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A Life Course Perspective on Work and Mental Health: The Working Lives of Young Adults

Karin Veldman, Sander K. R. van Zon, Iris Arends,
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Abstract

Young adulthood is a challenging life phase including major life transitions like leaving the parental home, finishing education, starting a first job, starting romantic relationships, and parenthood. These transitions are interrelated, and are likely to be influenced by earlier life experiences, such as childhood adversities and poor mental health. At the same time, young adults have to earn a living in a new world of work characterized by temporary employment, self-employment, and a 24/7 work cycle in a global economy. To promote sustainable employment throughout the working lives of young adults, a life course perspective must be integrated into work and mental health research, policy, and practice. A life course perspective highlights the importance of prior life experiences, such as where individuals grew up, who they grew up with, and their education and health status prior to working. This chapter explains and emphasizes the importance of applying a life course perspective to the working lives of young adults.

Keywords

Young adults · Mental health · Work · Labor markets · Transition · Trajectories · Life course

Introduction

Getting a job and maintaining a healthy working life is fundamental for individuals and society. Today, the changing nature of work and labor markets creates opportunities and challenges for the current generation of young adults, i.e., people who were born in the 1990s and are currently at the end of their 20s. Young adults have to earn a living in a new world of work partially characterized by more temporary employment and self-employment as well as less job security and a 24/7 work cycle in a global economy (see chapter ► [“Transformation of Modern Work, Rise of Atypical Employment, and Health”](#)). At the same time, young adults, as they enter working life, experience other major life transitions, such as leaving the parental home and starting parenthood. These transitions are affected by earlier life experiences, such as childhood adversities and prior mental health problems, which in turn may affect future mental health and later life labor market and work outcomes. Mental health problems constitute a major challenge for youth entering the labor market and for young adults in the labor market. Across many countries of the Organization for Economic Cooperation and Development (OECD) between 30% and 50% of all new disability benefit claims are due to mental health problems; among young adults the percentage goes up to 50–80% (OECD 2012).

To date, there is very little understanding of how young adults transition into the labor market, and how to positively support their working life trajectories. It is not known to what extent their working life trajectories are shaped by, for example, mental health, adverse experiences, and family life during childhood, adolescence, and young adulthood. The available evidence on young adults' work and mental health is fragmented. Research has not connected earlier life to later life and lacks an understanding of the underlying mechanisms accounting for differences in different groups and lacks a fundamental understanding of the role of social context in shaping experiences. By adopting a life course perspective, a better understanding of the complex and dynamic interplay between work, mental health, and family life in the early work career can be provided.

A life course perspective on young adults' working lives highlights the importance of prior life experiences such as where individuals grew up, who they grew up with, and their education as well as their mental and physical health status prior to working. Life course research has been applied to develop more robust causal models (Shanahan 2000), for example, to understand (developmental) health trajectories and socioeconomic inequalities in health (Pavalko and Caputo 2013; Corna 2013; Kuh et al. 2003; Halfon and Hochstein 2002; Ben-Shlomo and Kuh 2002). But, few studies have focused on work and health (Amick III et al. 2016; Amick III and Lavis 2000; Bültmann et al. 2020).

Integrating a life course perspective into work and health research involves two steps. The first step is to elaborate how timing, duration, intensity, and place of past and present exposures (i.e., pre-working, working, and nonworking exposures) are related to health and work outcomes. The second step is to describe how the exposure-outcome relationship is formed in a particular social, historical, and cultural context (Amick III et al. 2016). A life course perspective demands work and health researchers to expand their attention toward what happens earlier in life, preemployment, and how that period of time contributes to working and the work-health relationship. It also requires expanding our focus to understand what is happening in a person's life contemporaneously outside of work and how these experiences contribute to work and the work-health relationship in the working lives of young adults. This historical and contemporaneous expansion is not only important for research, but also for policy and practice.

