Summary
Mental health problems during childhood and adolescence can have long lasting negative consequences, one of these being a negative effect on the transition from school to work. Adolescents suffering from mental health problems are at risk of dropping out from high school, and when entering the labor market in adulthood, to be unemployed and having lower wages. Understanding how mental health problems affect educational and employment outcomes is important, but evidence is inconclusive. Therefore, this thesis aims to assess the impact of mental health problems from childhood to young adulthood on the school-to-work transition from a life-course perspective. This aim led to five research questions:

1. Are mental health problems in childhood and changes in mental health problems between childhood and adolescence associated with the level of educational attainment in young adulthood? (Chapter 2)
2. Do mental health problems in adolescence explain the relationship between childhood adversities and the level of educational attainment in young adulthood? (Chapter 3)
3. Do trajectories of mental health problems from childhood to young adulthood affect the educational and employment status of young adults? (Chapter 4)
4. What is the role of the level of educational attainment in the association between depressive symptoms in adolescence and labor market participation in young adulthood? (Chapter 5)
5. Do trajectories of mental health problems from childhood to young adulthood affect the employment conditions and psychosocial work characteristics of young adults? (Chapter 6)

In Chapter 1, we introduced a life course perspective to research on work and health, provided background information on the Dutch educational and youth psychosocial care systems and the labor market, and defined the main concepts. To answer research questions 1 to 3 and 5, we used data with 11-year follow-up of the TRacking Adolescents' Lives Survey (TRAILS). TRAILS is a Dutch prospective cohort study designed to examine the psychological, social and physical development of children towards adulthood. To answer research question 4, data from the Vestliv study were used. The Vestliv study is a Danish prospective cohort study among adolescents aiming to explore aspects of inequalities and social differentiation on well-being and health.
In Chapter 2, we examined if mental health problems in childhood and changes in mental health problems during adolescence predicted the level of educational attainment in young adulthood. Mental health problems (i.e., externalizing, internalizing and attention problems) were measured with the Youth Self-Report and the Child Behavior Checklist at ages 11 and 16 years. The level of educational attainment was assessed by questionnaire at age 19 years. The results showed that childhood mental health problems were associated with a low level of educational attainment in young adulthood, but after adjustment for comorbidity, the association remained significant only for attention problems. Among both boys and girls, increasing externalizing problems during adolescence were associated with low levels of educational attainment in young adulthood. Only among girls, increasing internalizing problems were associated with a low level of educational attainment. We found no association between adolescents’ increasing attention problems and level of educational attainment.

In Chapter 3, we investigated whether the associations between childhood adversities and the level of educational attainment in young adulthood can be explained by mental health problems in adolescence and whether associations and pathways differ for boys and girls. Childhood adversities were measured at age 11 years, mental health problems (i.e., externalizing, internalizing and attention problems with Youth Self-Report) at age 16 years, and level of educational attainment at age 19 years. This study showed that only among boys childhood adversities were strongly associated with a low level of educational attainment in young adulthood. This association was partly explained by externalizing problems in adolescence. Internalizing and attention problems in adolescence did not explain the association between childhood adversities and the level of educational attainment in young adulthood for either boys or girls.

In Chapter 4, we identified trajectories of mental health problems from childhood to young adulthood and linked them to the educational and employment status of young adults. Mental health problems (i.e., externalizing, internalizing and attention problems) were measured with the Youth Self-Report and the Adult Self-Report at ages 11, 13.5, 16 and 19 years. Participants were categorized into two groups according to outcomes: (1) young adults at school or at work with basic educational level (BEL) and (2) young adults at work without BEL or Neither in Education, Employment nor Training (NEET). We identified four trajectories of mental health problems: high-stable, decreasing, moderate-stable and low-stable.
Young adults with high-stable trajectories of total problems, from childhood to young adulthood, were more likely to work without BEL or be in NEET at age 19 years, than to be at school or to work with BEL. We found the same for externalizing problems. For internalizing and attention problems, no statistically significant differences were found. Our findings clearly show that high-stable trajectories of mental health, which started in childhood, deteriorate young adults' future perspectives with regard to educational and employment outcomes.

In Chapter 5, we examined the effects of depressive symptoms in adolescence on labor market participation in young adulthood, and investigated whether the level of educational attainment mediated or moderated this association. We used data of the Danish Vestliv study. Self-reported depressive symptoms were measured at age 14 and 18 years with the Center for Epidemiology Studies Depression scale for Children (CES-DC). The level of educational attainment at age 21 years and labor market participation at age 23 years were derived from registers. The results showed that adolescents with depressive symptoms are at risk of poor labor market participation in young adulthood. The level of educational attainment did not moderate the association between depressive symptoms and labor market participation. Only among girls, the level of educational attainment slightly mediated the association between depressive symptoms in adolescence and labor market participation.

In Chapter 6, we identified trajectories of mental health from childhood to young adulthood and examined the association of these trajectories with employment condition and psychosocial work characteristics in young adulthood. Mental health problems (i.e., externalizing and internalizing problems) were measured with the Youth Self-Report and the Adult Self-Report at ages 11, 13.5, 16, 19 and 22 years. Employment conditions (i.e., work hours, income and type of contract) and perceived psychosocial work characteristics (e.g., possibilities for development, job satisfaction, assessed with the Copenhagen Psychosocial Questionnaire) were measured at age 22 years. We identified four trajectories of mental health problems: high-stable, decreasing, moderate-stable and low-stable. We found that young adults with high-stable trajectories of externalizing problems worked significantly more hours than young adults with low-stable trajectories. The sustainability of their employment conditions deserves further research. Young adults with high-stable trajectories of internalizing problems worked fewer hours, reported lower income, and poorer psychosocial work characteristics, compared to young adults.
with low-stable trajectories. The results provide suggestive evidence that young adults with a history of internalizing problems are less likely to succeed in entering successfully into the labor market, compared to other young adults.

In Chapter 7, the main findings of this thesis are summarized and discussed. Furthermore, the methodological issues and implications for both practice and research are addressed.

We found that the majority of mental health problems from childhood to young adulthood were persistent over time and associated with adverse educational and employment outcomes. Young adults with a history of externalizing problems were at risk of a low level of educational attainment and of a poor transition from school to work. Young adults with a history of internalizing problems had poor labor market participation, employment conditions and poorer psychosocial work characteristics.

The findings of this study have implications for policies, practices and further research, as they clearly show that early mental health problems have severe consequences for later life, i.e., mental health problems in childhood and adolescence negatively affect educational and employment status in young adulthood. For policies and practices these results imply that mental health problems should be detected and treated early in life (i.e., in childhood and early adolescence), to ensure a smooth transition into the labor market and, eventually, to prevent increasing socioeconomic health inequalities in adulthood. Schools may play an important role in the detection and early treatment of mental health problems, as Dutch schools have the responsibility for care. The recently established additional contact between adolescents and the preventive child health care at age 16 years may be helpful to monitor mental health problems and to discuss educational progress and future employment plans. Finally, to improve the transition into the labor market for young adults with mental health problems, collaboration between schools, youth health care services, employers and occupational health care services is of high importance.

For further research the results of this study show the need of adopting a life course perspective when investigating early mental health problems and the transition from school to work, i.e., events in different stages of life cannot be fully understood isolated from each other. Furthermore, longer follow-up is needed to examine the long-term consequences of early mental health problems regarding employment and work outcomes. Finally, our study is the first study linking mental health problems from childhood to young adulthood and psychosocial work characteristics in young adulthood, and future research is needed to confirm our findings.