Promoting work participation of non-permanent workers with psychological problems: An evidence-based approach to occupational health care

Audhoe, S.S.

Citation for published version (APA):
CHAPTER 8

General discussion
The main objective of this thesis was to promote work participation of non-permanent workers who were sick-listed due to psychological problems. This chapter starts with a brief report of the main findings of five studies, in line with the two research questions posed in the general introduction (Chapter 1). Subsequently, methodological considerations of the research are discussed and the findings are interpreted. In closing, recommendations for practice, policy makers and future research are made.

**Main findings**

1. **Which factors and perspectives that influence work participation can be distinguished in non-permanent workers who are sick-listed due to psychological problems?**

First, a longitudinal cohort study was conducted among 932 sick-listed unemployed and temporary agency workers and workers with expired fixed-term contracts who were sick-listed due to psychological problems (Chapter 2). Results indicated that workers’ own perceived moderate or good health and positive expectations of a full return to work (RTW) at 10 months were prognostic factors for work participation at 18 months. Younger age (<45 year), working status at 18 months (part- or full-time) and positive expectations of a full RTW at 18 months were prognostic factors for work participation at 27 months.

In another study using a qualitative design, 25 sick-listed unemployed workers with psychological problems were asked about their barriers and solutions for RTW (Chapter 3). We identified three types of workers’ attitude towards their own RTW process reflecting differences in workers’ abilities to envision and implement steps towards RTW: (1) “frozen”: orientation/focusing on problems; (2) “insightful though passive”: orientation on solutions but not (yet) actively applying the solutions; and (3) “action mode”: application of solutions (or orientation thereon). Further findings indicate that in addition to medical problems impeding RTW, workers attribute many non-medical problems as barriers for RTW. Workers faced multiple problems in different domains of life related to their disease, to their personal circumstances (e.g., divorce, debts) or
their environment (e.g., labor market problems, issues with the social insurance agency). In addition, all workers expressed several psychosocial problems and/or traumatic experiences.

2. Which interventions improve the work participation of non-permanent workers who are sick-listed due to psychological problems?

A systematic literature review on the effectiveness of vocational interventions on work participation and mental distress for unemployed workers yielded five intervention studies (Chapter 4). Only one intervention study evaluating the JOBS II intervention program (randomized controlled trial with fair quality) reported a statistically significant effect on re-employment. A significant improvement in mental status was reported in two intervention studies. This review indicates that there is weak evidence that vocational interventions improve work participation and limited evidence that these reduce mental distress for the unemployed.

In another study, a practice guideline of occupational physicians for employed workers with psychological problems was adapted into a guidance document to enable its use by insurance physicians (IPs) for the RTW counseling of unemployed and temporary agency workers with minor psychological problems (Chapter 5). The core element of the adaptation of the guideline for employed workers is related to the setting that no employer is available and therefore interaction with the workplace needs to be established in an alternative way, i.e., through the involvement of vocational rehabilitation agencies and labor experts. IPs judged the new guidance document for minor psychological problems to be feasible for sickness absence counseling of unemployed and temporary agency workers and useful for the IP. With regard to the usefulness for the sick-listed worker, positive opinions were expressed by some IPs, while other IPs felt that they were unable to judge this due to the short follow-up period in this study and the lack of information.

Chapter 6 describes the Brainwork Intervention and the design of a controlled clinical trial (CCT). In this trial we studied the effectiveness of the Brainwork
Intervention for sick-listed unemployed and temporary agency workers and workers with expired fixed-term contracts who have psychological problems, compared to care as usual. The outcomes measured were: (1) duration of sick leave; (2) duration of sick leave starting from Dutch Social Security Agency (SSA) transfer; (3) degree of worker participation; (4) number of hours of paid employment during follow-up; (5) level of psychological complaints; and (6) self-efficacy for RTW, compared to care as usual.