The chapter starts with a presentation of the five challenging transitions in emerging adulthood, followed by a description of the changing world of work and labor markets, with challenges for young adults entering the labor market that affect their mental health. Life course principles and life course concepts are introduced, translated to work and mental health research, and benefits for policy and practice are presented. Selected applications of a life course perspective to research on young adults' early working lives are presented. The chapter ends with avenues for future research.

Emerging Adulthood: Five Challenging Transitions

The period of young adulthood is characterized by five major life transitions including leaving the parental home, finishing education, starting a first job, starting romantic relationships, and parenthood (Settersten et al. 2015). In a relatively short

period, there are potential transitions to be made covering different aspects of life, and resulting in a great heterogeneity of life courses. As the five transitions are intertwined, the consequences of transitions are likely to accumulate. Although there is no prescribed or single normative pathway for emerging adulthood, early transitions tend to move into a more disadvantageous chain than later transitions (Elder Jr et al. 2003). For example, an early transition into motherhood is associated with low educational attainment, poor labor market participation, and mental health (Boden et al. 2008; Räikkönen et al. 2011).

Whether transitions are early, on time, or late is largely dependent on social expectations, i.e., on normative timetables. These social expectations are shaped by time and place, e.g., in 1975 young adults were likely to have made all transitions by the age of 22, while for young adults living in the 2020s many transitions are yet to come. Also, contextual factors impact the timing of transitions. For example, young adults tend to study longer when unemployment rates are high (Barr and Turner 2015). The higher the educational level young adults attain, the later transitions into work and parenthood take place (Mills et al. 2011). Large differences between countries have been observed, as social policies play an important role for the timing of transitions. For example, more liberal welfare states tend to have more generous compensation for maternity and paternity leave, which is suggested to lead to earlier parenthood (Mills et al. 2011; Zabel 2008).

The transitional period may be challenging for all, but some young adults may struggle more. For example, mental health problems in childhood and adolescence can influence the transitions, their timing, and their impact. Previous studies have shown that the 12-months prevalence of mental health problems among youth is around 30% (Ormel et al. 2015). Recent OECD data show mental health problems have increased since the start of the COVID-19 pandemic (OECD 2021). The majority of these early life mental health problems track into adulthood (Ravens-Sieberer et al. 2014; Kessler et al. 2012). Several studies have shown that mental health problems in childhood and adolescence increase the risk of school dropout, poor labor market participation, and early parenthood (e.g., McLeod and Fettes 2007; de Groot et al. 2021; Evensen and Lyngstad 2020). Young adults not engaged in education, employment, or jobs training (NEET) are most at risk of adverse labor market outcomes and eventually social exclusion later in life (Bardak et al. 2015; Carcillo et al. 2015; EECEA Eurodice 2015).

The transitional period during young adulthood may also have a positive impact on someone's life. Having multiple roles, for example, as an employee and as a parent, and thus having more responsibilities, may result in a breakup of old patterns, e.g., a reversed day-night rhythm often cannot be combined with a job or care for children. However, research into the positive consequences of transitions made during young adulthood for later life is still scarce.

Young Adults Entering the Labor Market in a Challenging and Changing World of Work

The world of work has transformed for all workers with increased nonstandard work arrangements (e.g., temporary, part-time or on-call work, (solo) self-employment,

and platform work), digitalization, artificial intelligence, and automation (see chapters ► [“Transformation of Modern Work, Rise of Atypical Employment, and Health”](#), ► [“The Impact of New Technologies on the Quality of Work”](#), ► [“Adverse Employment Histories: Conceptual Considerations and Selected Health Effects”](#), ► [“Precarious Work and Health”](#), and ► [“Gig Work and Health”](#)). Nevertheless, some challenges specifically relate to young adults’ anno 2020.

First, compared with older age groups, young adults are most often confronted with nonstandard work arrangements (Chung et al. 2012; Canivet et al. 2017; Thorley and Cook 2017). Such work arrangements increase employment precariousness through job insecurity and reduced rights and protection compared with permanent and full-time work (Chung et al. 2012; Canivet et al. 2017; Thorley and Cook 2017).

