is a lot less busy, while that is not the feeling with people, they experience pressure. And then during the toolbox sessions we've discussed this a few times and I think that bit of pressure of not that bad, but that it is more like when a colleague is sick of on vacation.* Safety manager – Yearly evaluation interview I
Organizational	**Implementation of a program to enhance mutual understanding** Based on the feedback that the management received from the dialogues about the tensions between departments, it decided that all employees (including management) were required to spend one day with an employee from another department. The aim was to get a better understanding of each other's work processes, which should contribute to better collaboration between departments and to soothe tensions between management and operational employees.	*"It starts at the customers. They are business-minded and they only think about the money, and that mentality is transfered to the management here"..."Which make account managers think like that, who pass it on to the shop floor. That's kind of the problem. We are always, the shopfloor, at the bottom of the chain."* Operational employee, MCD-session I *"The program Visible Leadership will be reintroduced as an objetictive for all employees again. This gives each employee the opportunity to gain more insight in the work of the other, with the intended effect that mutual understanding is created and collaboration improves."* E-mail from management team to all employees – one year after the start of the project

Level	Outcome	Exemplifying quotes context
	Improving internal communication The dialogues showed that the status quo of the internal communication was contributing to the perception of high work load in various ways. The participants indicated that the management could for example, better inform the employees about the acquisition of new clients, so that they could be better prepared for extra work. Also, within departments the communication could be improved for the purpose of the safety of the employees. Topic of several dialogues were situations in which the safety of that situation was hard to judge. Often because of extreme heat or cold. Although extensive safety guidelines to judge the safety of a situation exist, peculiar situations, for example in case of extreme heat or cold, require experience to accurately judge it. Short consultation with the supervisor or a colleague was brought up in the dialogues as a solution.	*"In recent years it has struck me sometimes, suddenly a new customer, that I didn't know. And then you hear, yes, we brought those in and I have not seen an email at all. Then we had more work again. It's just there all of a sudden."* Operational employee - MCD-session IV *"Yes, that one person thinks, oh, it's safe, I'm going to do it. And the other says, no, it's unsafe after all. But then they are talking about the same situation."* Operational employee – MCD-session III
Organizational	**Implementation of a program to enhance engagement and the experience of appreciation** Employees experienced a lack of appreciation from the management. Both interpersonally and financially. Both were related to the fact that the organization is part of an American company, that for a large part out sets out the policies for the organization under study.	..."That it becomes more American"..."the whole company, you see it in everthing"..."More distant, it becomes more distant". Supervisor – MCD-session VII *"But you don't hear about it from the management. That I find regrettable: let those guys know, thanks guys, I couldn't have done it without you."* Supervisor – Yearly evaluation interview I
	More preventative approach on burn-out Burn-out was on the rise in the organization. Supervisors and colleagues said that it was hard to notice symptoms at an early stage. One contributing factor was the masculine culture, in which it was not considered man enough to tell your colleagues when you are not well. One of the conclusions from the dialogues was that supervisors can pay more attention to the mental well-being of employees. HR urged supervisors to pay attention to signals and to send employees on temporarily leave when they consider that necessary to prevent complete fall out.	*"You say, I'm a guy, I work hard, I can handle stress. And after three weeks you leave because you can't handle the stress while you wanted to grow in the company. The of course people will look at you differently. So you get over it and say, I can do this."* Supervisor – MCD-session VIII *"Well, I try to urge the supervisors like, you are the first to see or notice something about people. And with quite a few people even before getting absent I've had a chat, just take a step back. Do just something different. And all of that has actually resulted in people who were ill for one or two weeks, but then went back to work."* HR-manager – Yearly Evaluation interview I

Discussion

This paper describes the evaluation of an innovative WHP study in which central themes for and desired changes of the intervention were defined together with employees with a low SEP and other stakeholders. High workload and mental health turned out to be widespread issues in the organization under study. In the stakeholder dialogues, participants shared examples of their own experiences with these themes. This initiated a learning process in the organization, in which the management gained more understanding of the factors playing a role in mental health and high workload. In reply to this, several actions were implemented on the organizational level.

A unique future of this study was the active role employees played in defining the central themes of the intervention. Participatory research designs are not yet common in the field of WHP, although they have been recommended [18, 121, 129] and explored [130, 131]. In a classification of the degree of participation in participatory research from Fetterman (2013), this study could be classified in 'Collaborative Evaluation'. There was ongoing engagement between researchers and stakeholders. However, the researchers remained in charge of some of the main decisions, such as the method of the intervention, as well as for the methods of evaluation, although they were adjusted to the work setting under study. In the classification of Fetterman the Collaborative Evaluation is the lightest form of participation. Nonetheless, on the ladder of participation of Arnstein (2019), this study could be placed on step six 'Partnership' (the ladder includes step one to eight, eight being the highest degree of participation).

The stakeholder dialogues are expected to have contributed to health of employees with a low SEP in two ways. First, through the actions that followed from the dialogues. Most of the actions related to improvements in the work context. It has been shown that working conditions contribute as much and sometimes more than healthy behaviors to health of employees with a low SEP [88, 91]. Second, participants of the dialogues reported learnings after participating. A concrete example being the insight that asking for help in busy times can be considered a legitimate thing to do. Employees may have profited from this learning in situations in which they had high workloads.

Next to the actions, the group composition in the dialogues - mostly homogeneous groups in the sense of dependency relations—may have been advantageous to employees and social relations in the organization. Although one of the reasons to study a stakeholder dialogue as an intervention was the variety of stakeholders involved in WHP, mainly one stakeholder group participated in the dialogues, namely employees, although from different departments and with a variety of functions, aligned with their preferences [122]. Homogeneous groups may be advantageous in hierarchical organizations – such as the organization under study—because they allow for so-called 'enclave deliberation', in which like-minded people discuss topics together. This has been shown to enhance self-efficacy and interpersonal trust [132] and might as well have established a safe

communication climate [106]. It may also help to deal with power differences between groups and forestalls domination by established groups [133]. However, which group composition is favorable depends on the power relations in the organization where the intervention is implemented.

It should be recognized that there were several favorable circumstances for responsive evaluation and stakeholder dialogue. First, the organization under study allowed that the dialogues took place during working time. This probably enhanced the willingness of employees to participate. Second, the organization was open for feedback, a requisite for participatory research to succeed [106]. Possibly, this openness was related to organization's focus on safety and the associated continuous attention for improvement. However, the first dialogue yielded a lot of response. Some participants expressed their frustration about other participants who, in their eyes, used the dialogues as a platform to 'just' express their frustrations without being constructive. The turmoil evoked worries about the upcoming dialogues, also at the higher-level management. In the following dialogues, the researchers paid more attention to the underlying concerns of the expressed frustrations and on what could be helpful to these concerns. Similar strong responses on the dialogues did not occur again. In fact, the strong reactions on the first dialogue were in hindsight perceived as a sign that employees should be heard more regularly.

Also, the gender of the researchers (both women) may have played a role in how health issues were discussed in the dialogues. The researchers noticed that participants were spoke openly about issues such as mental health and high workload in dialogues and interviews, while the same participants mentioned that there was a lack of openness about these issues because of the prevailing masculine norms. Possibly, the participants felt comfortable about discussing the themes because they perceived the female researchers as 'empathic listeners' [134], and being women, 'allowed' to care and ask questions about health [42]. Also, the researchers paid explicit attention to their language. They based their language on how employees themselves talked about mental health and high workload in participant observations and interviews. For example, participants never used the word 'stress', but used 'high workload'. This may have contributed to a safe communication climate.

Strengths and limitations

A strength of this study was the variety of data sources (data triangulation [56]) used to identify and monitor the central themes. The combination of interviews, participant observations, PME-data and the dialogues allowed to get a varied view of the issues and the factors related to it. Also, the interpretation of the results took place in consultation with the participants (member check). After each interview and group dialogue, the participants received a short summary made by the researchers. Participants could adapt or approve these summaries, thereby serving as a member check to verify the correctness of the interpretations of the researchers. After approval of the participants, the summaries were used to inform the higher management about the dialogues. This feedback loop was

strongly valued by the participants; without informing the decision makers there would not be no further impact on their daily working life.

The type of evidence provided with this study can be considered a limitation. The perceived changes were identified by means of qualitative data. No statistical evidence was gathered about the effects of the intervention This impeded comparison of findings of various studies in a statistical manner. Fortunately, the qualitative data were informative on the experiences and perceived changes of the dialogues. The qualitative findings can only be transferred to similar settings (male-dominated large organizations (> 250 employees)), through the 'thick description' of the work setting given in the results [106]. The thick description of the work context, stakeholders and circumstances, allows other researchers or professionals to relate the findings to the context of their interest. Another limitation is that the initiated actions on an organizational level, only started to take place after one year. Therefore, it was not evaluated how employees appreciated and were affected by these actions on the longer term.

Implications for practice and research

Employers can learn from this study that actively asking employees to share health related issues from their daily experience can lead to shared insights about the factors contributing and withholding to their health. New interventions can take from this study that regarding employees as partners in WHP allows to understand the health issues relevant to their daily reality. Through this understanding WHP can be better adapted to the lifeworld of employees with a low SEP.

Conclusion

The responsive evaluation and stakeholder dialogue initiated and facilitated a learning process in an organization around central health themes, high workload and mental health. Although the perceived changes identified in this study are specific for the context under study, other organizations can learn what the result of dialogue with employees can be for their own WHP. Researchers, intervention providers and other stakeholders can take from this study that employees with a low SEP can be reached in WHP by involving them in in the intervention and evaluation. Also, it allows to understand the health issues that are relevant for employees, thereby making WHP more suitable for employees with a low SEP.

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CHAPTER 5

Finding ways to enhance participation of employees in sheltered workplaces in workplace health promotion interventions: a care ethics perspective

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Under revision

Abstract

Participation in workplace health promotion in sheltered workplaces is often limited, while it could contribute to the health of employees that for various reasons cannot participate in regular work, and with this to continued participation in work. The aim of this study was 1) to understand this limited participation, and 2) to find opportunities for adapting workplace health promotion, such that it better meets the needs of the target population. A responsive process evaluation of an extensive multi-component workplace health promotion program targeting lifestyle behaviors, financial behaviors, literacy and citizenship, was performed in a large, sheltered workplace in the Netherlands (>3500 employees). To understand the limited participation, interviews with employees (n=8), supervisors (n=7) and managers (n=2), and ten participant observations were performed. To find opportunities for improving workplace health promotion, seven dialogues with employees were performed (n=30). The interview data on the barriers for participation were evaluated through the lens of care ethics, as this allowed to understand the role of various stakeholders in the limited participation, as well as the indirect role of the institutional context. Findings showed that participation in workplace health promotion could increase if they are organized in a way that they encourage employees to work on health together, allow to tailor workplace health promotion to different needs and capabilities of employees, and connecting activities to employees' daily lives. A strength of this study is that the responsive process evaluation focused both on the barriers for participation, as well as on the opportunities to increase participation.

Introduction

Participating in the labor market is not self-evident for everyone in society. People can face difficulties in getting and maintaining a job due to a form of vulnerability, such as disabilities, mental disorders or low literacy [135]. Yet some of these people can work, under the prerequisite that the work is modified to their possibilities. Sheltered workplaces respond to this by offering modified and protected work (more information about sheltered workplaces in text box 1) [136]. In addition to their vulnerability, people who work in sheltered workplaces often also deal with health issues. For example, people with disability often face various health issues such as mental problems, obesity, fatigue and pain [137]. Also, people in sheltered employment generally have low incomes, which creates an additional socioeconomic vulnerability for health [64]. Therefore, attention for health of employees in sheltered workplaces is warranted.

One way to target health of employees in sheltered workplaces is through workplace health promotion (WHP). In the past decades, the interest in WHP has increased in organizations [72, 138], including in sheltered workplaces [139]. WHP includes all activities aimed at improving health of employees, for example through interventions (e.g., educative workshops on health themes and counselling on these themes), policies (e.g., preventative screenings), benefits (e.g., access to local fitness facilities) and environmental supports (e.g., measures to avoid safety threads) [140]. The workplace considered a suitable setting for health promotion, because it offers the social and physical infrastructure for interventions [11]. Also, people spend much time of their lives at work [24]. Therefore, workplace is a setting in which many and diverse people can be reached for health promotion.

However, previous studies have shown that participation in WHP is limited. Especially people with a low socioeconomic position (SEP) are less well represented [33]. Considering people in sheltered workplaces often have low incomes, it is likely that they have a low SEP as well and may thus also participate less in WHP. A qualitative study among several German sheltered workplaces, showed that supervisors see limited interest of employees for WHP, and that they hardly participate in activities offered in the workplaces [141]. Also, a systematic review on health promotion interventions outside of work for people with disabilities, whom comprise a considerable part of the people that work in sheltered workplaces, showed that motivation of people to participate in health promotion interventions is a significant challenge [142].

Enhancing participation in WHP of employees with a low SEP, including those in sheltered workplaces, might contribute the reduction of health inequalities [72]. It has been argued before that a mismatch between WHP and the lived experiences of employees, may explain part of the limited participation of employees in WHP [33, 122]. This mismatch between WHP and employees may be even more prominent for employees in sheltered workplaces, because disability or other vulnerabilities that are the reason to work in sheltered workplaces, may impede participation in WHP even more. Understanding is

needed in why people in sheltered workplace do hardly participate in WHP interventions, and how the interventions can be designed in a way that they better match the lifeworld of employees in sheltered workplaces. Participatory approaches have been increasingly acknowledged as suitable to better match interventions to the needs and lived experiences of various target groups [55, 131]. However, to the best of our knowledge, using a participatory approach for a process evaluation aiming at understanding limited participation in WHP, is less common.

This responsive process evaluation of participation in WHP was performed within a sheltered workplace in the Netherlands. This workplace offers an extensive WHP program, consisting of educational programs on various lifestyle related topics such as diet, cooking, smoking, relaxation, and physical activity, discounts for local fitness facilities and support sessions about issues such as debts and addiction, including information and referral to help outside of the organization. The employees of the sheltered workplace hardly participate in these activities. In addition, this workplace is a 'transitional' sheltered workplace, which means that it offers sheltered work (modified and protected work), but also aims to help employees in getting a regular job in the future though education, guidance and support (see text box for more information on different types of sheltered workplaces).

Aims

This study aims (1) to understand limited participation in WHP of employees in a sheltered workplace, and (2) to find opportunities to better tailor WHP to the needs of employees.

Text box: Background information on sheltered workplaces

In Europe, uniform definitions of sheltered workplaces definitions lack because of the variations of sheltered work that exist. Still, two main types of sheltered workplaces can be distinguished [218]. The first type is the 'traditional' sheltered workplace, that offers modified work for people who are (at the moment or on long-term) unable to integrate in the open labor market. The second type is the 'transitional' sheltered workplace, that aim to eventually transit people from sheltered to non-sheltered workplaces [218]. In the Netherlands, transitional sheltered workplaces have become more common since the introduction of the so-called Participation Act in 2015 [219]. The reason for this is that like in many Western welfare states, policies had to be adapted such that people that did not work or were working in sheltered employment, should be stimulated to engage in the open labor market as much as possible [220, 221]. Although sheltered work remains available for those employees that will no integrate in the open labor market, subsidies decreased, and sheltered workplaces had to become more commercial in order to economically survive [143]. Despite these changes, sheltered workplaces in various forms still allow many people with a support need to participate in work.

Methods

Setting

The study was conducted in sheltered workplace located in the south of the Netherlands, with locations spread over various municipalities. The sheltered workplace employed approximately 3500 employees spread over six units (production work, facilities, greenhouse agriculture, groundskeeping, secondment, organizational and employee support). The organizational population was diverse in terms of cultural background (e.g., Dutch, Turkish, Moroccan, Polish, Syrian). Like in other sheltered workplaces in the Netherlands, the age of the majority of the population in the sheltered workplace was above 40 [143].

Design

A responsive design (responsive evaluation) was used to understand limited participation and find opportunities for improvement. This form of participatory research takes the perspectives of stakeholders as the starting point for evaluation and improvement of a program [52]. Dialogue among stakeholders is fundamental in responsive evaluation as it serves as a vehicle for mutual learning among stakeholders, such as employees in sheltered workplaces, their supervisors and higher management levels. For aim 1 (participation in current WHP) data sources were interviews and participant observations. For aim 2: (opportunities for improvement), data sources were guided dialogues with employees, and interviews with members from the management team.

Data collection was paused due to the COVID-19 pandemic and contact-restraining measures at two moments, between April 2020 – August 2020 and between October 2020 – February 2021. Findings were presented to members of the management team on four formal moments. Besides that, there was continuous and frequent informal contact with the sheltered workplace about the process and progress. Figure 1 provides an overview of the methods for each aim and formal feedback moments.

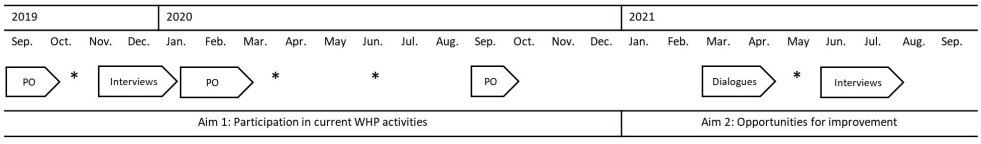

Figure 1. Overview of methods for each aim
PO = participant observation
* = formal feedback moments between researchers and sheltered workplace

Sampling and recruitment

Employees from different units, supervisors, and employees in management positions were eligible for participation in the interviews and dialogues. Supervisors were asked

to recruit employees, primarily based on willingness to participate. It was encouraged to recruit a diversity of employees, in terms of gender, age and cultural background. Also, participant observations were used to recruit employees.

Participants

Interviews and participant observations

Seventeen individuals were interviewed in the first phase of the responsive evaluation (figure 1), among which employees from the sheltered workplace (8), supervisors (7) and members from the management team (2). There was an 40%-60% division of respectively women and men. Most participants were above 40 years of age, which was representative for the relatively older population of the organization. One third of the participants had a non-Dutch cultural background (Turkish/North-African), the rest had a Dutch cultural background. At the end of the responsive evaluation (figure 2), the findings of the dialogues were presented to three members of the management team. A follow-up interview was performed with one of these members.

Participant observations took place during three days of the 'Vitality week', in which the sheltered workplace promoted its WHP program in short workshops. Also, the researchers (HvH, JvB and/or a student) all worked a day on three different locations of the sheltered workplace. HvH also participated in focus groups organized by the sheltered workplace about employee satisfaction.

Dialogues

Seven dialogues took place at seven locations covering different units of the organization, such as production, greenhouse agriculture and groundskeeping and facilities. In total, 30 employees participated in the dialogues. The small majority of the participants in the dialogues was female (56%). The vast majority had a Dutch cultural background, despite efforts of the researchers to recruit employees with a non-Dutch cultural background as this would be more representative for the organizations' population.

Data collection

Interviews (aim 1)

All interviews were semi-structured. Interview themes were perspectives, experiences and needs with regard to health, health promoting behavior, and participation in the WHP program offered by the organization. Time was taken in the interviews to understand the participant's work context and to create a picture of how health played a role in their daily lives. Participant observations were also used for this purpose, as well as to talk with employees about (participation in) WHP. The interview with the HR-manager performed at the end of the responsive evaluation focused on their plans with regard to changing the WHP program, after the input and perspectives of employees brought forward in the dialogues. All interviews were audio-recorded and transcribed verbatim. In participant observations, field notes were taken.

Dialogues (aim 2)

The aim of the dialogues was to find opportunities to improve the WHP and enhance participation (aim 2). The barriers for participation found in the first stage of the responsive evaluation were the starting point of the dialogues, with the goal to find ways to remove those barriers. The dialogues were roughly structured as follows: 1) Check-in and introduction of the moderator and participants, 2) explanation of the aim of the dialogues and the study, 3) Reflecting on reasons to participate in the health promotion program, using the findings of aim 1 1, 4) Reflecting on reasons not to participate in the program, using findings of aim 1 and 5) thinking on what could be helpful in this situations, and how the organization could better support employees in health, 6) summary, evaluation and information on how the findings would be shared with the management. In addition, the questioning in the dialogues were also inspired by the principles of moral case deliberation (MCD). This study was part of a larger project in which MCD was used as a form of dialogue in WHP because it places employee experiences at the center and also allows them to think about what employees find ethical and acceptable when it comes to WHP [122]. These principles included 1) attention for experiences of the participants, 2) probing on diverging perspectives, and 3) deliberating on different options participants have in a situation (MCD). To enhance the comprehensibility and fuel associations among the participants, images were used. These images depicted the barriers for participation of employees in WHP and were designed by professional designers. The protocol for the dialogues and images are available in Supplementary file 3. All dialogues were audio-recorded and transcribed verbatim.

Data analysis

Interviews (aim 1)

First, an open coding strategy was applied. This coding round showed the importance of the role of supervisors in motivating and stimulating employees to participate in health promotion at work but also outside work, as well as doubts they had on their responsibility in this. Therefore, it was decided to analyze the data from both the manager's and the employee's perspective on participation. For this, the phases of the care process of 'care ethics', described by Tronto (2013) were used as sensitizing concepts [145]. Care ethics is based on a broad definition of care, which allows to consider WHP as a form of care. In care ethics, a distinction is made between different phases of care in which either the 'care receiver' or the 'care giver' plays a major role. In this study, the employees were defined as the care receivers, and the supervisors and management as the care givers. Bottlenecks for good care can arise in different phases. In this study, the emphasis was on barriers in the different phases to participation in the WHP.

