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Return-to-Work Self-Efficacy and Actual Return to Work Among Long-Term Sick-Listed Employees

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Abstract *Objective* Considering the costs incurred by sickness absence and the implications for the workers' quality of life, a fast return to work (RTW) is important. Self-efficacy (SE) seems to be an important predictor of RTW for employees with mental health problems. The predictive value of return-to-work self-efficacy (RTW-SE) has not been examined in employees on long-term sickness absence due to any cause. The aim of this study is to investigate whether RTW-SE is a predictor of time to RTW in long-term sick-listed employees with all-cause sickness absence. Furthermore, the relative contribution of RTW-SE in predicting RTW will be examined compared to health-related, job-related and personal factors. *Methods* In a longitudinal study, sick-listed employees who were currently on sick leave for more than 4 weeks filled out a self-report questionnaire. Demographics, health-related, personal, and job-related factors, and RTW-SE were measured. Employees were fol-lowed for 2 years to determine the duration until full RTW. Cox proportional hazards regression analyses were used to identify factors associated with time to RTW. *Results* Data were collected from 493 sick-listed employees. RTW-SE was a significant predictor of RTW. In a multivariate model, low RTW-SE, the thought of not being able to work while having symptoms (illness behaviour) and having chronic medical conditions were predictors of a longer duration until RTW. *Conclusion* When guiding long-term sick-listed employees, it is important to focus on factors such as SE and illness behaviour, instead of just focusing on the symptoms of the sick-listed employee.

Keywords Return-to-work · Self-efficacy · Sickness absence

Introduction

Long-term sickness absence is a major public health problem with negative consequences for society, the employer, and the individual worker. It constitutes a small fraction of all absence episodes but comprises more than a third of total days lost and up to 75 % of absence costs [1]. Besides the costs that are incurred by sickness absence, the workers' quality of life is also affected by long-term sickness absence [1]. The ability to work is an important aspect of people's quality of life. Prolonged absence from work increases the risk of isolation and reduces meaningful activity. Workers may become afraid to return to work (RTW), doubting their own competencies and fearing the reactions of co-workers [2, 3].

Most of the costs of work absence are incurred by chronic somatic diseases and common mental disorders (CMDs). Chronic somatic diseases are associated with the

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highest absence costs in the Netherlands, namely 5.3 billion Euros [4]. Suffering from a chronic somatic disease contributes to 10.7 extra absence days per year [4]. CMDs are also highly associated with long-term sickness absence from work, contributing to 10.5 extra absence days per year [4]. In the Netherlands, one-third of the disability benefits are paid to people suffering from a mental disorders [5]. Considering the huge costs generated by absence due to sickness and the implications for the workers' quality of life, a fast RTW is important.

Several studies indicate that self-efficacy (SE) seems to be an important predictor of RTW [6–8]. According to Bandura, SE is an individual's belief in his or her ability to succeed in a specific behaviour [9]. SE is highly predictive of the initiation and persistent execution of behaviour [9]. When applying this SE theory to sick-listed employees and RTW, it can be expected that sick-listed employees with high feelings of SE will have a shorter absence than sick-listed individuals with low feelings of SE. In fact, employees' self-reported expectancy to resume work or their expectancy with respect to recovery duration turned out to be an important predictor in several studies [10–13]. Moreover, in two recent studies by Brouwer et al., the "willingness to expend effort in completing a behaviour" (i.e. RTW) was significantly associated with a shorter time to RTW in employees on long-term sickness absence [6, 7]. These findings indicate that the beliefs sick-listed employees have in their own competencies with respect to RTW play a key role in the RTW process.

