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Part 3

Developing, applying and evaluating an organisation-specific intervention

Chapter 8

Determining organisation-specific factors for developing health interventions in companies by a Delphi procedure: Organisational Mapping

8

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Abstract

Companies, seen as social communities, are major health promotion contexts. However, health promotion in the work setting is often less successful than intended. An optimal adjustment to the organisational context is required. Knowledge of which organisation-specific factors are relevant to health promotion is scarce. A Delphi procedure is used to identify these factors. The aim is to contribute to more effective workplace health promotion. The identified factors are described and embedded into a practical methodology (Intervention Mapping). A systematic use of these factors (called 'Organisational Mapping') is likely to contribute to more effective health promotion in the work setting.

Key words

Introduction

There are sound reasons for developing health interventions in companies. From a health perspective, work settings provide not only the opportunity for multilevel interventions, but also access to large populations (Kwak et al., 2006). Moreover, as social communities, companies offer opportunities for health-promoting social change processes. From a business perspective, health is increasingly seen as a resource for optimal human functioning (Zwetsloot et al, 2010), and it probably contributes to productivity (Loeppke, 2008). Today, health is also a valuable aspect of company identity (Jain et al., 2011). Workplace health promotion (WHP) may thus serve parallel (health and business) interests, which increases the probability of sustained attention to health.

However, health promotion in companies encounters several difficulties. For example, lifestyle interventions at work often have low participation rates (Robroek et al., 2009), making the business rationale for investing in these activities questionable. Even more serious is that health interventions in companies, despite thorough preparations, often are not as successful as intended (Nielsen et al., 2010b). Problems with implementation and a complex context can undermine their effectiveness (Nielsen and Randall, 2009). This disappointing reality may limit companies' willingness to invest in health, and a promising health-promoting context remains underutilised as a result.

To serve the presumed parallel (health and business) interests, it is important to develop, implement, and evaluate WHP interventions more effectively. For this, an optimal adjustment of the intervention to the organisational context is needed (Nielsen et al., 2010b). To date, knowledge of which organisation-specific factors are relevant to health development processes is still scarce and fragmented, and in practical situations often only implicitly available. In addition, organisation-specific factors are generally not included in development methods for health interventions. It is important to obtain a more profound understanding of which organisation-specific factors are relevant and should be taken into account when developing a WHP programme. In this study, a Delphi procedure is applied to determine relevant organisation-specific factors for developing health interventions in companies. A Delphi procedure can be used to develop reliable and valid health instruments

that include comprehensive health issues (e.g. Roosevelt et al., 2013). The overall aim of the study is to contribute to more effective WHP.

First some major challenges regarding health promotion in companies are described. Then, briefly, the Intervention Mapping (IM) protocol (Bartholomew et al., 2011) is described. IM is a valuable approach for developing, implementing, and evaluating health promotion programmes, and in this study it is used as the framework for structuring the identified organisation-specific factors.

Challenges regarding WHP

The challenges of WHP are illustrated by three examples. First, management commitment is required (Cox et al., 2010; Nielsen et al., 2010a). A common way for health promoters to interest managers in health interventions is to make their (cost-) effectiveness provable (Proper et al., 2004). Though cost-effectiveness is certainly an important issue, intangibles are often decisive in decision-making processes (Johanson et al., 2007). Since the organisational benefits of health are often much wider and more strategic (Verbeek et al., 2009), and cover issues like company image (Zwetsloot et al 2010), cost-effectiveness studies may underestimate the real value of health for companies (Loeppke, 2008). To obtain management commitment, health promoters should be familiar with the broad business implications, beyond cost-effectiveness. By mapping organisation-specific contextual factors and broad business benefits, this study contributes to a greater awareness of the overall management issues.

Second, often stimulated by occupational health and safety (OHS) legislation, most companies are already familiar with health policy and practices. In addition, general company policy, human resource (HR) policy, structure, culture, and other practices may influence health. Since stakeholders are already accustomed to existing (health) practices, it is important to stay in line with it. This study makes explicit which organisational policies and practices need to be taken into account.