In the process of care, Tronto (1993; 2013) distinguishes five phases, namely 1. Caring about, 2. Taking care of, 3. Care giving, 4. Care receiving and 5. Caring with). Each phase has a specific moral quality, which function as normative criteria for evaluating care practices. These moral qualities corresponding the five phases are 1. Attentiveness, 2. Responsibility, 3. Competence, 4. responsiveness and 5. Plurality, communication & respect.

The moral qualities were used to analyze the interview data gathered for aim 1. The first three phases focus on the role of the supervisors, focusing on whether they are 'attentive' to the health needs of employees, whether they feel responsible to their needs and what influences this and whether they feel competent to support employees in health. The fourth phase focuses on the role of the employees in participation, and mainly on the barriers they encounter to do so.

Dialogues (aim 2)
In the analysis of the data of the dialogues (aim 2), the focus was on identifying opportunities to tailor WHP to the needs of employees, using thematic content analysis.

Atlas.ti 9 was used as a software for data analysis. Coding trees can be found in Supplementary file 4.

Ethics & quality procedures
This study was approved by the Social Ethics Committee, on behalf of Wageningen University and Research. For interviews and dialogues, all participants were asked for written informed consent. The forms were short and presented on a literacy level that is considered easy level (B1 literacy level in the Netherlands). However, as some participants had low literacy levels, the forms were explained verbally to the participants if necessary. If employees confirmed to have understood the information, they were asked to sign the form. Oral informed consent was obtained for participant observations.

Results

Aim 1. Participation in the current WHP program

Attentiveness – Supervisors want to be attentive, but perceive time constraints due to a commercialized organization
In the sheltered workplace, supervisors were closest to employees and therefore most likely to be attentive to health needs of employees. In fact, supervisors often mentioned the well-being of employees and facilitating their participation in work as a major motivation to work in the sheltered workplace. Apart from the operational management their work consisted of, supervisors were highly motivated to spend time on employees' personal well-being and development. However, since the sheltered workplace has become a 'translational' workplace and the focus on productivity increased (see text box 1 for background information), supervisors indicated that they had less time to be attentive to the needs of employees:

> *"You used to come in and see someone that didn't comb his hair or didn't shave. Then I used to say: hey, what's going on? You look unkempt today. And then the whole story comes out, and I would act right away"..."Nowadays, he goes to work looking unkempt,*

no one sees it and he sinks further down. And in the end, you have lost him." – Interview supervisor

The commercialized focus of the sheltered workplace was also perceived by higher level managers, who expressed their worries on supervisors having to take care of the overall well-being and health of employees through WHP:

"Those supervisors are already very busy"..."As if they have nothing else to do, we are an employer here. So, you expect a supervisor to lead a team and not do all that kind of peripheral stuff [the WHP program]." – interview manager

Responsibility – Supervisors want to help employees but perceive lack of response
Supervisors saw a role for themselves in motivating employees to participate in WHP and to engage in health promoting activities in general.

"Well, what we often do, is give a bit of advice. Where they must be and where they can go." ..." When people try something (e.g., go to dietician) you to be the stimulator or give compliments." – Interview supervisor

Supervisors explained that in the past, when the sheltered workplace had still the 'traditional' form (text box 1), employees were protected as much as possible (i.e., not really expected to have personal responsibilities). In current times, however, employees were more expected to take more individual responsibility when it comes to work and health. However, this responsibility is often not taken by employees, according to supervisors:

"More is expected from people now. We try to give responsibilities back, and for some people that is very difficult. We give them opportunities to think for themselves; how exactly are you going to do this? Or how can you stay healthy? But in the end, they think that we (supervisors, the sheltered workplace) are the ones that are responsible for that." – Interview supervisor

In the last sentence of the quote, the supervisor seems to show some frustration about some employees not taking responsibility for their own health. In addition, supervisors perceive a lack of response to the efforts they make to help employees:

"For example, the budget coach. We have plenty of people that have an issue with that, but don't go there anyway. Some people say: 'I'm under administration anyway, so it's easy, I don't have to do it myself.' So, I say, we encourage it, but it's up to the people themselves whether to do it." – Interview supervisor

Competence – Supervisors experience lack of resources to motivate employees for WHP
Supervisors mentioned that they do not have the resources to properly inform and motivate employees. Time is one of the resources that supervisors lack. They attributed

this to the enhanced focus on productivity after becoming a translational sheltered workplace (text box 1), and because of this, the reduced time they have left to spent on the personal interaction with employees.

A second constraint was that supervisors do not have the resources to adapt information to all the different needs of employees. There is large diversity among employees in needs regarding communication, for example due to low literacy, limited digital skills and limitations in processing information. It does not help supervisors that WHP in the sheltered workplace consists of a very extensive program, making it harder to oversee what is available and adapt all this information in a proper way for different employees. According to some supervisors, employees should be more involved in WHP:

> *"It is really a push system, from the organization. That we do all sorts of things, instead of employees themselves saying: well, I could use help on this or that. They [the employees] wouldn't quickly do that either."* – interview supervisor

Some supervisors also showed doubts about whether the WHP program in its current form can sufficiently help employees, which exemplified by the following quote:

> *"Then there is another training on smoking cessation, and they (employees) say: 'I won't do it again, because I can't sustain it anyway.' I don't know if this is because of their social environment or social situation, but in any way it's a shame."* – Interview supervisor

Responsiveness – current WHP program requires mental, physical and practical flexibility

One of the barriers to participate in WHP is related to the accessibility of certain activities in the sheltered workplace as well as in general (e.g., accessibility of the local fitness club). Employees of the sheltered workplace face several challenges in their daily lives, such as limited physical and mental energy and mobility, low literacy, need for structure and predictability, insecurity, and other responsibilities such as informal care. Some of these challenges are exemplified by the following quotes:

> *"Because it's after work hours and yes. And then I must exercise for one hour. Oh, I cannot do that at all."* – Interview with employee

> *"You're used to finish at 5 pm, being home at 5.30 pm and having dinner at 6 p.m. That's the rhythm of people, and you should not make too many changes in it."* – Interview with employee

Also, the communication about the current WHP program formed a barrier to get people to participate in the program. According to one employee, who waws involved in the workers council and was, in his own words more eloquent than most other employees,

explained that the organization did not put enough effort in providing information in an understandable manner:

> *"There are those that can read, but I can also read something, but it doesn't mean I understand it. That's a big difference of course" ..." So, you must use different language, come up with examples"* – Interview employee

Other barriers related to a lack of need and relevance employees see in engaging in WHP. For example, because of the nature of their work, like employees who work in the cleaning business that involve physically demanding tasks. Also, employees often receive support in health through other institutes such as financial aid through the municipality and health advice from medical doctors. Also, employees do not always see how the sheltered workplace plays a role in promoting their health:

> *"I need to lose weight, but I can't say today I only eat vegetables or something. Just eating normal." ..." [Name organization] can't help with that, I must do that myself."* – Interview employee

Aim 2. Opportunities for improvement

The dialogues with employees brought forward three themes that could possibly enhance the *responsiveness* to WHP. These themes were collectivity, intertwinement, and tailoring.

Collectivity can enhance social contact and motivation, can reduce impact of barriers

The first theme was *collectivity* in engaging in health promoting behavior. Working in a more collective manner on health, for example by stimulating to subscribe to activities with colleagues of the same team, would be appreciated by employees for several reasons. First, it creates a possibility for employees to meet new people and have social interactions, important for many employees who have a limited social network. Second, working together on health is more motivating, and offers the social control that some employees do not have in their private situation. Third, collectivity can take away some of the practical and mental barriers of participating, such as limited mobility or insecurity.

> *"When you're on your own, that step to go alone, I think that people also find it difficult. And if there is someone with you, they often like it, because then you're together."* – Dialogue with employees

This quote shows how promoting collectivity, i.e., participating in WHP together, could help employees that feel insecure about engaging in new activities, for example due to example they gave on negative experiences in the past in similar situations. In the final evaluation a member from the higher management said to better understand and recognizing such barriers after hearing employees' stories:

> *"In general, people do know what is healthy and good for them. But doing it, that's a completely different thing. And that is not based on educational level, or income or whatever. It applies to everyone. And I thought that was an eyeopener. I also recognize it in myself, that I also think you know, going alone to the gym. That does not only apply to our target group, as we call them."* – Evaluation interview

Intertwinement can enhance usefulness of WHP for daily life

The second theme was *intertwinement*. Employees explained that engaging in WHP would be easier for them if there would be a connection to their daily lives. A way to do this could be by organizing some small exercise breaks during the work time – which was already being done at some locations of the sheltered workplace.

Also, activities that give tools for daily life would be highly appreciated. For example, by focusing on cooking for one person in the cooking workshops, thereby considering the personal situation of employees. An employee that was moving from assisted living to living on his own mentioned the relevance of such workshops:

> *"I want to learn to cook better by myself. Bit more variety. I mean making a pasta, that I can do, but not more than that."* – Dialogue with employees

Cooking workshops were already offered by the sheltered workplace. Participation in these workshops was relatively high compared to other activities in the program. The dialogues confirmed the importance of activities such as cooking workshops - and other workshops in which it is explained how to read food labels - that provide tools for daily life. More variety and more time to properly explain things were mentioned as opportunities for improvement.

the sheltered workplace planned to actively communicate with employees before the start of activities, in order to understand what would be most interesting for the employees to focus on. This would also allow to consider what topics would be most useful for daily life, one of the themes brought forward by employees as important for better WHP

Tailoring allows to match WHP to physical, mental and practical possibilities employees

Another way to improve WHP according to employees was through *tailoring*. This related to the diversity among employees in terms of background, abilities and limitations. Also, diversity existed among the various locations of the sheltered workplace in terms of type of work. It was proposed to look at the design of WHP on a more local level, at the level of the different locations. This would also reduce the possibilities offered to the employees, minimizing the feeling of being overwhelmed by options, thereby also reducing the number of activities in the program that need explanation of supervisors. Tailoring (e.g., offering programs at various levels) would also help to better match WHP to the physical and mental possibilities of employees.

> *"I have participated a few times in the walks in the weekend, but then that's five kilometers or so. Then I think, you can do that differently, a walk of one or two kilometers which is feasible. I can do five kilometers, but that doesn't mean I can continue working afterwards."* – Dialogue with employees

At the final evaluation, the organization was planning to offer employees the possibility of a personalized platform that helps employees to choose activities or tools for support that match their needs. The desire of employees for support in daily live and low-key activities that support overall well-being was considered as well:

> *"So that you give people more space and freedom to make their own choices. And it doesn't matter whether you're going to learn to play the guitar, or whether you want a course for digital skills, or want to learn how to write and read. If you use it, that's what we'd like. And if you don't use it, it (the budget) returns to the central pot, and we redistribute it every year."* – Evaluation interview

Prerequisite for these plans is that employees are digitally skilled, which the organization also planned to offer support for soon. Although the platform would allow for more tailored WHP, it also individualizes WHP and requires more proactiveness of the employee. To minimize this, the organization was considering hiring a person in the role of 'vitality coach', that could offer professional support to employees in using the platform and making decisions on what could be helpful for their health. By hiring this person, and their plans to reduce the number of different activities in the WHP program, the organization aimed to reduce the burden on supervisors. Also, the organization planned to still offer part of the WHP program in groups to stimulate collective participation.

Discussion

This paper aimed to understand the limited participation in WHP offered in a sheltered workplace, and to find opportunities for tailoring WHP in such way that they better suit the needs of employees. By using care ethics as an analytical lens for the data, both the barriers for participation for employees and the role that the stakeholders and the institutional context have in this were analyzed. This process evaluation shows that WHP within the sheltered workplace under study is too challenging for its employees on various aspects, namely mentally (e.g., difficulties with understanding the activities in the WHP program), physically (e.g., not being physically fit enough to participate) and practically (e.g., lack of time due to other obligations). Also, supervisors have not enough resources to properly support employees in health, partly due to an increasingly commercial organization. Also, views about the role of personal responsibility in health seem to differ between employees and supervisors. These findings are similar to those in the study of Kordsmeyer *et al.*, 2022. This study adds to this knowledge by providing ways to deal with these challenges, as we formulated opportunities for improvement based on the dialogues with employees.

For employees, an opportunity for improvement is enhancing collective participation in WHP together with colleagues. The importance of social support in health interventions for people with a low SEP has been acknowledged before (e.g., 21). This study confirms this for people in sheltered workplaces and provides in-depth information on how a collective approach allows employees to deal with various challenges they face varying from fear of a new activity alone to not having transportation. This study also emphasizes the importance of diversity in needs of diverse employees when it comes to WHP, and the relevance for employees o WHP that affects health in a more indirect way such as healthy diet and physical activity (e.g., learning to play an instrument).

Values in WHP in sheltered workplaces

The disappointment of supervisors and the management team seems to be the result of WHP that expect too much of employees' capacities and flexibility. Supervisors hope that employees take personal responsibility for their own health, but as WHP is challenging and employees have different perspectives on personal responsibility, this often does not happen. The high expectations regarding personal responsibility are not random. Sheltered workplaces are part of the larger society in which certain values are such as personal responsibility, autonomy and choice are prominent. The sheltered workplace in this study, like sheltered workplaces for example the United Kingdom, must increasingly work accordingly to a 'productivity-oriented work-logic' [136], due to the changed legislation for sheltered work (see text box 1). It has been argued before that neoliberal values, such as individual responsibility, are increasingly reflected in health promotion in Western societies [33]. This resonates with the extensiveness of WHP in the sheltered workplace, that provided employees with the freedom of choice and autonomy to choose what they want. Although Kordsmeyer et al., (2022) recommended to offer more different activities to improve WHP in sheltered workplaces, this study shows that this is not a guarantee for success. In fact, looking at the opportunities for improvement found in this study, less choice and a more collective approach seem to be preferred by both employees and supervisors.

Theoretical and practical relevance of this study

As in the sheltered workplace central in this study, it is common that the most extensive interventions do not have the desired effects, partly because participation in the intervention is low [72]. This study provided new insights into the success factors in the implementation of interventions, in this case in particular for participation [147]. Although it is increasingly acknowledged that participatory approaches allow to better match interventions to the lived experiences of employees, the use of these approaches in participation as part of a process evaluation is innovative. This study showed that responsive evaluation is a suitable participatory approach for a process evaluation focused on understanding and improving participation. One of the main objectives of responsive evaluation is to improve interventions in practice [148], and participation is

part of that. The focus on improvement of interventions for those who are targeted by it, encouraged, in addition to the barriers to participation, to map out the possibilities for improving participation.

This study also provides an empirical application of care ethics as a normative framework in a new field, namely WHP. Care ethics has been used before in various fields to incorporate ethics, such as robot design [149], participatory health research to reflect on the role of researchers [150] and exploring responsibilities in caregiving in parenting [151], but its application is novel in the field of WHP. A care ethics approach allowed to understand the role of both the 'care-givers' (supervisors and management) and the 'care-receivers' (employees in sheltered employment) in the limited participation in WHP in a sheltered workplace. In addition, it facilitated thinking on WHP as a continuous process that consist of various phases [152]. This made it possible to get a more integral view on the factors that contribute to the limited participation. The limited participation has not only to do with employees who do not want to participate, but also with reduced time and attention that supervisors in general can have for the well-being of employees, due to the changed institutional context of sheltered workplaces (see text box 1). As a result of this integral view, not all responsibility is placed at the employee, but also at the workplace as a whole. Moreover, care ethics invites to think about the values on which interventions are based [153]. As described earlier in this discussion, the opportunities for improvement brought forward by employees did not match so well with neoliberal values. The values that underly care ethics such as interdependence, vulnerability and the importance of relationships [154, 155], seem to be more reflected. Based on this, it may be interesting to further explore whether care ethics is a relevant starting point to think about WHP, and perhaps also for interventions for people in vulnerable positions in general.

Limitations

A limitation of this study was the underrepresentation of employees with a non-Dutch cultural background in the dialogues, who in fact comprised a significant part of the population of the sheltered workplace in this study. Although participants in the first phase of the study comprised a diverse group that informed the analysis of participation in the current WHP program, people with a non-Dutch cultural background hardly played a role in finding opportunities for improvement in the dialogues. This was despite efforts of the researchers to recruit a diverse group of employees in the dialogues by emphasizing this to supervisors, whose role was to recruit employees for the dialogues. Before the COVID-19 situation, participants were also recruited through participant observations, which allowed the researchers to ask diverse employees to participate. However, as minimal contact was part of the governmental measures during and in between revivals of the virus, recruiting via the supervisors remained the only way for the dialogues. Still, the fact that both researchers were white, highly educated women, not working in sheltered employment, would have influenced who participated in the dialogues as some employees perceived a distance from the researchers [156], even when recruitment could have taken place at the workplace. Despite the adaptations that were made to

make the dialogues as accessible as possible, a setting in which people have to express themselves through a language that they do not understand and/or speak well, might not have helped in attracting employees with a different cultural background [157]. Engaging diverse employees in the recruitment process may have been helpful in this situation as they could form a bridge for the language and other barriers between researcher and the people that are being researched [55, 157].

Conclusion

This responsive process evaluation showed the various barriers for participation in WHP in a sheltered workplace. In addition to the barriers for employees, the role of other stakeholders and the institutional context seemed to matter as well for participation. The responsive process evaluation also resulted in concrete opportunities for improvement to enhance participation in WHP in a sheltered workplace. Participation in WHP of employees in sheltered employees may be improved if WHP is organized in a collective rather than individual manner, if WHP can be tailored to the diverse needs of employees, and if WHP has a direct connection with daily life, in which employees from sheltered workplaces already experience enough challenges.

CHAPTER 6

Responsive evaluation: an innovative evaluation methodology for workplace health promotion interventions

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Under revision

Abstract

Workplace health promotion (WHP) interventions have limited effects on the health of employees with a low socioeconomic position (SEP). This paper argues that this limited effectiveness can be partly explained by the methodology applied to evaluate the intervention, often a randomized controlled trial (RCT). Frequently, desired outcomes of traditional evaluations may not match employees' – and in particular employees with a low SEP' – needs and lifeworld. Furthermore, traditional evaluation methodologies do not function well in work settings characterized by change resulting from internal and external developments. In this communication, responsive evaluation is proposed as an alternative approach for evaluating WHP interventions. Responsive evaluation's potential added value for WHP interventions for employees with a low SEP in particular is described, as well as how the methodology differs from RCTs. The paper also elaborates on the different scientific philosophies underpinning the two methodologies, as this allows researchers to judge the suitability and quality of responsive evaluation in light of the corresponding criteria for good science.

Introduction

Although the workplace is a promising setting for workplace health promotion (WHP), the effects of WHP interventions have been limited, as shown in several individual participant data meta-analyses performed in the last decade [32, 66, 67, 70, 121]. Theoretically, the workplace is a promising setting for health promotion, because existing physical and social structures at work, such as the physical environment and group norms, provide a basis on which to build [11, 24]. WHP is of particular relevance for employees with a low socioeconomic position (SEP), because they generally have poorer health than employees with a high SEP [71]. However, employees with a low SEP participate less frequently in WHP interventions [33, 72], and, if they do, the effectiveness on their health is limited [66, 67, 121]. Therefore, the question arises as to why WHP interventions are not living up to their potential.

Various explanations have been offered for the limited effectiveness of WHP interventions. First, the limited effectiveness could result from inappropriate interventions, e.g., based on the wrong theories (theory failure). Second, poor implementation could explain the intervention's limited effectiveness, for example when participation in the intervention is low or when participants drop out before the end of the intervention (program failure) [100, 158]. Although these explanations are legitimate, we argue that part of the explanation can be found in the methodologies used to evaluate WHP interventions. WHP intervention evaluation has already been a topic of discussion. Several articles have questioned the suitability of the randomized controlled trial (RCT), one of the methodologies most used in the occupational health field to evaluate WHP interventions [159–161]. One reason for questioning the RCT's suitability for evaluation in the work setting is that the setting is subject to change [162]. Changes can be large scale on the socioeconomic, political, technological, and demographic level (e.g., legislation, ageing population), macro at the industry or company level (e.g., downsizing, outsourcing), or micro at the organization level (e.g., workload, participation, support) [162]. These inevitable changes make it impossible to fully control the work setting, which is a prerequisite for RCT's internal validity [162, 163]. Other challenges for the RCT relate to the desires of organizations, which may not agree with the randomization of employees and a control group, because this means that some employees will not receive the intervention. Moreover, the organization may want to make changes to the intervention protocol, for example because of developments in the context (e.g., the intervention has to be postponed because of the COVID-19 pandemic) [159]. These challenges hamper the RCT's desired execution, thereby masking the intervention's impact.

