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## Original Research

# The prevalence of implementation of mental health measures in companies and its association with sickness absence



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### ABSTRACT

**Objective:** The main objective was to determine the prevalence of implementation of mental health measures aimed at the prevention of high workload (workload measures) and the promotion of work engagement (engagement measures) in companies and sectors. Additionally, its associations with sickness absence was explored.

**Study design:** Cross-sectional survey.

**Methods:** An internet-based survey among 12,894 company representatives in the Netherlands. Descriptive analyses were performed to determine the prevalence, and differences between sectors were tested using Chi-squared tests. ANOVA was performed to examine the association between companies with or without mental health measures and sickness absence rates. **Results:** 32.8% and 21.7% of the companies reported to have implemented 'continuously or often' workload measures and engagement measures, respectively. The sectors 'health care and welfare' and 'education' reported to have implemented measures most often. Having implemented engagement measures was significantly associated with lower sickness absence (4.1% vs 4.5%).

**Conclusions:** Overall, workload measures were more often implemented than engagement measures. Future research is recommended to determine reasons for implementation as well as causality in the association between mental health measures and sickness absence.

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## Introduction

The World Health Organization (WHO) has defined mental health as 'a state of well-being in which every individual

realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community'.<sup>1</sup> With respect to the positive aspect of work-related mental health, work engagement has been defined by 'a positive, fulfilling,

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work-related state of mind that is characterized by vigour, dedication, and absorption'.<sup>2</sup> Work engagement has been shown to positively impact life satisfaction and to reduce the risk for depressive symptoms and burnout.<sup>3,4</sup> Furthermore, engaged employees are assumed to have a better health profile.<sup>5,6</sup> Next to the individual health benefits, the employer may benefit from engaged workers. For example, studies have shown that work engagement has a positive relation with job performance<sup>7</sup> and a lower risk for productivity loss caused by presenteeism or absenteeism.<sup>8</sup>

Despite strong evidence that work is generally beneficial for health and well-being, there is also evidence for harmful effects of psychosocial work characteristics on mental health.<sup>9</sup> The relation between psychosocial work characteristics and mental health can thus both be positive (e.g. resulting in work engagement) and negative (e.g. resulting in burnout).<sup>10–13</sup> Burnout, work stress, or other mental health problems are associated with a high burden, for both the individual employee and the employer. To illustrate, mental health disorders, including work stress, are the leading cause for sickness absence in Europe.<sup>14</sup> In many high-income countries, mental health problems cause between 35% and 45% of sickness absence.<sup>15</sup> Sickness absence caused by mental health problems is associated with relatively high costs, which are particularly due to the long duration<sup>16–18</sup> and high rates of recurrence of the mental health problems.<sup>19,20</sup> In the UK, costs of stress-related sickness absence have been estimated between four and five billion pounds each year.<sup>21</sup>

Considering the prevalence and impact of mental health problems and the associated costs, measures aimed at the promotion of employees' mental health are needed. Several studies have been performed evaluating the effect of diverse interventions aimed at reducing mental health problems, particularly aimed at workers with work-related psychological problems, overall showing less long-term sickness absence and faster return-to-work.<sup>22–28</sup> Few workplace health promotion interventions directed at the positive aspects of mental health, such as work engagement, have recently also been evaluated, but could not detect effects on work engagement or work-related outcomes (e.g. productivity).<sup>29–32</sup>

Although few, some research has been conducted to the prevalence rate of measures aimed at the prevention of high workload, which are particularly focused on the prevention and reduction of work stress. For example, from a European survey in 2009, it appeared that between 25% and 30% of the enterprises reported having more formal, system-based procedures to deal with psychosocial risk factors, while 23%–58% have taken measures (i.e. more ad hoc, reactive, individual measures) to control specific psychosocial risks.<sup>33</sup> With respect to measures aimed at the positive aspect of work-related mental health, i.e. the promotion of work engagement, the implementation rate of measures in companies is currently unknown. The main objective of the present study was therefore to determine the prevalence of the implementation of measures aimed at either or both the prevention of high workload (workload measures) and at the promotion of work engagement (engagement measures) of companies in the Netherlands, and to determine differences between sectors.