Third, there is a complex interaction between work and health. As a multi-faceted construct (World Health Organisation (WHO), 2006), health interacts with a considerable range of factors within organisations, both positively and negatively. Work can be threatening for

health, as in hazardous work. Work can also be good for health: it provides structure, it may contribute to self-actualisation and learning (Hoeymans et al., 2012). It may also contribute to improved relatedness (Ryan and Deci, 2000) and social support (Karasek and Theorell, 1990). In addition, work aspects, such as work environment, business events, being busy after work and work stress, may both facilitate and inhibit health behaviours (Payne et al., 2013). Consequently, health interventions in companies may address a variety of needs. The defining of appropriate health needs in companies requires a broad view of the interaction between work and health. By making the relevant organisation-specific features explicit, this study encourages health promoters to take a broad organisation-specific view of health.

IM

IM (see Appendix 1; Bartholomew et al., 2011) is a six-step participative methodology for systematically developing, implementing, and evaluating health promotion programmes. Each step consists of several tasks. By using IM, health promoters are encouraged to combine relevant theories and practical evidence. IM maps the path from a recognised health need to the shared identification of solutions and improvements. IM is a useful planning framework for developing potentially effective interventions in several contexts (Brug et al., 2005), and it is also used in the work setting (e.g. Oude Hengel et al., 2010). Whereas the IM book emphasises the relevance of companies as a major health-promoting contexts, the IM protocol itself is general. An organisation-specific interpretation of IM is not yet available; however, given the complexity of WHP, it certainly makes sense to develop it. This study therefore examines organisation-specific criteria for use in IM procedures that are complementary to the general IM protocol.

Methods

The Delphi procedure

A Delphi procedure was used to identify organisation-specific factors. A panel of experts were asked to give their expert judgment on several organisation-specific factors, in two rounds. For the first round, an online questionnaire was developed, which included organisation-specific factors (see below). The experts were invited to participate by e-mail and given a login code. In the first round, they rated the relevance of several factors that

they were given, but they were also asked to suggest additional relevant factors. In order to find consensus, the relevance ratings of the first round were statistically analysed (see below).

For the second round, a summary of the consensus and convergence of the first round was provided as feedback to the panel members. In this round, items about which there was no consensus and the additional items suggested in the first round were included. The experts were then asked (a) to argue those no-consensus scores, and (b) consider whether, given the feedback, they wanted to maintain or change their scores. The answers for the second round were also statistically analysed.

In the second round, only marginal revisions were made. Therefore, it was decided not to apply a third round. The qualitative arguments were very diverse, and used to conduct an in-depth interpretation. The discussion section of this paper addresses some aspects of this.

Development of the questionnaire with organisation-specific factors

An initial list of relevant organisation-specific factors was derived from the vision of 'healthy work' of the European Network for Workplace Health Promotion (ENWHP, 2013), and from the principles of the WHO 'Healthy Workplace' model (Burton, 2010). Important aspects of the ENWHP vision include values and policies of decision makers within organisations, organisational culture, participation, leadership and management, work organisation, job security, quality of work environment, and personal health practice and lifestyle. Somewhat similarly, the WHO 'healthy workplaces' model identifies five keys to healthy workplaces: leadership commitment and engagement, involvement and participation of key stakeholders, business ethics and legality, comprehensive process of continuous improvement and sustainability and integration of health into other policies. However, the overall starting point of the 'Healthy Workplace' model is with the question: 'Why should companies invest in healthy workplaces?' Determining the broad business benefits, which include financial, ethical, and legal aspects (Verbeek et al., 2009) can provide clarity about this.

Derived from both perspectives, three main clusters of factors were identified for effective WHP: (a) adaptation to the external organisational context, (b) definition of the broad

business implications, and (c) adaptation to the internal business policy and practices. Matched to the three clusters, a draft questionnaire about potential relevant organisation-specific factors was produced by the authors based on their knowledge and practical experience as researchers and consultants in the field of OHS and quality (Tables 2 and 3 illustrate the factors included). Additionally, the authors reviewed the six IM steps and the associated tasks. Again, based on their knowledge and practical experience, the authors supplemented these IM steps with potentially relevant organisation-specific criteria (Table 5 illustrates the criteria included).

