Among children and adolescents, the drive to be slender and the fear of being fat is a growing public health concern. This trend stands in contrast to the increasing prevalence of overweight reported worldwide. Both feeling too fat and being overweight are associated with physical, psychological and social health-related issues from a short- and long-term perspective. The aim of this thesis is to study body perception in relation to actual body size and the bodily changes that occur naturally during puberty. Another objective is to identify risk factors for overweight, overweight perception and unhealthy eating habits in childhood and adolescence.

This thesis describes the prevalence of 1) perception of overweight, 2) overweight/obesity and 3) unhealthy eating habits in Finland and Sweden. We compare our results with the World Health Organization (WHO) Health Behaviour in Schoolchildren (HBSC) survey in 2001/2002 and 2009/2010. Our cross-sectional studies were performed on a female cohort of 11-18 year old girls in Finland and a cohort of boys and girls 7-17 years in Sweden.

In both Finland and Sweden, the prevalence of overweight increased over time, especially among boys. Also perception of overweight increased over time - not just among girls, but also among boys. We found social inequality in overweight, particularly in boys in relation to maternal socioeconomic status. No social inequality, but age and gender differences were found in relation to perception of overweight, where girls older than 13 years showed the highest prevalence. Body perception among girls agreed better with international reference values for waist circumference (WC) than for body mass index (BMI). Breast development and acne increased the risk for overweight perception, particularly among non-overweight girls. Perception of overweight was the strongest risk factor for dieting and skipping breakfast in both boys and girls. These behaviours were more common among adolescents than among younger boys and girls. Skipping breakfast was related to unbalanced food consumption patterns in both sexes, but in a gender-specific way.

We have shown that body perception during growth and development relates to a complex age- and gender-specific balance between body size, stage and timing of pubertal maturation, eating habits as well as parental and peer influences. From a broader perspective, improving adequate body perception entails optimising this balance by influencing one or more of the individual, societal and environmental factors that determine health outcomes among children and adolescents, tracking into adulthood.