**Chapter 7** describes the effect evaluation of the Brainwork Intervention program at six months follow-up. A total of 320 non-permanent workers with psychological problems participated in the trial. At six months follow-up the Brainwork Intervention program revealed a non-significant reduction of the primary outcome duration of sick leave and secondary outcome duration of sick leave starting from SSA transfer compared to care as usual. Further, no statistically significant effect of the Brainwork Intervention compared to care as usual was found with regard to the remainder of the secondary outcomes: degree of participation, number of hours of paid employment during follow-up, level of psychological complaints and self-efficacy for RTW. Finally, the adherence to the intervention protocol was low (10%) and the tailored Brainwork Intervention was not given at all to 32% of the participants in the intervention group. Because of the low protocol adherence (10%), relevant per-protocol analyses were not possible.

**Methodological considerations**

There are some methodological features of the Brainwork Intervention study that deserve consideration. The first methodological issue is that the effectiveness of the Brainwork Intervention was studied with a quasi-randomization design, because a blinded allocation was impractical and difficult to set up in the practice of the Dutch Social Security Agency (Chapter 6 and 7). For many years, randomized controlled trails (RCTs) were considered the “gold standard” for evaluation research because they are the most robust method of eliminating selection bias and judging the true value of interventions in all health care [1,2]. Explanatory RCTs, test whether an intervention is efficacious, i.e., whether it can have a
beneficial effect when applied to a select group under an ideal laboratory-controlled situation. However, health care interventions are seldom given under such highly controlled circumstances [3,4]. Yet for the past decade, concerns have been expressed about the utility of generalizing the results of such efficacy studies to daily clinical practice [2,5,6]. In this period, the view has been held that the overall effectiveness of an intervention is best assessed by carefully designed and well conducted pragmatic randomized trials [2,7]. Pragmatic research assesses whether an intervention works under real-life conditions and whether it works in terms that matter to the patient [7,8]. To assess the effectiveness of the Brainwork Intervention for daily practice, a pragmatic trial in real occupational health practice was thought to be the most appropriate design. To describe the design of the trial, the CONSORT statement, was followed [9,10]. By evaluating the effectiveness of the Brainwork Intervention in every-day practice, the applicability of the intervention increased [2]. Furthermore, it has the advantage of the results being more in line with daily occupational health practice, resulting in a high external validity [2,11-13]. In addition, the external validity of our study was enhanced because our design did not require standardized skills from the occupational health professionals.

A second relevant issue is the data collection during the CCT from the computerized SSA database. This database contains accurate and complete information on our primary outcome measure, duration of sick leave and most of the secondary outcome measures (duration of sick leave starting from SSA transfer, number of hours of paid employment during follow-up, degree of participation), because these data are used for calculating sickness benefit claims. Register-based data, which are used for calculating earnings, are considered to be a gold standard for retrieving sick-leave data and prevent recall bias [14,15]. As a result, loss of primary outcome data due to loss of the worker did not occur. Thus, this study has no attrition bias for the primary outcome and some of the secondary outcomes. Deriving primary outcome data from the database also leads to a low risk of detection bias, despite the lack of blinding to the sick-listed workers, occupational health professionals and the intervention providers that are allocated to the intervention or control group. The risk of detection bias is low since the assessment of the above-mentioned outcomes is not systematically influenced by the
observation of the occupational health professional or researcher, or the subjective meaning of the worker. The secondary outcomes “level of psychological complaints” and “self-efficacy for RTW”, were measured using validated self-report questionnaires. A concern regarding the self-reported secondary outcomes in this study is that the response rate of the baseline questionnaire (28%) and questionnaire at four months follow-up (19%) is low. The reason for the low response is unknown. As a consequence, the power of the study to detect changes in the self-reported secondary outcomes is decreased significantly. Furthermore, a high percentage of selective non-response can bias the results if more participants with a worse mental health or longer estimated duration for sick leave, compared to the respondents, did not return the questionnaire. However, in our study there was no indication for selective non-response, because the non-response analysis with regard to the baseline characteristics and estimated duration for sick leave did not show statistical differences between respondents and non-respondents.