The draft questionnaire was piloted with a panel of 10 experts on public health, OHS, organisational quality, and management systems. The experts were asked to give their opinion about the content and the technical aspects of the online questionnaire. The comments resulted in a few changes to the questionnaire. The final version of questionnaire consisted of four parts:

1. *External organisational-contextual factors*: The experts were asked to rate the relevance of several company contextual factors (responses were on a 10-point scale from 1 = *not relevant at all* to 10 = *extremely relevant*). The experts were also asked how often, in their opinion, did these factors play an important role in practice (1 = *never*, 2 = *now and then*, 3 = *often*, 4 = *always*).

2. *Potential business benefits of health interventions:* The experts were asked which business benefits, in their opinion, are plausible and should be considered as an incentive for developing a health intervention in the work setting (ranging from 1 = *not plausible at all* to 10 = *most plausible*).

3. *Internal business affairs:* The experts answered the question: 'To what extent do you agree that it is relevant to take into account the following internal business affairs when developing a health intervention in the work setting?' (on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*). For this, the items were divided into three clusters of items covering internal business affairs; namely, company identity, internal policy, and organisational practice and habits. In addition, the experts were asked to indicate (as a percentage) the extent to which alignment between these three clusters of business affairs and the intervention would influence the effectiveness of the intervention.

4. Organisation-specific criteria relevant to IM procedures in the work setting (on a 10-point scale ranging from 1 = *not relevant at all* to 10 = *extremely relevant*).

Panel formation

To meet the objectives of the study, it was aimed to include experts working on the intersection of health, work and organisations. In addition, it was aimed to include a proportional distribution of experts working in public health, occupational safety and health and workplace health; health policy makers; and experts working in the field of organisational development and management. As a result, 137 experts from the international network of the project team were invited. In total, 42 experts participated (response rate 31%). The data of experts who completed less than half the questionnaire were excluded from the data analyses (*N* = 2), bringing the total number of participants included to 40. The participants who had completed the entire questionnaire in the first round (*N* = 37) were asked to complete the second round as well, which was done by 31. In the first round, the experts were asked to give their main fields of expertise (Table 1). Appropriate for the work at the intersection of several fields, the experts could indicate multiple areas, which makes the total number exceed 37.

Table 1. Main fields of expertise of the respondents (N = 37)	N
Public Health	12
Occupational Health and Safety, including occupational physician or psychologists	19
Workplace Health Promotion	14
Organisational management and development in workplace innovation, organisational change and learning	16
Health promotion on the macro level (transitions of care sector, health insurances, policy and system analyses, health communication	8

Note: Multiple answers possible

Data processing

Determining consensus. Medians and the interquartile ranges (IQRs) were used to define consensus. As IQRs of 2 or less on a 10-point scale, and 1 or less on a 5-point scale are

suitable consensus indicators (Von der Gracht, 2012), the criteria for accepting consensus in this Delphi procedures were as follows:

- A median of at least 6, with an IQR of 2 or less for items with a 10-point scale
- A median of at least 3, with an IQR of 1 or less for items with a 4- or 5-point scale.

Correlations. Bivariate correlations were performed between the relevance of the external organisational-contextual factors and judgements of the frequency of when these factors are important in practice. As a significant correlation was found for almost all external contextual factors, except one (ageing workforce), it was decided to exclude the frequency judgement in further analyses.

Defining components. To facilitate the interpretation of the findings, a principal component analyses was performed for the external organisational-contextual factors, and for the business benefits. This component analyses was used indicatively, since the case-per-variable ratio was too low to ensure a priori significance of the factors loaded. We discussed the factors that were loaded in the project team and, despite this limitation, decided to use it for the classification of factors. For internal business affairs, three categories were already defined when the questionnaire was devised (company identity, internal policy and organisational practice). This classification was maintained in the data processing.