Second, young adults today are experiencing a weakening nexus between education and employment, i.e., a higher diploma does not necessarily pay off in terms of stable employment. Across the globe, education policies are implemented to encourage young people to engage in post-compulsory, tertiary education to improve their chances of finding and maintaining employment (OECD 2018). However, data show that increased employment opportunities do not necessarily follow from higher educational attainment. For example, among young adults with a high educational level, there was an average 3.5% increase in the share of low-paid jobs and an average 6.5% decrease in the share of high-paid jobs between 2006 and 2016, across OECD countries. As comparison, for young adults with a medium educational level the increase in low-paid jobs was 2.6% and the decrease in high-paid jobs was 1.5%. For some countries, like Spain, the numbers were much more discouraging, going up to a 20% increase in the share of low-paid jobs and a 10% decrease in the share of high-paid jobs for highly educated young adults (OECD 2019). Also, 20 years of research on two longitudinal cohorts of young Australians born in the 1970s and the 1990s showed that young adults with tertiary education struggled with finding secure jobs until in their 30s (Cuervo and Wyn 2016).

Third, and related to the previous point, rates of overeducation have been rising in the past decades and especially young adults report being overeducated in their work. Overeducation (also called overqualification) implies that a person has more years of education or higher qualifications than needed for their work (International Labor Office 2013; Thorley and Cook 2017). Based on data from the European Social Survey between 2002 and 2014, Sparreboom and Tarvid (2017) showed that the average incidence of overeducation rose from 7.6–11.0%. Also, young adults aged 15–30 years had higher levels of overeducation compared to adults aged 31 and over, although differences exist between European countries (Sparreboom and Tarvid 2017). Similarly, Thorley and Cook (2017) showed that the chance of being overeducated has increased over time for young adults in the UK: the share of young graduates in a nonprofessional or managerial job (compared to a professional or managerial job) increased from 10% in 2004 to 20% in 2014 (Thorley and Cook 2017).

To conclude, young adults need to navigate their working lives in a landscape of more differentiated, nonstandard employment arrangements compared with the

40-h, permanent employment contracts of older generations. Also, work may become more varied and labor markets less integrated with education and training. Hence, more flexibility and continuous learning may be needed throughout their working lives in adjusting knowledge and skills to be able to match the competencies needed for new forms of work created by digitalization, artificial intelligence, automation, and other technological innovations.

Labor Markets and Life Course Challenges: The Link with Mental Health

Nonstandard work, the weakening nexus between education and employment, and overeducation have been linked to worse mental health outcomes among young adults (Quesnel-Vallée et al. 2010; Canivet et al. 2017; Thorley and Cook 2017; Winefield et al. 2017; Dudal and Bracke 2019). For example, Canivet et al. (2017) showed that being in a nondesired occupation or precarious employment was more common among young adults aged 18–34 years, compared with adults aged 35–54 years, and that both were associated with poor mental health. Furthermore, monitoring reports from the UK and the Netherlands have shown that today's young adults more frequently report mental health problems compared to older age groups (Thorley and Cook 2017; Houtman et al. 2019). Besides these studies and reports, there is limited knowledge on how young adults' working lives affect their mental health and more longitudinal research is needed to unravel the underlying mechanisms and direction of effects.

When studying the relationship between work and mental health, it is important to also take mental health before the start of the working life into account. Various studies have shown that early life conditions such as the family context and (mental) health affect later life employment (e.g., Hale et al. 2015; Veldman et al. 2017; Clayborne et al. 2019; Christiansen et al. 2021; Hansen et al. 2021). For example, Clayborne et al. (2019) systematically reviewed longitudinal studies investigating associations between adolescent depression and psychosocial outcomes, including employment, in early adulthood (ages at outcome assessment ranged between 18 and 35 years with the average unweighted age being approximately 24 years). They found that adolescents with depression were over 1.5 times more likely to experience current or recent unemployment as well as long-term or multiple unemployment spells compared to controls (Clayborne et al. 2019). Similarly, research has shown that adolescents with many adverse childhood experiences (e.g., maltreatment, parental mental illness, and parental unemployment) are significantly more likely to be inactive (i.e., not in education, training, or employment) in young adulthood compared to adolescents with fewer adverse childhood experiences (Lund et al. 2013; Hansen et al. 2021). Thus, to improve the understanding of the relationship between young adults' working lives and their mental health, pre-working life factors need to be incorporated when investigating later life mental health and work; i.e., a life course perspective on work and mental health has to be adopted.

