Major depressive disorder in primary care: screening, diagnosis and treatment
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The main aim of the project, of which this thesis is a part, was to study the effectiveness of an integrated Disease Management Program (DMP) for Major Depressive Disorder (MDD) in primary care (PC). The original DMP consisted of identification of patients at high risk for depression, screening of these patients with the Patient Health Questionnaire (PHQ), assessment of diagnosis with the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I), feedback of the interview results to the general practitioner (GP) and randomization of patients suffering from MDD to one of three evidence-based treatments. In an early phase of this project it became clear that an evaluation of such a complex program was not feasible (in practical terms) and too ambitious. We therefore decided to divide the project in a set of sub-studies. In combination these studies could give answers to our questions regarding the three separate steps of the DMP: screening, diagnosis and evidence based treatment for patients with MDD in PC.

Chapter 1 of this thesis describes the background of the research and the aims of the studies presented in this thesis.

National and international studies have shown that, among patients with MDD, around 50% goes unrecognized by their GP. This is partly because these patients often consult their GP with a non-depressive reason for encounter. They present themselves with (non-specific) somatic complaints and/or psychosocial problems and not with complaints that may arouse the GPs suspicion of a possible MDD. Screening is proposed as a solution to this high number of unrecognized patients. To further increase the recognition international institutes recommend to screen in groups with a high risk of depression.

In chapter 2 we describe the effectiveness of screening for MDD in three (partly overlapping) high-risk groups in PC:
1. Patients that frequently attend their GP;
2. Patients with mental health problems;
3. Patients with unexplained somatic complaints.

We wondered whether this selective screening for MDD would result in better detection of MDD and subsequently to treatment initiation for MDD.

Patients were selected from the electronic patient databases of the participating general practices. Prior to the screening, GPs excluded patients who were already diagnosed with MDD or whom they considered not able to participate in the screening program. The remaining patients were asked to fill out the screening instrument, the PHQ, and
those with a positive score on the PHQ-9, (the depression module of the PHQ) were diagnosed with the Structured Clinical Interview for DSM-IV Axis I disorder, the SCID-I.

Did screening in these high-risk groups lead to better detection of MDD? Yes it did. However, only a very small part of the newly detected MDD patients proceeded to the treatments offered. We offer the following explanations:

1. Half of the patients diagnosed with MDD already received a psychological and/or psychiatric treatment
2. The amount of diagnosed patients refusing treatment was remarkably high. These patients did not recognize themselves in the diagnosis MDD

We conclude that screening for MDD in high-risk groups was not effective, mainly because of the low rate of newly detected patients that were willing to start a suitable treatment for MDD.

Chapter 3 describes the accuracy of the PHQ-9 as a screener and a diagnostic instrument for depressive disorder in the three high-risk populations in PC. For this we compared the outcomes of the PHQ-9 to the outcomes of the SCID-I, which we used as the gold standard. For screening purposes in these three high-risk groups the PHQ-9 proved to be a valid instrument. The PHQ-9, however, proved less suitable as a diagnostic instrument. To diagnose MDD an additional diagnostic procedure is needed. Further we assessed the influence of co-morbid psychiatric disorders on the criterion validity (sensitivity, specificity) of the PHQ-9. We concluded that the sensitivity and specificity of the PHQ-9 were modified by co-morbid psychiatric symptomatology/disorders as assessed with the other modules of the PHQ.

Chapter 4 describes the accuracy of the panic disorder module of the PHQ, the PHQ-PD, both as a screener and a diagnostic instrument for panic disorder in the high-risk population in PC. For screening purposes in these three high-risk groups the PHQ-PD proved to be a moderate instrument. Just like the PHQ-9, the PHQ-PD needs an additional diagnostic procedure to diagnose panic disorder.

International studies have shown that patients’ cultural background may bias PHQ-9 screening outcomes. To be able to attribute differences in PHQ-9 scores between groups with different cultural backgrounds to actual differences in the level of depression, the PHQ-9 has to possess measurement invariance. Therefore, in chapter 5, we assessed measurement invariance for ethnicity of the PHQ-9. We used two strongly contrasting cultural groups: Surinam Dutch and Dutch. Measurement invariance was assessed by comparing four categorical single factor
models with an increasing number of restrictions, representing increasingly stronger measurement invariance assumptions. The PHQ-9 proved to be measurement invariant for ethnicity in women and partially measurement invariant for ethnicity in men. Given a certain level of depression, Surinam Dutch males were less likely to endorse the item ‘psychomotor problems’ than Dutch males. Even though we found evidence of partial measurement invariance, the PHQ-9 can, in our opinion, be used for screening in Surinam Dutch and Dutch patients.

Chapter 6 presents the study protocol of our randomized trial designed to compare two brief treatments, set up in accordance with the clinical guidelines, for MDD in PC: brief protocolized cognitive behavioral therapy (bCBT) and general practitioners’ care (GPC).

Chapter 7 describes the results of our randomized trial establishing the relative effectiveness of the treatments described in chapter 6. Compared to GPs psychologists proved to be equally capable and perhaps even better in treating MDD patients. Even though GPs in the GPC group were free to choose whether they prescribed an antidepressant (AD), they prescribed ADs to 48% of the patients. In the bCBT group comparable improvements were achieved despite the fact that ADs were prescribed to a substantial smaller percentage of patients (11%). An additional advantage of CBT is that it has been shown to have a preventive effect on symptom return after the treatment has stopped, while ADs have to be continued to achieve comparable preventive results.

Chapter 8 discusses the main findings and conclusions from our studies and offers recommendations for future research and implications for clinical practice.