Converting the consensus factors into tasks: 'Organisational Mapping'. To facilitate the use of the organisation-specific factors, the factors for which consensus was reached were converted into tasks in accordance with the IM methodology. For this, the clusters arising from the different components of external organisation-contextual factors and business benefits, and the classification used for the internal business affairs were presented as tasks (see Table 4, where the underlying factors are shown as examples of each task). To stay in line with the IM methodology, the organisation-specific features and tasks were, as a whole, termed 'Organisational Mapping'.

Results

Table 2 presents the external organisational-contextual factors, as well as the business benefits on which consensus was reached, divided into the clusters. No consensus was reached on the following external organisational-contextual factors: the diversity of the workforce, increasing informal care given by employees, double income households, increasing use of information and communication technology (ICT), the yearning for sustainability by clients and society, the 24/7 economy, working in network organisations, and 'welfare diseases' entering the workforce. Regarding the business benefits, no consensus was reached on lower premiums for health insurances, and lower premiums for social security.

Table 3 presents the internal business affairs on which consensus was reached. No consensus was reached on adjustment to the communication policy within the company.

The majority of the respondents agreed on the statement that the effectiveness of the intervention would be influenced by the alignment between the health intervention and (a) the company identity (72%), (b) the internal policy (75%), and (c) organisational practice and habits (79%).

Table 2. Relevant external organisational-contextual factors and business benefits for which consensus was reached.

Relevance of external organisational-contextual factors (1 = *not relevant at all*, 10 = *extremely relevant*)	Identified factors for which consensus was reached	Median (IQR)
a) Internal labour matters related to societal changes	*Shift from physical to mental load*	*7.0 (6-8)*
	Increasing sedentary work	7.5 (6-8)
	Ageing workforce	8.0 (7-9)
	Increase of precarious work	*7.0 (6-8)*
b) Interaction with the wider environment	The (competitive) market situation	7.0 (6-8)
	Globalization, internationalization	6.0 (5-7)
	Yearn for vitality from the society as a whole	*7.0 (5-7)*
c) Business continuity	Economic perspective	7.0 (6-8)
	Expected labour shortage	*7.0 (6-8)*

Plausible business benefits (1 = *not relevant at all*, 10 = *extremely relevant*)	Identified factors for which consensus was found	Median (IQR)
a) Company identity, and collective organisational functioning	Contribution to organisational efficacy	7.0 (6-8)
	Contribution to embed ethical values within the company	7.0 (6-8)
	Evolvement for capacity for innovation and creativity	7.0 (6-8)
	Contribution to company atmosphere	8.0 (7-8)
	Evolvement of cooperation and participation	7.0 (6-8)
	Contribution to company image	8.0 (7-8)
	Evolvement of organisational learning and development	7.0 (6-8)
	Being an attractive employer	*8.0 (6-8)*
b) Self-regulatory processes, and interaction between employees and the environment	Evolvement of self-regulation processes among employees	7.0 (6-8)
	Increase of vitality and resilience of employees	8.0 (7-9)
	Better external orientation, creativity, customer orientation	8.0 (7-9)
	Improvement of leadership style	*6.0 (5-7)*
c) Efficiency and cost reduction, including improved employees' workability and employability	Sick leave reduction	8.0 (7-9)
	Reduction of failure costs and disruption to production	7.0 (6-8)
	Increase of workability and employability	8.0 (7-8)
	Evolvement of employee engagement and motivation	8.0 (7-9)

IQR: Interquartile range.

Consensus in the first round (roman type) or second round (italic type) is presented by the median and IQR scores.

