Building blocks for return to work after sick leave due to depression

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Chapter 1

Introduction
Introduction

People spend a large proportion of their life in paid work. Most of them find meaning and personal fulfilment in this work. This may also pertain to people with a disability due to mental illness. Work provides them with a source of identity, time structure, capability, feeling of normality, social contacts and financial support (Waddel and Burton, 2006; WHO, 2000). When on sickness absence, these attributes were found to be both motivating for return to work (RTW) and promoting health (Saunders and Nedelec, 2014; Schuring et al., 2011). Therefore RTW is not only important for societal interest but also for the employee’s health and wellbeing.

In the early 90’s, I started working as an occupational therapist at the Program for Mood Disorders of the Academic Medical Centre (AMC) in Amsterdam. We observed that even after successful treatment, many employees who had been suffering from a major depressive disorder (MDD) did not RTW. Residual symptoms, the duration of the period out of work and an inability to cope with problems in general, were the reasons most mentioned. Even if professionals were informed of the employee’s mental health status, following the AMC treatment, this was not enough to make sure employees were properly supported in their RTW. Unsuccessful RTW may also have affected their health status, as those with a readmission to the AMC because of a recurrence of depression, frequently had not returned to work in the intervening period. In order to increase successful RTW and improve mental health, we developed our first occupational therapy (OT) intervention in 2000 (de Vries and Schene, 2003). This OT was revised in 2008 to a new and as we expected improved version of this intervention (de Vries, 2008/2015). These experiences are the basis for this thesis.

This introductory chapter starts with a brief overview of the prevalence of MDD, its influence on work and vice versa and a brief description of the OT interventions we developed at the AMC. Next, the main topics will be introduced, respectively: effectiveness of the OT intervention, promoting factors for RTW, impeding factors for RTW, cultural differences in promoting factors for RTW and the employee’s work functioning after recovery, during the period MDD was in remission.
**Major Depression**

MDD is characterised by a depressed mood and a loss of interest or pleasure in activities for at least two weeks as the two core symptoms. Additional symptoms are sleeping problems, tiredness or loss of energy, poor appetite or overeating, concentration problems, feelings of guilt, psychomotor agitation or retardation and suicidal thoughts or thoughts about death. If at least five of these symptoms are present for at least two weeks, of which at least one core symptom, and if they cause suffering or significant limitations in daily functioning, one speaks of MDD according to the diagnostic manual of mental disorders (DSM-IV).

MDD is a common disorder, with lifetime and 12-month prevalence estimates of respectively 14.6% and 5.5% in ten high-income countries and respectively 11.1% and 5.9% in eight low- to middle-income countries (Bromet et al., 2011). It affects almost twice as many females, compared to males (Bromet et al., 2011). In the Netherlands, lifetime prevalence is estimated at 18.7% and 12-months prevalence at 5.2% (de Graaf et al., 2012a). These depressive episodes vary widely in their duration with a mean of three months (Spijker et al., 2002), but with a high probability (20%) of a chronic course, which means a duration of 24 months or more (Spijker et al., 2002). For those who recover, there is a high recurrence rate of MDD. In specialised mental healthcare settings 60% recur within 5 years, 67% within 10 years and 85% within 15 years, and of course this is lower but nevertheless substantial in the primary care population (35% within 15 years) (Hardeveld et al., 2010). Because of its recurrent and chronic course, MDD is expected to be one of the major health problems in the near future and the leading cause for disability-adjusted life years (DALYs; a combined measure of years of life lost due to premature death and years of live lived with disability) among men and women in high income countries. In middle (resp. low) income countries it will rank the second (resp. third) leading cause in 2030 (Mathers and Loncar, 2006).
MDD is a disabling disorder, and may trigger severe negative consequences for work, personal, social, and economic outcomes (Kessler et al., 2006). Among the working population, MDD is the most prevalent mental disorder (Sanderson and Andrews, 2006), accounting for a 12-months prevalence of 6.4% of the working population in the USA (Kessler et al., 2008), 4% in Canada (Gilmour and Patten, 2007) and 4.2% in the Netherlands (de Graaf et al., 2012b). At work it may cause absenteeism and presenteeism.