A third relevant methodological issue is that the Brainwork Intervention consists of different components, whose positive effects on functional recovery, recovery of mental complaints and work participation are hypothesized. A positive point is that the Brainwork components were composed by experts in the field of occupational health care and therefore have a high face validity. The components hypothesized to have positive effects are: (1) face-to-face contact with the worker in an early stage of sick leave; (2) category classification of the worker by the IP; (3) motivate to activate [16,17]; (4) goal-setting: setting explicit goals regarding the activity level of the worker and the final RTW date [18-20]; (5) providing advice for daily structure [16,17]; (6) guidance to work [16,17]; (7) increased efficiency of the internal SSA work process; and (8) timely referral for interventions e.g., a physical exercise program in combination with specific tailored content depending on the type of psychological problems. However, the exact working mechanisms of these combined components in enhancing RTW is unknown. The design of the pragmatic trial does not allow for the analysis of which intervention components were most effective for which workers and what may explain the absence of a clear effect in favor of the intervention. Combined individual intervention components may interact with each other to generate outcomes. On the other
hand, combined individual effective intervention components may not contribute to, or even reduce, the overall effectiveness [21]. In addition, including inactive components and components that facilitate counterproductive effects may diminish the intervention’s efficiency [22]. Given the complex RTW process, evidence regarding the effectiveness of individual components can help optimize further development of interventions or strategies.

**Interpretation of findings**

To promote work participation of non-permanent workers with psychological problems, this thesis underlines the importance of gaining knowledge about factors and perspectives of workers that can influence work participation. This knowledge can then further direct interventions aimed at promoting work participation. Based on the findings in this thesis, the conceptual model as shown in Chapter 1 has been supplemented with factors and perspectives that can influence work participation (Figure 1).

**Factors and perspectives that influence work participation**

The perception of the non-permanent worker turns out to be an important predictor for work participation. In our study, workers’ own perceived health and RTW expectation predicts work participation (Chapter 2). The worker’s RTW perspective also seems to be associated with the workers’ attitude towards their own RTW process (Chapter 3). The workers’ attitude towards their own RTW process reflects workers’ perception of their own RTW process and the workers’ ability to envision and implement steps towards RTW. At the same time, the ability of the worker to cope with factors that hinder RTW also influence the ability to envision solutions for RTW and to implement these solutions for RTW. Three types of workers’ attitude towards their own RTW process were identified: (1) “frozen”: orientation/focusing on problems; (2) “insightful though passive”: orientation on solutions but not (yet) actively applying the solutions; and (3) “action mode”: application of solutions and the orientation thereon. Studies of employed workers with both psychological and physical problems also report that the perception of the worker predicts RTW [23-27]. In a study of employed workers with chronic musculoskeletal and behavioral health disorders, the
workers’ RTW expectation predicts RTW [26]. This is also the case in a study with employed workers with acute non-specific low back pain where the recovery expectation of the worker is associated with RTW [27]. So the perception of the worker is an important factor to consider during the sickness absence counseling of workers. The perception of the worker can inform the direction of interventions for sick-listed workers. Workers with negative perceptions and/or inability to envision solutions for RTW (i.e., “frozen” workers and “insightful though passive” workers) need specific help to overcome the barriers for RTW. These barriers could be negative cognitions informing the RTW expectation of the worker, inappropriate coping with problems or barriers for work participation, or insufficient targeted guidance to stimulate problem solving. In the case of negative cognitions, the intervention should focus on influencing these cognitions. This could be done with cognitive behavioral therapy [28,29]. Studies report positive effects of cognitive behavioral therapy on changing negative cognitions (e.g., negative thoughts about oneself, past experiences, and future expectations), negative self-beliefs, negative emotions when reacting to and reducing psychological symptoms in patients with psychological problems (depressive and anxiety disorder) [28,29]. Changes in negative cognitions were also associated with improvement in quality of life [28].