Integrating a Life Course Perspective to Work and Mental Health Research

A longitudinal, life course perspective offers a research framework for guiding research on health, human development, and aging (Kuh et al. 2003) from aggregate institutionalized pathways to the lived experience of people working out their life course (Elder Jr et al. 2003). In sociology and neighboring fields, life courses are studied as developmental processes, as culturally and normatively constructed life stages and age roles, as biographical meanings, as aging processes, as outcomes of institutional regulation and policies, as demographic accounts, or as mere empirical connectivity across the life course (Mayer 2009). Life course epidemiology is defined as the study of long-term effects of physical or social exposures during gestation, childhood, adolescence, young adulthood, and later adult life on chronic disease risk (Ben-Shlomo and Kuh 2002). The aim is to elucidate biological, behavioral, and psychosocial pathways that operate across an individual's life course, as well as across generations, to influence the development of chronic diseases (Ben-Shlomo and Kuh 2002). Below, we briefly present the key life course principles and main life course concepts and reflect on the benefits for policy and practice to integrating a life course perspective when looking at work and mental health among young adults.

Life Course Principles

Five key principles emerge from the conceptual life course literature (Elder Jr et al. 2003). First, human development and aging are lifelong processes, also referred to as the *principle of life span development*. When we translate this principle to research on how mental health of young adults influences their schooling and early working life, it is important to realize that mental health changes within a continuum over time and that poor mental health in young adulthood may be the result of accumulation over time (Veldman et al. 2017). Second, individuals construct their own life course through the choices and actions they take within opportunities and constraints of history and social circumstance, known as the *principle of agency*. In the Netherlands, young adults can move through the educational system through various pathways (Veldman et al. 2014). Moreover, they can switch between vocation-oriented and academic-oriented education. Through these options, young adults have agency regarding their educational trajectory. Third, the life course of individuals is embedded and shaped by the historical times and places they experience over their lifetime, called the *principle of time and place*. For example, it matters whether young adults enter the workforce during an economic boom or an economic recession (Elder Jr 1974; Haaland 2016). Studies have shown that young adults entering the labor market during an economic recession experience long-lasting scarring effects regarding earnings, employment, and disability pension (Haaland 2016). Furthermore, it matters in which country, or even in which part of the country, they try to enter the workforce. As an example, in 2020, the youth unemployment

rate in Greece was, with 31.8%, 2.8 times higher than in the Netherlands, where the youth unemployment rate was 11.4% (OECD 2022). Entering the workforce as a young adult in Greece would therefore have been more difficult than it would have been for a young adult in the Netherlands. Fourth, the developmental antecedents and consequences of the life transitions, events, and behavioral patterns vary according to their timing in a person's life, referred to as the *principle of timing*. For example, young women who continue longer in education are more likely to have children at a later age (Mills et al. 2011). Fifth and last, lives are lived interdependently and sociohistorical influences are expressed through this network of shared relationships, known as the *principle of linked lives*. An example of the principle of linked lives is the intergenerational transmission of work values. A meta-analytic review showed that parents significantly affect their children's work values through both their own work values and parenting behavior (Cemalcilar et al. 2018). In other words, the work values of parents and their offspring are linked.

All in all, the school-to-work transition and the early working life of young adults is not only an exciting period for the young adults themselves, it is also an interesting period for life course researchers due to its multitude of potentially social and economic life altering transitions. Life course concepts (mechanisms) have been developed in life course sociology and life course epidemiology, but have been largely ignored and never been applied to understand the transition into work and the subsequent working life trajectories of young adults. The application of life course concepts may help researchers understand and disentangle the relationships between (early) life experiences, mental health, education, and work experiences of young adults.