**Absenteeism**

Around 55% of employees suffering from MDD are on sickness absence (Latinen-Krispijn and Bijl, 2000). In the Netherlands, this accounts for 8.2% of the total sickness absence spell over a 12 month period, in the working population (Trimbos, 2011). MDD generates 23 additional days off, compared to the general population, representing the highest number of additional days absent compared to other diseases (de Graaf et al., 2012b). Once on sick leave, it also accounts for long periods of absence from work, varying between a mean of 25 weeks (median=21) in a Danish study to 30 weeks (median=27) in a Dutch study (Nielsen et al., 2012; Koopmans et al., 2008) with an estimated rate of persistence (one year of sickness absence) of about 24% (Brenninkmeijer et al., 2008; Koopmans et al., 2008). Moreover, MDD increases the risk of exclusion from the workforce either through unemployment, early retirement or claiming disability benefit (Gilbody et al., 2012; Gjesdal et al., 2008; Rytsälä et al., 2007; Karpansalo et al., 2005). In the Netherlands, among those with disability benefit after two years of sickness absence, the primary cause of disability was a mental disorder in 25.2% and a mood disorder in 7.8% of the respondents. Moreover, 43.1% met the MDD criteria for lifetime prevalence and 24% for 12 months prevalence (Cornelius et al., 2015).

**Presenteeism**

MDD causes absenteeism from work but, even more important, presenteeism. Presenteeism is defined as impaired work functioning while the employee is still at work. MDD has the greatest negative impact on work functioning compared to all other chronic health conditions (Burton et al., 2004). This
impaired function accounts for one to five times more work loss than the one due to absenteeism (de Graaf et al., 2012b; Kessler et al., 2006; Goetzel et al., 2004). This is caused by depressive symptoms, prior to-, during-, and after the onset of depression (Trivedi et al., 2013; Dewa et al., 2011; Wang et al., 2010; Lerner and Henke, 2008; Slebus et al., 2008; Porter et al., 2003).

These depressive symptoms may lead to the following restrictions:

- Cognitive restrictions, characterised by problems in attention, concentrating on the work tasks, planning the performance of the work tasks, memory function and limited capability to cope with complex stimuli.
- Emotional restrictions, characterised by feelings of inferiority and guilt, and loss of interest and initiative. This may result in problems with executing daily activities at work, for example accepting too much work while having difficulties in solving problems.
- Social restrictions, characterised by a lower mood, introverted behaviour, or social anxiety, which may result in difficulties in dealing with colleagues or clients.

_Economic and social costs_

The high prevalence and the impact of depression on productivity causes a high economic burden, estimated in the US to account for $ 348,- per eligible employee per year (based on $23,15/hour wage estimate) including medical costs ($54,-), absenteeism ($48,-) and presenteeism ($246,-) (Goetzel et al., 2004). In the Netherlands estimated annual costs are €177,- per inhabitant aged between 18 and 65, including direct medical (€ 26,-), direct non-medical (€ 17,-) and indirect non-medical costs (e.g. absenteeism, presenteeism not included, € 135,-) (Cuijpers et al., 2007). Compared to other health conditions, MDD topped the list of work loss (absence, reduced quality and quantity), estimated for 1.8 billion a year on absenteeism and presenteeism for all workers in the Netherlands, which is about € 242,- per worker (de Graaf et al., 2012b).
Besides social costs, personal grief is also high, demonstrated in several (auto) biographies which are now part of a research program financed by the Dutch organization for scientific research (NWO). It is also demonstrated in the high suicide rates of those affected by MDD; more than half of all people who die through suicide per year meet criteria for current depressive disorder (Hawton and van Heeringen, 2009).

**Work environment**

Work and depression have a complex relationship. Work-related problems can be one of the determining factors of MDD, while MDD impairs functioning in the work environment. At work, several workplace characteristics have been identified that influence the aetiology of MDD (Stansfeld and Candy, 2006; Paterniti et al., 2002; Tennant, 2001). These will be discussed in the context of the three main work-stress models.

1. The Demand Control Model (DCM) hypothesis, states that stress will be highest in jobs associated with high demands and low job control. This model is expanded into the Job Control Support Model (JCS), which hypothesises that high levels of support protect against high levels of stress and low levels of control. High levels of work stress, in particular psychological stress, low control and low social support, were found as predictors of depression in the workplace (Theorell et al., 2014; Magnusson et al., 2009; Bonde, 2008; Netterstrøm et al., 2008; Plaisier et al., 2007) and long-term sickness absence among employees with mental health disorders (Silva-Junior and Fischer, 2014).

2. The Effort Reward Imbalance (ERI) or Job Demands-Resources model (JD-R) hypothesises that the experience of a lack of balance between costs (too high) and gains (too low), elicits negative emotions and stress. Gains can be identified as resources to fulfil human needs, such as the need for autonomy, relatedness, competence and financial independency or wealth. High job demands are not necessarily negative, employees may thrive on high job demands and high job resources (Bakker et al., 2010). This model was also found predictive for the incidence of depression (Siegrist, 2008) and for long-term sickness absence among employees with mental health disorders (Silva-Junior and Fischer, 2014).
3. The work family conflicts model (WFM) reflects the interplay between work and personal lives, and has also been found to be associated with mental health disorders (van Daalen et al., 2009; Wang, 2006), e.g. a high work load in combination with a stressful home situation causes a higher risk of getting depressed (de Croon et al., 2002).