In our study, non-permanent workers mentioned many problems and barriers for RTW in different domains of life with often severe psychosocial problems. These multiple problems impede work participation, along with the medical problems. These findings are in line with other studies where multiple problems of the worker were identified as factors that hinder RTW [30,31]. Because of these multiple problems, a single solution is often not enough to address barriers for RTW. Interventions should also target the multiple problems of these workers, who need specific help with problem solving (including help with organizing and structuring their problems), active coping, planning and in finding employment. In this context, “frozen workers” who have no insight into solutions for RTW and a negative RTW expectation require a different approach than for instance workers in the “active mode”, who need a realistic action plan or a final push to get back into the workforce.
Besides the workers’ perception, we found that being at work (part- or full-time) and younger age (<45 years) also predict work participation. Since being at work, even for a few hours, was the strongest prognostic factor (OR = 24.0) in our study, the importance of creating workplaces (temporary or otherwise) to boost the

---

**Figure 1** Model for work disability and work participation for workers with psychological problems without a permanent employment contract based on the results of this thesis and the biopsychosocial and ICF models.

---

1. **Barriers and problems for RTW**

<table>
<thead>
<tr>
<th>Medical Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Physical health complaints/disorders</td>
</tr>
<tr>
<td>* Mental health complaints/disorders</td>
</tr>
<tr>
<td>* Loss of control (psychological)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Psychosocial problems</td>
</tr>
<tr>
<td>* Traumatic experiences</td>
</tr>
<tr>
<td>* Labor market problems</td>
</tr>
<tr>
<td>* No work</td>
</tr>
<tr>
<td>* Insufficient guidance</td>
</tr>
<tr>
<td>* Inadequate vocational counseling</td>
</tr>
<tr>
<td>* Financial problems</td>
</tr>
<tr>
<td>* Poor communication/inadequate support with the SSA</td>
</tr>
<tr>
<td>* Inadequate (medical) treatment</td>
</tr>
<tr>
<td>* Personal circumstances</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Negative recovery expectation/RTW expectation</td>
</tr>
<tr>
<td>* Poor perceived health</td>
</tr>
<tr>
<td>* Negative cognitions/personal beliefs</td>
</tr>
<tr>
<td>* Workers’ attitude towards RTW process</td>
</tr>
<tr>
<td>* Personal characteristics (e.g., age &gt;45 yr, low education)</td>
</tr>
</tbody>
</table>

2. **Intervention**

   * Aimed at resolving specific barriers/problems for RTW (e.g., negative cognitions and beliefs)
   * Work-directed (e.g., work placement/internship)
   * Activating workers
   * Guidance coach for specific help with problem solving, active coping and in finding employment
recovery and RTW of these workers [32] and to facilitate RTW gradually [30] can not be emphasized enough. Workplaces can for instance be created by taking the search for suitable workplaces as an integral part of an RTW intervention program. This is where companies/vocational rehabilitation agencies specialized in
vocational counseling can actively approach employers for providing temporary workplaces for rehabilitation purposes. However, this is not an easy task. The Brainwork Intervention study pointed out the difficulty or failure in creating appropriate work places [33].

The practical value of the prognostic factors found in our study is highlighted by our finding of a 33% increased chance of work participation at 18 months when patients have a moderate or good perceived health and positive RTW expectation at 10 months. An 84% increase in the chance of work participation at 27 months was found when all three prognostic factors (age under 45 years, positive RTW expectation and positive working status) were present at 18 months. From the literature it is known that these prognostic factors also apply in the early stage of sick leave of workers with psychological problems [23,25,34-36]. So these findings underline the importance of knowledge about prognostic factors in predicting RTW and can help insurance and occupational physicians to identify sick-listed workers with a high risk for prolonged work disability (i.e., workers with negative prognostic factors for work participation). Furthermore, identification of prognostic factors can help to provide input for sickness absence counseling and interventions aimed at targeting the modifiable prognostic factors (e.g., negative cognitions informing the RTW expectation) of the high-risk sick-listed workers. Interventions started at an early stage of these high-risk sick-listed workers can prevent long-term sick leave and subsequent transition into permanent disability.