Implementation of mental health measures at the workplace might be associated with the company's sickness

absence rate. On the one hand, a high sickness absence rate may be due to a company's lack of investments in its personnel's mental health. On the other hand, it can be assumed that companies with high sickness absence rates start implementing activities aimed at the prevention or reduction of high workload and resulting sickness absence. To date, there is a lack of insight into the link between the implementation of workload and/or engagement measures and the company's sickness absence rate. Therefore, we additionally aimed to explore the relation between these two categories.

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## Methods

### Study design and population

An internet-based survey was distributed among a representative sample of companies in the Netherlands. A sample was drawn from all companies in the Netherlands, with an approximately equal representation of the various sectors and company sizes. The companies were categorized into 11 sectors, and with regard to company size five categories were applied (10–20, 20–50, 50–200, 200–500, and >500 employees). Companies with fewer than 10 employees were excluded. The following sectors were distinguished: 'agriculture, forestry and fishing', 'mining, quarrying and industry', 'construction', 'wholesale and retail trade', 'transportation and storage', 'accommodation and food service activities', 'information and communication', 'public administration and defence', 'education', 'health care and welfare services', and 'culture, sport, recreation and other service activities'.

Based on an expected response rate of 15%, the survey was sent out to 12,894 company representatives, who are responsible for Human Resources of their company. We used a non-proportional quota sampling as a form of non-probability sampling technique where we aimed at approximately equal numbers ( $n = 165$ ) of respondents by sector. All respondents received an introduction letter with a URL, their username and password. Two weeks after the introduction letter, the non-respondents received a reminder, again with the URL, their username and password. To approach a representative picture of the companies in the Netherlands, a weight factor was calculated based on sector and company size. The weighted data were used for the first study objective (i.e. prevalence of implementation of mental health measures). The unweighted data were used for the second study objective (i.e. association between the implementation of mental health measures and sickness absence rates).

### Measures

As no existing, validated questionnaires were available to determine the implementation of mental health measures by companies, we developed a questionnaire. In doing so, questions were derived from other surveys to health- or other type of measures in companies, and adjusted for the specific purpose of this study. A pilot test among a few company representatives was performed to test the draft

questionnaire on practical use (e.g. length, readability), understanding, appropriateness, and relevance of questions. Based on the pilot test, a final version of the questionnaire was made. The question about the implementation of measures aimed at the prevention of high work load was as following: 'to what extent are measures implemented in your company to control or limit high workload?'. Some examples were given, e.g. referral to counsellor or expert, giving courses or training, and ensuring clear working agreements. The answer categories were 'continuously or often', 'sometimes', 'never', and 'do not know'. For work engagement, a similar question was applied: 'to what extent are measures implemented in your company to promote work engagement?'. Hereby, also some examples were given, e.g. coaching, yoga, mindfulness, empowerment training, and career advice. The answer categories were the same as those for the prevention of high workload.

An open-ended question was used for the sickness absence rate in the company: 'what was the sickness absence rate in your company in the previous year, excluding pregnancy and maternity leave?'. The respondents could either report the company's sickness absence rate (known from their personnel registrations) or fill in 'do not know'. The survey was filled in anonymously.

### Statistical analysis

For the main objective, prevalence rates with respect to the implementation of workload measures and/or engagement measures were described for the total group and per sector. Chi-squared tests were used to determine differences between the sectors. Respondents reporting 'do not know' were excluded from the analyses.

To determine the association with sickness absence, one way ANOVAs were performed with sickness absence rate as dependent variable and the implementation of workload measures and/or engagement measures as the independent variable. In doing so, we dichotomized the variables that referred to the implementation of a workload measure or engagement measure, where 'yes' was scored in case of 'continuous or often', while 'sometimes' or 'never' was scored as 'no'. A variable was also created referring to the combination of workload measures and/or engagement measures. This variable consisted of four categories based on the dichotomous variable of the implementation of the two mental health measures. For all analyses  $P < 0.05$  was considered statistically significant, and all analyses were performed using SPSS (version 19, Chicago, USA).