Return-to-work self-efficacy (RTW-SE) is the belief that employees have in their own ability to meet the demands required to RTW [8]. Lagerveld et al. [8] developed a questionnaire which specifically measures work-related self-efficacy for sick-listed employees—the return to work self-efficacy scale. Lagerveld et al. and Nieuwenhuijsen et al. [14] showed that RTW-SE is a robust predictor of return to work for sick-listed employees with CMDs and recommend the use of this questionnaire to detect workers at risk of long duration until RTW. Nieuwenhuijsen et al. also showed that decreasing mental health symptoms were associated with increasing RTW-SE over time, which suggests that RTW-SE can partly be explained by mental health symptoms. However, when controlled for the improvement of mental health symptoms, RTW-SE remained a predictor of RTW [14]. This suggests that RTW-SE is an important predictor of RTW despite the mental and probably also physical symptoms an employee has. However, so far, the predictive value of RTW-SE has not been examined in workers on long-term sickness absence due to any cause.

In the present study, we examine whether RTW-SE is a predictor of time to RTW in long-term sick-listed employees with all-cause sickness absence. According to the International Classification of Functioning, Disability and Health (ICF) model, disability and functioning are not only influenced by medical factors but by a variety of personal and environmental factors as well [15]. Earlier research showed that personal factors are important predictors for RTW [6, 7, 10–12, 14, 16, 17]. Personal factors like job-related illness behaviour and self-doubt are shown to be predictors of a longer absence in earlier research [18]. Another personal factor that had shown to be important in sickness absence and the RTW process is coping. An active coping style is related to less sickness absence and earlier RTW [19, 20]. Environmental factors that have shown to be predictors of a longer duration until RTW, are job-related factors like high supervisor social support, high physical job demand and low co-worker support [6, 16, 21]. Since many studies have showed the importance of the above mentioned personal and job-related factors in predicting RTW, these factors and health-related factors will be included in the analyses to examine the relative contribution of RTW-SE compared to these factors.

Methods

Design and Procedure

The research population in this prospective, longitudinal study consisted of employees who were currently on long-term sickness absence. The participants were recruited in collaboration with Achmea Disability Insurance, a Dutch income insurer, and Arbo Vitale (formerly known as Achmea Vitale), a large occupational health service provider in the Netherlands. Employees in small to medium-sized companies, whose employers were insured against the costs of sick leave and sickness guidance (and who agreed to our approaching their sick listed employees), were approached for participation. To recruit the participants for this study, we provided employees who had been on sick leave for more than 4 weeks with written information about the study and an informed consent form. They were asked if they were willing to participate in a study examining the sickness guidance of sick-listed employees and employees' experiences with the received guidance. In the informed consent letter it was emphasized that participation was voluntary and that declining participation would not have any consequence for future sickness guidance. Because it was impossible to check whether employees who did not respond to the letter were still on sick leave, there was no way to report a reliable percentage of response for the recruitment procedure of this study.

The inclusion criteria for this study were being sick-listed between 4 weeks and 2 years and having access to

the Internet, because the questionnaires were filled out online. The maximum period of 2 years was chosen because in the Netherlands, entitlement for a disability pension is determined after a maximum of 2 years of sickness absence. There were no exclusion criteria. Those who agreed to participate and signed the informed consent form were sent the questionnaire. The study protocol was approved by the Medical Ethical Committee of the VU University medical center (VUmc) in Amsterdam.

Measures

Dependent Variable

The duration until full RTW, starting from the first day of sickness absence, was the dependent variable. RTW was defined as the first day of work resumption lasting for at least 4 weeks. The follow-up period was 2 years after the start of the sickness absence. When estimating the duration of absence spells, it is important to censor absences that have not ended by the end of the observation period [22]. Therefore, data were censored for employees whose sickness absence ended because they had resigned during the 2 year follow-up. Data about time to RTW were derived from the registers of the insurance company of the employers of the sick-listed employees.

Independent Variables

The main independent variable in this study was return-to-work self-efficacy (RTW-SE), as measured with the return-to-work self-efficacy questionnaire [8]. This questionnaire contains 11 items, with response categories on a 6-point scale. Participants were asked to respond to statements about their jobs, imagining that they would start working their full contracted hours again tomorrow (in their present emotional state/state of mind). A mean score over the 11 items was used to compute the scale score. The scale ranges from 1 to 6. Because there was no validated cut-off point available for the RTW-SE questionnaire, it was dichotomized based on the highest quartile of the range of the scale, with scores above 4.5 referring to high SE with respect to RTW. This approach was applied to gain a clear contrast between employees with a high and a low RTW-SE.