**Interventions to improve the work participation**

The knowledge gathered regarding factors and perspectives that influence work participation from the aforementioned studies was used to further develop interventions for non-permanent workers. One of our studies resulted in a guidance document for non-permanent workers with minor psychological problems *(Chapter 5)*. This guidance document consists of three process phases and includes recovery tasks for each phase [16,17,37]. In the second phase, workers are asked to evaluate the problems for RTW and the solution for those problems according to the worker. In the third phase, the worker is asked to implement the solutions for RTW. The findings regarding the perceptions of the worker from our aforementioned studies [38,39] can help the IP to estimate the workers’ ability to
envision solutions for the problems for RTW and to implement the solutions for RTW. “Frozen” workers are not able to envision solutions for RTW and “insightful though passive” workers have problems implementing the solutions for RTW. By identifying these types of workers, the IP can assess the appropriate guidance and specific help required for the worker in envisioning the problems and solutions for RTW. The IPs considered the guidance document as being feasible for sickness absence counseling of non-permanent workers with minor psychological problems and useful for the IP. Evaluation regarding usefulness for the worker and implementation of the guidance document was not possible due to organizational reasons involving the limited capacity of IPs in the setting of the SSA. For this reason, we chose a different approach, which resulted in the Brainwork Intervention program.

The Brainwork Intervention program is an expert-based program developed by occupational health professionals of the SSA. The effectiveness of the Brainwork Intervention in the setting of the SSA was better able to be evaluated than the guidance document, as the involvement of the IP is needed to a lesser extent (Chapter 7), compared to the guidance document for minor psychological problems (where the IP conduct the counseling). In addition, the Brainwork Intervention program has several advantages compared with the guidance document. The Brainwork Intervention is aimed at workers with the majority of the psychological problems and is thus not limited to minor psychological problems. Further, the Brainwork Intervention program contains options to target the multiple problems of non-permanent workers such as debts or dealing with psychosocial problems, in contrast to the guidance document. Targeting the multiple problems makes it possible to refer the worker to specialized care providers or professionals. Activating and work-directed elements were part of the Brainwork Intervention, as suggested in the guidance document. So the Brainwork Intervention program is a more detailed and tailored intervention for the target group of non-permanent workers than the guidance document for minor psychological problems.
The Brainwork Intervention uses a category classification based on the IP’s assessment of the estimated recovery time of the worker. Hereby, the perceptions of the worker (RTW expectation, perceived health) and type of workers’ attitude towards their own RTW process (“frozen”, “insightful though passive”, “action mode”), along with other RTW prognostic factors from the literature such as age and education [25,34] can help the IP in estimating the recovery time. Other elements that contribute to the category classification are the IP’s assessment of the workers’ functional impairments, severity of the psychological problems, coping ability of the worker and the degree of psychosocial problems. The Brainwork Intervention program therefore takes factors and perspectives into account that were found in our prior studies along with knowledge from the literature (e.g., activating and work-directed intervention elements) [40-43] to tailor the intervention to the needs of the worker. Examples for tailored intervention elements are a coping module for “frozen” workers or a module on debt counseling for workers with debts who no longer have an overview of their finances. Further, the psychosocial problems these non-permanent workers face are taken into account. One of the essential elements of the Brainwork Intervention is vocational counseling with the aim of an early reintegration into primary paid work, or enhancing work experience by placement in workplaces or carrying out volunteer work. Other important elements of the intervention are early face-to-face contact with the vocational rehabilitation counselor (within five work days), timely consultation of the IP, and a timely start of the intervention (within eight working days of the consultation of the IP).