In addition, traditional evaluation methodologies may not pay sufficient attention to employees' subjective experiences, which are relevant for ascertaining what they find important in WHP. Traditional evaluation methodologies often focus on outcomes such as Body Mass Index (BMI), lifestyle behaviors, or organization-related outcomes such as productivity [164], as these are outcomes that fit the typical design of an RCT in which

changes in certain measurable outcomes are evaluated. Outcomes such as BMI and lifestyle behaviors are relevant outcomes from an epidemiological perspective, but often are not the top priority in employees with a low SEP' daily lives [33, 122]. In other words, the outcomes of traditional evaluations may not match employees with a low SEP' lifeworld. The lifeworld is a person's or a group's background of shared assumptions, meanings, and understandings about the world [165], which differ between people and groups [166]. Employees with a low SEP' lifeworld probably differs from high-SEP employees' lifeworld, because they work under different working conditions [11], and their norms and values, for example with regard to health, may differ [22]. Each person's lifeworld influences what that person considers important. Hence, it presumably also encompasses what that person considers a relevant outcome of an WHP intervention. Therefore, the outcomes in WHP intervention evaluations should be defined in terms of employees with a low SEP' lifeworld.

Alternative evaluation methodologies for WHP interventions have been proposed, such as the Cluster RCT and Stepped-wedge design [164] and observational (non-randomized) designs [160]. Although these alternatives tackle some of the challenges regarding randomization, control group, and intervention, they do not address the possible mismatch between what is measured and employees with a low SEP' lifeworld. Furthermore, these alternative evaluation methods still face challenges when changes occur in and outside the work setting. Therefore, other evaluation methodologies should also be considered.

This paper proposes responsive evaluation as an approach for evaluating WHP interventions. This approach was introduced by Stake *et al*. [114] for evaluating educational programs [114, 167] and extended by Guba and Lincoln [115]. The methodology was further developed and introduced in the public health field by Abma [25] who added more interactive and participatory elements. This paper aims to provide an extensive description of responsive evaluation and its potential added value for WHP evaluation considering the changeability of the work setting and the need for WHP evaluation to take employees with a low SEP' lifeworld into account. Consequently, the aims, methods, and type of evidence used in responsive evaluation are described and compared with these elements in an RCT, thereby aiming to inform researchers about the differences between both methodologies, including diverging underlying scientific philosophies. These philosophies are described, highlighting some characteristics of the scientific philosophy underpinning responsive evaluation that might be of particular interest for WHP evaluation. In addition, the role played by dialogue and values in responsive evaluation is explained, as these are two typical elements of responsive evaluation.

Throughout this commentary, examples are given from two recent WHP responsive evaluations performed over two years in two Dutch organizations with employees with a low SEP: a harbor service provider (2018–2021) and a sheltered workplace (2019–2021). The evaluation papers have been/will be published elsewhere [168].

Aims, methods, and type of evidence

In the following sections, the aims, methods, and types of evidence in RCTs and responsive evaluation are described. A summary of important differences is provided in Table 1.

Aims

The RCT's aim is to examine a causal relationship between an intervention or manipulation and an observable change in a pre-defined outcome of interest [163]. The RCT has become the gold standard in evaluative medical research, because it allows the effect of certain medical therapies to be examined [159]. If an RCT is used in the WHP field, the aim is to examine a causal relationship between a WHP intervention and a particular health outcome or organizational outcomes such as productivity or job satisfaction. If a causal relationship between intervention and effect is found, it can be concluded that the intervention is effective under the circumstances in which the RCT was performed.

Table 1. Important differences between traditional methodologies and responsive evaluation

Differences in:	Traditional methodologies (e.g., RCT)	Responsive evaluation
Aims	Examine causality between intervention and outcome	Better match interventions to target group's lifeworld and evaluate change
Design and methods	Rigid design Measurement	Emergent design Qualitative methods or mixed methods
Type of evidence	Statistical evidence	Argumentative evidence
Philosophy underlying the evaluation	Positivism, post-positivism	Social constructivism, hermeneutics, interpretative approaches
View on reality	Reality is external and can be observed from outside	Reality is socially constructed and can be understood through participating in it
Researcher's attitude	Objective (observes from outside)	Participating observer (observes from inside and through interaction)
Role of values	Values play a role in deciding the direction of research and judging methodology on ethics	Specific valuesa are the main driver of research and underly the approach
Favorable circumstances for the different evaluation designs	Controllable settings Target population easy to reach and include	Settings susceptible to change Target population difficult to reach and include

[a] empowerment, social inclusion, emancipation, and epistemic justice

Responsive evaluation, on the other hand, starts from the notion that social reality is too complex to detect clear cause–effect relations between an intervention and an outcome [169]. However, this evaluation methodology has other aims that are of interest. Responsive evaluation aims to improve interventions by aligning them more closely with practice, e.g.,

the work setting. To achieve this, stakeholders are involved in defining relevant themes and outcomes of the interventions [52]. Their concerns and suggestions are the priority and the starting point for the evaluation. In the harbor service provider and the sheltered workplace, the operational employees, supervisors, and management were asked what they consider important outcomes of an intervention. By bringing together stakeholders' perspectives, responsive evaluation facilitates mutual learning, greater understanding, and acting on this [115, 148, 167]. Special attention is paid to people who are generally not involved in knowledge creation, as is often the case for employees with a low SEP in WHP intervention evaluations [33]. Involving employees and taking their experiences as a starting point for evaluation can shape the evaluation from the perspective of their lifeworld.

Responsive evaluation aims to evaluate the impact of an intervention. This can take the form of experiences with the intervention or mapping concrete actions or changes that take place during or after the intervention. These experiences and changes can then be compared with the participants' desired outcomes in order to monitor the relevance of the changes for the stakeholders. With the aim of improving an intervention, changes in the organizational context can be considered to adapt the intervention and evaluation, if this will improve the intervention's relevance for employees. For example, after an early COVID-19 outbreak, an inventory was made in the sheltered workplace, which was located in a heavily affected region in the Netherlands, of whether the impact of the virus on employees' (mental) health should be addressed. This was not the case; but responsive evaluation would have allowed a slight shift in focus if this had been necessary to maintain the intervention's relevance.

Methods

Methods used in an RCT are mostly quantitative, such as validated questionnaires or bodily measurements of biomedical risk factors of health such as BMI. Measurements are usually performed before and after the intervention. Through randomization, other confounding factors that may influence these outcomes are assumed to be equally distributed over the groups. This allows conclusive statements to be made about an intervention's effects on the outcome of interest and consequently about the internal validity of the outcomes [163].

In responsive evaluation, both qualitative and quantitative methods can be used. However, qualitative methods are important because they are appropriate for gaining insights into the experiences and complexity of the social world [52], thereby making qualitative methods suitable for gaining insights into employees with a low SEP' lifeworld. Participant observations (i.e., participating at the workplace for several days) and interviews led by employees' stories are examples of possible qualitative methods that can be used in responsive evaluation. If possible, qualitative methods are combined with quantitative methods to enhance the validity of findings (data triangulation) [56]. For example, in the responsive evaluation in the harbor service provider, qualitative methods (interviews

and participant observations) revealed that high workloads were an important issue for employees. This issue was confirmed by quantitative data consisting of periodical medical evaluations.

Different methods result in different type of outcomes. Whereas RCTs provide information about measurable outcomes, the impact of responsive evaluation is often described as a learning process. In this learning process, understanding is gained on issues that are important for stakeholders, leading to changes in understanding, attitude, and sometimes organizational and/or individual behavior [52, 110, 170]. In the responsive evaluation of the harbor service provider, changes were observed on four levels: case, individual, team, and organizational [168]. These changes included the implementation of a program to enhance mutual understanding between departments, learning from one another, and management's improved understanding of employees' issues.

Responsive evaluation takes place continuously, rather than at fixed junctures. This means that the intervention is evaluated throughout the evaluation period, and changes can be found at any stage of the project [106, 109]. This allows an understanding to be obtained of the experiences with the intervention early in the evaluation. In addition, even when major changes in the organizational context take place (e.g., the COVID-19 outbreak), the findings in the phases before the major change can be taken into account. Furthermore, because of responsive evaluation's emergent design, the methods can be adapted if this is considered necessary consequent to changes like the COVID-19 outbreak. For example, the final stages of the harbor service provider's responsive evaluation took place during the COVID-19 outbreak in March–April 2020. Because of the high level of sick leave during that period, it was decided to replace the planned final employee interviews with one interview with management (i.e., decision makers) to avoid overwhelming employees. This was the best option in practice and still provided relevant insights for evaluation. If an RCT evaluation methodology had been applied, the decline in the usefulness of the results would have been greater, because RCTs rely on performing evaluations as planned.

Type of evidence

Measurements in a controlled environment can provide statistical evidence in an RCT about whether a causal relationship exists between intervention and outcome. In responsive evaluation, changes are substantiated not by statistical but by argumentative evidence. This evidence is qualitative and sometimes also quantitative, together making a plausible argument that certain changes have taken place as a result of the intervention. For example, in the harbor service provider, the evidence consisted of a collection of stakeholders' stories about the perceived changes and communications with the organization's decision makers about the changes implemented.

Underlying philosophies

The differences in aims, methods, and evidence do not stand alone, but fit in the underlying philosophies in which traditional methodologies such as the RCT and responsive evaluation are embedded (Table 1). Although the philosophical embedding of evaluation methodologies can be nuanced, RCT and responsive evaluation are associated with two diverging philosophies frequently criticized by users of the one and the other [171], namely, positivism and social constructivism. These scientific traditions have different views on what good science is and how it should be performed. It may be helpful for researchers considering responsive evaluation, but who are accustomed to working from a positivist tradition, to understand responsive evaluation's underlying philosophy and how it has scientific value in its own right. Moreover, some characteristics such as the view on reality and the researcher's role in social constructivism may be especially relevant for WHPs for groups whose lifeworld is little known, such as employees with a low SEP. The following section provides a reflection on those characteristics of social constructivism, after first describing how each of these characteristics is interpreted in positivism.

View on reality and how to understand it

The positivist tradition underlying most traditional WHP evaluation methodologies, including the RCT, is originally situated in the natural sciences model. In this model, reality is considered to be external, with properties that can and should be measured through objective methods [172]. In pure positivism, knowledge about this reality is significant only if it is based on objective, value-free observations. However, post-positivism has rejected the idea of objective, merely sensory, observation. From a post-positivist perspective, the world should be studied through measurement and objective methods that are value-neutral and have operationalized indicators [172, 173]. In WHP evaluations, operationalized indicators could include for example BMI, physical fitness, or productivity. Self-reported data can also be used, although these raise questions about bias in the positivist tradition [174]. These standardized measures allow reality to be described objectively, or, in WHP evaluations, health.

Whereas positivism stems from the natural sciences model, social constructivism starts from the belief that this model is inadequate for studying social phenomena [175]. In the social-constructivist tradition, which underpins responsive evaluation, reality is socially constructed. This means that reality is constructed by people who ascribe different meanings to their world [172]. Translated into WHP evaluation, this means that, although health can be measured through operationalized indicators, it is also socially constructed by people with different definitions of what it means to be healthy. From a social-constructivist position, meanings are considered to be credible as long as they are understood from the perspective of the people under study [175]. Researchers try to understand the subjective meanings that people give to a certain phenomenon [172, 173, 175] such as health. Subjective does not mean biased or opinionated, but rather the meaning that something has for the observed human. These subjective meanings allow

the people and their behavior under study to be understood [175]. For example, in the responsive evaluation of the social enterprise, a single woman with a disability explained that she understood quitting smoking would be much better for her health. She had heart problems and was treated for this in hospital, and her doctor had already urged her to quit several times. However, she explained that it was hard to quit because she enjoyed smoking, especially when she arrived home alone from work or other activities. Although this may seem irrational from a medical perspective, it shows that knowing is not enough to quit smoking. This helps us to better understand – though not necessarily agree with – this woman's decision regarding smoking. Understanding the subjective meaning of health for this woman is relevant for WHP, because it could lead to the conclusion that education about the disadvantages of smoking is not sufficient to support her health.

The researcher's role

In positivism, the researcher is independent of what is being researched. The researcher observes what is or is not the case, in the third-person attitude [173]. In this attitude, the researcher observes the study object from the outside (rather than from the inside, as is the case in social-constructivist research). Evaluation of outcomes through standardized questionnaires and measurements facilitates comparisons with data collected in other settings [172, 176]. In the positivist tradition, these comparisons are important for interpreting results and making generalizations.

In social-constructivist approaches on the other hand, the researcher adopts the performative attitude, in which the researcher participates in communicative action [173, 175]. Unlike in traditional approaches, the researcher has to be in proximity to the people under study. Standardized evaluation methods are less suitable when one is working from the performative attitude, because they do not allow space for experiences outside the questionnaire and measurement method. The latter is of particular relevance when researchers are less familiar with the target group under study. Qualitative methods such as interviews and participant observations are more suitable for this purpose, provided they are used in such a way that the participants' experiences are the starting point of the methods. In communicative action, the researcher will be confronted with so-called non-cognitive claims to reality: the speakers will refer not only to something in the objective world, but also to something in their social world (e.g., norms) and personal world (subjective experiences), e.g., the employee's subjective experience with smoking from the abovementioned example [166]. In this research role, changes in the work context that affect those subjective experiences are not a disruption of the research process, but rather a development that offers the possibility of a better understanding of employees' lifeworld.

The role of dialogue and values in responsive evaluation

Dialogue

In the most recent version of responsive evaluation [e.g., 25], dialogue plays an important role. In addition to elucidating people's subjective meanings and perspectives, these experiences should be related to one another through dialogue. This argument is based on Gadamer's theory of hermeneutics, in which gaining insight through the interpretation of experiences and opinions, through dialogue, is central [177]. Dialogue facilitates 1) acknowledging the other, 2) being open about one's perspective on reality, and 3) striving for mutual understanding, learning, and insight [105]. These outcomes of dialogues are not only helpful for gaining more insight into employees' lifeworld in WHP evaluation because employees share their perspectives on health, but also relevant for WHP evaluation given the many stakeholders involved in WHP [35, 36]. In the role of 'Socratic guide' in responsive evaluation, the researcher facilitates dialogue and, through this, learning among the stakeholders [178]. For example, in the sheltered workplace, exchange of perspectives between employees led to the management understanding that the WHP activities were sometimes too challenging for some employees, as a result of which these employees often did not participate.

Values

Responsive evaluation starts from a normative position, working from intrinsic values such as emancipation, social justice, and empowerment [55, 106]. These values are reflected in some of the characteristics of responsive evaluation. For example, they are reflected in the inclusion in the evaluation of those with the least heard voice, by creating a safe communication climate in which these can speak freely [179]. In the sheltered workplace, a safe communication climate was created through organizing dialogues in which employees shared their perspectives and ideas on how to improve the existing WHP activities. The sheltered workplace planned to continue these dialogues after the responsive evaluation to ensure that employees' input would be given a permanent place in the design of WHP activities. Including different perspectives and respecting knowledge diversity also reflect the underlying value of epistemic justice [180]. Epistemic justice is another guiding value in responsive evaluation, as it is in other participatory approaches such as participatory health research [181]. To achieve epistemic justice, the researcher has the moral responsibility to create room for all voices and various forms of knowledge, and to consider the various stakeholders' perspectives as equally relevant.

Discussion

The aim of this paper was to provide an extensive image of responsive evaluation and its potential added value as a different approach to evaluating WHP interventions, because it is suitable for changeable settings such as the workplace and for gaining more insight into employees with a low SEP' lifeworld. Responsive evaluation's emergent design means

that change can be anticipated by adjusting during the evaluation, if this increases the quality of the evaluation (e.g., by enhancing relevance for stakeholders). Moreover, given the principles of social constructivism in which people give their own meanings to their world, the ongoing influence of change on various stakeholders in the work setting, rather than impeding the evaluation, can be addressed and included in the evaluation. In dialogue – an indispensable element of responsive evaluation – the various meanings that people give to health and WHP can be connected, thereby enabling various perspectives on WHP to be heard, including of those who are generally not involved in WHP design and evaluation. Thus, it can contribute to finding ways to better match interventions to employees with a low SEP' lifeworld.

However, there are also challenges when using responsive evaluation as a methodology for WHP evaluation that should be acknowledged. A first challenge is related to responsive evaluation's aims to understand how programmes work in a particular context rather than to make generalizations about how programmes work in general [167]. This may be seen as problematic if organizations want to base their decisions about WHP interventions on proof of effectiveness in other organizations [33, 163]. However, traditional approaches such as RCTs face similar issues with external validity [171] when programmes work in a particular setting but not in another [13]. The findings of responsive evaluation are transferable rather than generalizable. The rich data mined by responsive evaluation provide a thick description of the work context, stakeholders, circumstances, and outcomes of the evaluation. Other workplaces may recognize some or more elements of this thick description and can extrapolate some of the findings to their setting [115], i.e., form an idea of how an intervention could work in their setting. Thus, findings of a responsive evaluation in one workplace can be translated to other, similar workplaces. A second challenge is related to confirmability, i.e. the possibility for other researchers to verify the interpretations of the data [56]. All researchers have biases, for instance due to their (cultural, educational or social) background, that can trickle down to the interpretation of data [111]. Researchers should be aware of their biases and reflect on this especially in responsive evaluation, as often a large part of the data is qualitative, of which a part consists of data collected through informal conversations during participant observations. This form of data collection is less controlled like in an interview which is audio-recorded, which requires researchers to keep an audit trail of all data collected and reflect on their biases [56]. All in all, researchers that use responsive evaluation must face the challenge of demonstrating the relevance of findings for other settings in a different way than in traditional evaluation methodologies, as well as putting lots of efforts in systematically keeping track of all the different forms of data collection.

Strengths and limitations of this communication

A strength of this communication is that it provides examples of two responsive evaluations in the work setting to illustrate responsive evaluation's potential added value. Other approaches for WHP evaluation have also been proposed, but these generally do not include empirical examples. Yet, examples can help researchers to get a better idea

of how a new evaluation methodology in the WHP field works. A second strength is that, in addition to describing the various characteristics of responsive evaluation such as its aims and frequently used methods, we have compared it with a traditional evaluation methodology, the RCT. The reason for doing this was not so much the comparison as to inform the reader of the different scientific grounds on which both are based. These grounds impact what is considered good science and what is not. Information on the underlying scientific philosophies may enable researchers who are considering responsive evaluation to better evaluate its added value.

A limitation of this communication is that it describes only one methodology for evaluating WHP interventions. There certainly are other approaches that are of interest for WHP evaluation as well, for instance realist evaluation [158] and citizen science [182], which have similarities and differences to responsive evaluations. However, the added value of this paper lies in the comprehensive, empirically illustrated, and focused description of responsive evaluation. This allows other researchers to understand, consider and use this approach for their own research. A comparison between approaches certainly also has its value, as this provides overview of various methodologies that may be an alternative to traditional approaches for WHP evaluation. However, this would most likely reduce the extensiveness of the insight in the various methodologies, compared to focusing on one approach.

Conclusion

This communication presents responsive evaluation as an innovative methodology for evaluating WHP interventions. It describes why responsive evaluation is suitable for addressing workplace evaluation challenges such as the changeability of the work setting and the need to better match evaluations to the lifeworld of employees, especially those with a low SEP. In addition, it provides insights into the scientific philosophy underlying responsive evaluation, how it has different expectations of what constitutes good science, and why some elements might be relevant for WHP evaluation. Responsive evaluation also faces challenges, such as the translation of findings from one setting to another, although suggestions on how to do so are provided. Other methodologies for WHP intervention evaluation should be explored in future research to further contribute to finding ways to evaluate WHP interventions.

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CHAPTER 7

7

General discussion

Background

Socioeconomic health inequalities are a concern of many modern welfare states. People with a low socioeconomic position (SEP) generally have a shorter life expectancy (between 5 and 10 years), as well as a shorter disability free life expectancy than people with a high SEP (between 10 and 20 years) [23]. Workplace health promotion (WHP) is considered one of the promising ways to contribute to reducing these socioeconomic health inequalities [18, 183]. The workplace offers a physical and social infrastructure for health promotion interventions, and people spend much time of their lives at work [25]. Also, as explained in chapter 1 of this thesis, WHP allows to target influences on health on various levels of the socioecological model. For example, working conditions on the institutional level, social support on the interpersonal level and health behavior on the individual level. To date, most existing WHP interventions focus on the individual level, e.g., targeting health behavior through counselling or changes in the physical environment [28, 29]. The effectiveness of such interventions on health and related outcomes for employees in general has been limited [31, 32], as well as for employees with a low SEP [47, 67]. One of the explanations for this lack of effectiveness is that these WHP interventions – focusing mainly on individual behavior change - may in their current form not suit the needs of employees with a low SEP [11, 45]. As a result, calls have been made in the field of WHP for innovative approaches that better suit the needs of employees with a low SEP [158, 182, 184].

This thesis centralizes around such an innovative approach, consisting of stakeholder dialogue as an integrated intervention - targeting both individual and organizational factors - and responsive evaluation as a participatory approach for evaluation. In responsive evaluation, stakeholders are involved in defining relevant outcomes of and themes for the intervention. Particular attention is paid to those who are generally not involved [185], and whose perspective is mostly needed to improve WHP, namely employees with a low SEP. The intervention and evaluation approach central in this study were considered suitable to deal with the complexity of the work setting for health promotion. More specifically, dealing with the involvement of many stakeholders in WHP, ethical considerations regarding WHP and diversity among employees with a low SEP.