## Results

A total of 3204 company representatives (response rate of 25%) completed the survey, of which 96 involved a company with less than 10 employees. After exclusion of these, the total study population included 3108 companies.

### Implementation of mental health measures

Almost one-third (32.8%) of the companies reported to have implemented workload measures 'continuously or often' and more than one-fifth (21.7%) of the companies implemented engagement measures 'continuously or often'. Around half of the companies reported to have 'sometimes' implemented workload measures or engagement measures (53.7% and 43.5%, respectively). The remaining (13.4%) reported to have 'never' implemented workload measures. For the promotion of work engagement this was 34.8%.

Table 1 shows the prevalence rates for the combination of the implementation of the two mental health measures. For this, complete cases were used yielding small differences in prevalence rates as compared to those mentioned above. It appeared that one in ten (10.9%) of the companies reported to have implemented workload and engagement measures 'continuously or often'. About a quarter (26.5%) of the companies reported to have implemented workload and engagement measures 'sometimes', while 8.6% of the companies reported to have 'never' implemented one of the two mental health measures. Furthermore, 1.3 and 2.7% of the companies reported to have implemented engagement measures 'continuously or often' or 'sometimes', respectively, while 'never' implementing workload measures.

Table 2 shows for each sector the prevalence of implemented mental health measures ('continuous or often') aimed at the prevention of high workload and at the promotion of work engagement. With a prevalence rate ranging between 42.0 and 49.3%, 'the health care and welfare services' sector, 'public administration and defense' and 'education' showed the highest prevalence of implemented workload measures. The sector 'construction' appeared to have the lowest prevalence of workload measures (18.0%). As to the promotion of work engagement, again the sectors 'education' and 'health care and welfare services' showed the highest prevalence (36.1 and 32.5%, respectively) of measures implemented, while the 'transportation and storage' sector showed the lowest prevalence rate (7.6%). For all sectors, except for 'accommodation and food service activities' companies more often

**Table 1 – Prevalence (% , n) of mental health measures aimed at either the prevention of high workload or at the promotion of work engagement, and the combination of the two.**

Workload	Work engagement measures implemented			Total
	Continuous or often	Sometimes	Never	
Continuous or often	10.9% (308)	14.6% (412)	7.6% (214)	33.2% (934)
Sometimes	9.2% (259)	26.5% (747)	18.5% (521)	54.2% (1527)
Never	1.3% (36)	2.7% (77)	8.6% (241)	12.6% (354)
Total	21.4% (603)	43.9% (1236)	34.7% (976)	100% (2815)

Data were weighted to ensure a representative picture of the companies across sectors and company size.

**Table 2 – Prevalence of implemented mental health measures ('continuous or often') aimed at the prevention of high workload and at the promotion of work engagement by sector.**

	Workload Total (n)	Workload Continuous or often % (n)	Work engagement Total (n)	Work engagement Continuous or often % (n)
Health care and welfare services	215	49.3 (106)	212	32.5 (69)
Public administration and defense	679	45.5 (309)	618	24.9 (154)
Education	100	42.0 (42)	97	36.1 (35)
Information and communication	121	34.7 (42)	112	25.0 (28)
Wholesale and retail trade	665	30.5 (203)	648	19.1 (124)
Agriculture, forestry and fishing	102	26.5 (27)	94	20.2 (19)
Mining, quarrying and industry	309	26.4 (103)	381	17.8 (68)
Culture, sport, recreation and other service activities	116	25.9 (30)	109	22.9 (25)
Transportation and storage	165	24.2 (40)	144	7.6 (11)
Accommodation and food service activities	174	21.8 (38)	167	25.1 (42)
Construction	295	18.0 (53)	282	16.3 (46)
<b>Total (n)</b>	<b>3022</b>	<b>993</b>	<b>2864</b>	<b>621</b>

Data were weighted to ensure a representative picture of the companies across sectors and company size.

implemented workload measures than engagement measures. Based on a Chi-squared test, there were significant differences between sectors in the prevalence of implemented mental health measures ( $P < 0.01$ ).