The RTW-SE questionnaire was developed for employees with mental health problems, but it was validated in a population of employees with mental health problems as well as employees with physical disabilities. No noticeable differences between employees with predominantly physical health problems and mental health problems were found [8].

Demographic Factors

Age, marital status, and educational level were measured. Age was dichotomized into the following two categories: ages 18–44 and ages ≥45 [16]. Marital status was dichotomized into the following two categories: not married/cohabiting and married or cohabiting. Educational level was categorized into three categories: "low" (including primary school, lower vocational education, and lower secondary school), "medium" (including intermediate vocational education and upper secondary school), and "high" (including upper vocational education or university).

Health-Related Factors

The Patient Health Questionnaire (PHQ) was used to measure depression, somatization, and anxiety (i.e. generalised anxiety disorder and panic disorder) [23–27]. The depression scale of the PHQ—the PHQ-9—contains nine items and ranges from 0 to 27. The depression scale was dichotomized with a cutoff point of 10, with a score of ≥10 referring to moderate to severe depressive symptoms [24]. The generalised anxiety scale of the PHQ contains 15 items and the panic scale of the PHQ contains 7 items. The presence of a generalised anxiety disorder (GAD) or panic disorder (PD) was calculated using the algorithms behind the generalised anxiety and panic scales of the PHQ [23]. The somatization scale of the PHQ—the PHQ-15—contains 15 items and ranges from 0 to 30. The somatization scale was dichotomized with a cutoff point of 10, with a score of ≥10 referring to medium to high somatization [26].

Physical symptoms were measured with the Physical Symptoms Checklist (Lichamelijke Klachten Vragenlijst, LKV), a 51-item checklist assessing the number and intensity of functional physical symptoms [28]. The LKV was dichotomized, with scores of five or more referring to high physical symptoms.

Chronic medical conditions were measured with the Dutch Central Bureau of Statistics list (CBS-list), a questionnaire containing 28 chronic medical conditions [29]. The CBS list was dichotomized into no chronic medical condition and one or more chronic medical conditions.

Personal Factors

The Work Reintegration Questionnaire (WRQ) was used to measure job-related illness behaviour, self-doubt, perfectionism, and stressful home situation [30]. The WRQ scales were dichotomized based on norm scores [30]. The illness behaviour scale ranges from 10 to 40 and was dichotomized, with scores above 34 referring to high illness

behavior. The self-doubt scale ranges from 11 to 44 and was dichotomized, with scores above 26 referring to high self-doubt. The perfectionism scale ranges from 12 to 48 and was dichotomized, with scores above 39 referring to high perfectionism. The stressful home situation scale ranges from 7 to 28 and was dichotomized, with scores above 17 referring to high stressful home situation [30, 31].

Sense of mastery was measured with the Pearlin and Schooler Mastery Scale, which contains five items and has a range from 5 (low mastery) to 25 (high mastery) [32]. The scores were dichotomized based on the highest quartile, with scores above 20 referring to a high sense of mastery [32]. Sense of mastery is a psychosocial resource when coping with stressful life events.

Job-Related Factors

Job-related factors were measured with five scales from the Job Content Questionnaire (JCQ), namely decision latitude, psychological job demands, physical job demands, social support, and job insecurity [33]. JCQ scores were dichotomized based on the highest quartile of the range of the scale. The decision latitude scale, consisting of nine items, ranges from 24 to 96 and was dichotomized such that scores above 78 refer to high decision latitude. Psychological job demands, including five items and ranging from 12 to 48, was dichotomized, with scores above 39 referring to high psychological job demands. Physical job demands, a five-item scale ranging from 5 to 20, was dichotomized, with scores above 17 referring to high physical job demands. Social support, encompassing co-worker and supervisor support, is an eight-item scale ranging from 8 to 32, which was dichotomized to reflect scores above 26 referring to high level of social support. Finally, job insecurity, a three-item scale ranging from 3 to 12, was dichotomized, with scores above 9 referring to high job insecurity.