Table 3. Relevant internal business affairs on which consensus was reached

Internal business affairs (1 = *strongly disagree*, 5 = *strongly agree*)	Identified factors for which consensus was reached	Median (IQR)
a) Company identity	Mission statement, vision	5.0 (4-5)
	Core values	5.0 (4-5)
	Person-organisational fit	*4.0 (3-4)*
b) Internal policy	Health policy, like Workplace Health Promotion/ OHS policy	5.0 (4-5)
	HR policy	5.0 (4-5)
	Corporate Social Responsibility policy	4.0 (4-5)
	Competence management	*4.0 (3-4)*
c) Organisational practice and habits	Organisational structure	4.0 (4-5)
	Organisational culture (espoused and actual experienced)	5.0 (4-5)
	Work organisation	5.0 (4-5)
	Accountability	4.0 (4-5)
	Key performance indicators	4.0 (4-5)
	Leadership style	4.0 (4-5)
	Formal and informal decision making processes	4.0 (4-5)
	Organisation of participation in change processes	4.0 (4-5)
	Internal developments and changes	4.0 (4-5)
	Lessons learned from previous health interventions	5.0 (5-5)
	Values and interests of internal stakeholders	5.0 (4-5)

IQR: Interquartile range; OHS: Occupational Health and Safety; HR: Human Resource.

Consensus in the first round (roman type) or second round (italic type) is presented by the median and IQR scores.

Table 4 presents the tasks according to the steps of 'Organisational Mapping'.

Table 5 presents the additional organisation-specific IM criteria on which consensus was reached. The findings show that the organisation-specific context plays an important role at every step of the IM procedure. No consensus was reached on the following:

- Address interactions between individual and organisational change objectives (Step 2)
- Review programme objective with all relevant stakeholders, at least management and employees (Step 3)
- Identify relevant organisational change theories (Step 3)
- Use of organisational and change theories for the process evaluation (Step 6).

Table 4 Identified tasks based on the relevant organisation-specific factors for which consensus was reached

Steps of 'Organisational Mapping'	Tasks
a) Adjustment to the external organisational context	• State internal labour matters related to societal changes, such as ageing workforce, increasing sedentary work, shift from physical to mental work, and the increase of precarious work • State the interaction with the wider environment, such as globalization and internationalization, the (competitive) market situation, and the yearn for vitality from the society as a whole • State business continuity by aspect as the economic perspective, and the potential labour shortage
b) Defining the broad business benefits	• State the effects on company identity and collective organisational functioning (organisational efficacy, embedding values, evolvement of innovative capacity, cooperation and participation, company image, organisational learning and development, improvement of leadership style, being an attractive employer) • State the effects on self-regulatory processes, and interaction between employees and the environment (external and customer orientation, vitality and resilience, self-regulation) • State the effects on efficiency and cost reduction (due to less sick leave, less failure disruptions, and improved employees' workability, employability, and work-engagement)
c) Alignment with internal business affairs	• Assure alignment with the company identity (mission statement, core values, recent history, and person-organisation fit) • Assure alignment with internal business policy (health, HR, CSR, organisational learning and development policies, and competence management) • Assure alignment with organisational practice and habits (organisational structure, culture, work organisation, accountability, Key Performance Indicators, leadership style, decision making processes, participation in change processes, internal developments and changes, lessons learned from previous health interventions, values and interests of internal stakeholders)

HR: human resource; CSR: corporate social responsibility

Table 5. Additional organisation-specific criteria for which consensus was reached

