ENGLISH SUMMARY

AIMS OF THIS THESIS

The aim of this thesis was two-fold. First, we wanted to examine the link between body mass index (BMI) and depression: whether obesity and a higher BMI are associated with an increased risk of (the development) of depression, and whether depression is associated with subsequent weight change. Secondly, we examined the cross-sectional relationship between depression and dietary intake. We did this using data from three cohorts, the Netherlands study of depression and anxiety (NESDA), the Healthy Life in an Urban Setting (HELIUS) and the AGES-Reykjavik study.

The current chapter will include a summary of the main findings from Chapters 2 to 7, a discussion of the results within the framework of existing literature, a discussion on methodological considerations, implications for clinical practice and suggestions for future research.

Main Findings

A summary of the main findings can be found in figure 1.

AIM 1A) To establish whether obesity and higher BMI are associated with an increased depressed mood (cross-sectionally) and increased risk of developing depression (longitudinally).

The three chapters (2-4) examining the association between obesity/higher BMI and clinical depression/depressed mood provide evidence that being obese or having a higher BMI is associated with depression. Cross-sectionally (chapter 2), both BMI and waist circumference revealed that the odds of having a depressed mood was 16% and 20% higher per standard deviation (SD) (corresponding to 5.3 kg/m²) higher in BMI or waist circumference, respectively. Additionally, having overweight or obesity, or a waist circumference measurement in the highest two quartiles was likewise associated with significantly higher odds of having a depressed mood. Correspondingly, when examined longitudinally (chapter 4), we found that, over a 6-year period, those with a BMI or waist

circumference one SD higher had higher odds of developing a clinical depression diagnosis by 17% and 20% respectively, although obesity and a waist circumference measurement in the highest quintiles were not significantly associated with the development of depression. However, over a 2-year period the association of BMI and the development of depression was weaker. Analysis of childhood (age 8y) overweight and obesity suggests that the relationship between unhealthy weight and the increased risk of lifetime depression starts during childhood (chapter 3).

AIM 1B) To establish whether depression is associated with subsequent changes in weight

The analysis detailed in chapter 5 found two main results. Firstly, persons with current MDD have a 67% higher odds of gaining more than 5% over their body weight over a 2-year period than remaining stable in their weight, compared to controls. Secondly, persons with current depression also have a higher risk (27%) of losing at least 5% of their body weight than remaining weight stable compared to controls. This relationship remained after allowing for antidepressant use.

AIM 2) To establish whether depression (and anxiety) disorders are related to dietary intake.

Our analysis shows that depressive and/or anxiety disorders were significantly associated with poorer diet quality (chapter 6). Subsequent analysis showed that this was particularly true for those that had comorbid anxiety and depression. Further examination of clinical characteristics showed that both the chronicity (measured in % months with elevated depressive symptoms over a 9-year period) and the severity of the depression/anxiety disorder had a dose response relationship with diet quality, thus the more chronic/severe the disorder the poorer the quality of diet. When instead of a combined diet score, individual food groups that contribute to a healthy diet score were analysed, using food groups as the determinant (chapter 7), it appeared that increased consumption of non-refined grains was associated with lower odds of having current depression/anxiety diagnosis and greater consumption of both non-refined grains and vegetables was related to lower depressive and anxiety symptoms. Higher overall energy intake was significantly

associated with higher anxiety symptoms. The association between non-refined grains and depression/anxiety (diagnosis and symptoms) remained significant even when allowing for the consumption of other food groups. However, as the combined diet score showed the strongest relationship with depression and anxiety (symptoms and diagnosis), we can conclude that it is the synergistic impact of the whole diet that has the greatest association with depression/anxiety.