Summary

With this thesis we describe new findings on the consequences of loneliness and depression with results from two Dutch population based studies.

Loneliness, defined as a subjective experienced aversive emotional state related to a person desired social needs, is a prevalent condition in all age categories. It is associated with mental health problems, psychiatric pathology as well as poor physical health. Depression, a syndrome featured by a depressed mood, loss of interest or pleasure and impaired functioning is one of the leading causes of disease burden and is associated with a large number of physical diseases, impairments and conditions. Loneliness and depression frequently co-occur, are associated with each other but are also separate constructs. However, many questions remain about their individual consequences as well as their interrelatedness.

The aims of this thesis were first to study the individual prognosis of loneliness and depression taking into account psychiatric anxious comorbidity and a variety of confounders, second to study their prognosis in persons with these conditions combined and last to study the direction of the association between loneliness and depression. To study these questions longitudinal analyses in two Dutch prospective community studies were performed. The Amsterdam Study of the Elderly (AMSTEL) is a longitudinal study among 4051 inhabitants of the city of Amsterdam between the age of 65 and 84 on generalized anxiety disorder, depression and dementia with three year follow up and 10 year mortality data. The Longitudinal Ageing Study (LASA) is a longitudinal study among 3107 aged 55 – 85 on physical, emotional, cognitive and social functioning in the general population in three representative regions in The Netherlands.

In chapter 2 we investigated in the AMSTEL study whether generalized anxiety disorder, depression and the combined condition are associated with excess mortality. We assessed the 10 year mortality risk in 4051 older adults and were able to adjust for demographic variables, physical diseases, functional disability, cognitive functioning and social vulnerability. Generalized anxiety disorder and depression were measured with a reliable community general mental examination instrument. In participants with generalized anxiety disorder and the combined condition we found no excess mortality. In depressive participants we found excess mortality in men but not in women. Our results confirm the effects of depression on mortality and are the first to show that generalized anxiety has a protective effect on mortality in depressed older persons.
In chapter 3 we describe that in the AMSTEL study men but not women who suffer from feelings of loneliness have an increased risk of dying at 10 years follow-up while socially isolated older adults (living alone, not or no longer married, having no social support) had no increased risk of excess mortality. After adjustment for a comprehensive set of potential confounders such as social isolation, depression, demographic variables, medical disorders, cognitive functioning and functional disabilities older men with loneliness were significantly more likely to have died at follow-up. It seems that the individual perception of social contacts and interactions is of predictive value while the objective situation of being alone is not. Feelings of loneliness indicate a warning signal of approaching death in older men.

Chapter 4 describes the finding from the AMSTEL study that feelings of loneliness are associated with the onset of dementia after three years. Socially isolated older adults (living alone, not or no longer married, having no social support) had no increased risk of dementia at 3 year follow-up. We were able to adjust for a wide range of potential dementia risk factors. Feelings of loneliness should be considered a major risk factor that deserves clinical attention and may signal a prodromal phase of dementia. Neither social isolation factors nor depression could account for this association.

In chapter 5 we examined in the LASA study whether loneliness is associated with excess mortality at 19 years follow-up and whether the combined effect with depression confers further excess mortality. At follow-up we found in multivariate analysis that severe depression was associated with excess mortality in emotionally and socially lonely men but not in women. This indicated a lethal combination of loneliness and depression in this vulnerable group.

Chapter 6 reports the results of a study over 19 years with assessment of seven waves of LASA. Loneliness is associated with the onset of depression in participants not depressed at baseline. In already depressed participants we found no higher recurrence or chronicity when participants were lonely. Depression was not associated with onset, recurrence or chronicity of loneliness. Over time an increase in loneliness was associated with an increase in depression symptoms and vice versa. Our results indicate that loneliness has an etiologic role in the onset (but not recurrence or chronicity) of depression, that loneliness should be considered an important social marker of depression and that loneliness and depression are possibly engaged in a double feedback loop strengthening each other.
In chapter 7, the main findings, methodological considerations, implications for clinical practice and future research are discussed subsequently. From this thesis we conclude first that depression and feelings of loneliness are individual independent risk factors for an early death in men, and that feeling lonely is an independent risk factor for the development of dementia. Second we conclude that the combination of loneliness with severe depression indicates a toxic combination further increasing mortality in men. Last, loneliness is associated with the onset of depression but not with its recurrence or chronicity and we conclude that loneliness and depression are possibly engaged in a double feedback loop strengthening each other. We think that workers in medical practice and the general public should be better informed about the consequences of feelings of loneliness and that interventions should be aimed at feelings of loneliness and at the emotional and social aspects of loneliness with respect to depression. Further research should first be aimed at the backgrounds of feelings of loneliness and whether biological, life style and personality factors play a role in the development of morbidity and mortality. Second, research could focus on the development of loneliness treatment modules with respect to depression and whether a lonely depression exists. This thesis gives more insight in the consequences of loneliness and depression and therewith gives suggestions to improve prognosis of older persons with these interrelated conditions.