	IM steps	Additional organisation-specific criteria	Median (IQR)
1	Needs assessment	• The planning group should consist of at least management and employees, including decision making authority;	9.0 (8-10)
		• Ensure participation of management and employees throughout the whole process;	9.0 (8-10)
		• Establish the broad business needs;	8.0 (8-9)
		• *Include subjective health needs and values, besides objective health issues*	*7.0 (6-7)*
		• Analyse company specific documents and information;	
		• Search for synergy between health program, organisational needs and development;	7.0 (6-8)
		• State the expected health and business benefits, and its reciprocity;	8.0 (8-9)
		• Confirm the program goals by management;	8.0 (7-9)
		• Confirm the program goals by employees' representatives	9.0 (8-10)
			9.0 (8-9)
2	The definition of program objectives	• State the desired change for employee and organisational collective behaviour.	8.0 (7-9)
		• Verify the relevance of individual and organisational change from an health and a business perspective	8.0 (7-9)
		• *Define individual performance objectives on employee level*	*8.0 (7-8)*
		• Define the organisational performance objective	8.0 (7-9)
		• Consider development or changes in physical and social work conditions	8.0 (8-9)
		• Consider development or changes in work content or work processes	8.0 (7-9)
		• Consider development or changes in organisational structure and/ or culture	8.0 (7-9)
		• Consider development or changes in interpersonal relational processes like leadership and communication	8.0 (7.5-9)
		• Engage relevant stakeholders to ensure their support to create a matrix of change objectives	8.0 (7-9)
		• Create matrices of change objectives on individual and organisational level and tune with other organisational change processes	8.0 (7-9)
		• Ensure that change objectives correspond with other organisational processes	8.0 (7-9)
3	Selection of theory-based intervention methods and practical strategies to change (determinants) of health-related behaviour	• Tune program ideas with other organisational developments	8.0 (7-9)
		• State learning experiences from earlier health interventions	8.0 (7-9)
		• Ensure program methods do not conflict with organisational context and developments	8.0 (7-9)
		• Identify opportunities to embed health program aspects within regular activities	9.0 (8-9.5)
		• Assure commitment of management and employees for the strategies chosen	9.0 (8-10)
4	The production of program components	• *Customise program materials to company standards*	*8.0 (6-8)*
5	The anticipation of program adaptation, implementation and sustainability	• Identify internal role models and state how they can help to implement the health program	8.0 (7-8.5)
		• Identify external adopters and implementers and state how they can help to implement the health program	8.0 (7-9)
		• Identify ambassadors who can contribute to enthusiasm of a critical mass of persons within the company committed to the health program	8.0 (7.5-9)
		• Ensure making use of company channels, meetings and procedures	8.0 (8-9)
6	The anticipation of process and effect evaluation.	• Write the effect evaluation by using the health and business needs defined for the program	8.0 (7-8.5)
		• Evaluate both the health and business objectives	8.0 (7-9)
		• Ensure evaluating the effects on internal business affairs	7.0 (7-9)
		• Ensure indicators to be easily incorporated in the common steering mechanisms of the company	8.0 (7-9)
		• Consider the use of existing monitoring instruments, such as employee satisfaction surveys	8.0 (7-9)

IM: Intervention Mapping; IQR: Interquartile Range

Discussion

In this study, a Delphi procedure was conducted to determine what organisation-specific factors are relevant to WHP. The overall aim was to contribute to the need for more effective WHP (Cox et al., 2010; Nielsen et al., 2010a). This study builds on the indicated necessity for optimal adjustment to the organisation-specific contextual factors (Oude Hengel et al., 2011), and for alignment with company policy (Durlak and DuPre, 2008). It adds to the current knowledge by showing *what* specific organisational-contextual factors are relevant to WHP and *how* these can be used in practice.

The means of organisations-specific factors for interventions

The identified relevant categories for health promotion in organisations largely correspond to the factors determined for the successful implementation of WHP (Durlak and DuPre, 2008; Wierenga et al., 2012). Though traditionally referred to a sequential, intervention development and implementation are at the very least are interwoven, especially in more complex innovations such as health promotion. Arguably, adaptation to external factors, adjustment to internal factors and involving the broad concerns of all stakeholders may be seen as three generic factors for potential meaningful intervention development and implementation processes. A more integrated approach for intervention development, application, implementation and evaluation is likely useful and should be addressed in further empirical studies. It is conceivable that these factors are more broadly applicable, beyond the health objectives, for example, for interventions aimed at cultural change, implementing of knowledge management or safety at work. However, this has to be confirmed in future research.