Analysis

RTW-SE Predicting Time to Full RTW

A Cox proportional hazards regression analysis was used to assess the predictive value of RTW-SE on time to full RTW. The hazard ratio (HR) was calculated. An HR value higher than one reflects a shorter duration of sickness absence. The median number of days until full RTW was calculated for the "low" and "high" RTW-SE groups.

Since it might be that some employees scored high on the RTW-SE questionnaire because they already had planned and agreed to RTW on a very short term, a sensitivity analyses was performed, excluding the employees who achieved RTW within 2 weeks after filling out the questionnaire.

Influence of Other Determinants on the Relation Between RTW-SE and Time to Full RTW

The analyses were completed in three steps. First, the relationships between all factors and time to full RTW were assessed with bivariate Cox proportional hazards regression analyses. Then, factors that showed an association with RTW with a P value <.20 were entered as covariates in a Cox regression model with RTW-SE as an independent variable and time to RTW as the dependent variable. A P value of .20 was chosen because the aim of this analysis was to find possible predictors and thus a low threshold for inclusion of such predictors was needed. A threshold with a lower P value would have been more selective and might lead to missing possible predictors.

The relative contribution of the significant covariates compared to RTW-SE will be examined by comparing the HRs. Finally, interaction effects between all covariates and RTW-SE were examined using a P value of <.05. Furthermore, a test of the proportional hazard assumption was conducted by plotting the log-minus-log plots.

The independent variables were checked for multicollinearity by the variance inflation factor (VIF) and the tolerance. A tolerance of <.20 or a VIF above five indicates a multicollinearity problem. Furthermore, all analyses were adjusted for the duration of sickness absence at the moment that the participant filled out the questionnaire by left-truncation. The analyses were performed with SPSS 19.0 (IBM SPSS Statistics for Windows, Version 19.0, IBM Corp., Armonk, NY, 2010) and Stata 12.1 (Stata Statistical Software: Release 12, StataCorp LP, College Station, TX, 2011) software.

Ethical Principles

Ethical approval was obtained from the Medical Ethics Committee of the VU University Medical Center in Amsterdam in March 2010.

Results

Study Population

Data were collected from 886 employees. Data from 356 employees were not included in the analyses, because they filled out the questionnaire while they were not on sick leave anymore (n = 342), had been on sick leave for <4 weeks (n = 9) or more than 2 years (n = 5). Furthermore, 37 participants were excluded because of missing data on the outcome measure. This resulted in a study population of 493. The flowchart of the study is shown in Fig. 1.
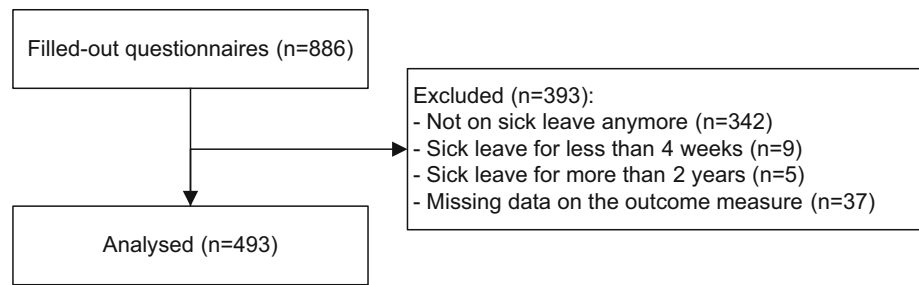
Fig. 1 Flowchart of the study

Filled-out questionnaires (n=886)

Excluded (n=393):
- Not on sick leave anymore (n=342)
- Sick leave for less than 4 weeks (n=9)
- Sick leave for more than 2 years (n=5)
- Missing data on the outcome measure (n=37)

Analysed (n=493)

Table 1 Characteristics of the study population (N = 441–493)