_Treatment and RTW_

Successful RTW after sickness absence is partly explained by the severity of symptoms (Lagerveld et al., 2010), but symptom reduction will not lead to better RTW outcomes per se. This is illustrated in a Cochrane review that points out the limited effects of regular mental health care (medication) on RTW even though these interventions are known to reduce symptoms (Nieuwenhuijsen et al., 2008). In particular there is a need for studies that assess modifiable factors that improve RTW (Lagerveld et al., 2010) and subsequent interventions. Disability is no longer understood as a feature of the individual, solely determined by his health condition, but it is now considered as the result of a complex relationship between health, personal and environmental factors (Schneidert et al., 2003; ICF, 2002). To improve RTW outcomes, alongside treatment for MDD, professional support should focus on personal and environmental factors. But research on interventions that comprise these factors are scarce (Lagerveld et al., 2010; Nieuwenhuijsen et al., 2008).

_OT intervention_

The first OT intervention, aiming to improve RTW, was developed in the 1990’s at the AMC. This OT intervention lasted 6 months and consisted of 20 group sessions (one each week), 10 individual sessions (one every second week) and three follow-up sessions (de Vries and Schene, 2003). This
intervention covered several themes. Occupational therapists developed these themes, and participating employees evaluated these sessions. Their comments were used to improve sessions. In the end, six themes remained: lack of motivation, stress at work, personal limitations, perfectionism, conflicts and independence versus dependence. These themes were integrated in the OT intervention, in three phases lasting a six months period. In the first two months, the focus was on being active in the home situation, in the second two months, the focus was on return to work and in the third two months, the focus was on improving coping ability with stressful situations at work. Every group or individual session addressed (1) the work performance, (2) the patterns of coping behaviour, (3) the home situation, and (4) the reintegration at work. In a RCT (n=62), this intervention showed an improvement on RTW but not (or only very limited) on depression symptoms (Schene et al., 2007), which encouraged us to develop a new and even better intervention.

The new OT intervention, assessed in this thesis, was developed with respect to policy changes in healthcare (shorter) and RTW (earlier), and the aim was to improve the statistical power of the results (n=117). With respect to our better view on possible therapeutic factors and the ambition of shortening the intervention, we decided to focus more on work related factors that affect RTW. This new OT intervention consisted of eight group sessions and four individual sessions (De Vries, 2008/2015).

Findings from the work-stress literature, the Job Control-Support model of Karacek, the Effort Reward Imbalance model, the Work-family conflict model and our experiences with employees with depression, where incorporated in this intervention. These findings, additional to our clinical experiences, resulted in a screening list for RTW, designed to identify the most important stress factors. This list includes work demands, decision latitude, social support, work-home balance and perspective. In addition, this new OT intervention encouraged an early return to the workplace, even before the recovery, shifting from the traditional ‘train-and-place’ model to the more recent ‘place-and-train’ model. When starting with the OT intervention, patients were required to (start) work for at least two hours a week. In this way, patients were able to directly practise tools learned (e.g., how to cope with a specific challenge). It also resulted in a maintained contact with
the work environment in order to enhance understanding and social support from colleagues. Finally, to improve cooperation between stakeholders, we organised so called ‘work visits’, with the occupational therapist, the employee and the supervisor. During these visits, the occupational therapist provided health education regarding RTW and depression, aiming to improve the supervisor’s understanding. The employee and the supervisor were challenged to discuss a subject on what they thought was important for their understanding of the RTW process. The results of this intervention on RTW and depression are described in Chapter 2.

**Promoting factors for RTW**

Most studies on RTW for employees suffering from mental health focus on a more general population i.e. employees with mental health disorders, including employees with psychiatric morbidity, stress, adjustment disorders, anxiety disorders or depressive complaints (e.g. Blank et al., 2008; Cornelius et al., 2011). Within these studies, a wide range of factors are associated with RTW, including demographic (e.g. older age), health (e.g. severity), personal (e.g. own expectation of duration) and work (e.g. partial RTW). Outcomes of interventions in studies aiming to improve RTW after sick leave due to MDD are scarce and outcomes are not convincing. In a review (Nieuwenhuijsen et al., 2008) only one study was found that addressed work issues during treatment (Schene et al., 2007; Kikkert et al., 2002). The other interventions included in this review were antidepressant medication (4 studies), psychodynamic therapy (1 study), computerised cognitive behavioural intervention (1 study), problem-solving therapy (1 study), and enhanced primary care (3 studies). None of the included studies showed improvement on RTW. Because of the limited studies and evidence, there is still a need for assessing modifiable factors that might improve RTW among employees with MDD. Fortunately a substantial number of employees do succeed in RTW. Their experience and those of involved stakeholders, supervisors and occupational physicians, may add modifiable factors to improve current interventions or develop new ones. This topic is addressed in Chapter 3.
Impeding factors for RTW