Life Course Concepts

While many life course concepts exist (see Kuh et al. 2003 for an extensive overview), important concepts include accumulation of risk, critical and/or sensitive period(s), chain of risk, transitions, and trajectories. *Accumulation of risk* (i.e., [health] disadvantages and advantages) refers to the notion that (adverse or protective) exposures accumulate over time during the life course, like episodes of illness, poor health behavior, and environmental, work, and nonwork influences. In young adults, multiple episodes of poor mental health, or the accumulation of poor mental health over time, may affect their level of schooling, labor market participation, and work functioning in young adulthood (Veldman et al. 2017; de Groot et al. 2021; de Groot et al. 2022). *Critical and sensitive periods* refer to time windows when a particular exposure has an adverse or protective effect on a particular outcome (Kuh et al. 2003). While a *critical period* refers to a limited time period in which an exposure can have adverse or protective effects on a certain outcome (period of exclusive risk), a *sensitive period* is a time period when an exposure has a stronger effect on a certain outcome than it would have at other times (period of heightened risk). For example, Duncan et al. compared the effects of income in early life (ages 0–5 years), mid-childhood (ages 6–10 years), and early adolescence (ages

11–15 years) and showed that poverty experienced during early life was a sensitive period for the relationship between poverty and poorer academic achievement (Duncan et al. 1998). *Chain of risk* refers to a sequence of linked exposures that raise health risk (Kuh et al. 2003). Understanding chains of risk (or protective chains), e.g., from preemployment to employment, is dependent on how social and labor market contexts cluster exposures into specific sequences. *Transitions* are short-term events marking changes in physiological, psychological, or social states (Kuh et al. 2003). Important transitions in adolescents' or young adults' lives are, for example, the transition from secondary school to vocational education/university or the "school-to-work" transition toward entering the labor market (Bryzinski-Fay 2015). *Trajectories* are a sequence of transitions over a longer time period. In young adults, educational transitions (e.g., primary school to secondary school) and employment transitions (e.g., apprenticeship to full-time contract) together form a "school-to-working-life trajectory."

Benefits for Policy and Practice to Integrating a Life Course Perspective When Looking at Work and Mental Health Among Young Adults

An important aspect of mental and physical health is that it is a determinant and a resource or capability, which shapes working life trajectories. Adopting a life course perspective in work and mental health research involves understanding the key life course principles and concepts related to timing, duration, sequencing of exposure, and place (context). Researchers, policymakers, and practitioners need to acknowledge that past and present exposures and experiences that have been or are shaped in a particular social, historical, and/or cultural context influence future health and labor market outcomes (Amick III et al. 2016).

Moving from research to policy and practice requires life course research to: (1) elucidate the *critical* and *sensitive periods* in the life course; (2) describe *accumulation of risk* across time and within work and nonwork contexts; and (3) describe *chains of risk* from preemployment to employment. These three important life course concepts are described above and can help identify the most effective points, periods, and/or places to intervene, i.e., they offer policymakers and practitioners a window through which to exercise institutional agency and to define policies or practices. To illustrate, an example drawn from Amick III et al. (2016): depression in high school affects school achievement and thus educational outcomes and consequently employment outcomes. One may suggest depression or more broadly anxiety and mood disorders among high school students is a period of great sensitivity for later life work outcomes. Identifying this sensitive period supports employment and health practitioners to ensure they are identifying and managing mental health problems with the appropriate tools. It further may demand local and national changes to school policy integrating mental health care into the school system and connecting school health care with occupational health care. A second example from current day would be the accumulation of risk from young

refugees experiencing the traumas of war, then the traumas of relocation. These traumas accumulate over time and policymakers and practitioners alike need to stop the accumulation providing off-ramps for individuals. For example, when young refugees are provided easy access to education, training, or work (depending on their age), they can develop their competences, increase autonomy, and experience relatedness (by taking part in classes or being part of the workforce), which are essential, basic human needs (Ryan and Deci 2017). On the short term, participation in education, training, or work could thus improve young refugees' well-being and offset (some of) the negative consequences of the accumulated trauma. On the long term, their education, training, and/or work experiences could facilitate integration into the host country's or home country's labor market.

