Return-to-work in sick-listed employees with major depressive disorder

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CHAPTER 1

General Introduction
The present thesis aims to improve our understanding of return-to-work in sick-listed employees with major depressive disorder (MDD). In this first chapter, the background, context, and research questions will be described.

**MAJOR DEPRESSIVE DISORDER (MDD)**

Major depressive disorder (MDD) is a highly prevalent condition estimated to affect 11–21% of individuals at some time in their life. Within the past year, approximately 5.5% of the general population in high-income countries reported an episode of MDD. MDD is often characterized by a recurrent and chronic course, and consequently has sustained impact over the life-cycle. MDD is among the most impairing of all chronic health conditions: By the year 2030, MDD is predicted to be the leading cause of disability in high-income countries, and the second leading cause of disability worldwide.

**ADVERSE WORK OUTCOMES AND MDD**

MDD has a profound negative impact on work: Employees with MDD are absent from work eight to nine times more often than their colleagues without MDD, and twice more often than employees with other debilitating conditions, such as cardiovascular disease and rheumatoid arthritis. MDD is generally associated with a longer duration of sickness absence and a higher rate of recurrence. Even if employees with MDD are present at work, they have a five-fold higher risk of reduced at-work productivity (also called ‘presenteeism’). As much as 79% of employees with MDD reported some interference with their work functioning within the past 12 months. These problems in at-work functioning may relate to reduced concentration, memory problems, loss of energy, and a limited ability to cope with complex stimuli. In addition, MDD may affect interpersonal functioning at work due to loss of initiative, self-esteem, and motivation, and an increase in (social) anxiety.

Both absenteeism and presenteeism increase the risk of (permanent) exclusion from the workforce, either through unemployment, early retirement, or the receipt of a disability pension. In addition, MDD may impact labour force participation in other ways such as missed promotions, decreased career opportunities, or the shift from full-time to part-time work.

**PERSONAL AND SOCIETAL CONSEQUENCES OF MDD-RELATED ADVERSE WORK OUTCOMES**

Improving adverse work outcomes related to MDD is important from both a personal and a societal perspective: From a personal perspective, the ability to work is a crucial part of human life. Work gives financial security, a social network, and the opportunity to train and develop new skills. Work also provides an identity, a direction and purpose in life, and a position in society. Finally, work gives daily structure, which may be especially relevant for MDD patients, for whom activation is an important part of treatment.

From a societal perspective, resolution of MDD-related adverse work outcomes is also important, as these comprise 80–85% of the total costs for MDD, thereby far exceeding the costs of health care utilization. In the Netherlands alone, the annual costs of MDD-related adverse work outcomes are estimated to be €242 million per year, corresponding to 1.1 million lost work days. Of these “common mental disorders” (CMD’s), MDD is generally associated with a longer duration of sickness absence and a higher rate of recurrence. Even if employees with MDD are present at work, they have a five-fold higher risk of reduced at-work productivity (also called ‘presenteeism’). As much as 79% of employees with MDD reported some interference with their work functioning within the past 12 months. These problems in at-work functioning may relate to reduced concentration, memory problems, loss of energy, and a limited ability to cope with complex stimuli. In addition, MDD may affect interpersonal functioning at work due to loss of initiative, self-esteem, and motivation, and an increase in (social) anxiety.
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Based on these encouraging results, we developed a shorter and improved version of the earlier OT, according to three main ingredients found to promote RTW in other health conditions: 1) a fast return to the work environment, 46-48 2) an explicit focus on active coping with stressors in the workplace, 48-50 thereby promoting feelings of self-efficacy and control over the work situation, 51 and 3) increased communication between the workplace and healthcare system, 47, 52-55 through a workplace visit. The effectiveness of this new adjuvant OT will be evaluated in the present thesis (research question 1).

PREDICTORS OF RETURN-TO-WORK IN SICK-LISTED EMPLOYEES WITH MDD

Presently, it is still difficult to predict who will return to work after MDD-related sickness absence. Although a recent review found evidence for a moderate to strong association between clinical characteristics (i.e., duration of the depressive episode, depression severity, co-morbidity) and adverse work outcomes in employees with MDD, 56 most of these studies were cross-sectional and were not specifically focused on a return-to-work, but instead used varying ways to define adverse work outcomes (e.g., onset of sickness absence, receipt of a disability pension, number of work-loss days, transition from short-term to long-term sickness absence). Furthermore, only few studies have examined personal and/or work-related predictors for adverse work outcomes in sick-listed employees with MDD, 10, 57, 58 yielding inconclusive results. In fact, two reviews found that of the personal and work-related factors predicting adverse work outcomes in MDD, there was only moderate to strong scientific evidence for older age and previous sick leave. 56, 59 Thus, more knowledge regarding predictors for long-term return-to-work (RTW) across multiple domains is needed in order to establish RTW prognosis in sick-listed employees with MDD. In addition, this knowledge may help clinicians to adjust the optimal level of treatment to the individual patients’ needs. For example, adjuvant OT may only be helpful for certain subgroups of sick-listed MDD patients, whereas for others, adjuvant OT may be less needed. Finally, more knowledge regarding predictors for long-term RTW could generate hypotheses regarding the factors that may promote this outcome. In this light, the identification of modifiable factors is especially important, as these could provide
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LONGITUDINAL RELATIONSHIP BETWEEN DEPRESSIVE SYMPTOMS AND VARIOUS WORK OUTCOMES

Although it is increasingly emphasized that MDD-related work outcomes are multifactorial, our knowledge regarding the exact longitudinal relationship between depressive symptoms and different work outcomes (e.g., absenteeism, work productivity, work limitations) in sick-listed employees with MDD remains limited. While several studies have indicated synchrony of change between depressive symptoms and psychosocial functioning, few studies have focused explicitly on work outcomes. Instead, most studies have defined their functional outcome by using a composite measure of different domains, such as self-care, social, and/or occupational functioning. Furthermore, only few studies have distinguished between different types of work outcomes, providing indications that presenteeism may be a stronger correlate of depressive symptoms than absenteeism.