Objectives of this thesis

The overall objective of this thesis was: *"To understand if and how an integrated intervention in combination with a participatory evaluation approach in workplace health promotion, can contribute to the health of employees with a low socioeconomic position, and with this contribute to the reduction of health inequalities."*

This overall objective was divided into three sub-aims related to 1) the role of diversity in the effectiveness of existing WHP interventions, 2) the development and implementation

of stakeholder dialogue (consisting of moral case deliberation) as an integrated WHP intervention and evaluation of its perceived impact through responsive evaluation 3) the potential scientific contribution of responsive evaluation as an innovative evaluation methodology in the field of WHP. The main findings regarding these sub-aims are presented below. Afterwards, a general reflection on conclusions, implications and methodological considerations is presented.

Main findings

The role of diversity among employees with a low SEP in existing interventions

Aim 1: **Explore if and to what extent diversity among employees with a low SEP plays a role in the effectiveness of existing workplace health promotion interventions on self-perceived health**

Chapter 2 consists of an Individual Participant Data (IPD) meta-analysis, with the aim to understand if existing WHP interventions – mostly with a behavioral focus - improve self-perceived health of employees with a low SEP, and whether effectiveness differs among employees with a low SEP regarding gender, age and marital status. It was hypothesized that these social determinants could intersect with SEP and influence the effect of interventions on different groups. Individual participant data from 1906 participants with a low SEP, from six intervention studies on promoting healthy behavior and preventing obesity, were used. These data were derived from an existing dataset on of Dutch WHP interventions. Findings of the IPD meta-analysis showed no effects on self-perceived health for employees with a low SEP, neither were there differential effects for gender, age and marital status. Although this study did not confirm the hypothesis that the impact of WHP interventions varies among diverse employees with a low SEP, the lack of overall effectiveness on health confirmed the need for innovative approaches for WHP. Also, the relatively limited number of participants with a low SEP in the overall dataset (20%) confirmed their underrepresentation in WHP studies.

Development and implementation of stakeholder dialogue and responsive evaluation on perceived impact

Aim 2: **Develop and implement an integrated workplace health promotion intervention consisting of stakeholder dialogue (moral case deliberation) in two organizations, and evaluate its perceived impact through responsive evaluation**

Chapter 3, a Study Protocol, elaborated upon the selection of moral case deliberation (MCD) as the dialogue method for the stakeholder dialogues. Also, it described the several adaptations that were made in language and duration to increase the suitability of MCD for the work setting and for employees with a low SEP. The planned activities of the responsive evaluation of two years were also described. Planned methods were interviews, participant observations, HRM-data and questionnaires. These activities would

take place in two organizations, a harbor service provider (organization 1) and a sheltered workplace (organization 2).

In **Chapter 4**, the impact of the intervention consisting of stakeholder dialogue in organization 1 (harbor service provider), was evaluated. In this organization, there were no other WHP activities, thus stakeholder dialogue was implemented as a 'stand-alone' intervention. Through interviews, participant observations and HRM-data, mental health and high workload were defined as relevant themes for the stakeholder dialogues. Over the course of two years, eight stakeholder dialogues with in total 57 participants took place on topics related to mental health and high workload. The perceived impact of the stakeholder dialogues was evaluated with qualitative methods (interviews and participant observations). Changes were detected on the case level (e.g., agenda setting on health-related topics), the individual level (e.g., recognition and learnings), the team level (e.g., enhanced understanding between employees from different departments), and the organizational level (e.g., insights in existing health issues of employees and actions in line with those learnings). The bottom-up approach of the responsive evaluation and the focus on daily experiences in the stakeholder dialogues, led to an organizational learning process on what is important for employees regarding WHP. The organization took actions based on these understandings. However, as this learning process took time as well as the actions taken after it, it remained unclear how these actions were appreciated and affected employees' health on the longer-term.

The starting point of the responsive evaluation in organization 2 (sheltered workplace), central in **Chapter 5**, had a different starting point than the responsive evaluation in organization 1 (harbor service provider. Contrary to organization 1, the sheltered workplace had several existing WHP activities, consisting of various educative workshops on health lifestyle behavior, as well as discounts for engaging in health promoting activities. Despite its extensiveness, participation in the offered WHP activities was limited. The responsive evaluation in this chapter had the character of a process evaluation with the aim to understand the limited participation in the WHP activities and finding opportunities for improvement. Data was analyzed through the lens of care ethics (Tronto, 1993), as this allowed to analyze both the role of employees as well as of supervisors and the circumstances under which the sheltered workplace had to operate in low participation. For employees, the limited participation could be explained by the challenges the program imposed for some employees, mentally (e.g., difficulties with understanding activities), physically (e.g., not being physically able to participate) and practically (lack of time due to other obligations such as informal care). The role of supervisors was that they wanted to motivate employees for the WHP program, but that they did not have enough time and resources due to an increasingly commercial organization. Stakeholder dialogues revealed several opportunities for improvement to make the WHP activities more attractive for employees, such as a more collective approach (working on health together), tailoring WHP activities and considering different physical and mental capabilities of employees and enhance the relevance of activities for daily life by linking them to concrete themes

such as sleep and maintaining social contact. The sheltered workplace indicated that these findings would be used to improve the WHP activities. However, like in the harbor service provider, these plans for improvement were made at the end of the evaluation, so the long-term impact of these changes on participation and employee satisfaction about the WHP activities could not be described.

Responsive evaluation as an innovative evaluation methodology

Aim 3: **Explore the potential scientific contribution of responsive evaluation as an innovative evaluation methodology in the field of workplace health promotion**

Chapter 6 was a reflection on the potential of responsive evaluation as an alternative for traditional evaluation methodologies such as the RCT. As responsive evaluation is rooted in a different philosophy of science than traditional evaluations such as the Randomized Controlled Trial (RCT), it has different objectives, methods, and types of evidence. To allow researchers to consider the suitability and quality of responsive evaluation based on the corresponding philosophies of science, this chapter thoroughly described these differences. Also, it describes for which purposes responsive evaluation is potentially more suitable than traditional methodologies such as the RCT. First, the continuous design and the focus on practice improvement make responsive evaluation especially relevant for context subject to change. Second, according to a social-constructivist philosophy of science underlying, responsive evaluation is especially interested in meanings people give to for example WHP. Because the researcher participates in the daily environment of people, more insight can be gained in what people find important in WHP and how it can be improved.

General reflections

Themes and considerations in health promotion for employees with a low SEP

Although the organizations that were central in this thesis were different in many aspects, some themes played a role in both organizations. These themes may be of relevance for WHP interventions as well as for other forms of health promotion for people with a low SEP. These reoccurring themes will be described below, followed by a recommendation on how to use these themes in future research.

The salience of psychosocial context

The bottom-up approach and involvement of employees with a low SEP in responsive evaluation, allowed for health themes to come to the table that they considered important and relevant. In both organizations, the psychosocial context of employees – at work but also in their private lives - played an important role in health. In the harbor service provider, lack of control and autonomy in decisions at work were seen as hindering in working safe and healthy. Also, the feeling of not being recognized (interpersonally and financially)

were mentioned as decreasing employees' ability to deal with the high workload. For the employees in the sheltered workplace, limited social support and networks were psychosocial factors that influenced health. They affected health in employees' private lives because the small social networks make it more difficult to cope with everyday life and to engage in preventative health activities. The psychosocial context was also important in relation to the existing WHP activities, limited social support and networks were mentioned as reasons for employees not to participate as they did not want to participate alone. Also, limited social support made it difficult to maintain behavior that was learned in the WHP activities. Thus, employees presented the psychosocial context in various ways as an important aspect of their health.

The role of psychosocial context in health and health inequalities has been acknowledged before. An unfavorable psychosocial context due to limited social support and psychosocial work hazards have been linked to poorer health of people with a low SEP indirectly and directly [186]. The indirect link between psychosocial context and health means that unfavorable psychosocial contexts (e.g., low rewards) can lead to changes in the brain chemistry, that make one more sensitive to unhealthy behaviors [187]. However, in most literature on the psychosocial context, the relation between psychosocial context and health is more directly. Experiencing inequality, domination or marginalization in both the workplace and in society in general, e.g., through low control or an imbalance in effort and rewards, cause physiological stress and with that have a direct impact on the cardiovascular system [188, 189]. In line with this psychobiological pathway are the findings of a systematic review on the relation between the psychosocial work context and health inequalities, that showed that a psychosocial context with a lack of job resources (e.g., autonomy) in combination with physical work factors (e.g., heavy lifting) explain about one-third of the socioeconomic health inequalities among employees [88]. For comparison: differences in lifestyle behaviors explain one-fifth of these inequalities. Dieker et al., [88] concluded that it should be further explored which factors in the psychosocial context contribute to poorer health and health inequalities.

The findings of this thesis show that stakeholder dialogue as an intervention may contribute to further understanding the influence of psychosocial context on health. In the stakeholder dialogues, participant shared experiences with health themes from their daily lives, and the psychosocial context was often part of these health themes. For example, a lack of involvement in organizational developments was a psychosocial factor that was important in relation to health themes high workload and mental health. As employees were not informed about developments such as the as the arrival of a new customer, employees were not able to anticipate on the increasing workload, which among other things, also impacted their mental health on the longer term. This example shows how stakeholder dialogue can provide insight into which factors in the psychosocial context play a role. In addition, stakeholder dialogue also focuses on findings solutions and formulate actions for improvement, which can contribute to working towards a healthier psychosocial context.

The need to diversify SEP as a social category

Although no differences in effectiveness between employees with different characteristics with a low SEP were found in chapter 2 (Individual Participant Data (IPD) meta-analysis), the responsive evaluations in the two organizations showed that diversity among employees with a low SEP does play an important role in what is important in the design of WHP. The populations of the two organizations central in this thesis were different in several ways. Different social categories played an important role in the themes that were brought forward by employees for WHP. For example, in the sheltered workplace, the relatively older age of the population in combination with disability impacted the physical, mental and practical possibilities to participate in WHP activities offered by the organization. In the harbor service provider, employees were generally young and male. This lack of experience in combination with wanting to uphold an image of a strong men, prevented employees from asking for help when they were in doubt about the safety of a situation. They feared negative consequences for their contract and being perceived as 'weak' if they would ask for help. This fear of negative consequences also impacted employees' mental health. For both populations, factors associated with SEP played a role too. For the employees in the harbor service provider, their insecure position (i.e., not having a permanent contract and having the idea that they were at the bottom of the hierarchy) in the organization made them reluctant to speak up about safety. Because of low wages of employees in the sheltered workplace, it was necessary for some to work more hours, but because of that they had less energy less for engaging in the WHP activities. All in all, the intersections between various social categories (such as age, gender, able-bodiedness, SEP) influence health themes among populations of organizations, and with that guide the direction and focus of WHP.

The impact of various social categories highlights the importance of intersectionality among employees with a low SEP. Only considering SEP in WHP does not take into account the 'double burden' that the intersection of various social categories can cause [190]. Also, it can lead to stigmatization of people with a low SEP if they are directly connected to being unhealthy, without taking into account differences among people with a low SEP and various other social categories and determinants that impact health [191]. General interventions for people with a low SEP are likely to be ineffective, and may also contribute to existing stereotypes of people with a low SEP if the ineffectiveness is associated with an unwillingness of people to change [192, 193], while the interventions are just not well enough adapted to whom they are intended for. This thesis confirmed that by showing that intersectionality does influence the direction of intervention and evaluation.

In addition to the diversity of employees, the specific characteristics of both organizations played a role in what was important for WHP. The harbor service involved physically demanding work and a masculine culture, making asking for help in questionable safety situations even more difficult for the young male employees. In the sheltered workplace, the work was designed in such way as to burden the employees minimally and the emphasis of WHP was focused on health behavior. The advantage of responsive evaluation

is that it allows to dive into those unique contexts and adjust the aims of WHP accordingly, thereby doing more justice to the complexity of the reality of employees with a low SEP.

Towards enabling contexts

The idea of unique contexts and aims for WHP is also in line with the capability approach. The capability approach was introduced by economist and philosopher Amartya Sen (1993), and also translated to the work context by Abma et al., 2016. The capability approach is based on the idea that different people (e.g., in terms of income, gender, age), need different things to organize their lives the way they want (i.e., having 'capabilities'). People may have access to various resources (e.g., a WHP program), but they are not always enough to achieve what one needs (e.g., health), because conversion factors are needed (e.g., physical and mental possibilities, a car and social support) to convert the resource in what one needs or desires. In different situations, different people need different resources and conversion factors to be healthy. The capability approach helps interpret the findings of this thesis and led to the suggestion that it might be useful to aim for 'enabling working contexts' in WHP. With this, more emphasis can be placed on the unhealthiness of contexts instead of on the general unhealthiness associated with having a low SEP.

Potential and limitations of an innovative approach for improving health of employees with a low SEP

This thesis centralized around an innovative intervention and evaluation methodology in the field of WHP. Different from more traditional approaches in WHP, the intervention and evaluation of this thesis were not separated, but interrelated parts of the approach. Therefore, stakeholder dialogue and responsive evaluation regularly appear side by side in the reflections.

Organizational learning processes allow to slowly move away from the 'lifestyle-drift'

In both organizations, an organizational learning process was observed as a result of the stakeholder dialogues and responsive evaluation. This learning processes came about because the responsive evaluations identified themes that were relevant to stakeholders, and more information on these themes came up in the stakeholder dialogues. The bottom-up approach led to 'actionable knowledge' that could be translated into contextually relevant strategies [195]. The organizations could use this to for improvements, in the harbor service provider in the form of various actions such as improving the internal communication, and in the sheltered workplace in the form of improving the existing WHP activities. Because these improvements took place at various levels (individual, team, organizational), the approach and potentially also other participatory approaches can perhaps counterbalance the lifestyle-drift [193]. This concept is originally used in relation to public policy, and implies that policy makers are often guided by neoliberal values such as personal responsibility, which results in policies that strongly focus on individual behavioral change [193, 196]. The neoliberal values also underpin in health promotion in general [33], and also seem to be so in existing WHP interventions.

Although the approach central in this thesis appears to be less focused on individual behavior change, it cannot be totally avoided that even in participatory approaches decisions will be made based on these neoliberal values, since they are the dominant values in the society in which we live. Although various actions were taken by the harbor service provider that impacted the working environment of employees, other actions implied individual responsibility of the employee, for example in dealing with work pressure (e.g., by becoming more resilient). Although this may be part of the solution, other factors, such as the psychosocial context cannot be ignored. Researchers using responsive evaluation should be aware that they and organizations as well operate in a society in which neoliberal values are dominant, and that they are probably guided by these values when choosing solutions. With a role as 'Socratic Guide', it is legitimate and expected of the researcher using responsive evaluation to critically reflect on this and provide feedback to the organization under study.

Long-term impact: limitation or lofty ideal?

It was argued in chapter 4 that employees' health may have benefited from learning resulting from the stakeholder dialogues. Other studies on interventions consisting of dialogue have also found that participants had become more aware of factors at work that impacted their health [197]. Also, the perceived changes as a result of the organizational learning processes may have been beneficial for health as they allowed to target factors underlying specific health issues. For instance, in the harbor service provider, a program to exchange employees from different departments may have improved mutual understanding, which was an important factor in the extent to which employees experienced work pressure. However, the organizational learning processes took time to take place as well as the changes that followed from that. Therefore, it was not possible to evaluate in the timespan of the evaluation how employees were affected by these changes and how this potentially affected their health. In the sheltered workplace, the evaluation of two years ended with the plan of the organization to change the existing WHP activities. There was no time left to evaluate how these new activities were appreciated by employees in if it attracted more participants.

Showing (long-term) impact is a known challenge in participatory health research. Learning processes take time especially when they require those with power to change perspectives and policies [55]. The use of indicators has been proposed to evaluate impact on the longer-term [55]. However, the longer the durations of these evaluations, the lower the validity of such indicators as the likelihood of other developments impacting those indicators increases (e.g., COVID-19). Evaluations with longer durations may increase the challenge of 'attribution' as when times passes, it will be more difficult to ascribe changes in indicators to the intervention. Possibly, a shorter period between the stakeholder dialogues could have fastened the learning processes which would have allowed another 'cycle' of evaluation. The question is however whether much more time is needed to monitor such learning processes.

The importance though of the perceived changes in this thesis can be explained using the Action scales model [198]. This model, rooted in system approaches to public health, derives from the idea that for long-term impact to take place (e.g., improve health of employees), changes in the system need to take place first. As these changes take time, the focus should be on whether interventions contribute to a change in the system. For example, changes in goals and beliefs are considered fundamental to system change, as they seek a paradigm shift and change of the status quo [198]. The stakeholder dialogues in combination with responsive evaluation in this thesis did contribute to change in beliefs. For example, the sheltered workplace realized the importance of a collective approach to WHP rather than an approach focusing on individual responsibility and autonomy of the employee. This shows that stakeholder dialogue and responsive evaluation in a work setting can lead to a change in the status quo, which when looking from a system approach perspective, may be very important for actual long-term change in health.

Relevance of findings for other work settings

As the findings in both organizations were strongly context-dependent, taking conclusions on the potential impact of stakeholder dialogue in other work settings remains a relevant question. Chapter 6 explores the concept of transferability as an alternative for generalizability. By providing a thick-description of the context under study, organizations similar to those under study can imagine what might happen in their organization [118]. For example, organizations like the harbor service provider, large-scale organizations in the industrial sector with a masculine culture, may recognize the themes of the responsive evaluation and relate the findings of findings of the stakeholder dialogues in the harbor service provider to their own organization.

Despite transferability, the limited insight in longer-term impact and lack of measurable impact in the responsive evaluations of this thesis, poses a challenge for deploying stakeholder dialogue in other organizations. Like policy makers in the public sphere, decision makers in organizations often want to know whether an intervention is worth the investment. For this, they prefer to see a cost-effective intervention that they can compare to its costs, with which they can compare the benefits against the costs [33]. However, a training for occupational nurses on stakeholder dialogue following the studies included in this thesis, taught that it is precisely the execution of the stakeholder dialogues that provides arguments for the added value of the intervention [199]. Although the nurses generally recognized the potential added value of discussing health themes that employees came up with themselves, they had concerns about how to convince managers of the need for stakeholder dialogue, especially because they could not show quantitative data on the impact of the intervention. However, after experimenting with the stakeholder dialogues in their own organizations, the occupational nurses felt more equipped and hopeful that they could convince the decision makers through narrative evidence, for example by describing that participants really appreciate being asked to share their experiences and ideas and the collection of innovative ideas for improvements in the organization. Narrative evidence has been acknowledged as increasingly important

to for the implementation of interventions in Dutch national research agendas [200]. This thesis has shown that responsive evaluation mainly meets the demand for narrative evidence, which requires a different attitude towards evidence from decision makers in organizations.

Despite the possibility of transferability and the importance of narrative evidence, it may be interesting to also consider other evaluation approaches that provide more insight into the underlying mechanisms driving the changes. Although descriptions of responsive evaluations could allow readers to extrapolate why certain changes took place in a specific context, describing such mechanisms is not the main objective of responsive evaluation (that is practice improvement). An evaluation approach that does have the objective to provide insight in why changes take place in certain contexts and through which mechanisms, is realist evaluation. This is a theory-driven evaluation approach, in which mechanisms of change are empirically studied through 'context-mechanism-outcome'-configurations (CMO's) [201, 202]. The rationale of CMO's is that "change occurs when interventions, combined with the right contextual factors, release generative mechanisms" [205 p.202]. Realist evaluations provide a way of understanding how interventions work, and how they can be improved and adapted to a specific context [204]. Like responsive evaluation, realist evaluation thus also focuses on improvement of interventions in practice but provides CMO's that can be used for more insights in the working mechanisms for the purpose of transferability of findings to other settings. Therefore, realist evaluation may be an interesting approach for further research in WHP, which has already been recommended before [158].

The value of bottom-up and participatory approaches

The previous section focused on the potential and limitations of an innovative approach in WHP for health of employees with a low SEP. In this section, some additional reflection is provided on the participatory aspect of the innovative approach. The reflection relates to how participatory research can contribute to health of employees through better relations in organizations, and shortly on how participatory research is relevant to the existing gap between different socioeconomic groups in society.

Improving organizational relationships

In both the organizations central in this thesis, there was a gap between the decision makers in the organization and the employees from the shopfloor. Employees often did not feel really involved in decisions. For example, despite institutional means for participation, the communication between the decision makers and the shopfloor in the harbor service provider was not without challenges. Also described in Chapter 4, some employees indicated that they felt that the management was not aware of the daily reality of the employees. Also, they were reluctant in raising issues and concerns, because they feared negative reactions if they would do so. The other way around, the management did not understand why certain issues were not communicated to them before, which contributed to misunderstandings. However, by being confronted by

each other's perspectives through the stakeholder dialogues and responsive evaluation, mutual understanding increased. This also occurred in the sheltered workplace. Listening to the stories of employees that experienced challenges with health promotion activities, for example because of fear to go alone to a new place, led to recognition in some of the decision makers in the sense that they faced similar challenges themselves. This increased understanding for employees who did not participate because they came to the realization that it was not just a matter of unwillingness on the part of employees. In participatory research, different perspectives are brought together, which enhances mutual understanding which can lead to better relationships in organizations. These good relationships are also an important for a healthy psychosocial work context [205]. Participatory research can thus contribute to improving factors important for the health of employees with a low SEP.