Although most employees suffering from MDD do succeed to RTW within the first year, a substantial part of about a quarter remain unemployed (Roelen et al., 2012; Koopmans et al., 2008). Also in our intervention study, we did not always succeed in facilitating the employee’s RTW. Persistent depression or residual symptoms could explain this impeded RTW, but it is also possible that these employees did not receive the appropriate support. Also there may still be other factors responsible for impeded RTW. To gain more insight into these factors, stakeholders involved in RTW (employees, supervisors and occupational physicians) who experienced difficulties with RTW after sick leave due to depression, were invited to participate in this study. Results are addressed in Chapter 4.

Cultural differences in factors that promote RTW

In our clinical practice, occupational therapists have experienced that commonly used RTW strategies are not suitable for employees from a non-western culture. Participating employees stated for instance that they had to “translate the intervention into their own language”. They also suggested that therapists should solve their problems with their supervisor, although we encouraged them to solve these problems themselves with their supervisor. In literature, the reasons for a hampered RTW process among employees with a non-western background, were identified as misunderstanding of nonverbal communication, differences in expectations, somatising, restrained and indirect attitude of the employee, motivation problems, unhealthy lifestyle, employee’s inability to explain physical complaints, to discuss private situation, and/or to discuss psychological complaints (Vink, 2009; Dautzenberg et al., 2005; Meershoek et al., 2005; van Poppel and Kamphuis, 2003; Hijmans van den Bergh, 2002). However, there is still no literature explaining how to adapt common RTW strategies into culturally sensitive RTW strategies.
To bridge this gap, experiences in RTW strategies in non-western countries might be useful to improve RTW strategies in western countries for non-western employees. Therefore we repeated our Dutch study on promoting factors for RTW in Suriname and invited Surinamese stakeholders (employees, supervisors, occupational physicians) experiencing a successful RTW, to participate in this study. Comparisons between Dutch and Surinamese results are addressed in Chapter 5.

**Work functioning for employees with MDD in remission**

For more than 50 percent of patients MDD has a long-term course with different levels of residual or subclinical symptoms, and a chronic nature. This may affect long term work functioning and consequently create economic costs. However, most studies on RTW from employees with MDD focus on reduced absenteeism, measured in number of hours worked (e.g. Dewa et al., 2009; Schene et al., 2007; Wang et al., 2007) or time until RTW (e.g. Vlasveld et al., 2013; Noordik et al., 2013; Nieuwenhuijsen et al., 2004). There is a lack of information on success in terms of level of work functioning. The level of work functioning among employees who returned to work in good health (MDD in remission) and its predictors of impaired functioning, assessed on different domains, are addressed in Chapter 6.

**Aim and research questions**

The general aim of this thesis is to gain more knowledge on how to improve RTW of employees with MDD absent from work. In order to do so we formulated five research questions:

1. Is occupational therapy additional to treatment as usual (TAU+OT) more effective than standard clinical treatment (TAU) for improving adverse work outcomes and depression outcomes in employees on sick leave due to MDD?
2. Which factors do promote RTW in of employees on sick leave with MDD, as perceived by employees, supervisors and occupational physicians and what are the differences in perception between these stakeholders?
3. Which factors impede the RTW in employees on sick leave with MDD, as perceived by employees, supervisors and occupational physicians?

4. What are the similarities and differences in perceived promoting factors for RTW of employees on sick leave due to MDD, between Dutch (western) and Surinamese (non-western) stakeholders (employees, supervisors and occupational physicians)?

5. At what level of work functioning are employees with MDD in remission, who returned to work performing, and what factors (demographic, health, personality and work characteristics) influence impaired work functioning?

**Thesis outline**

Chapter 2 covers the results of the randomised controlled trial of the effectiveness of adjuvant occupational therapy, to care as usual, in absent employees with MDD. Perceived promoting factors identified by main stakeholders for RTW are covered in Chapter 3. Factors that impede RTW identified by main stakeholders are addressed in Chapter 4. Chapter 5 covers cultural differences in perceived promoting factors for RTW in employees with MDD. Chapter 6 examines work functioning after MDD and aims to identify factors that impede work functioning. In the general discussion, in Chapter 7, the main findings of this thesis are presented and strategies to improve RTW for employees with MDD are further discussed, together with methodological considerations and implications for future research and clinical practice.
References