#### Sickness absence rates by implementation of mental health measures

Mean sickness absence rate in the whole group was 4.4% (standard deviation 3.3). Sickness absence rates for companies by the implementation of mental health measures are given in Table 3. Mean sickness absence rate in companies with engagement measures was statistically significantly lower than that in companies without such measures (4.1% versus 4.5%) ( $P = 0.01$ ). These differences were also reflected in the mean sickness absence rate by companies that implemented engagement measures combined with workload measures ( $P = 0.05$ ). No significant differences in mean sickness absence rate were found by workload measures (4.3 and 4.4%).

**Table 3 – Mean sick leave rates for companies with or without different combinations of mental health measures (n = 2700).**

	% Mean sick leave (SD <sup>b</sup> )	P
<b>Total</b>	4.4 (3.3)	
<b>Workload</b>		
'yes' <sup>a</sup>	4.3 (3.0)	0.16
'no'	4.4 (3.5)	
<b>Work engagement</b>		
'yes'	4.1 (3.0)	0.01
'no'	4.5 (3.4)	
<b>Workload and/or work engagement</b>		
Workload 'yes' and work engagement 'yes'	4.0 (2.8)	0.05
Workload 'yes' and work engagement 'no'	4.4 (3.2)	
Workload 'no' and work engagement 'yes'	4.1 (3.2)	
Workload 'no' and work engagement 'no'	4.5 (3.5)	

<sup>a</sup> Yes = mental health measures implemented 'continuous or often'; no = mental health measures implemented 'sometimes or never'.

<sup>b</sup> SD = standard deviation.

## Discussion

This study showed that one-third of the companies reported to have implemented workload measures 'continuously or often'. For engagement measures, one-fifth of the companies reported this. Differences in the implementation of measures were found between sectors; overall companies in the sectors 'education' and 'health care and welfare services' most frequently reported the implementation of mental health measures, whereas the sectors 'construction' and 'transportation and storage' reported the lowest prevalence rates of measures implemented. Lower sickness absence rates were found for companies that reported to have implemented engagement measures 'continuously or often' compared to those that implemented such measures 'sometimes or never' (4.1% versus 4.5%), which was not found for workload measures.

As far as we are aware of, this is the first study to the prevalence of measures implemented aimed at the promotion of work engagement, so no comparison with other studies can take place. Based on our data, we can conclude that only a minority of companies currently offers measures aimed at the promotion of employees' work engagement. With respect to workload, the prevalence rate of 32.8% found in the present study falls within the range found in the European survey regarding the implementation of more formalized procedures and individual measures.<sup>33</sup> Furthermore, consistent with our study, other studies found differences between sectors.<sup>33,34</sup> The study in multiple European countries also showed the highest prevalence within the 'health care and welfare services' and 'education' sectors.<sup>33</sup> In this context, it is worth mentioning that these sectors generally also report relatively high levels of mental workload.<sup>35</sup> To get insight into the direction of the link between the presence of high workload and the implementation of workload measures, more in-depth, longitudinal study is needed. Further study is also needed to get insight into the type and reach of the measures implemented in relation to the effect on mental health and subsequently on sickness absence. As part of the study, we also held interviews with about 15 employers, who have an active mental health policy, based on their answers in the survey.

The aim of the semi-structured interviews was to get more insight into the type of measures and experiences with the measures implemented. From these interviews, it became clear that there is no unambiguous definition of mental health, resulting in a large diversity of programs, varying from personal development plans, health checks, stress reduction programs to yoga. Overall, employers and their personnel are positive about the measures implemented, but these experiences were clearly subjective and not based on scientific evidence. Insight into the reach and effectiveness, and particularly cost-effectiveness is however lacking, but needed to promote the implementation of measures aimed to promote mental health among all employees. Previous studies have shown that workplace interventions, such as training or participative interventions, might yield positive effects on reducing mental workload.<sup>36–38</sup> With respect to work engagement, few recent studies have developed and evaluated different workplace interventions, overall showing no effect of the interventions on work engagement.<sup>29,31,32,39</sup> Reasons for lack of effect are diverse and may be attributed to the intervention type and focus on work engagement or to the single component intervention strategy, whereby only individual factors were addressed rather than also including organizational resources. Other factors of influence relate to the intensity of the intervention and the healthy study population under study. In summary, to date, there is no evidence for the effectiveness of implementation of work engagement interventions based on the few intervention studies performed. However, based on the observational studies that showed engaged workers to have a better health profile and higher work ability and work performance,<sup>3,4,8,40,41</sup> investments in employees' work engagement seem worthwhile. Before doing so, research to a promising, potentially effective work engagement measure is highly recommended.