Participatory approaches can also contribute in another way to relations in organizations. Namely by involving employees in decisions in the organization, also regarding WHP. Employees have first-hand knowledge and experiences with interventions, that can be informative on how to improve them [55]. For example, simplifying the communication on the WHP activities in the sheltered workplace. Participatory approaches can contribute to the perceived 'procedural justice' of decisions regarding WHP. Procedural justice is about whether people find the process in which decisions were made, that affect them, has been just [206]. Often, people find the process more just if they had a say in the process themselves [206]. They may also be more supportive of decisions in which they were involved [11] , and have a more positive view of the decision makers [207]. For example, the participants of the stakeholder dialogues in the sheltered workplace showed understanding for the difficult task of the sheltered workplace to provide a WHP program that is relevant for many different employees.

Bringing together people with different socioeconomic positions

In the studies central in this thesis, employees showed appreciation of being asked for their opinion and perspectives. Being involved in participatory approaches can be empowering when employees notice that their view is valued and considered worthy enough to be heard by decision makers [55]. This is especially important in organizations such as those central in this thesis where there is a large hierarchical distance between management and operational employee. Involving those who are generally not heard is important in the light of the current 'dichotomy' between people with a high and low socioeconomic position, that exists in various modern Western societies [192]. There is little contact between both groups, which contributes to existing stereotypes about each other [193]. If WHP interventions and more general public health policies are based too much on stereotypes and too little on people's daily experiences, people with a low SEP may feel paternalized by those with a high SEP [208]. This may reduce the acceptance, as well as enhance mutual feelings of misunderstanding [193]. Intergroup contact through participatory research may enhance mutual prejudice and understanding [209]. The current rise of different participatory approaches such as citizen science

[130], Participatory Approach [210], and ethnographic approaches [211] in WHP and in public health interventions in general [e.g., 214], is a promising development that could contribute to bringing together different socioeconomic groups in society and thereby potentially contribute to reducing health inequalities.

Risks of participatory approaches

It should be acknowledged that participatory approaches such as responsive evaluation also impose risks. Instead of contributing to trust between stakeholders, which is one of the aims of for example responsive evaluation, participatory approaches can also lead to mistrust and participation fatigue [213]. In the sheltered workplace, it was necessary to be aware of the risk of participation fatigue. The organization regularly participated in research projects, in which employees were asked to participate in interviews or other research activities. It was raised by a participant that often the same employees are asked for health-related research. According to this employee, the choice for those employees had to do with their physical condition. Through participant observations in the form of participating in the work activities, the researchers tried to recruit a variety of people and asked various employees if they would be interested to participate in the dialogues. Unlike the supervisors who also recruited employees, the researchers did not know the employees, which had the advantage of not asking employees based on something they knew about the employee. However, also researchers have their own unconscious prejudices and values, so participants may still sometimes be selected based on these prejudices and values.

Methodological considerations

Participants and sample

Comparability of organizations

A strength of this study is that the innovative intervention and evaluation were conducted in two different organizations. Due to the large differences between the organizations (e.g., in terms of work type and characteristics of employees), more insight could be gained in the way in which the intervention and evaluation can take place in different type of organizations. This contributed to the transferability of findings [118]. Although both organizations employed employees with a low SEP, the great diversity between the employees of both organizations contributed to the conclusion described earlier in this chapter that 'employees with a low SEP' does not reflect the complexity of factors contributing to health inequalities. Moreover, the different ways in which the intervention and evaluation were carried out (namely in the harbor service provider the intervention was a stand-alone intervention which was evaluated through responsive evaluation, while in the sheltered workplace stakeholder dialogue was a method in the responsive evaluation), confirmed the need described in the first chapter of this thesis for context oriented WHP interventions.

Worksite health promotion and health inequalities

It is necessary to reflect on the possibilities of health promotion in the work setting for reducing health inequalities. People with a low SEP who work, are generally healthier than people with a low SEP who do not work. This can be explained by a selection effect, people who work are healthy enough to do that and therefore have a better starting position when it comes to health [214]. This raises the question whether the workplace is the best setting for health promotion, when aiming to contributing to the reduction of health inequalities. Still, the studies in this dissertation as well as other studies highlight the impact that unhealthy circumstances at work can have on health and inequalities [88]. Therefore, work should continue to receive attention when it comes to reducing health inequalities. This thesis showed that stakeholder dialogue and responsive evaluation can lead to change related to unhealthy circumstances at work and has pointed in the direction that these circumstances are considered important by employees themselves too.

Design and procedures

Degree of participation

Participatory research can be performed to various extents. In this thesis, the degree of participation according to the classification of Fetterman (2014) was 'collaborative evaluation'. This means that there was ongoing engagement between stakeholders and researchers, but the researcher remained in charge of the decisions about methods and data analysis. For example, it was decided before the responsive evaluation that the intervention would consist of stakeholder dialogue according to the method of moral case deliberation (MCD). Also, employees were not involved in the data analysis as would be the case in more intensive forms of participatory research, such as 'participatory evaluation' or 'empowerment evaluation' [215]. Possibly, a higher degree of participation would have made employees recognize the participatory character of the evaluation more. Sometimes participants asked the researchers if they collected enough data for their studies, which gave the impression that some participants were not recognizing the participatory character of the study. It was emphasized by the researchers that the main goal of the research was to improve their work situation regarding health, rather than only collecting data for the purpose of research. It seemed that, the ideas of participatory research are not that known yet among 'lay-people'. These experiences show that researchers must put effort in communicating about the objectives and characteristics of participatory research. Potentially, a higher degree of participation (e.g., involving employees in the decision of methods and data analysis too), would make this objective more clear and easier to explain.

Intervention

Challenges of moral case deliberation as a WHP intervention

Some challenges were experienced when performing moral case deliberation (MCD) in the work setting. First, the dialogue method follows a strict structure with steps that inform each other. Steps should not be shuffled as this could lead to a chaotic dialogue

with limited focus on the real issue discussed [216]. Following the structure requires asking participants to wait for certain contributions until the right moment in the dialogue. This was a challenge as participants were sometimes excited to share their experiences and with that unintentionally touching upon topics that related to steps further in the dialogue. Guarding the order of steps sometimes felt uncomfortable for the moderators. However, it was in the end easier to guide the dialogue according to its structure, as this allowed for more focus at each step and information was not shared twice unnecessarily. Occupational nurses who performed MCD in other organizations as part of a training about stakeholder dialogue about the intervention, recognized this experience.

Data collection

Adapting methods and tone of voice to preferences employees

The perspectives of employees stood central in this thesis. In order to gain insight in their perspectives concerning WHP, the preferences of employees regarding methods and tone of voice were leading in the decisions of the researchers. For example, in the harbor service provider, the researchers intentionally used the wording of employees on health topics in the stakeholder dialogues and other encounters with employees. For example, high workload, sometimes resulting in burn-out, was one of the important themes. The researchers could also refer to this by using the word 'stress' but did not do this to avoid that employees would no longer recognize themselves in such description of the problem. This was especially important in this masculine work environment where high workload and burn-out were sensitive topics. By aligning to the language of employees, they may have felt safe enough to talk about it anyway.

In the responsive evaluation in the sheltered workplace, flexibility was required from the researchers in term of methods. The researchers noticed in interviews that employees did not always understand their questions, and that it was difficult for the researchers to better explain themselves at the moment of the interview. Therefore, it was decided to perform participant observations in addition to the interviews, in the form of working in the sheltered workplace for several days (and in addition to previous participant observations that had already taken place). By working alongside employees, informal conversations could first be started, which gave the researchers more time to introduce questions. After experiencing the challenges with interviews in the sheltered workplace, and after having experienced the challenges with MCD in the harbor service provider, it was decided that the method was not suitable for the sheltered workplace. However, MCD was not completely ignored, instead, some of the main characteristics of MCD such as sharing and comparing experiences, understanding values and working towards actions for improvement were integrated in the dialogue, without following the method strictly. In addition, illustrations were used as a support tool for participants as well as for the researcher who moderated the dialogue to maintain structure. The use of visualizations also worked well in the MCD session in the harbor service provider. All in all, MCD could be used in different work settings, provided that is has been (strongly) adapted, and supported with tools such as illustrations.

Final conclusion

This thesis aimed to understand if and how an integrated and participatory approach in WHP can contribute to the health of employees with a low SEP, and with this contribute to the reduction of health inequalities. Responsive evaluation made it possible to focus stakeholder dialogues on themes that were perceived as important by employees, and to gain novel insights in these themes. Responsive evaluation also allowed for flexibility when both organizations appeared to have different needs regarding the evaluation. The findings of this thesis show that stakeholder dialogue can contribute to employee health through changes in the work context, through creating changes on various levels (case, individual, team and organizational) and through an organizational learning process regarding health and work. Also, stakeholder dialogue can contribute to the strengthening of existing WHP activities, as the experiences and perspectives of employees provide insight into their needs and facilitate that they can share their ideas. However, the changes in the work context and finding opportunities to improve the existing WHP program requires time. Although it was not possible within the timeframe of two-years of the studies in this thesis to evaluate how employees experienced the changes and whether and how this has impacted their health, the changes in the work context and in the ideas on how to improve WHP activities, are a first but important change in the thinking of the organizations. It may also influence their choices on the longer term, which then do more justice to the needs of employees.

This thesis also aimed to contribute to the understanding of the potential scientific contribution of responsive evaluation compared to traditional evaluation methodologies in WHP such as the RCT. For this, the different underlying scientific philosophies of evaluation methodologies were compared. It has been a challenge, for the researcher who was trained in her studies in the positivist school, as well as most researchers working in the field of WHP, to switch between understandings of what good science is. Nevertheless, it could be concluded that responsive evaluation is especially valuable in research into target groups that are 'hard-to-reach' and about whom little is known about their lifeworld and needs. Because of the focus on the meanings people give to phenomena in the underlying scientific philosophy of responsive evaluation, the methodology allows to gain insight into the lifeworld of employees with a low SEP and into opportunities for improvement in practice. Methods are often qualitative, as these best suits the study of meanings and experiences. However, there is less attention for understanding the working mechanisms of interventions in responsive evaluation, which could be useful to enhance transferability of the findings. Other evaluation methodologies that are innovative in the field of WHP could be considered in this respect. For example, realist evaluation would allow to understand why certain changes take place in a specific context, and through which mechanisms.

While contributing to the reduction health inequalities through a four-year study is an unattainable goal, this thesis has provided several insights into important themes and directions for WHP for employees with a low SEP, which are possibly also relevant for health

promotion outside of the work setting. First, findings indicated that the psychosocial context, at work but also in people's private lives, should be considered in WHP. Second, the great diversity between and within populations of both organizations, as well as the differences between both organizations, led to the understanding that focusing WHP interventions on 'employees with a low SEP' does not do justice to the complexity of their reality. In each work setting it should be considered what is necessary to improve health, considering the unique characteristics of the people in that setting. 'Enabling contexts' based on different needs of people in different situations, may provide a good starting point for thinking about health interventions to reduce health inequalities.

Finally, this last chapter paid attention to the importance of participatory approaches in studying health promotion and health inequalities. This importance is not only related to instrumental benefits of participatory research, such as reaching people or create interventions that they find relevant themselves. There is also a normative argument for participatory approaches, as those who are affected and should be helped by interventions, should have a voice in what these interventions target and what activities they consist of. Moreover, creating space for the voice of those who are generally not considered in decisions also on a societal level, can help to bring together people with different socioeconomic positions, who need each other for health, now and in the future. Hopefully, this thesis inspires other researchers in different fields to use participatory approaches as well.

Supplementary files

Supplementary file 1- Protocol stakeholder dialogue

Extensive description of dialogue guideline, with aims and actions This guideline is based on the 'Dilemma-method', a form of Moral Case Deliberation [105, 217]

Adaptations made beforehand (to original form of moral case deliberation):

- **Duration:** we used a shortened version of the Dilemma-method, as described in 'Handleiding Moreel Beraad' [216]. We selected this version because of the time that was available for the dialogues in the organization (one hour), while at least one hour and a half is recommended for the full version of the Dilemma-method.

- **Language:** we have adapted the (Dutch version) of the steps of the Dilemma-method to B1 literacy level as much as possible. Online language level tools were used for this purpose. Abstract terms were avoided or explained. For example, a dilemma was explained as: a situation in which you doubt between actions that can both have a negative consequence. Another example of a language adaptation was, instead of asking 'What is the moral damage of option A'? we asked, 'What is the disadvantage of option A?'.

- Adaptations made during the evaluation are highlighted in red in the description of the guideline below.

Practicalities before dialogue:

- Bring/organize flipchart to summarize answers participants, as indicated at each step. Various pages of the flipchart will be needed.

- Bring informed consent forms, pens and an audio-recorder.

- Send an invitation via e-mail a few days before the dialogue to the participants. The e-mail should inform participants about the theme of the dialogue and contain instructions to think about a dilemma regarding the theme before the meeting.

- **Added during evaluation:** Bring an image related to the theme of the dialogue and place it at a visible place in the room. *Explanation adaptation: images turned out to evoke more associations with the theme than a verbal explanation alone.*

Guideline dialogue:

Background information:

1. Introduction of moderator and present researchers.

2. Explanation of research and research activities so far.

3. Explanation of the theme of the dialogue and check its relevance for the participants in the dialogue.

Aim of the dialogue:

4. Explanation of the aim of the dialogue
   - learning from each other.
   - sharing experiences/issues at work regarding health.
   - learn how to deal with/ finding solutions for these issues.

Before the dialogue starts:

5. Short introduction of all participants.

6. All participants share their dilemmas/situations (some participants may already have formulated a dilemma, for others the dilemma must be found in consultation with the moderator and other participants).

Write key words of all dilemmas/situations on the flipchart.

7. Moderator repeats situations and asks participants to vote for one the situations.

Step 1: Defining the situation

After deliberately selecting one situation for the dialogue, the situation must be understood well by all participants in the dialogue.

Aims of this step: define dilemma, all participants understand the situation that was brought in, formulate two concrete actions in the situation, and formulate the negative consequences of both options.

1. *To person whose situation is chosen*: Please explain the situation in a bit more detail.

Probing questions: where were you? What were you doing? What was it that you were doubting about? How did you feel about it? Which concrete actions can be attached to your doubt?

Write key words on the flipchart.

2. *To all participants:* Do you still miss information to understand this situation?

Probing questions: when did this happen? Why? To what extent? What does X mean? How did that look like? From where came..? What were causes?

3. *To person whose situation is chosen:* What could you do in this situation? Name 2 options.

Write option A and option B on the flipchart.

4. *To all participants:* What could be disadvantages of option A? And of option B?

Probing questions: why is that a disadvantage? What could happen if you make that decision?

Write disadvantages of choosing option A and B on the flipchart.

Step 2: Consequences and stakeholders
Aims of this step: understand what would motivate participants to go for option A, or B, which values play a role, which other parties are involved in this situation, and understand what other stakeholders/parties find important in this situation according to the participants in the dialogue.

5. *To all participants:* Why would you select option A? (What is the advantage of A), and for B?

Probing questions: why would you do that? What motivates you there? Why is that important for you? What will you achieve with that? What makes that you say that?

Write motivations of choosing option A and option B on the flipchart.

6. *To all participants:* Which other stakeholders/parties are involved in this situation?

Probing questions: who's affected by your decision in this situation? Who has a stake in this situation?

Write involved stakeholders/parties on the flipchart.

7. *To all participants:* What is important for these stakeholders/parties?

Probing questions: What do you think they would want? Why? What is their objective? What makes you think that? What is their interest?

Write interests of stakeholders/parties on the flipchart in keywords, if possible, translated to values.

8. *To all participants:* What other options do you have in this situation, apart from A and B?

Probing questions: are there alternatives to option A and B?

Step 4: Conclusion
Aims of this step: understand what participants would do in this situation, understand differences and similarities in the decisions for A or B or alternatives, understand how negative consequences of the options could be minimized, and understand the practical actions/measures on an organizational, team and/or individual level needed for this.

9. *To all participants:* What would you do in this situation? Would you go for option A, B, or an alternative? Why? (Ask person whose situation was brought in first).

Adaptation made after first three dialogues: *In the first three dialogues participants were asked to fill in a form. On the form they were asked to write down what option the participant would choose, why, how the negative consequences of that option could be avoided and what would be practically necessary to go for this option. Participants indicated that they did not understand what to write and that they did not like it. They preferred to explain their decisions verbally. Therefore, we decided to ask the questions that were on the form verbally.*

Write down the different answers on the flipchart. Write down count if possible.

10. *To all participants:* What are similarities in your answers? What are differences in the answers?

Probing questions: why did some choose option A/B? The majority selected A/B, why did you choose differently? Can you explain? What can we learn from this?

11. *To all participants:* How can we diminish the negative consequences of the option you've selected?

Probing questions: looking back at the disadvantages formulated for this option, what can be done to minimize those? What would you need for that? Whose support do you need for this?

Write down concrete actions/solutions that minimize the negative consequences of the options on the flipchart.

12. What do you practically need for your decision?

Probing questions: who is responsible for that? Who should be involved? What is a next step?

Write down practical needs on the flipchart.

Step 5: Rounding up
Aim of this step: formulate concrete actions and objectives.

13. To all participants: Which concrete agreements can we make now?

Probing questions: what could you do now, on short-term? What would you need from others, organization, team, supervisor?

Write actions and objectives on the flipchart.

Step 6: Evaluation
Aim of this step: evaluate the experiences with the dialogue.

14. To all participants: What did you think of this dialogue?

Probing questions: How did you experience being in a dialogue? Was it difficult, easy? Did you hear anything from others that you will take with you?

End of dialogue
15. Conclusion by moderator: explain what will be done with the formulated actions:

- A short report will be made; participants can read this report and adjust if deemed necessary.
- The short report will be shared with management.
- Planning of coming dialogues.
- Questions?