	Total N	Percentage/median
RTW		
Full RTW within 2 years (% yes)	493	39.6
Duration of sickness absence at moment of filling out the questionnaire (median, in days)		247.0
Demographic characteristics		
Age (% ≥45)	487	63.2
Sex (% female)	457	51.9
Married/living together (%)	487	75.6
Education level	478	
(% Low)		61.5
(% Average)		25.3
(% High)		13.2
Health-related factors		
Depressive symptoms, moderate to severe (% with PHQ-9 ≥10)	470	33.6
Panic disorder (% positive PHQ)	468	4.7
Generalized anxiety (% positive with PHQ)	462	17.3
Somatization, medium to high (% with PHQ-15 ≥10)	473	45.9
Physical symptoms, high (% with LKV ≥5)	469	58.2
Chronic medical condition (% with ≥1)	468	87.2
Personal factors		
RTW-SE (% >4.5)	448	28.8
Illness behaviour, high (% >34)	448	50.2
Self-doubt, high (% >26)	447	25.1
Perfectionism, high (% >39)	446	37.9
Stressful home situation, high (% >17)	447	22.4
Sense of mastery, high (% >20)	442	20.6
Job-related factors		
Decision latitude, high (% >78)	444	26.4
Psychological demands, high (% >39)	443	14.2
Physical demands, high (% >17)	442	14.7
Social support, high (% >26)	441	23.6
Job insecurity, high (% >9)	445	10.1

RTW return to work, *PHQ* patient health questionnaire, *RTW-SE* return to work self-efficacy, *LKV* Lichamelijke Klachten Vragenlijst
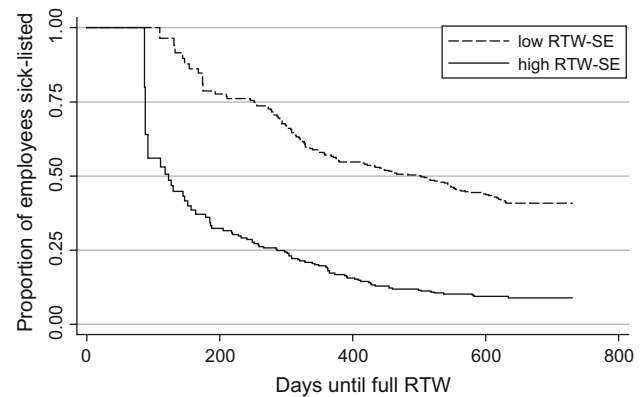

Fig. 2 Kaplan–Meier curve. The curve was adjusted for the duration of sickness absence at the moment of filling out the questionnaire by left-truncation

Characteristics of the Study Population

The characteristics of the study population are presented in Table 1. In total, 195 employees (39.5 %) had a lasting, full RTW (for at least 4 weeks) within the 2-year follow-up. The median duration until full RTW was 348 days. Furthermore, 58 participants (11.8 %) were censored because they resigned from work, and the remaining 240 participants (48.7 %) did not have a lasting, full RTW within the 2-year follow-up.

RTW-SE Predicting Time to Full RTW

Low RTW-SE was found in 319 participants (64.7 %) and high RTW-SE was found in 129 of the participants (26.2 %). Data were missing for 9.1 % of the participants. The mean score on the RTW-SE questionnaire was 3.6. Participants with low RTW-SE had a median time to return to work of 363 days and participants with high RTW-SE had a median time to return to work of 308 days. The Cox proportional hazards regression analysis showed a statistically significant difference between the two groups, with high RTW-SE being associated with a shorter time to RTW (HR = 2.02, 95 % CI 1.50; 2.73, $P < .01$). Figure 2