Furthermore, it is often stated that the relationship between depressive symptoms and work outcomes is bidirectional: That is, improvements in work outcomes (i.e., absenteeism, work productivity, work limitations) may aid depression recovery. Although findings have indicated such a relationship for depressive symptoms and psychosocial functioning, to our knowledge, no previous study has actually examined whether earlier changes in work outcomes are indeed related to later changes in depressive symptoms in sick-listed employees with MDD. This longitudinal relationship between depressive symptoms and various work outcomes will be addressed in research question 3.

HOW TO DEFINE A ‘SUCCESSFUL’ RETURN-TO-WORK?

When evaluating the effectiveness of an intervention such as adjuvant OT, it is important to know how to define the primary outcome (i.e., what is the measure of “success” of an intervention?). Previous studies in the work disability field have defined a “successful return-to-work” (RTW) using criteria such as work status (present/absent from work), number of hours/days worked, or time until an employee returns to work for the full number of contract hours with equal earnings. Although these criteria are ‘objective’ and easy to measure, they may fail to accurately reflect a successful RTW from the perspectives of the key stakeholders involved in the RTW process (e.g., the employee, supervisor, occupational physician). After all, MDD may impact work outcomes in other ways than being absent from work, such as reduced at-work productivity, missed promotions, or turnover to lower functions. Stakeholders may regard such aspects more important than current research criteria, such as the total number of hours worked or income earned. However, the definition of successful RTW may also vary between different stakeholders, as each stakeholder has their own interests and concerns. Despite the increasing emphasis on the importance of taking into account these different stakeholder perspectives in the RTW field, the examination of a multi-stakeholder perspective on how to define a successful RTW outcome after MDD-related sickness absence has currently been lacking. This topic will be addressed in research question 4.

SOCIO-POLITICAL CONTEXT IN THE NETHERLANDS

The studies in this thesis cannot be separated from their socio-political context, as adverse work outcomes are also shaped by country-specific health care and jurisdictional factors. For example, there is a large variation in the duration of sick-leave and the granting of disability pensions across countries, which are at least partly related to institutional factors (e.g., compensation policies and eligibility rules for disability pensions). Even within a certain country, policy and societal changes may impact the participation and return-to-work (RTW) rates of sick-listed patients with MDD. Therefore, it is important to provide some Dutch context regarding disability legislation: In the Netherlands, the employer has high financial responsibility for the sick-listed employee (i.e., pay for at least 70% of the salary during the first 2 years of sickness absence), which is irrespective of the cause of the disease (i.e., whether or not the disease is work-related). Furthermore, the Dutch system has an increasing focus on participation and RTW. According to the Improved Gatekeeper’s Act (2002), both the employee and employer are legally responsible to maximize their efforts for achieving RTW in either the former or
new work situation. During this process, an occupational physician (OP) independently evaluates the medical and work situation, and advises the employee and employer on the return-to-work. If the employee has not been able to fully return to work within two years of sick leave, entitlement for a disability pension is determined by the National Institute for Employee Benefit Schemes (UWV). Health insurance is compulsory for every Dutch citizen, and is independent from an employment contract.

**AIM AND RESEARCH QUESTIONS**

The general aim of this thesis is to gain more knowledge regarding how to improve return-to-work in sick-listed patients with MDD. This aim is divided into four research questions:

*Research question 1.* Is adjuvant occupational therapy more effective than standard clinical treatment for improving adverse work outcomes, depressive symptoms, and health-related quality of life?

*Research question 2.* What are predictors of long-term return-to-work in sick-listed employees with MDD, and how do these predictors compare to predictors for long-term symptom remission?

*Research question 3.* What is the longitudinal relationship between depressive symptoms and various work outcomes in sick-listed employees with MDD?

*Research question 4.* How do different key stakeholders (i.e., employees, supervisors, occupational physicians) involved in the return-to-work process define a “successful” return-to-work after sickness absence related to MDD and other common mental disorders?

**THESIS OUTLINE**

Chapter 2 describes the content of the occupational intervention and the design of a randomized controlled trial for evaluating the effectiveness of adjuvant occupational therapy (adjuvant OT) in sick-listed employees with MDD, when compared to treatment-as-usual. The results of this randomized controlled trial, the Depression and Occupation Intervention Trial (Do-It), are presented in Chapter 3. Chapter 4 aims to evaluate what factors predict a long-term return-to-work in sick-listed employees with MDD, and to compare these with factors that predict long-term symptom remission. Chapter 5 focuses on the longitudinal relationship between depressive symptoms and various work outcomes (absenteeism, work productivity, at-work limitations) in sick-listed employees with MDD. In Chapter 6, the perspectives from various key stakeholders (employees, supervisors, occupational physicians) are examined regarding their definition of a successful return-to-work (RTW) after sickness absence related to MDD and other common mental disorders. In the general discussion in Chapter 7, the main findings of this thesis are presented and will be further discussed in order to improve our understanding of the effectiveness of adjuvant OT. Finally, some methodological considerations and recommendations for future research and clinical practice will be presented.
References

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