Supplementary file 2 – Coding schemes

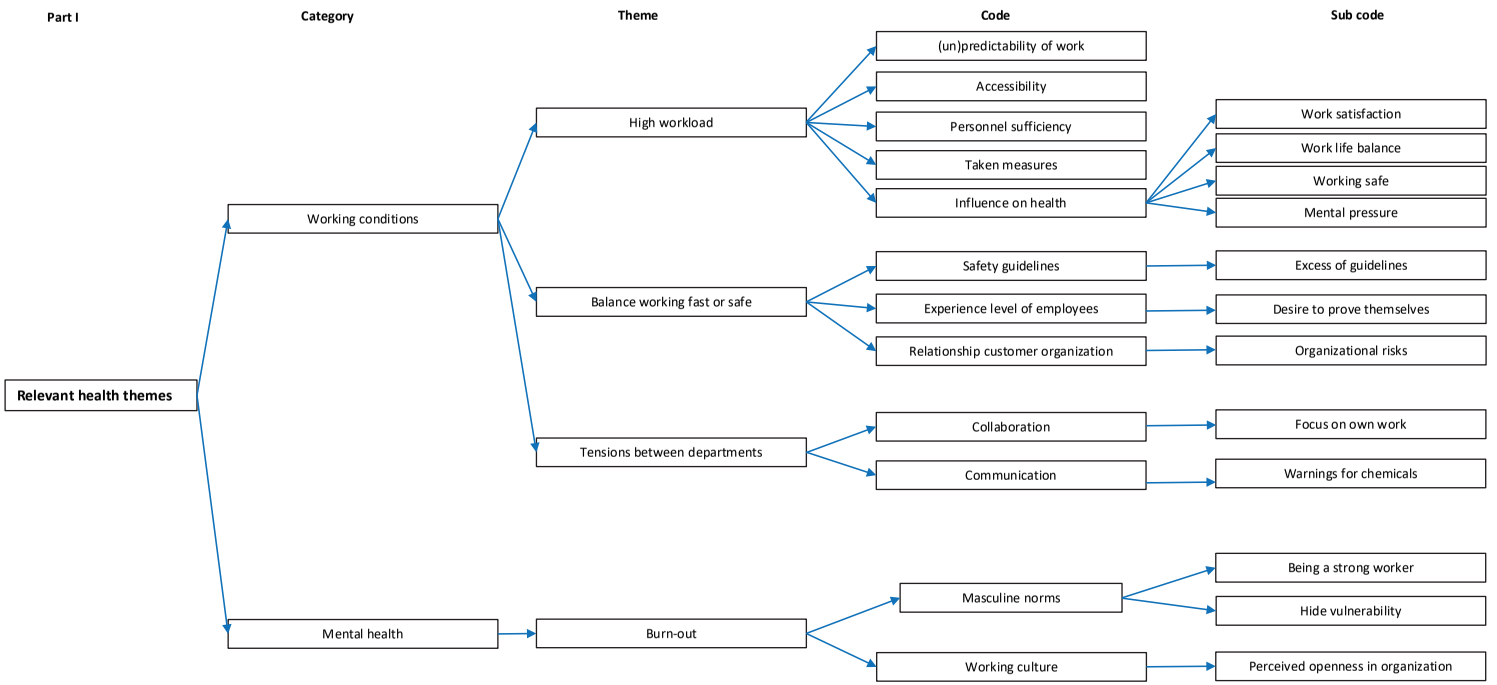


Figure 1. Coding scheme 1. Part I: health themes

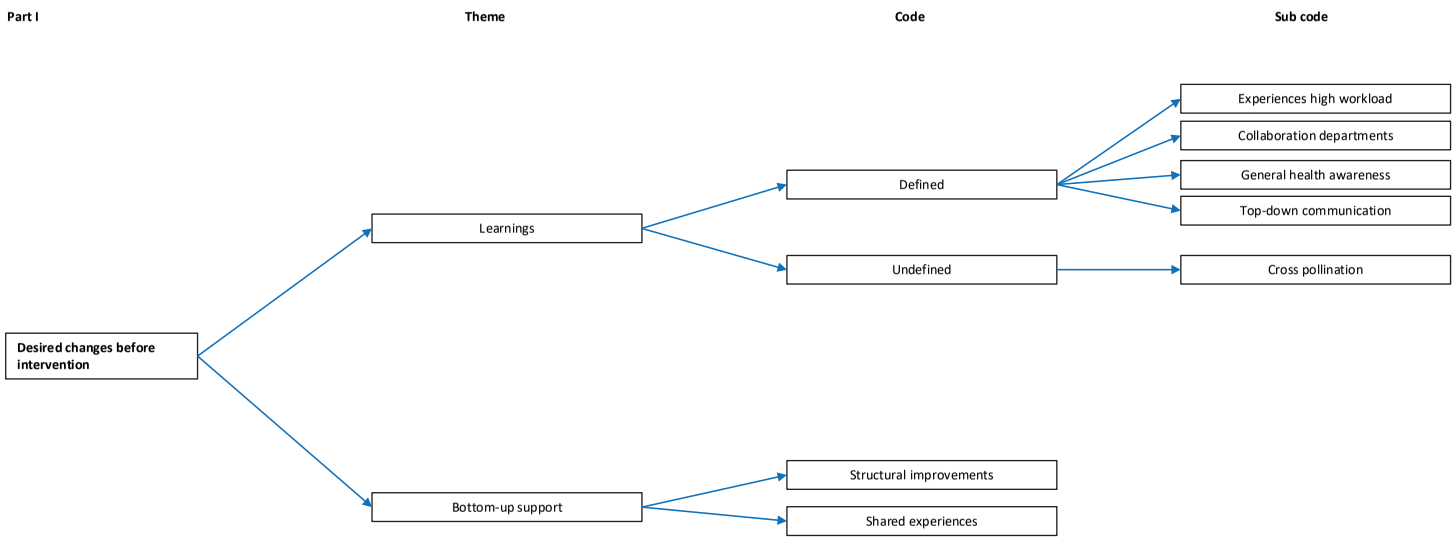


Figure 2. Coding scheme 2. Part I: desired changes before intervention

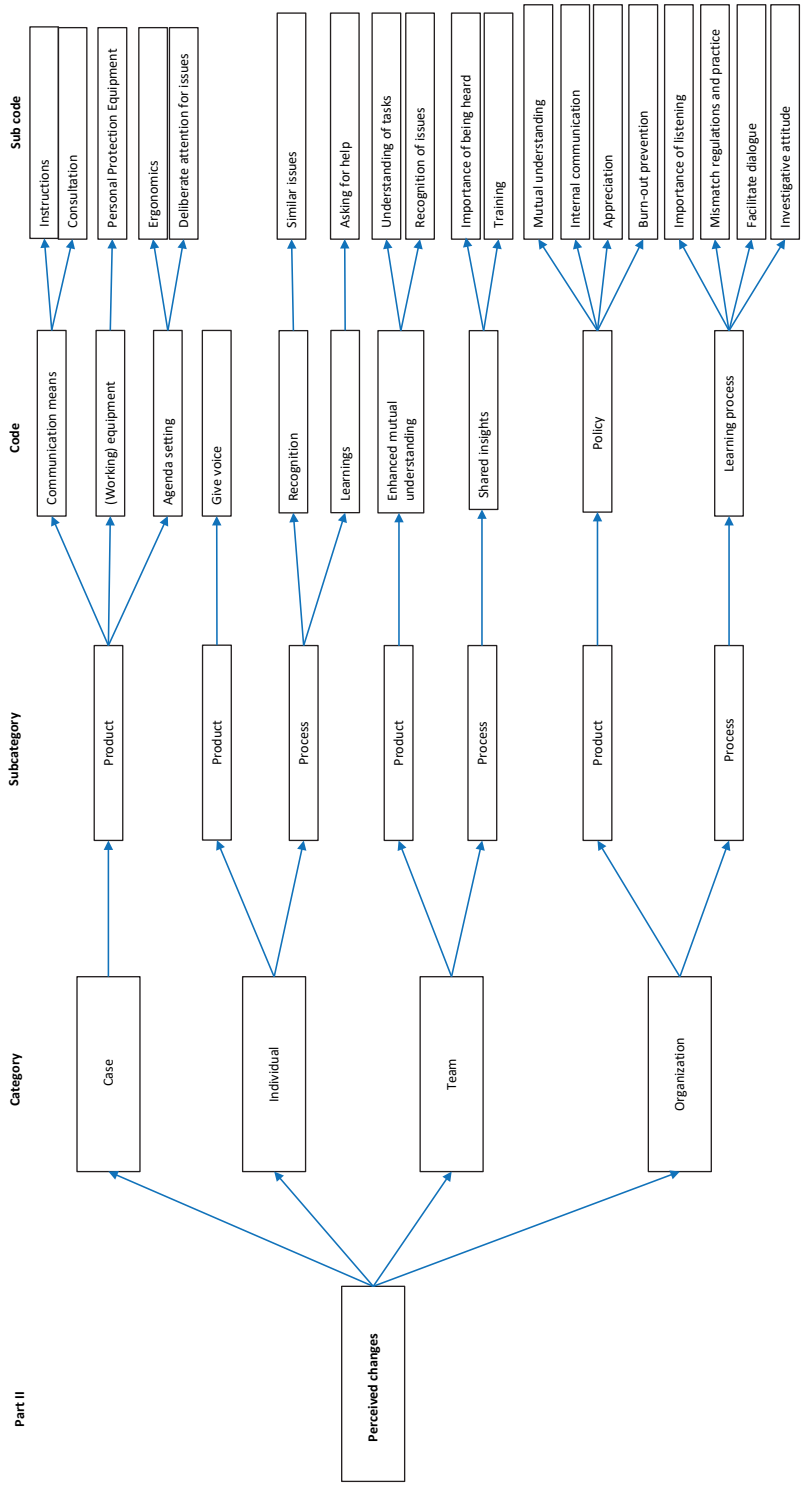


Figure 3. Coding scheme 3. Part II: perceived changes after and during the intervention

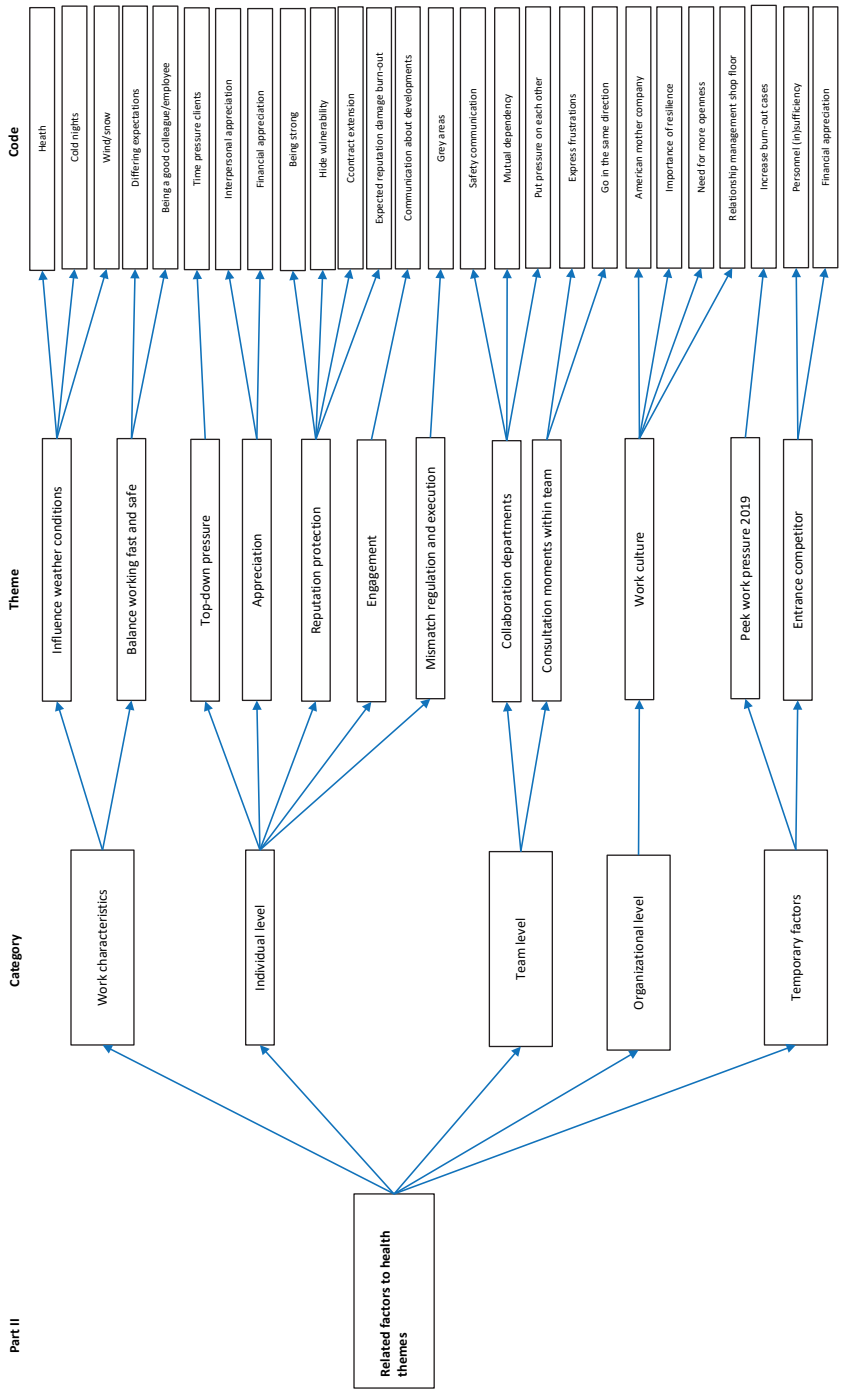


Figure 3. Coding scheme 4. Part II: Factors related to health themes

Supplementary file 3 – Protocol stakeholder dialogues

Extensive description of dialogue guideline, with aims and actions. This guideline is based on some of the underlying principles of the 'Dilemma-method', a form of Moral Case Deliberation [1, 2]*, such as:*

- Attention for the experiences of participants
- Probing on diverging perspectives
- Attention for different options participants have in a situation

Protocol elements:

- **Duration:** in consultation with employer and employees the dialogues had a duration of 1.5 hours.
- **Language:** we checked all steps in the protocol on comprehensibility by assuming a B1 literacy level of participants. Online language level tools were used for this purpose. Abstract terms were avoided or explained.
- **Use of images:** images were used to guide the dialogues. These images were a visual representation of findings from earlier stages of the study.

Practicalities before dialogue:

- Bring/organize flip-chart to summarize answers participants, as indicated at each step. Various pages of the flip-chart will be needed.
- Bring informed consent forms, pens and an audio-recorder.
- Participants were required via the supervisor of the department, who handed out a flyer with information on the objective and practicalities of the dialogue.
- Bring printed images on which participants can write/draw their perspectives/ideas.
- Take Covid-related precautions (sufficient space between participants, disinfectants, easy to clean materials)

Guideline dialogue:

Part 1 – Introduction and explanation (15 min.- 20 min.)

1. Introduction researcher
    - Welcome
    - Personal introduction of the researcher
    - Short explanation that dialogues are part of a larger study

2. Check-in
    - "Ice-breaker": Why did you decide to join this dialogue today?
        - o Researcher tells own motivations first
        - o Participants reply in 'popcorn style' (whoever feels ready, talks)

3. Explanation study
   - Reference is made to existing workplace health promotion program in the sheltered workplace.
   - Interaction with participants: what do you know about the program?
   - Limited participation in the program is mentioned.
   - Interaction with participants: why is this?
   - Participants are invited to help the sheltered workplace to improve the program.

4. Agenda of the dialogue
   - Short explanation on how the dialogue will proceed:
     - Discuss and reflect upon reasons why colleagues do participate in the program (based on earlier findings of the study)
     - Discuss and reflect upon why colleagues do not participate in the program (based on earlier findings of the study), and think about opportunities for improvement.

   - Explanation of what the sheltered workplace will do with the input from the dialogues.

5. Informed consent
   - Participants fill in informed consent forms

6. Introduction of participants
   - Who are you? What is your job, have you ever participated in the program?

Part II – Deliberating on barriers and finding opportunities for improvement (45 – 60 min.)

7. Discuss reasons why people do participate in the program
   - Images exemplifying the reasons to participate (based on earlier findings). Including the reasons:
     - I get nice reactions of colleagues and supervisors.
     - I get to know nice people.
     - I can reduce medicine intake.
     - I feel better. Physically and mentally.

   - Interaction with participants: would this be reason(s) for you? Have you participated because of (one of these) reasons?
   - Interaction with participation: do you miss a reason? Have you participated because of another reason?

8. Discuss barriers to participation
    - The images exemplifying the reasons why people do not participate in the program (based on earlier findings) are presented. Including the reasons:
        - Sometimes I cannot participate in the program. I have to go home immediately after work.
        - I know I can have a healthier lifestyle. But I just don't feel to participate.
        - Sometimes I don't feel good enough to participate.
        - Sometimes I don't understand the program.

    - Participants are asked to pick an image that they recognize themselves in and think on examples of this in daily life.
        - Participants can also use a blank page if there is no matching reason.

    - Participants shortly tell about their experiences.
        - Researcher can ask: why did you pick that one? How do you notice this? Can you give an example of that?
        - Researchers asks reactions of other participants: do they recognize the reasons of others? Or not (at all)?

9. Finding opportunities for improvement
    - Participants are asked to think about what might help them in the situations of the images they picked.
        - Participants write suggestion on paper with image (3 minutes)

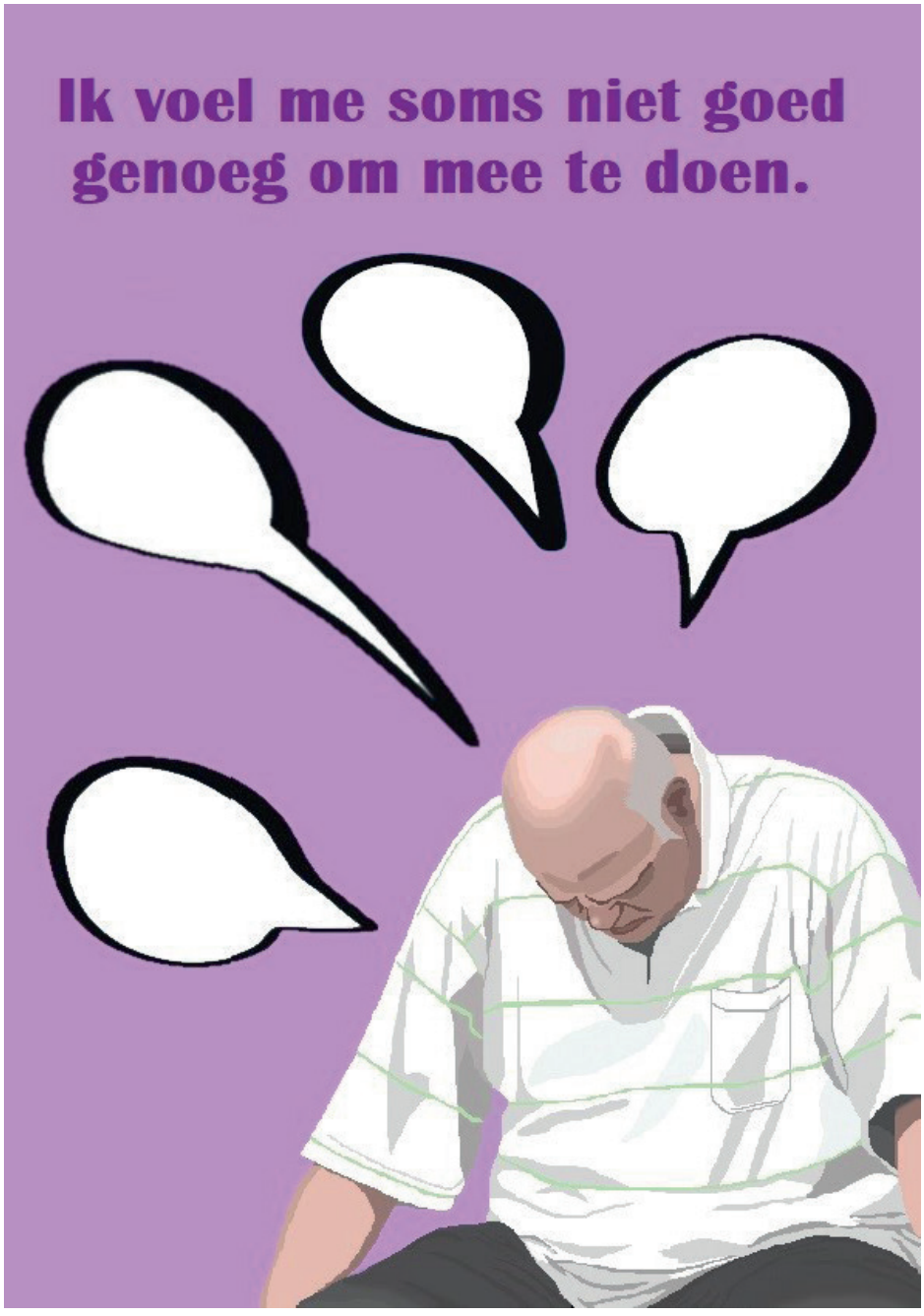
    - Participants share their ideas (researcher writes down ideas on flip-chart)
        - Participants are asked to reply on each other's ideas.
        - Participants are asked to give examples of their ideas.
        - Participants are asked how they see the role of their employer in the ideas.

10. Summarize lessons learned
    - Researcher summarizes notes on flip-chart
        - Asks feedback of participants; missing points?

    - Researcher repeats procedure regarding communication of findings with organization.
    - Check-out: any tips for the organization with regard to the program can be given.

11. Ending
    - Researcher asks participants for their experiences in the dialogue.
    - Room for any question or feedback.
    - Participants are thanked for their contributions and the dialogue has ended.

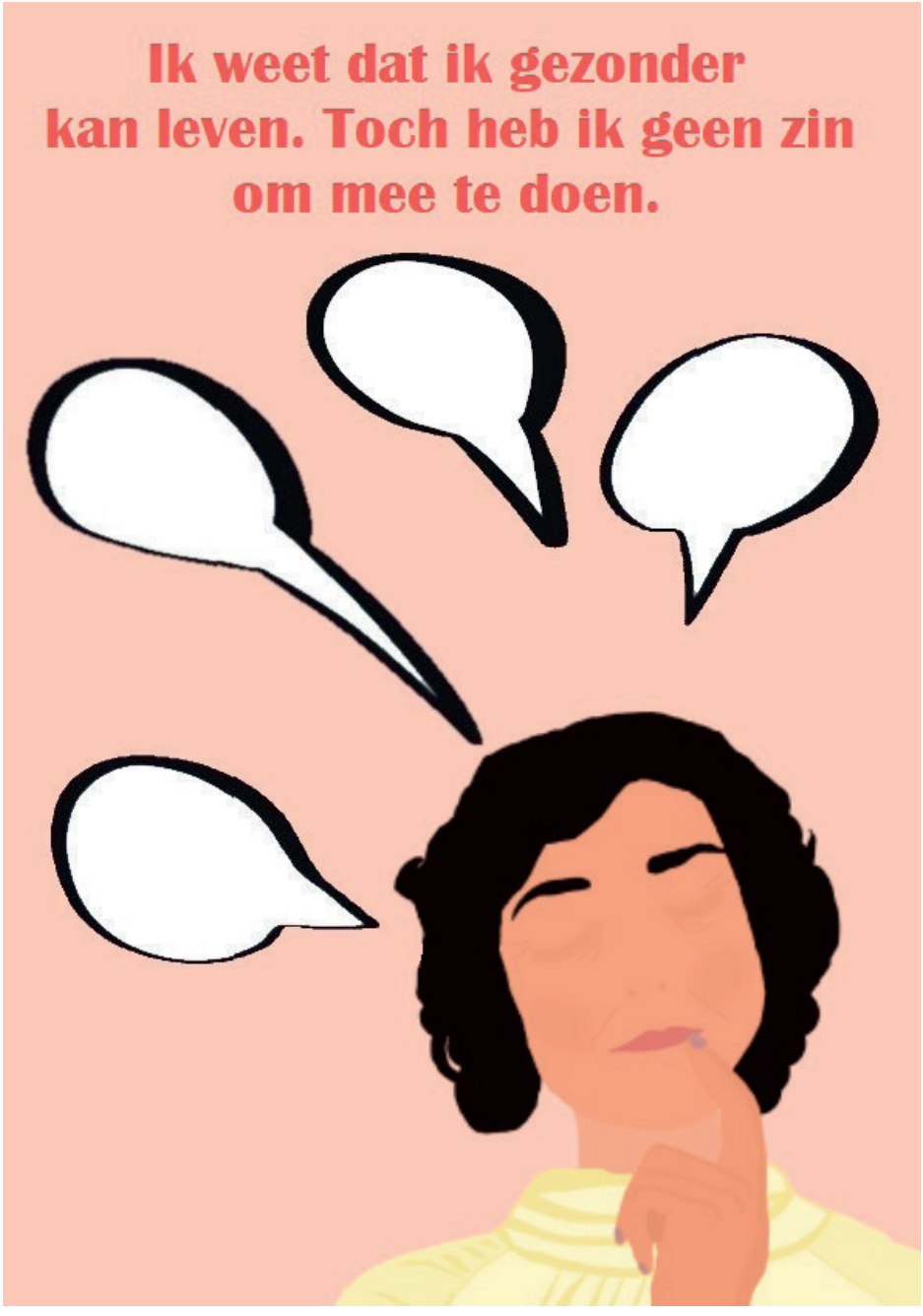
Supplementary file 3 – Illustrations for the dialogues