Despite all the efforts to tailor the Brainwork Intervention to the needs of the worker, no significant differences were found between the intervention and control group on any outcome in the short-term. There are some possible explanations concerning why the Brainwork Intervention did not show marked differences in all outcome measures between the intervention and control group at this time point: (1) First, in only 10% of the participants in the intervention group were at least three of the five protocol steps followed. This means that for 90% of the participants, most of the steps of the intervention protocol were not executed according to the prescribed time path or at all. One explanation for the low protocol adherence on an organization level is that the work process at the
participating SSA offices was not equipped for such short lead times between the different steps of the intervention protocol or due to other organizational constraints. Another explanation on the behavioral level for the low protocol adherence could be that the professionals were not used to working according to a tightly prescribed protocol. A higher protocol adherence might have led to a greater contrast with the control group; (2) A second explanation for the non-significant results of our intervention study is that the tailored Brainwork Intervention was not given at all to 32% of the participants in the intervention group. This is in line with findings of implementation research, where physicians often encounter problems in following practice guidelines or change their behavior to follow the guideline [44]. IPs mentioned that the Brainwork Intervention was neither indicated nor necessary for some included participants, although in most cases (79%) there was, according to the protocol, not a valid explanation or reason for not giving the Brainwork Intervention; (3) A third explanation for the non-significant results is that the (intensive) vocational counseling did not result in noteworthy reintegration into primary paid work or placement in workplaces (temporary or otherwise), respectively carrying out volunteer work, which was hypothesized as one of the essential elements of our intervention to achieve functional recovery and regaining of control. Placement in workplaces was hypothesized as one of the essential elements because a precondition of functional recovery is that the worker regains control. The presence of a workplace can help in regaining control by gradually returning to work [17]. As shown in the conceptual model (Chapter 1) and the ICF model [45], functional recovery and regaining of control are preconditions for achieving (work) participation. Furthermore, a focus on work is important since working during RTW is an important predictor for future successful RTW in non-permanent workers [38]; (4) Finally, a fourth explanation could be that due to the short lead times of the intervention protocol and the small number of participants at a given time frame in the intervention group per participating SSA office, group activities in the program were not possible in most cases. Group activities can serve as a mediator by which group norms influence the behavior of RTW or an individual’s participation [46,47]. Participation in groups can develop the self-confidence of the individual [46]. The potential effect of the group-based Brainwork Intervention component was not achieved.
As the Brainwork Intervention is a multi-component intervention, our design does not allow us to evaluate which intervention components failed or whether there are other explanations for failure. However, the low protocol adherence (10%) and high percentage (32%) of those not providing the Brainwork Intervention at all can be regarded as implementation failures. Implementation failure is a common reason for inconclusive or negative findings in intervention studies [48,49]. In addition, insufficient involvement of the workplaces, i.e., reintegration into primary paid work or placement in workplaces or carrying out volunteer work can be regarded as program failure [49]. A qualitative evaluation with the stakeholders involved with the Brainwork Intervention could provide insights into the barriers to achieving placement in workplaces (temporary or otherwise) or establish if there is any program failure.

Towards tomorrow
The research presented in this thesis underlines the need for further development of effective RTW interventions and work disability management strategies addressing the specific and individual problems of these vulnerable workers. Much research is still needed to help this group of workers with multiple problems and barriers for RTW. It remains a challenge to find suitable workplaces for vocational rehabilitation of these workers. To achieve progress in the sickness absence counseling/work disability management of these sick-listed workers, there is a role to be played by the different stakeholders involved in the RTW process of the worker. Firstly the SSA must facilitate the counseling of sick-listed workers at an early stage of sick leave [17,50], whereby the “frozen” and “insightful though passive” workers should be activated and stimulated to undertake activities. Starting counseling at an early stage is important to prevent long-term sick leave and a subsequent transition to permanent disability [50,51]. In addition, occupational health professionals have to be better equipped to execute a timely sickness absence counseling, to activate the worker, and, if necessary to deploy timely interventions. Further, employers have to make workplaces available for these workers to gain work experience and to boost their (functional) recovery [32]. Policymakers have a role too. A fundamental change in Dutch policy is needed to improve and facilitate labor participation of sick-listed non-permanent workers. This should include stimulating and realizing arrangements for subsidized
temporary workplaces, for instance by increasing the obligations of employers and temporary agencies to offer suitable workplaces for vocational rehabilitation purposes of these vulnerable workers. This will allow work participation of sick-listed non-permanent workers, with all the associated benefits (health and financial) during a sickness benefit period. Finally, a balance should be found between the societal costs for work experience places or subsidized temporary workplaces and the benefit of the employer who makes the workplace available.