Table 2 Results of the bivariate Cox proportional hazards regression analyses

	HR	95 % CI	P value
RTW-SE	2.02	1.50; 2.73	.000
Age (≥45)	.899	.674; 1.198	.467
Sex (female)	1.099	.822; 1.469	.523
Married/living together	1.086	.779; 1.513	.625
Educational level			
Low	.652	.432; .983	.041
Moderate	1.02	.660; 1.589	.913
High	1.00	–	–
Depressive symptoms (high ≥10)	.685	.497; .946	.022
Panic disorder	.485	.200; 1.181	.111
Generalized anxiety disorder	.658	.432; 1.00	.052
Somatization (high ≥10)	.675	.501; .909	.010
Physical symptoms (high ≥5)	.621	.465; .829	.001
Chronic medical condition (≥1)	.515	.359; .740	.000
Illness behaviour	.252	.180; .354	.000
Self-doubt	.708	.484; 1.035	.075
Perfectionism	.621	.452; .854	.003
Stressful home situation	1.025	.718; 1.464	.891
Sense of mastery (high)	1.668	1.202; 2.315	.002
Decision latitude (high)	1.301	.947; 1.788	.105
Psychological job demands (high)	.524	.303; .904	.020
Physical job demands (high)	.527	.310; .895	.018
Social support (high)	.981	.694; 1.387	.912
Job insecurity (high)	.588	.288; 1.199	.144

HR hazard ratio, *CI* confidence interval

All analyses are adjusted for the duration of sickness absence at the moment of filling out the questionnaire by left-truncation

presents the Kaplan–Meier survival curve of low versus high RTW-SE.

A sensitivity analysis was performed by excluding the participants who received RTW within 2 weeks after they filled out the questionnaire from the Cox proportional hazards regression analysis (n = 15). 60.0 % of the employees who achieved RTW within 2 weeks after they filled out the questionnaire scored high on RTW-SE versus 27.7 % of the employees who did not achieve RTW within 2 weeks. The Cox proportional hazards regression analysis showed that also in the subgroup of employees who did not RTW within 2 weeks after filling out the questionnaire, RTW-SE was a significant predictor of the duration until RTW (HR = 1.87, 95 % CI 1.37; 2.56, P < .01).

Influence of Other Determinants on the Relation Between RTW-SE and Time to Full RTW

The results of the bivariate regression analyses are presented in Table 2. In the bivariate analyses, the following factors had an association of P >.20: age, sex, married or cohabiting, stressful home situation, and social support. These factors were excluded from the second step, the multiple regression analysis. Table 3 shows the significant (P < .05) factors and the HR and confidence intervals (CIs) of multiple analysis. The median durations until full RTW (in days) for subgroups of the employees categorized in low and high groups on the associated factors are also presented in Table 3. Illness behaviour, RTW-SE and suffering a chronic medical condition were significantly associated with duration until RTW. The largest HR was found for illness behaviour. Employees with a high score on illness behaviour have a longer duration until RTW. Furthermore, suffering from one or more chronic medical conditions is also associated with a longer duration until RTW (see Table 3).

The proportional hazards assumption holds in all the analyses. Furthermore, the VIFs of all variables were below 5 and the tolerance above .2, so there was no indication of multicollinearity.

Discussion

Main Findings

The aim of the present study was to examine whether RTW-SE is a predictor of time to full RTW in long-term sick-listed employees due to any cause. In addition, the relative contribution of RTW-SE in predicting RTW was compared to other predictors of RTW i.e. health related factors. The results showed that RTW-SE was a significant predictor of RTW in the studied population with very long-term sick-listed employees. In the multivariate model, other important negative predictors of RTW were illness behaviour and having one or more chronic medical conditions.

Comparison with Other Studies

In previous studies, RTW-SE has also been found to be predictive of RTW. The population in the present study had a very long sickness absence at the entry of the study (median 247 days) and a very long overall duration of sickness absence, compared with previous studies. However, in line with the findings of other studies, the present study revealed RTW-SE to be a predictor of full RTW [8, 14, 19]. Huijs et al. [19] also showed that RTW-SE is a predictor of earlier RTW in long-term sick-listed employees with physical problems and in employees with physical and mental problems. However, in that study, RTW-SE was not a predictor of RTW for people with only mental problems. The authors stated that a possible explanation for

Table 3 HRs, CIs, *P* values, and median durations until full RTW (in days) for subgroups of employees categorized in groups low and high for the associated factors (N = 421)

Factors	Median days until full RTW					
	HR	95 % CI	*P* value	Low	High	Difference (high–low)
Illness behavior	.291	.198; .430	.000	321.5	384.0	62.5
RTW-SE	1.598	1.120; 2.282	.010	363.0	308.0	−55.0
Chronic medical condition	.602	.402; .902	.014	296.5	358.0	61.5

HR hazard ratio, *CI* confidence interval, *RTW-SE* return-to-work self-efficacy

All analyses are adjusted for the duration of sickness absence at the moment of filling out the questionnaire by left-truncation

this finding could be that the effect of SE in the group with mental problems was overruled by factors such as stigmatization or social support [19]. In the present study, social support did not overrule the effect of RTW-SE; however, in this study there was no distinction between employees sick-listed due to mental versus physical problems.