"I do not feel good enough to participate"

"I cannot participate, I have to go home immediately after work"

"Sometimes I do not understand what the workshops are about"



"I know I could live healthier. I just do not feel to participate"

Supplementary file 4 - Coding trees

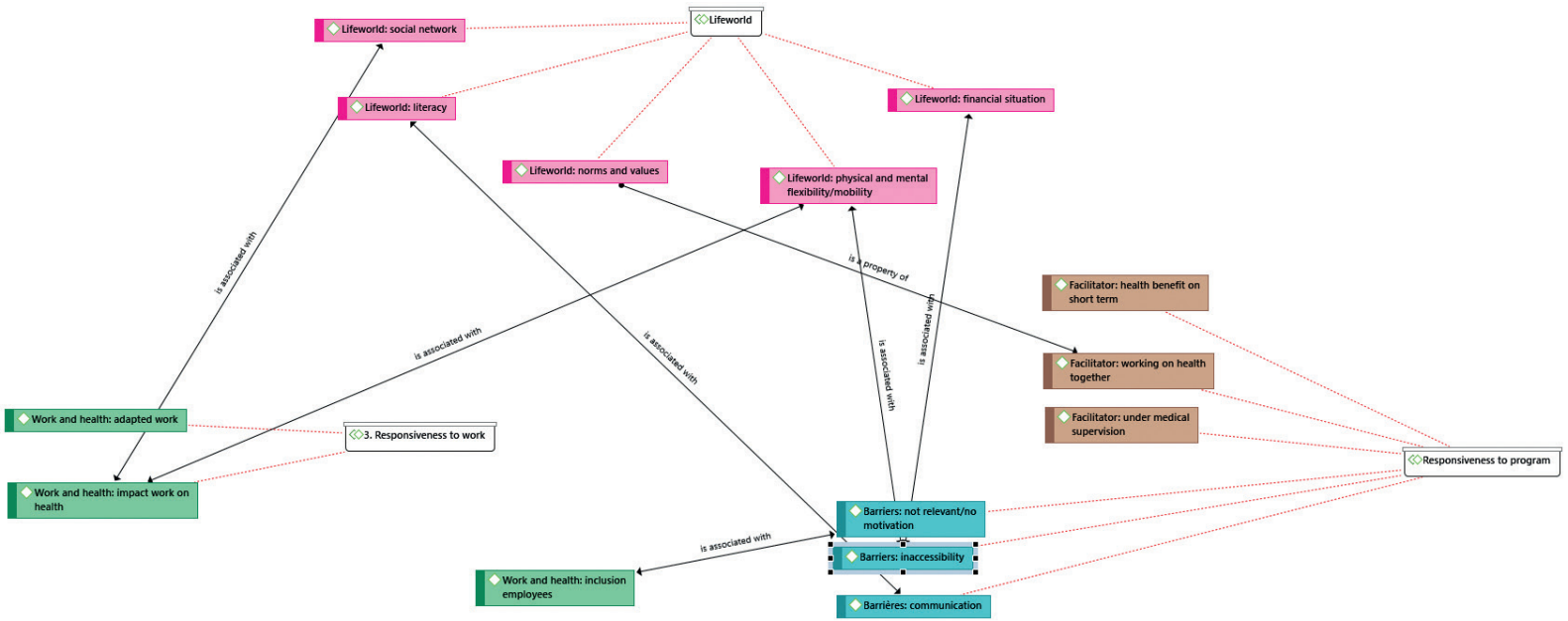


Figure 1. Coding scheme 1. Aim 1: Understanding low participation in current WHP (perspective employees)

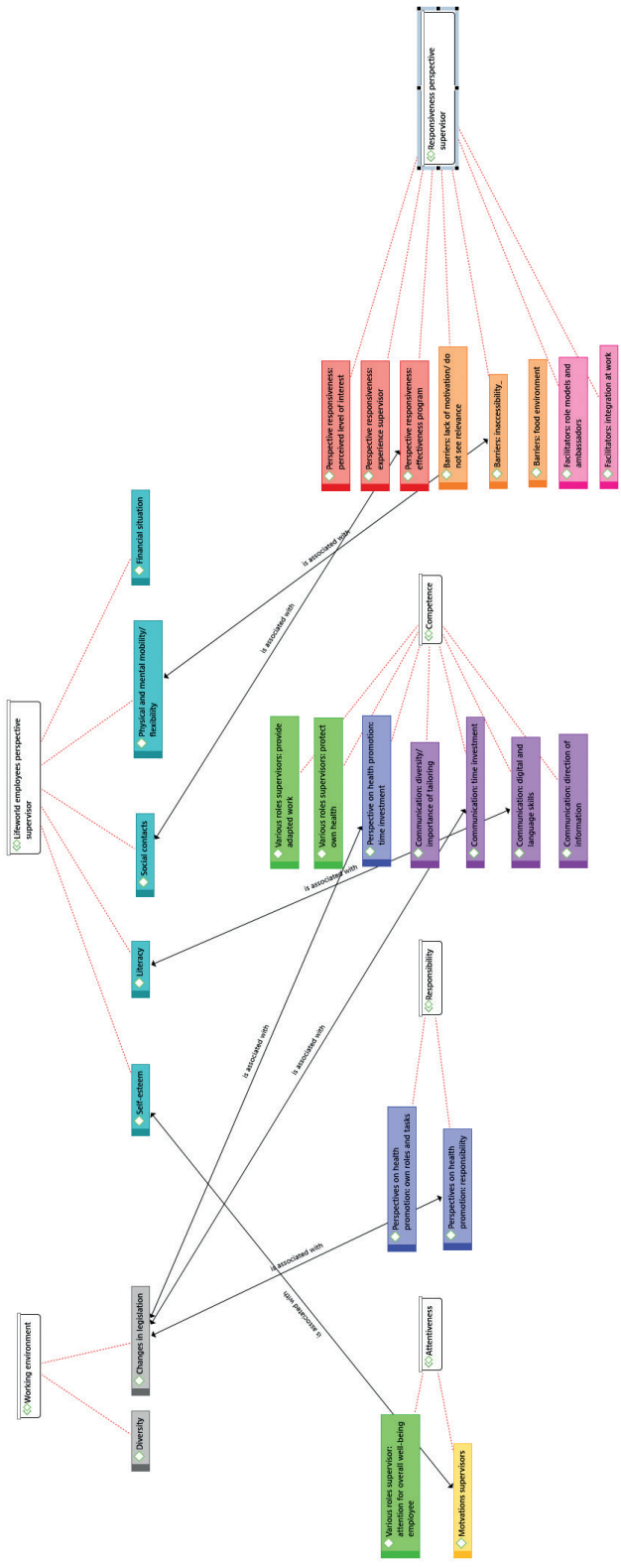


Figure 2. Coding scheme 2. Aim 1: Understanding low participation in current WHP (perspective supervisors)

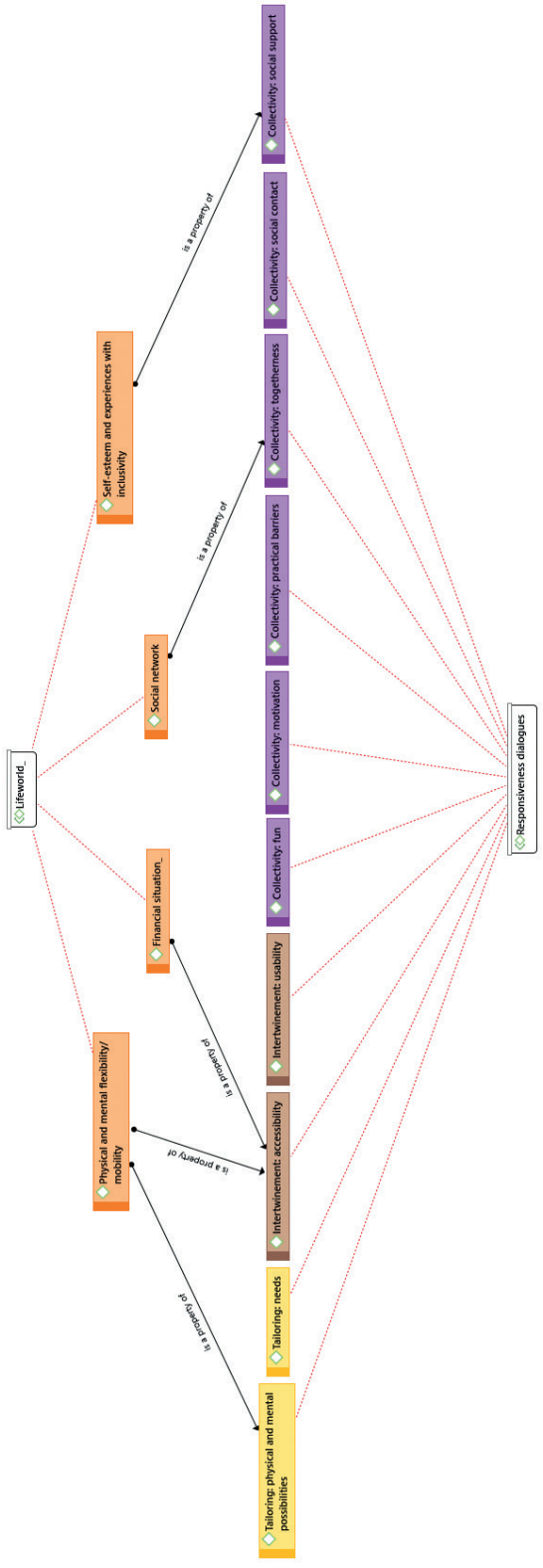


Figure 3. Coding scheme 3. Aim 2: Opportunities for improvement according to employees

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Summary

Systematic inequalities in health and life-expectancy between people with a different socioeconomic position in society, also known as socioeconomic health inequalities, are a growing concern in many high-income countries. People with a low socioeconomic position (SEP) - because of low income, educational level or occupational level - have a shorter live-expectancy and live less years in good health than people with a high SEP [6]. In the Netherlands for example, people with a low SEP generally die almost five years earlier [7] and live about 15 years shorter in good health [7]. One of the ways to reduce socioeconomic health inequalities is through health promotion [25]. The work setting is considered a promising setting for health promotion, because people spend much time at work and because the work setting has the physical and social infrastructure that is necessary for health promotion [24]. Also, the workplace gives access to (part of) the population of people with a low SEP, which is often considered as 'hard-to-reach'. However, systematic reviews and meta-analyses have shown limited effectiveness of workplace health promotion (WHP) interventions on health of employees with a low SEP [24, 34]. Also, employees with a low SEP participate in WHP interventions than employees with a high SEP, which may even increase health inequalities [72]. One explanation for the limited effectiveness and limited reach of employees with a low SEP, is that WHP interventions do not sufficiently match the needs and lifeworld of employees with a low SEP [33]. Existing WHP interventions often focus on adapting individual lifestyle behavior, but this generally is not a priority in the lives of employees with a low SEP, and the interventions may not match with their type of work [11]. Therefore, WHP interventions that centralize the lifeworld of employees with a low SEP are warranted. In addition, WHP interventions should take into account the complexity of the work setting for health promotion. This complexity entails 1) the large amount of stakeholders involved in WHP, for instance the employer, employee, occupational physician, intervention provider, knowledge- and research institutes and the insurance provider [35, 36], 2) the ethical questions that rise in relation to WHP interventions, for instance about responsibility, privacy and voluntariness, and 3) diversity in needs among employees with a low SEP regarding WHP interventions, because of differences in for example gender, age and cultural background.

This thesis centralizes around the development and evaluation of an innovative and integrated WHP intervention. In this intervention, the abovementioned points of attention were taking into account, namely the connection between the intervention and the needs and lifeworld of employees with a low SEP, and the complexity of the work setting for health promotion including ethical concerns. The intervention consisted of stakeholder dialogue and was evaluated through a participatory form of evaluation: responsive evaluation.

The overall objective of this thesis was to understand if and how an innovative intervention consisting of stakeholder dialogue, in combination with a participatory evaluation approach in workplace health promotion, can contribute to the health of employees with a low socioeconomic position, and with this to the reduction of health inequalities.

In **Chapter 1** the background, topics and overall objectives of this thesis are described.

In **Chapter 2**, it is studied whether existing WHP interventions improve self-perceived health and whether effectiveness differs among employees with a low SEP regarding gender, age and marital status. Individual Participant Data (IPD) of 1906 participants, from six intervention studies aiming at promoting healthy behavior and preventing obesity, were used. The overall intervention effect and interaction effects for gender, marital status and age were evaluated using two-stage meta-analyses with linear mixed regression models. Findings showed no effects of WHP interventions on self-perceived health. Also, no differential effects among employees with a low SEP for gender, age and marital status were found. Although the study did not provide insights in whether diverse employees with a low SEP respond differently to WHP interventions, the lack of overall effectiveness on health confirmed the need for innovative approaches for WHP.

In **Chapter 3** the development of the innovative intervention, consisting of stakeholder dialogue is described. Also, an overview of the various planned methods for the responsive evaluation, with the purpose of evaluating the impact of the intervention, is presented. It is described why moral case deliberation (MCD) was chosen as a method for the stakeholder dialogues, namely because this method allowed to 1) discuss employees' daily experiences with certain health themes, thereby putting to the forefront their lifeworld, and 2) to focus on the moral dimensions of these experiences, allowing to pay attention to potential ethical concerns of WHP (such as who is responsible for health in certain situations, the employer or the employee). Because MCD has not been applied as an health promotion intervention in the work setting, and because the method is quite cognitively demanding, several adaptations were made. The language use was adjusted (no abstract terms and B1 literacy level) and the duration was reduced. The aim was to perform six dialogues per year. The responsive evaluation would be conducted in two organizations over two years. Planned methods in the responsive evaluation were interviews, participant observations and HRM-data. It was decided that evaluation would take time at two fixed moment, namely after one and two years, as well as continuously, through participant observations and informal communication with contact persons of the organizations.

Chapter 4 presents the evaluation of the impact of the innovative intervention in a harbor service provider, a large-sized organization in the West of the Netherlands. The stakeholder dialogues were implemented and evaluated during two years. The themes for the stakeholder dialogues were decided together with stakeholders at the start of the evaluation. Interviews, participation observations and HRM-data (Periodic Medical Examinations) revealed that mental health and high workload were important themes in

the organization. In total, 57 participants participated in eight stakeholder dialogues, where they shared their own experiences and dilemmas with mental health and high workload. The responsive evaluation revealed perceived changes on four levels, namely the case, individual, team and organizational level. On a case level (the specific theme central a dialogue), the dialogues led to agenda setting of the themes discussed. For example, after some dialogues, the organization itself organized several sessions on different ways of dealing with the high workload. On the level of the individual employee, the dialogues led to recognition of certain themes for employees, because they learned in the dialogues that colleagues struggle with similar issues (e.g., high workload). Also, individual participants learned various strategies on how to deal with, for example, high workload, by sharing their varying perspectives on this. On the team level, the stakeholder dialogues contributed to enhanced mutual understanding between participants of different departments, because the dialogues revealed the daily reality of the employees of the various departments. On the organizational level, the higher management gained various insights through the dialogues, such as which (work) factors contributed to mental health problems or to the high workload. As a result, they could implement changes to reduce the impact of these factors, such as a program to improve the internal communication.

Chapter 5 consists of a responsive process evaluation, that was performed in the second organization, a sheltered workplace. A very extensive health program was already being offered in the sheltered workplace, which was not surprising from a public health point of view, because employees in this organization often have to deal with various risk factors for impaired health (e.g., intellectual disability or low literacy). However, participation in the program was very limited. The aim of this process evaluation was to understand the low participation in the existing WHP activities offered in this organization, and to find opportunities for improving these activities, in such way that they would better suit the needs of employees. Interviews and participant observations were used to understand barriers for participation. The perspectives of both the employees and their supervisors were studied, as first analyses showed that both had their own explanations for the limited participation. The principles of care ethics (Tronto, 1993), were used to analyze these two perspectives. From the perspective of employees, the limited participation could be partly explained by the challenges the program imposed for them, mentally (e.g., difficulties with understanding activities), physically (e.g., not being physically able to participate) and practically (e.g., lack of time due to other obligations such as informal care). Supervisors explained from their perspective that they wanted to motivate employees for the WHP program, but indicated that they did not have enough time and resources due to an increasingly commercial organization. Stakeholder dialogues with employees were used to find opportunities to improve the WHP activities. Employees considered three things important, first, a more collective approach, in which employees work on their health together with peers. Second, activities should have direct relevance for their daily lives, for example by targeting topics such as sleep and maintaining social contact. Thirds, tailoring WHP activities turned out to be important, because this would allow to take into account the different physical and mental capabilities of the diverse employees in the sheltered

workplace. These opportunities for improvement reflect some of the values central in care ethics, such as interdependence and the importance of relationships (working on health together) and vulnerability (taking into account various capabilities through tailoring). One of the conclusions was that these values may be a suitable starting point for WHP in sheltered workplaces.

Chapter 6 discusses the potential added value of responsive evaluation as an innovative evaluation methodology of WHP interventions. Several calls for innovative evaluation have been made in the field of WHP, and responsive evaluation is presented as a potential different approach. The suitability of the most traditional evaluation method in the field, the Randomised Controlled Trial (RCT), is increasingly being questioned. Responsive evaluation is an alternative, but is also based on other scientific philosophical grounds, resulting in different goals, methods and types of evidence. The aim of this paper is to help researchers understand these differences and to allow them to judge the suitability of responsive evaluation based on the corresponding philosophical grounds, because differences exists among various scientific philosophies on what good science is. Examples from the studies in the harbor service provider and the sheltered workplace were used. In this chapter it is argued that responsive evaluation has several features that seem to fit well with health promotion in the wake-up setting, such as the flexibility to continuously evaluate and make adjustments if necessary. Also, it was argued that the role of the researcher in responsive evaluation as a 'participant' instead of an 'outsider' offers opportunities to gain a better picture of the social environment of employees with a low SEP.

In conclusion, **Chapter 7** provides a synthesis of the findings of the various chapters. Based on the various chapters, general reflections are presented. First, the importance that the psychosocial context seems to play for employees with a low SEP is highlighted. Second, it is argued that future interventions should take into account diversity of employees and diversity between work contexts when designing WHP interventions. Often, employees with a low SEP are approached in research as one group, while this thesis shows large differences between employees in different work contexts, which also influences what they find important interventions. Third, this chapter provides a reflection on the yields of stakeholder dialogue as a WHP intervention. There were mainly changes in the organizational context of the harbor service provider, including in the management team's way of thinking about the employees. Using the action scales model (Nobles et al., 2021), this is explained as an important first step for a system change in the organization. At the same time, this chapter critically reflects on the limited extent to which the studies in the two organizations can provide insight into the long-term impact of the stakeholder dialogue on the health of employees. Also, the transferability of findings to other workplaces is discussed, followed by suggestions for other innovative evaluation methodologies that may be interesting for WHP evaluation as well. Lastly, the importance of participatory approaches is stressed, not only to develop interventions that better match the lifeworld of employees, but also for better relations within organizations and between different groups in society that need each other for health, now and in the future.

Samenvatting

Systematische verschillen in gezondheid en levensverwachting tussen mensen met een verschillende sociaaleconomische positie in de maatschappij, ook wel sociaaleconomische gezondheidsverschillen genoemd, zijn een groeiend probleem in veel hoge-inkomenslanden. Zo hebben mensen met een lage sociaaleconomische positie (SEP) – door een laag inkomen, opleidingsniveau en/of beroepsniveau - een kortere levensverwachting en leven ze minder jaren in goede gezondheid dan mensen met een hoge SEP [6]. In Nederland bijvoorbeeld, overlijden mensen met een lage SEP over het algemeen bijna vijf jaar eerder. Bovendien leven ze ongeveer 15 jaar minder in goede gezondheid [7]. Gezondheidsbevordering kan bijdragen aan het verkleinen van gezondheidsverschillen [25]. De werkplek van mensen wordt gezien als een veelbelovende setting voor gezondheidsbevordering, omdat mensen over het algemeen veel tijd op hun werk doorbrengen en omdat interventies fysiek op de werkplek georganiseerd kunnen worden. Ook is er de mogelijkheid in te spelen op sociale normen in de organisatie en gebruik te maken van het sociale netwerk van collega's [24]. Bovendien geeft de werkplek toegang tot (een deel van) de populatie van mensen met een lage SEP, die over het algemeen als 'moeilijk te bereiken' wordt beschouwd. Echter, uit systematische literatuurstudies en meta-analyses blijkt dat interventies in de werksetting maar beperkt effect hebben op de gezondheid van medewerkers met een lage SEP [24, 34]. Mede omdat deze medewerkers over het algemeen minder vaak deelnemen aan interventies op het werk dan medewerkers met een hoge SEP. Dit zou ertoe kunnen leiden dat gezondheidsbevordering op de werkplek gezondheidsverschillen juist vergroot [72]. Een verklaring voor de beperkte effectiviteit en het beperkte bereik van medewerkers met een lage SEP is dat interventies in de werksetting onvoldoende aansluiten bij hun behoeften en leefwereld [33]. Bestaande interventies zijn veelal gericht op het aanpassen van individueel leefstijlgedrag, maar dit heeft vaak geen prioriteit in het leven van medewerkers met een lage SEP, of het type interventie sluit niet aan hun werkomstandigheden [11]. Daarom is het belangrijk om interventies voor gezondheidsbevordering op het werk te ontwikkelen, die de leefwereld van medewerkers met een lage SEP centraal zetten. Daarnaast moet rekening worden gehouden met de complexiteit van de werksetting voor gezondheidsbevordering. Die complexiteit bestaat uit 1) het grote aantal stakeholders dat bij gezondheidsbevordering in de werksetting betrokken is, zoals de werkgever, medewerker, bedrijfsarts, interventieaanbieder, kennis- en onderzoeksinstituten en de verzekeraar [35, 36], 2) de ethische vragen die gezondheidsbevordering in de werksetting oproept, bijvoorbeeld over verantwoordelijkheid, privacy en vrijwilligheid van deelname, en 3) de diversiteit aan behoeften bij medewerkers met een lage SEP als het gaat om gezondheidsbevordering, omdat er tussen hen ook verschillen zijn in gender, leeftijd en culturele achtergrond.