**Recommendations**

Based on this thesis, the following recommendations for practice, policymakers and research can be made:

**A. Recommendations for practice of occupational health professionals/insurance physicians**

1. Occupational health professionals must become aware of the prognostic factors for work participation and the three types of workers’ attitude towards their own RTW process of non-permanent workers with psychological problems.
2. Inquiring about prognostic factors for work participation should form an integral part of the disability assessment and sickness absence counseling of sick-listed workers to:
   - identify workers at risk for prolonged work disability  
     *For instance workers with a negative RTW expectation or poor perceived health*
   - be able to recommend or conduct interventions aimed at the modifiable negative prognostic factors  
     *For instance, negative cognitions about RTW expectation or perceived health is one such modifiable factor. In the case of negative cognitions or beliefs, IPs can refer the worker for cognitive behavioral therapy to change the negative cognitions or beliefs. In the case of inappropriate coping, another modifiable factor (e.g., in “frozen” workers) the IP can refer the worker for enhancing coping strategies/skills or dealing with coping*
   - promote work participation in workers with positive prognostic factors  
     *For instance, by helping these workers with a realistic action plan for RTW*
or a final push to get back into the workforce. This will be often the case for workers in the “action mode” and to a lesser extent for “insightful though passive” workers

3. IPs need customized training to learn how to advise workers when encountering negative factors for RTW and in applying minor cognitive behavioral techniques to modify negative cognitions regarding RTW.

4. Occupational health professionals need training to acquire coaching skills to help the “frozen” worker with problem solving (including help with organizing and structuring workers’ problems), active coping, planning and in finding employment.

5. Use of the guidance document “minor psychological problems” in the early stage of sick leave can help the IP by providing professional support and a structure for counseling for this group.

B. Recommendations for policy makers (SSA and politics)

Adequate management of sick leave and prolonged work disability of non-permanent workers with psychological problems is crucial due to severe financial, social and health consequences for the individual and high costs to society. The following recommendations can contribute to a better management of sick leave in this population:

**Recommendations for the SSA**

1. Workers with multiple problems need coaching during the sickness benefit period to help them with problem solving, planning, gaining structure and in finding employment.

2. IPs must be facilitated to receive customized training in minor cognitive behavioral techniques to modify negative cognitions regarding RTW.

3. Occupational health professionals must be facilitated to receive training in coaching and problem-solving skills.

**Recommendation for politics**

1. A fundamental change in Dutch policy is needed to improve and facilitate labor participation of sick-listed non-permanent workers. This should include increasing the obligations for employers and temporary agencies to offer
vulnerable workers suitable workplaces (temporary or otherwise) for vocational rehabilitation purposes. This will allow work participation in combination with a sickness benefit, thereby making possible gradual RTW or an internship for the purpose of regaining control and functional recovery.

C. Recommendations for future research

1. By developing interventions for the whole group of non-permanent workers, subgroup effects may be lost. The Brainwork Intervention was tailored according to the Brainwork category classification of the worker. Future interventions studies should consider interventions tailored to the types of workers’ attitude towards their own RTW process, to further optimize the intervention to the needs of the different types of workers.

2. Intervention studies should invest more effort in maximizing protocol adherence of occupational health professionals and in facilitating a timely execution of the intervention steps to maximize treatment effects.

3. Given the differences in workers’ attitude towards their own RTW, further research should investigate how to measure the workers’ attitude towards their own RTW in a valid and reliable way.

4. A qualitative evaluation with the stakeholders involved with the Brainwork Intervention could provide insights into the barriers to achieving placement in workplaces or establish if there is any program failure.
REFERENCES