In the multivariate model, the highest HRs were found for illness behaviour. Illness behaviour is a subscale of the WRQ. The WRQ is a questionnaire for assessing the most important psychosocial factors in the delay of recovery [30]. Illness behaviour is the extent to which physical and/ or mental problems interfere with daily functioning and has shown to be a good predictor of RTW in several studies [18, 34]. According to Vendrig et al. [18] people with a high score on this scale think that they are not able to work while they are having symptoms. This is also in line with the findings of van Oostrom et al. [35] who studied the effectiveness of a workplace intervention for sick-listed employees with distress. The workplace intervention appeared to be effective on lasting RTW only for employees who, at baseline, intended to return to work while having symptoms. In line with our results, this suggests that a negative attitude regarding RTW while having symptoms will probably hinder the RTW process.

In the present study, having a chronic medical condition was the only health related predictor of RTW. None of the mental health related factors were found as a predictor of RTW. This is not in line with previous research, as in several studies the presence of depressive symptoms was found to be an important predictor of RTW and the duration of sickness absence [10, 13, 16]. One possible explanation could be that the effect of mental health symptoms in this specific population of long-term sick-listed employees was overruled by other factors, such as RTW-SE.

Strengths and Limitations

A couple strengths of this study are that we questioned a large group of sick-listed employees and that the study population existed of sick-listed employees due to any cause. Unfortunately, we lost 342 participants because they were no longer on sick leave when they filled out the questionnaire. This is a consequence of the inclusion procedure of this study. Before asking the sick-listed employees if they wanted to participate in the study, their employers were asked if they were amenable to their sick-listed employees being approached. This caused a delay in approaching the employees, which resulted in a relatively large group of employees who filled out the questionnaire while they were not on sick leave anymore.

A limitation of this study may be the specific study population, namely employees in small to medium-sized companies whose employer had insurance for the costs of sick leave and sickness guidance. This might limit the generalizability of the results, as the associations might be different in big companies. However, there is no clear indication that this might be the case.

In this study there was a wide range of sickness absence duration (4 weeks to 2 years) of the participants by entering the study. This wide range requests truncation of the analysis, because for example employees who entered the study after a sickness absence duration of 6 weeks, might return to work 2 weeks later, with a total absence duration of 2 months. However, such an outcome would not be possible for employees entering the study with a baseline sickness absence duration of 1 year; if they would have a similar result, they would return to work at 1 year plus 2 weeks absence. Return after 2 months would be impossible for them in view of their baseline absence duration. Therefore, in order to assess the effect of the possible predictors on RTW in a reliable manner, the analyses were corrected for absence duration at baseline by using left-truncation.

Practical Implications and Further Research

The results of this study showed that besides health-related factors, personal and psychosocial factors such as self-efficacy and illness behavior are strong predictors of RTW. This indicates that it is important to focus on these concepts

in the guidance of sick-listed employees. Earlier studies have shown that professionals in (mental) health care are mainly focused on the recovery of symptoms and less on RTW [36, 37]. The results of this study suggest that a lack of focus on factors such as SE and illness behaviour in treatment may lead to unnecessary long-term sickness absence. As was suggested by van Oostrom et al. [35] interventions that will be developed in the future for sick-listed employees need to also focus on a person's attitudes regarding RTW while having symptoms. For employees who have a low RTW-SE and thoughts that they cannot RTW while having symptoms, the first aim of the intervention must be to change their cognitive processes with interventions such as cognitive behavioral techniques. Research evaluating such an intervention is highly warranted.

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