In dit proefschrift stond de ontwikkeling en de evaluatie van een innovatieve interventie voor gezondheidsbevordering in de werksetting centraal. Daarin werd rekening gehouden

met bovengenoemde aandachtspunten, namelijk de aansluiting van interventies bij de behoeften en leefwereld van medewerkers met een lage SEP en de complexiteit van de werksetting voor gezondheidsbevordering inclusief de ethische vragen die daarbij komen kijken. De interventie bestond uit diverse groepsdialogen over gezondheidsthema's die door medewerkers zelf werden ingebracht. De impact van de dialogen op de gezondheid van medewerkers, direct of minder direct door veranderingen in de werkcontext, werd geëvalueerd door middel van een participatieve vorm van evaluatie: responsieve evaluatie.

Het algemene doel van dit proefschrift was om inzicht te krijgen in of en hoe een innovatieve interventie bestaande uit stakeholder dialoog, in combinatie met een participatieve evaluatiebenadering, kan bijdragen aan de gezondheid van medewerkers met een lage SEP, en daarmee aan de vermindering van gezondheidsverschillen.

Hoofdstuk 1 beschrijft de achtergrond, onderwerpen en algemene doelstellingen van dit proefschrift.

In **Hoofdstuk 2** werd onderzocht of bestaande interventies in de werksetting de ervaren gezondheid van medewerkers met een lage SEP verbeteren. Daarbij werd ook onderzocht of er verschillen in effectiviteit zijn tussen diverse medewerkers met een lage SEP, bijvoorbeeld voor gender, leeftijd en burgerlijke staat. Er is gebruik gemaakt van individuele data van deelnemers (in plaats van effecten op groepsniveau) van 1906 deelnemers uit zes bestaande interventiestudies, allen gericht op het bevorderen van gezond gedrag en het voorkomen van obesitas. Het algehele interventie-effect en de interactie-effecten voor gender, burgerlijke staat en leeftijd werden geëvalueerd met behulp van tweestaps meta-analyses, met lineaire, gemengde regressiemodellen. De interventies bleken geen effect te hebben op de ervaren gezondheid van medewerkers. Ook werden geen verschillende effecten gevonden voor gender, leeftijd en burgerlijke staat. Hoewel de studie geen inzicht gaf in de vraag of diverse medewerkers met een lage SEP anders reageren op interventies op het werk, bevestigde het gebrek aan algehele effectiviteit op de gezondheid de noodzaak van innovatieve benaderingen voor gezondheidsbevordering in de werk setting.

In **Hoofdstuk 3** wordt de ontwikkeling van de innovatieve interventie, bestaande uit stakeholder dialoog, beschreven. Ook wordt er een overzicht gepresenteerd van de verschillende geplande methoden voor de responsieve evaluatie, om de impact van de interventie te evalueren. Moreel beraad werd gekozen als methode voor de stakeholder dialogen, omdat deze methode geschikt was om 1) ervaringen van medewerkers uit het dagelijks leven met betrekking tot gezondheidsthema's te bespreken, en zo hun leefwereld op de voorgrond te plaatsen, en 2) in te gaan op de morele dimensies van deze ervaringen, wat het eenvoudiger maakt om door te vragen naar mogelijke ethische vraagstukken van gezondheidsbevordering in de werksetting (bijvoorbeeld over wie verantwoordelijk is voor gezondheid in bepaalde situaties, de werkgever of de werknemer). Omdat moreel beraad nog niet eerder als gezondheidsinterventie in de werksetting is toegepast, en ook nog eens vrij veel cognitieve inspanning vraagt, wordt in

dit hoofdstuk beschreven hoe de methode aan de werksetting en doelgroep is aangepast. Het taalgebruik is aangepast (geen abstract taalgebruik en B1 taalniveau) en de duur van de dialogen verkort. De doelstelling was om gedurende twee jaar, zes dialogen per jaar uit te voeren, in twee verschillende organisaties. Geplande methoden in de responsieve evaluatie waren interviews, participerende observaties en gebruik maken van bestaande HRM-gegevens (zoals uit een Periodiek Medisch Onderzoek). Er werd gekozen voor twee vaste evaluatiemomenten om de impact van de interventie te evalueren, namelijk na één en twee jaar. Daarnaast werd beschreven dat de evaluatie ook tussentijds en op informele momenten zou plaatsvinden, bijvoorbeeld door middel van participerende observaties en informele communicatie met de contactpersonen van de organisaties. In responsieve evaluatie wordt er namelijk vanuit gegaan dat impact op ieder moment kan optreden en dat ook ogenschijnlijk kleine veranderingen, relevant zijn voor de evaluatie.

Hoofdstuk 4 beschrijft de evaluatie van de impact van de innovatieve interventie in een van de twee organisaties, een havendienstverlener. De stakeholder dialogen zijn daar gedurende twee jaar uitgevoerd en geëvalueerd door middel van responsieve evaluatie. Uit interviews, participerende observaties en HRM-gegevens (Periodiek Medisch Onderzoek), bleek dat mentale gezondheid en een hoge werkdruk belangrijke thema's waren in de havendienstverlener. Daarom werden er stakeholder dialogen over deze thema's georganiseerd. In totaal deden 57 deelnemers mee aan in totaal acht stakeholder dialogen, waarin zij hun eigen ervaringen en dilemma's deelden. Met responsieve evaluatie werden de impact, ofwel de waargenomen veranderingen in de organisatie naar aanleiding van de stakeholder dialogen, in kaart gebracht. Op vier niveaus werden veranderingen waargenomen. Ten eerste, op het niveau van de specifieke casus (het thema dat in een dialoog centraal stond), door agendasetting van de thema's die in de dialogen centraal stonden. Zo werden er na een aantal dialogen door de organisatie zelf sessies georganiseerd om oplossingen te vinden voor de hoge werkdruk. Op het niveau van de individuele medewerker, zorgden de stakeholder dialogen voor (h)erkenning van bepaalde thema's, omdat deelnemers in de dialogen hoorden dat collega's tegen dezelfde problemen aanliepen. Ook leerden deelnemers van elkaar hoe ze op verschillende manieren met de hoge werkdruk om kunnen gaan. Op teamniveau hebben de stakeholder dialogen bijvoorbeeld bijgedragen aan een beter wederzijds begrip tussen medewerkers van verschillende afdelingen, doordat deelnemers meer inzicht kregen in hoe het er op de verschillende afdelingen aan toe ging. Op organisatieniveau kreeg het hogere management verschillende inzichten door de stakeholder dialogen, zoals in welke (werk)factoren bijdroegen aan de problemen met mentale gezondheid of aan de hoge werkdruk. Hierdoor konden zij veranderingen doorvoeren om de invloed van die factoren te verminderen, zoals een programma om de interne communicatie te verbeteren. Een belangrijk discussiepunt in dit hoofdstuk was dat het tijd kostte om veranderingen te bewerkstelligen, waardoor de impact van die veranderingen op het welzijn van de medewerkers niet meer binnen de vooraf bepaalde evaluatieperiode kon worden bestudeerd.

Hoofdstuk 5 bestaat uit een responsieve 'procesevaluatie', die werd uitgevoerd in de tweede organisatie, een sociaal leerwerkbedrijf. In het sociaal leerwerkbedrijf werd al een zeer uitgebreid gezondheidsprogramma aangeboden, wat vanuit het oogpunt van publieke gezondheid niet verrassend was, omdat medewerkers in deze organisatie vaak te maken hebben met verschillende risicofactoren voor een verminderde gezondheid (bijvoorbeeld een verstandelijke beperking of door laaggeletterdheid). Echter, deelname aan het gezondheidsprogramma was zeer gering. Deze procesevaluatie had als doel om de lage deelname aan het bestaande gezondheidsprogramma in de organisatie te begrijpen, en mogelijkheden te vinden om het programma zo te verbeteren dat het beter zou aansluiten bij de behoeften van medewerkers. Interviews en participerende observaties werden gebruikt om barrières voor deelname aan de activiteiten te begrijpen. Zowel het perspectief van de medewerkers als de leidinggevenden werd onderzocht, omdat beide partijen verschillende verklaringen hadden voor de beperkte mate van participatie. De principes van de zorgethiek (Tronto, 1993), werden gebruikt om deze twee perspectieven te analyseren. Vanuit het perspectief van de medewerkers kon de beperkte deelname deels kon worden verklaard door de uitdagingen die het programma sommige medewerkers oplegde: mentaal (bijvoorbeeld moeite met het begrijpen van activiteiten), fysiek (bijvoorbeeld fysiek niet in staat zijn om deel te nemen) en praktisch (bijvoorbeeld een gebrek aan tijd door mantelzorg). Leidinggevenden gaven vanuit hun perspectief aan dat ze medewerkers wel wilden informeren en motiveren voor de gezondheidsbevorderende activiteiten, maar dat ze hier door een steeds commerciëler wordende organisatie, steeds minder tijd en middelen voor hadden. De stakeholder dialogen werden gebruikt om verbetermogelijkheden vanuit het perspectief van medewerkers voor het gezondheidsprogramma te verzamelen. Deze verbetermogelijkheden bleken volgens medewerkers te liggen in ten eerste een meer collectieve aanpak, oftewel samen met collega's met gezondheid bezig zijn. In het huidige programma lag de nadruk volgens medewerkers meer op het individueel aanpakken van de eigen gezondheid. Ten tweede bleek het belangrijk om de relevantie van de gezondheidsbevorderende activiteiten voor medewerkers te verhogen, door activiteiten te koppelen aan thema's die direct impact hebben op het dagelijks leven van iemand, zoals aan een goede nachtrust en het hebben en onderhouden van sociale contacten. Ten derde bleek het belangrijk om maatwerk mogelijk te maken, waarbij ook rekening kan worden gehouden met de verschillende mentale en fysieke mogelijkheden van de medewerkers. Deze verbetermogelijkheden weerspiegelen een aantal waarden die centraal staan in de zorgethiek, zoals onderlinge afhankelijkheid en het belang van relaties (door samen aan gezondheid werken) en rekening houden met kwetsbaarheid (door maatwerk te bieden en rekening te houden met verschillende mogelijkheden en beperkingen). Een van de conclusies was dat deze waarden mogelijk een geschikt uitgangspunt zijn voor gezondheidsbevordering in sociaal leerwerkbedrijven.

In **Hoofdstuk 6** wordt de potentiële meerwaarde van responsieve evaluatie als een innovatieve evaluatiemethode voor gezondheidsbevorderende interventies in de werksetting bediscussieerd. Er zijn verschillende oproepen gedaan in het vakgebied

voor innovatieve evaluatiemethoden. De geschiktheid van de meest traditionele evaluatiemethode in het vakgebied, gerandomiseerd onderzoek met een controlgroep, wordt namelijk steeds vaker in twijfel getrokken. Responsieve evaluatie is een alternatief, maar is ook gebaseerd op andere filosofische gronden, wat resulteert in verschillende doelen, methoden en soorten bewijs. Het doel van dit hoofdstuk was om onderzoekers te helpen deze verschillen te begrijpen en hen in staat te stellen de geschiktheid van responsieve evaluatie te beoordelen op basis van de bijbehorende filosofische gronden. Hierbinnen kunnen namelijk verschillen bestaan over wat kan worden aangemerkt als goede wetenschap. Er is gebruik gemaakt van voorbeelden uit de onderzoeken bij de havendienstverlener en het sociaal leerwerkbedrijf. In dit hoofdstuk wordt geconcludeerd dat responsieve evaluatie verschillende kenmerken heeft die goed lijken te passen bij gezondheidsbevordering in de weksetting, zoals de flexibiliteit om continu te evalueren en aanpassingen te doen als dit nodig blijkt. Ook werd geargumenteerd dat de rol van de onderzoeker binnen responsieve evaluatie als 'deelnemer' in plaats van 'buitenstaander' mogelijkheden te bieden om de leefwereld van medewerkers met een lage SEP beter in beeld te krijgen.

Tot slot wordt in **Hoofdstuk 7** een synthese van de bevindingen uit de verschillende hoofdstukken gepresenteerd. Daarnaast worden op basis van de verschillende onderzoeken samen, overkoepelende reflecties beschreven. Zo wordt ten eerste het belang dat de psychosociale context in gezondheidsbevordering in de werksetting voor medewerkers met een lage SEP lijkt te spelen aangehaald. Ten tweede wordt beargumenteerd dat er in de ontwikkeling van interventies rekening moet worden gehouden met de diversiteit tussen medewerkers met een lage SEP, en de diverse werkcontexten waarin zij werken. Vaak worden medewerkers met een lage SEP in onderzoek als één groep benaderd, maar deze thesis heeft juist laten zien hoe verschillend medewerkers uit diverse organisaties kunnen zijn. De verschillen tussen medewerkers en hun werkcontext bleken invloed te hebben op wat zij belangrijk vinden in een interventie. Ten derde wordt er gereflecteerd op de impact van stakeholder dialoog op de gezondheid van medewerkers. Er waren vooral veranderingen in de organisatorische context van de havendienstverlener, waaronder in de manier van denken van het managementteam over de medewerkers. Aan de hand van het action scales model (Nobles et al., 2021) wordt dit beschreven als een belangrijke eerste stap voor een systeemverandering in de organisatie. Tegelijkertijd wordt in dit hoofdstuk ook kritisch gereflecteerd op de beperkte mate waarin de studies in de twee organisaties inzicht kunnen geven in de lange-termijn impact van de stakeholder dialoog op de gezondheid van medewerkers. Ook de overdraagbaarheid van bevindingen naar andere organisaties is een belangrijk discussiepunt. Gerelateerd daaraan worden er suggesties gegeven voor andere innovatieve evaluatiemethodieken die ook interessant kunnen zijn voor de evaluatie van interventies voor gezondheidsbevordering in de werksetting. Ten slotte wordt in dit hoofdstuk het belang van participatieve benaderingen voor onderlinge verhoudingen in organisaties benadrukt en breder voor het samenbrengen van verschillende groepen in de samenleving, die elkaar nodig hebben voor gezondheid, nu en in de toekomst.

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en het allemaal enigszins goed verlopen was. Heerlijk om dat daarna na te bespreken in de auto terug. Ik hoop alleen wel dat je al mijn ongefilterde opmerkingen bent vergeten, die er uitkwamen nadat de spanning voor de gesprekken was weggevallen... Gelukkig heb je me ook veel professioneel gezien in onze vele overleggen. Ik vond het super leuk om met jou over de ervaringen in de organisaties te praten, data te bespreken en ideeën voor artikelen te bedenken. Je bent dan ook echt de ideale sparringpartner. Als ik met een vaag ideetje met jou in gesprek ging, kon ik het vaak daarna al snel verder uitwerken. Ik heb in al die overleggen veel van je geleerd. Ook dat je het in de wetenschap niet altijd met elkaar eens hoeft te zijn. Fijn dat die ruimte er was. Je hebt veel voor mij betekent in dit promotietraject en ik besef dat ik geluk heb gehad met jou als dagelijks begeleider. Heel veel dank voor alles.

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About the author

Hanneke van Heijster was born on 20 January 1992 in Goirle. After completing secondary school at the Over Betuwe College (OBC) in Bemmel in 2009, she started a Bachelor Communication at the Hogeschool van Arnhem & Nijmegen. During this study, she spend five months at the Universidad Complutense in Madrid. During her minor she focused on organizational behavior. After completing her bachelors, she was not done yet with studying and learning, so she decided to enroll for the shortened premaster and master Communication & Persuasion at Radboud University in Nijmegen. Her master thesis was about how personality traits of supervisors influence job stress in employees, under the supervision of Jantien van Berkel (co-promotor of this thesis). After this, she worked as a junior consultant at a PR and communication agency in Arnhem. Two years later she got the chance to work as a PhD Candidate at the Strategic Communication Group, supervised by Emely de Vet, Cécile Boot and Jantien van Berkel. After one year Emely de Vet started her own chair group, Consumption and Healthy Lifestyles, where Hanneke continued her PhD. Her project focused on health promotion in organizations, focusing at employees with a low socioeconomic position. She studied if and how stakeholder dialogue could contribute to health of employees. In her project, she used a novel evaluation methodology in the field of health promotion at work, responsive evaluation. She was involved in teaching, supervising students and presented at international conferences. Her experience with participatory research approaches and people in vulnerable positions paved the way to a new position as a postdoctoral researcher at Tilburg University and Radboud University and Medical Center, where she works since August 2022.

List of publications

van Heijster H, van Berkel J, Abma T, Boot CRL, De Vet E (2020) Responsive evaluation of stakeholder dialogue as a worksite health promotion intervention to contribute to the reduction of SEP related health inequalities: A study protocol. BMC Health Serv Res 20:1–9. https://doi.org/10.1186/s12913-020-5020-2

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Submitted manuscript for publication:

van Heijster, H, van Berkel J, Bakker M, Boot CRL, de Vet E. Finding ways to enhance participation of employees in sheltered workplaces in workplace health promotion interventions: a care ethics perspective. *Under review*

van Heijster, H, van Berkel J, Boot CRL, Abma T, de Vet E. Responsive evaluation: an innovative evaluation methodology for workplace health promotion interventions. *Under review*

Overview of completed training activities

Hanneke van Heijster
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences **A1 Managing a research project**			
WASS Introduction Course	WASS/ WUR	2018	1
writing research proposal	WUR	2018	3
Efficient Writing Strategies	Wageningen in'to Languages	2019	1.3
'An innovative approach to workplace health promotion'	ARPH, Egmond aan Zee	2019	1
'Responsive Evaluation of a stakeholder dialogue as a worksite health promotion intervention to reduce health inequalities at work'	Work, Stress & Health, Philadelphia	2019	1
Critical thinking and argumentation	WGS/ WUR	2020	0.3
Scientific Publishing	WGS/ WUR	2020	0.3
'Preliminary findings of a Responsive Evaluation of stakeholder dialogue to promote health among employees with a lower socioeconomic position'	ARPH, Egmond aan Zee	2020	1
'Employees with a low SEP as partners in WHP'	ICOH, online conference	2022	1
A2 Integrating research in the corresponding discipline			
Public health in Practice: evaluation and adaption of public health interventions, the role of context	VLAG/ WUR	2018	0.5
Masterclass Moral Case Deliberation	Metamedica/ Amsterdam UMC	2019	0.3
Attending open Moral Case Deliberation sessions (3)	Metamedica/ Amsterdam UMC	2018-2019	0.3
Self-study Ethics, Health & Society	WUR	2018	1
Essentials facts of diabetes	Coursera/ University of Copenhagen	2020	0.3
Mixed Linear Models	PE&RC/ WUR	2020	0.6
Participatief evalueren	Metamedica/ Amsterdam UMC	2020	3
Qualitative research methods	Coursera, University of Amsterdam	2020	1
Health@Work	Public and Occupational health/ Amsterdam UMC	2020	1
Comparative health policies and practices, CHL 32306	WUR	2021	5
Various symposia (on Responsive Evaluation, Work capabilities, precarious work)	Metamedica/ Amsterdam UMC, Tilburg University/ Tranzo, Public and Occupational health/ Amsterdam UMC	2019-2020	1

Name of the learning activity	Department/Institute	Year	ECTS*
B) General research related competences **B1 Placing research in a broader scientific context**			
Philosophy of social science	WASS/ WUR	2021	3
Big data in the life sciences	VLAG/ WUR	2021	0.9
Institutions and social transformations CPT 57802	WASS/ WUR	2022	2
B2 Placing research in a societal context			
Popular science writing	WASS/ WUR	2021	1.5
C) Career related competences/personal development **C1 Employing transferable skills in different domains/careers**			
Moderation training	Debat.nl	2018	0.9
Supervising BSc students (2) and MSc students (4), and teaching and support in several courses.	WUR	2019-2022	4
Total			**34.2**

*One credit according to ECTS is on average equivalent to 28 hours of study load

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