Chapter 1

General Introduction
Depression
With a lifetime prevalence of around 20% major depressive disorder ("depression") is a common disease and it is associated with a large amount of morbidity due to its highly recurrent and chronic nature(1). It is projected that by 2020 depression will cause the highest amount of morbidity in developed countries, and will be second only to cardiovascular disease worldwide(1). In 2030 depression will probably be leading the disease burden list (2).

Diagnosis and classification
A patient is diagnosed with depression according to the Diagnostic and Statistical Manual of Mental Disorders, currently the text revision of the fourth edition (DSM-IV-TR). The DSM-IV-TR defines major depressive disorder as a condition with depressed mood and/or anhedonia (the inability to experience pleasure from usually pleasurable activities), and at least five symptoms in total, with a minimum duration of two weeks. The other possible symptoms are changes in appetite and/or weight, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue and/or energy loss, feelings of guilt and/or worthlessness, trouble concentrating and/or deciding, thoughts of death and/or suicidal thoughts or plans. The symptoms may not be caused by another physical or psychiatric disease or by drug use. The depressive episode may not be part of a manic-depressive disorder. The symptoms are not a logical consequence of certain recent events, such as bereavement and they cause significant suffering and/or dysfunction in daily life.

Depression can be mild, moderate or severe and may have melancholic, atypical or psychotic features. Melancholic features are anhedonia, lack of mood reactivity (no improvement of mood in response to positive events), excessive guilt and vegetative symptoms: severe weight loss or loss of appetite, psychomotor agitation or retardation, early morning awakening and worse mood in the morning. In contrast, atypical features are presence of mood reactivity (mood does improve in response to positive events) and “reversed vegetative symptoms”, namely increased appetite and/or weight and increased sleepiness. Patients with psychotic features experience severe depression with delusions and hallucinations, they often also have agitation. Women are twice as likely to get a depression compared to men. Fifty percent of those with a depression in the general population recover within three
months (3). Others take longer to recover or have (frequent) relapses or recurrences. A minority (15-20%) has a chronic depression, i.e. lasting over two years (3).

**Treatment of depression**

Depression treatment may comprehend several modalities. Watchful waiting or guidance by the general practitioner (GP) is an effective strategy in the first three months of a depression, as a substantial percentage of patients, also in primary care, have a spontaneous recovery within three months. This holds especially true for patients with a first mild depressive episode. In patients with longer lasting, more severe or recurrent depression, treatment is recommended. Treatment can be largely divided into two strategies: antidepressant drugs and various forms of psychotherapy. Both modalities have been shown to be effective in acute treatment as well as in continuation treatment to prevent relapses; both in primary and in secondary/tertiary care settings (4,5). Guidelines for the treatment of depression in primary care such as the 2003 NHG-standaard depressive disorder from the Dutch Society for General Practitioners (NHG) recommend treatment with antidepressant drugs in case of major depressive disorder dependent on degree of dysfunctioning and/or suffering and on patient preference. After response to the antidepressant, treatment should be continued for at least six months, in order to prevent relapse (return of symptoms of the index episode). In case of a recurrent or chronic depression, maintenance treatment can be considered for one or more years) to prevent recurrences (the appearance of next episodes). In case the patient has a preference for psychological treatment, the GP may refer the patient for this treatment (6).

**Depression in general practice**

Most patients with depression are treated in primary care (7,8). It is therefore important to optimize recognition and treatment of depression in primary care, in order to prevent morbidity and also costs due to loss of work hours and long-term treatment.

In studies before the year 2000 recognition of depression and care for depressed patients in primary care was found to be poor (9-13). Many patients with depression were not recognized and diagnosed as such in primary care, and many of those who were diagnosed did not receive treatment or were treated inadequately, e.g. with too low dose of an antidepressant, at time in most cases a tricyclic
antidepressant (9-11,14). However, in these years the first selective serotonin reuptake inhibitors (SSRIs) made their appearance on the market for the treatment of depression and many projects and postgraduate programs for GPs focusing on diagnosis and treatment of depression were initiated with the ultimate goal to improve recognition and treatment for depressed patients in primary care.

Unfortunately, recent reports in the media and scientific literature still claim that recognition and treatment of depression in primary care is poor (13,15-22). The scientific literature mainly reports underrecognition and undertreatment, while the public media recently spoke about overrecognition and overtreatment (23-26). These discrepancies point out the importance of assessing current care, in order to find areas for improvement and future research.

This thesis set out to study current care for depressed patients in primary care, focusing on both recognition and treatment of depression in primary care.

**Netherlands study of depression and anxiety**

All studies from this thesis, with the exception of the literature review presented in chapter 4, were performed using data from the Netherlands Study of Depression and Anxiety (NESDA, [www.nesda.nl](http://www.nesda.nl)) Chapters 2,3 and 5 used baseline data on the primary care respondents, chapter 6 used data on primary care patients from baseline, two-year- and four-year follow-up.

NESDA is a large prospective cohort study on depression and anxiety disorders among 2981 respondents between 18 and 65 years of age, recruited from the community, primary and secondary mental health care settings. Detailed information on the objectives and methods of NESDA were published elsewhere (27). In short, recruitment in primary care for NESDA was as follows. A screening questionnaire was sent to a random sample of 23,750 patients (registered with 65 GPs), who consulted their GP in the past four months irrespective of the reason for consultation. The screener (consisting of the K-10 with 5 added questions about anxiety) was returned by 10,706 persons (45%). The non-responders showed no bias with regard to psychopathology (28). Those screening positive were approached for a telephone interview consisting of the Composite International Diagnostic Interview (CIDI) short-form (CIDI-SF), which has proven diagnostic quality for screening purposes (29,30). Respondents fulfilling criteria for a current disorder on the CIDI-SF were invited to participate, as were a random selection of screen negatives (both
from the written screener and the CIDI-SF). In total 1610 persons were recruited who underwent an extensive baseline interview, including the CIDI. The GP was not aware of the results of the screening or of the interview.

**Outline of this thesis**

By exploring different aspects, this thesis will outline the current care for depressed patients in primary care. The first step in depression care is recognition of the disorder. Recently, a lot of attention has focused on recognition of depression in primary care. In the 1980s and 1990s several studies reported that recognition by general practitioners (GPs) was poor. However, it is quite difficult to study recognition in primary care, as in the Netherlands where all patients are registered with a single GP (-practice), they do not necessarily visit the GP for their depressive symptoms. Therefore, it is important to know which depressed patients do visit their GP without being recognized as such. In chapter 2 we present our study of recognition and determinants of recognition and will further discuss this topic.

The next step in depression care is treatment, of which we investigated several aspects. First, we studied referral of depressed patients to a mental health specialist. We were especially interested whether GPs based their referral decisions on the criteria of their own guideline criteria or on other factors (Chapter 3).

Next we studied the major treatment option for GPs: the use of antidepressants. Most antidepressants are prescribed by GPs and not by physicians in secondary care. Moreover, when started with an antidepressant, many patients continue them for months or even years.

Chapter 5 focuses on the use of antidepressants in primary care, with a focus not on possible undertreatment (as done many times before) but on possible overtreatment with, i.e. whether they are prescribed to patients without a justification according the Dutch primary care guideline for depression. Chapter 4 discusses guideline recommendations and evidence for maintenance treatment with antidepressants in primary care, while chapter 6 describes the characteristics of patients on maintenance treatment with antidepressants.

Chapter 7 summarizes all results, and discusses the findings from this thesis in the light of findings from past and present research and the new Dutch general
practitioners guideline depressie (NHG-standaard depressie) that was published in 2012. The chapter ends with implications for clinical practice and future research.
References


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