Applying a Life Course Perspective to Young Adults' Working Lives: Early Life Mental Health and Adverse Experiences

A few illustrative examples are presented of studies that applied life course principles related to life span development, timing, duration, sequencing of exposure, and place (context) to better understand the effect of early life mental health and adverse experiences on employment and work outcomes in young adulthood. These life course studies addressed life course concepts, such as sensitive periods, accumulation, chain of risk and trajectories, and answered research questions like: "Does the *timing and duration* of mental health problems in childhood and adolescence affect the working life of young adults?"; "Do *trajectories* of mental health problems in childhood and adolescence affect young adults' educational attainment, labor market participation, and functioning at work?"; and "How do *labor market trajectories* of today's young adults look like and how are they affected by early life circumstances?". These study results may inspire future life course research on this topic (see also section "Looking Forward: Today's Youth Is Tomorrow's Workforce") and can stimulate policy and practice debate and action as suggested below based on the illustrative examples.

Does the *Timing and Duration* of Mental Health Problems in Childhood and Adolescence Affect the Working Life of Young Adults?

The life course concepts of sensitive periods, accumulation of risk(s), and chain of risk are illustrated in a Dutch and a Danish cohort study, tracking children and adolescents into young adult life. De Groot and colleagues examined whether *the timing and duration* of mental health problems from childhood and young adulthood were associated with labor market participation in young adulthood (De Groot et al. 2021). Data from the Tracking Adolescents' Individual Lives Survey (TRAILS), a Dutch prospective cohort study with a 15-year follow-up, were used. Internalizing and externalizing mental health problems were measured at ages 11, 13.5, 16, 19,

and 22. Labor market participation, operationalized as having a paid job (yes/no), was assessed at age 26. Internalizing problems at all ages and externalizing problems at ages 13, 19, and 22 were associated with an increased risk of not having a paid job. Young adults with a long duration of internalizing and externalizing problems (i.e., accumulation of risk over three or more measurement waves) showed an increased risk of having no paid job. Young adults with an early onset and a short duration of internalizing and externalizing problems were not affected.

In the second study, Veldman et al. (2022) investigated the effects of *timing and duration* of depressive symptoms in adolescence on NEET (Neither in Employment, Education, nor Training) in young adulthood. Additionally, the mediating or moderating role of educational attainment on the depressive symptoms-NEET status relationship was examined (i.e., direct, mediation, and interaction effects were identified) among girls and boys, reflecting the chain of risk concept in a gendered social context. Data were used from the Vestliv Study. Depressive symptoms were measured at ages 14, 18, and 21. Information on educational attainment at age 21 and the NEET outcome at age 23 were derived from Danish national registers. Among boys, depressive symptoms at ages 14 and 21 increased the risk of NEET, while depressive symptoms at ages 18 and 21 increased the risk of NEET in girls. For the duration of depressive symptoms, among girls, only persistent depressive symptoms (at two or three time points) increased the risk of NEET. Among boys, single and persistent exposure to depressive symptoms increased the risk of NEET. No mediation or moderation of educational attainment in the association between depressive symptoms and NEET was found.

The results of these studies not only show the long-term impact of early life mental health problems on labor market participation, but also that the timing and duration of mental health problems matters. As such both studies may indicate potential sensitive periods. Furthermore, both studies provide important information about entrees for both policy and practice to get early mental health monitoring and/or mental health surveillance systems in place, to develop mental health care to shorten the duration of mental health problems and to initiate the (early) provision of school and employment support to improve young adult's school-to-work transition and labor market participation.

Do Trajectories of Mental Health Problems in Childhood and Adolescence Affect Young Adults' Educational Attainment, Labor Market Participation, and Functioning at Work?

