Addendum

English summary

This thesis describes the characteristics of outpatients who were diagnosed with four common anxiety disorders. Panic disorder (PD/A), agoraphobia without panic (AP), social phobia (SP), and generalised anxiety disorder (GAD) incur severe suffering and functional impairment, they often have a detrimental course and are associated with significant societal costs. Chapter one describes how previous research on these disorders typically involved subjects from the general population, or alternatively, patients who met strict eligibility criteria for clinical trials, or who were willing to take part in (very) long running studies. As these subjects may differ from outpatients, it is unclear if previous findings can be generalised to patients seen in everyday clinical practice. Studies using clinical data gathered in naturalistic settings are needed to describe the phenomenology of anxiety in clinical practice. Therefore, in the studies described in this thesis, we used data that had been collected in clinical practice through Routine Outcome Monitoring (ROM). As ROM is a part of normal clinical practice and as such is offered to patients, these data offer a unique opportunity to study anxiety disorders in outpatients.

Chapter two focused on the age of onset of anxiety disorders. Generally, an earlier onset is thought to be associated with higher severity and a more detrimental course. However, previous findings diverged markedly. This divergence could have resulted from a lack of consensus on a cut-off age for early onset. Therefore, in this study a data-driven technique (cluster analysis) was applied to retrospectively reported age of onset data gathered in the general population to define early onset. PD/A with an onset at or before age 31 qualified as early, whereas early onset AP started at or before age 21. The cut-off for early onset SP was at or before age 22, and early onset GAD started at or before age 27. Subsequently, subjects with early and late onset were compared with regard to clinical characteristics. This was done in a general population sample as well as in a clinical sample. Although we expected to find that those with early onset would have more comorbid psychiatric disorders and were more likely to score below cut-offs for general wellbeing than those with late onset, few differences emerged. As such, results did not support our hypothesis of more psychiatric comorbidity and less wellbeing in early onset.

Chapter three continued with an exploration of age related differences in outpatients aged 18 through 65. Outpatients diagnosed with PD/A, AP, SP, and/or GAD were divided in three age groups: young adult (18-25), mid-adult (26-40), and older adult (41-65). These three age groups were compared with regard to social demographic characteristics, psychiatric diagnostic characteristics, anxiety symptom profile, general psychiatric symptom profile, and generic health status. In addition to more obvious differences with regard to vitality and social demographic characteristics related to life phases, we expected to find differences with regard

to clinical characteristics, like comorbidities or symptom profiles. Several associations with age emerged, as expected, older patients had higher levels of physical- and sleep problems, and a relative lack of vitality. However, we also found higher prevalence of SP in younger patients, and more feelings of interpersonal sensitivity and hostility in younger and mid-adult patients compared to older patients. Older patients more often had AP, and had an increased risk of mood comorbidity. These findings demonstrate that patients from different age groups present with differences in symptomatology that may be relevant in research as well as clinical practice.

Chapter four presents an exploration of factors relevant to the course of anxiety disorders. Data of outpatients diagnosed with PD/A, AP, SP, and/or GAD were analysed to identify predictors of response during the course of treatment with a maximum of two-years of follow-up. Several socio-demographic and clinical variables predicted response: having a non-Dutch ethnicity, having no daily occupation, and having a low education level, were associated with reductions in chances of response of 29%, 24%, and 24% respectively. Patients who lived with family had a 41% better chance of response, although further analyses demonstrated that this association was specific to younger patients. Having a diagnosis of AP was associated with a 33% smaller chance of responding during follow-up, and alcohol abuse or dependence reduced chances of response with 46%. Personality traits were also associated with response: a single standard deviation increase on a continuous measure of affective lability was associated with 20% smaller chances of response; one standard deviation increase on a continuous measure of conduct problems was associated with a 16% smaller chance of response. These results do not only show what patient characteristics are associated with a detrimental course of anxiety in an outpatient setting, they also demonstrate how an extensive assessment process at intake, such as in ROM, may aid clinicians in the identification of patients who are at risk of chronicity.

In chapter five, the course of suicidal ideation in outpatients with anxiety and/or depression was examined. Suicidal ideation is a common complicating factor in both mood and anxiety disorders that can persist during the course of treatment. The identification of characteristics that help clarify which patients are at risk of sustained suicidal ideation may aid clinicians and, ultimately, help prevent suicide. Remission of suicidal ideation over a follow-up period of up to two years was associated with education level, baseline depression severity, self-harm, and general health perception. Patients with low education levels had a 14% lower chance of remission of suicidal ideation; a single standard deviation increase in baseline depression scores and self-harm severity, corresponded to 16% and 23% lower chances of remission of suicidal ideation. Finally, a single standard deviation decrease in general health perception scores, corresponded to an 8% reduced chance of remission of suicidal ideation. These results underpin addressing the needs of patients with suicidal ideation who have low

education levels, severe depression, severe self-harm, and poor general health perception, as they are at increased risk of sustained suicidal ideation.

Chapter six focused on the observer-rated versus self-reported assessment of anxiety severity. Although both types of measures usually concur, in some individuals they do not. It is important to know in which patients these measures are likely to diverge, as this knowledge may help identify patients in whom reliance on either self-report or observer-rated measure may not suffice. In this study, standardised scores on a self-report measure of anxiety severity by outpatients diagnosed with PD/A, AP, SP, and GAD, were compared to standardised anxiety severity ratings made by trained psychiatric research nurses. Overall correlation between self-reported and observer-rated anxiety severity was positive and strong but discordance occurred in 23.6% of patients, with higher scores on the observer-rated relative to the self-report measure in 12.4% of patients, and lower observer-rated relative to self-reported anxiety severity in 11.2% of patients. Patients with higher observer-rated than self-reported anxiety severity did not differ from patients for whom both measures were concordant. However, patients with lower observed- than self-reported anxiety severity more often had PD/A and less often had SP than concordant patients. In addition, they scored higher on cluster B (dramatic) and C (anxious) personality characteristics than concordant patients. The general level of concordance in our sample demonstrates that on a group level, the use of either a self-reported or an observer-rated measure gives a good indication of severity. On an individual level however, our results demonstrate that when a single instrument is used, anxiety severity may be overlooked in a group of patients. Specifically, trained observers may not adequately assess anxiety severity in those patients who have higher scores on measures of cluster B and C personality traits. Therefore, when determining anxiety severity for clinical purposes, a multi-method approach, encompassing both self-report- and observer-rated measures of anxiety severity as well as assessments of personality traits, is preferable. This will allow for assessment across different domains, and through multiple sources of information. As such, a multi-method approach may provide clinicians with more relevant information than the use of a single instrument would.

In the final chapter of this thesis, findings are summarised and discussed in light of recent literature and clinical implications. The use of routinely collected clinical data in care as well as in research is critically discussed, as are limitations of the presented work. It is suggested that future studies focus on bridging the gap between child and adolescent psychiatry and adult psychiatry. A prospective approach to the study of onset of anxiety is proposed. Finally, it is suggested that studies based in a ROM infrastructure could contribute significantly towards the development of clinical staging and profiling models of anxiety disorders.