We hypothesized that there could be a mutual relation between sickness absence rate and an active corporate mental health policy, where a high sickness absence rate could have been brought down if mental health measures would have been implemented, but could also be a motivation to start implementing mental health measures. We found no association between the implementation of workload measures and sickness absence rate. Although, we found an association between the implementation of engagement measures and lower sickness absence rate. The findings thus partly confirm our hypothesis. However, due to the cross-sectional design of the study, we cannot conclude whether the lower sickness absence rate is either cause or consequence for the implemented engagement measures. Longitudinal research is needed to establish such. In this study, we explored the association between the implementation of mental health measures and sickness absence in general. It is plausible that a stronger association is present for mental health related sickness absence than for general sickness absence. Namely, in case of sickness absence related to stress or depression, the need to invest in measures that promote employees' mental health may be stronger than for other type of measures. However, as sickness absence is by definition multifactorial, and because of probable low validity of reported sickness absence by diagnosis, we decided to use sickness absence in general.

Motives for the implementation of the two types of mental health measures cannot be answered in this study. For the implementation of occupational safety and health programs, legal, financial (cost-benefit), and moral aspects have shown to be the main drivers for companies.<sup>42</sup> Next to financial aspects, other intangible benefits seem to be important drivers of business decisions to implement worksite health promotion programs.<sup>43</sup> These motives, including reduced sickness absence (and related costs), may also play a role in the decision to implement mental health measures. This was not part of our study, but further research should confirm (or disprove) such.

In the interpretation of the study findings, a few methodological issues need to be considered. A strength of this study is the large sample of company representatives across various company sizes and sectors. Over 3000 representatives of companies completed and returned the survey, and by using a weight factor, we obtained a representative sample of companies in the Netherlands. Still, about 75% of the invited companies did not return the questionnaire. Therefore, it is possible that companies that have a more than average focus on mental health policy participated in this study. If this is the case, then the results in this study give an overestimation of the actual figures.

During this study, the global economic crisis was present. It might be that employers did not have a priority to invest in mental health of their personnel. This was already described by Houtman et al. (1998 and 1999) who reported that if companies are financially going well, the chance that risks at work are identified and tackled will be higher.<sup>44,45</sup> Furthermore, employees might have reported themselves less sick, for fear of losing their job.<sup>46</sup> The reported prevalence rates and sickness absence rates found in our study might therefore be lower than when the study would have been performed in financial better times. Our results with respect to the prevalence rates of mental health measures cannot be generalized to other countries. In the Netherlands, the employers are responsible for the major part of the sickness absence costs during the first two years of sickness absence. It might be more profitable for Dutch employers to invest in mental health measures in order to prevent sickness absence of their employees than in other countries. Therefore, the reported prevalence of implemented measures found in this study can be higher than in other countries.

Our aim was to provide insight into the prevalence of measures taken by companies aimed at the prevention of high workload and the promotion of work engagement, and the association with sickness absence rates. We therefore performed a cross-sectional survey, which refrains us from drawing a conclusion about causality. In order to determine causality, future research using a longitudinal design is needed. Such research may also provide insight in the financial benefits, such as reduced sickness absence (reduced costs) after implementation of measures.

## Conclusion

In conclusion, this study showed that mental health measures are implemented in companies, about one out of three companies have measures aimed at the prevention of high

workload and about one of five aimed at the promotion of work engagement. Lower sickness absence rates were only found for those companies that invested in measures aimed at the promotion of work engagement. Future longitudinal research is recommended to get insight into the reasons for implementation and effectiveness of the mental health measures.

## Author statements

### Ethical approval

Not required, as this study involves a survey among employers without intervention.

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### Competing interests

None declared.

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