Practical implications

A strength of this study is that it gives practical guidelines for assessing organisational needs before planning and implementing health intervention. It supports the a broad business value of health (Loeppke, 2008), which goes beyond cost-effectiveness. This may increase the commitment of managers and other stakeholders to health interventions, and may provide further opportunities to search actively for parallel interest for WHP. To facilitate its practical application, the identified factors were converted into tasks and steps by the

process of 'Organisational Mapping'. In practice, these tasks should be further explored rather than simply used as a checklist. The tasks included generally relevant overall factors, often with underlying recognisable examples given by the experts themselves. For instance, examples of 'people not connected due to overregulation', and 'conflicts between employees' given by the experts will be recognisable to many, but they are particularly the expressions of the structure and work organisation, and the social work-climate, respectively. To avoid an over-complicated methodology, these examples were not included as factors. 'Organisational Mapping' is described at a more generic level, while for each practical application, it might be relevant to go into more detail.

It seems logical to address the relevant organisation-specific factors at a preparatory stage before starting the development process for an intervention. Subsequently, the organisation-specific mode of IM can be used at each step of the planning process. However, from an organisational change point of view, 'Organisational Mapping' can be an intervention in itself. A broad and shared exploration of the organisational context and health-influencing factors by relevant stakeholders is likely to contribute to a joint vision of the relevance of health. By this means, a common mind-set on the relevance of health may be developed, which is an important step towards continuous attention to health within the company (Van Scheppingen et al 2012). In addition, 'Organisational Mapping' fits into community approaches, where seeking common ground and mobilising leadership and participation are central (Wendel et al., 2009). Just as community approaches are meant to sustain the embedding of health within contexts, so 'Organisational Mapping' potentially supports the sustainable embedding of health within companies. Application in practice and careful evaluation are required to investigate the implications of 'Organisational Mapping' and its effectiveness.

Consensus and no-consensus factors

Consensus was reached for many factors, that is, for external organisational-contextual factors, for business benefits and for internal business affairs. A closer look at some of the factors for which no consensus was reached seems useful as well. For example, the medians for external organisational-contextual factors such as double income households, employees giving more informal care and the increase of the use of ICT were all below five,

indicating the factors to be of low relevance for health intervention in organisations. For other factors, such as the diversity of the workforce, and the yearn for sustainability, the experts did not agree on the level of relevance. Some experts stated these factors as a given, but not decisive for health interventions. In addition, experts argued these factors to be relevant for multinationals, but not so much for small and medium enterprises (SMEs). Regarding the business benefits, no consensus was reached about lower premiums for health insurance and social security. These benefits, of course, largely depend on the national social security system. As this panel was an international group of experts, each with their own frame of reference, it is easy to understand why there was no consensus. In countries where health has a direct effect on insurance premiums, it still makes sense to include this business benefit in IM procedures.

Limitations

The study has a number of limitations that must be considered when interpreting the results. The questionnaire used in this study was quite extensive, even for the experts who were invited. By using different scales, and incorporating reverse questions, it was attempted to avoid common method variance, but the occurrence of such variances cannot be completely ruled out. The participants of this study represented several scientific fields. It would be interesting to investigate any differences in the relevance ratings of the different expert groups. As each expert group should consist of 20 persons at least (Von der Gracht, 2012), it was not possible here to break down the results by field of expertise. In this case, the total expert panel was well above the number necessary to mitigate the risk of excessive influence of individual panel members (Von der Gracht, 2012). However, it remains a limited group, in which responses have a relatively large impact on the results. Also representativeness cannot be guaranteed. This may have affected the results, although knowledge and experience of panel members in a Delphi procedure are more relevant than the representativeness of the group (Reavley et al., 2012).

Conclusion

In this study relevant organisation-specific factors for health interventions in companies are identified and converted into an 'Organisational Mapping' process. As experts from both health science and organisational science were consulted, the relevant factors identified

should be recognisable and valuable to both fields. By this, 'Organisational Mapping' may serve a dual (health and business) interest, which is likely to contribute to the sustained attention to health in companies. A systematic use of these factors is likely to contribute to more effective health promotion, although this have to be confirmed in empirical studies.

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