The following two studies illustrate the life course concept of trajectories, how trajectories can be shaped by the context and how they can affect later life outcomes. In a cross-country comparative study, Minh and colleagues investigated the impact of trajectories of *depressive symptoms during adolescence and young adulthood*, as compared with a single time point or a lifetime measure, on early adult education and labor market participation in Canada and the USA (Minh et al. 2021). The study compared data from two National Longitudinal Surveys on Child and Youth in

Canada and the USA. Four depressive symptom trajectories from ages 16–25 years were identified and linked with five educational and employment outcomes at age 25. In both country samples, increasing, decreasing, and mid-peak depressive symptom trajectories were associated with higher odds of working with low educational credentials, and/or NEET (Neither in Employment, Education, nor Training) relative to low-stable depressive symptom trajectories. The Canadian sample, however, was more likely to have better education and employment outcomes.

De Groot and colleagues linked trajectories of *mental health problems during childhood and adolescence* with work functioning among young adults (de Groot et al. 2022). In this study, work functioning reflected the experience of difficulties in meeting the job demands during the workday given a health state. With 18-year follow-up data from the Dutch TRacking Adolescents' Individual Lives Survey, the authors identified mental health problem trajectories, including 11, 13.5, 16, 19, 22, and 26 as age points. Work functioning was assessed at age 29. The authors showed that young adults with trajectories of persistent high or elevated levels of mental health problems from childhood to young adulthood reported lower work functioning scores compared with their peers with trajectories of persistent low levels of mental health problems. More specific, young adults with trajectories of persistent high mental health problems experienced difficulties in meeting their work demands for approximately 1 day a week given a full-time work week.

The findings of Minh et al. (2021) and de Groot et al. (2022) point to the importance of developing interventions (1) for the prevention, or at least reduction, of mental health problems in adolescence and (2) for educational, employment, and work functioning support in early adulthood. Given the institutional differences between Canada and the USA, but in the Netherlands alike, researchers and policymakers are recommended to further investigate how specific changes to mental health, education, and labor market policy in each country may improve the (working) life chances of young people with histories of poor mental health as they transition into adulthood.

How Do Labor Market Trajectories of Today's Young Adults Look Like and How Are They Affected by Early Life Circumstances?

A Danish cohort and data record linkage study on adverse childhood experiences and labor market trajectories illustrates the life course concepts accumulation of risk and life course trajectories and how these concepts can be connected as predictor and outcome, respectively. In this research, Hansen and colleagues investigated the extent to which adverse childhood experiences are associated with differences in *labor market trajectories* of young adults (Hansen et al. 2021). Monthly information on labor market participation, educational events, and public transfer records was analyzed between ages 16 and 32 for a cohort of Danish adolescents born in 1983. "In employment" was the state in which the young adults spent most time during their early life courses. Three clusters of labor market trajectories were identified. The most distinct cluster was characterized by a mean time of 149 months (73% of

the follow-up time) spent “outside the labor market” and only 17 months (8%) spent “in employment.” Cumulative adverse childhood experiences (i.e., accumulation) increased the probability of being included in this “outside the labor market” cluster compared with adolescents who had experienced fewer childhood adversities. In particular, experiencing parental divorce, witnessing a violent event, and being abused were strongly associated with the “outside the labor market” cluster.

This study clearly moved beyond the simple dichotomy of labor market participation “yes/no” by constructing different labor market trajectories built on sequences of monthly data and showed the effect of cumulated exposure to adverse childhood experiences on “disadvantaged” labor market trajectories. More life course research is needed on *how* early life circumstances affect labor market trajectories and *how* these vary by jurisdiction. This new information on the long-lasting consequences of early life exposures and experiences provides key input for the design of welfare policies and action directed toward “healthy” labor market trajectories.

Looking Forward: Today’s Youth Is Tomorrow’s Workforce

While publications on mental health and work among young adults with a life course lens are growing, this body of evidence is still in its infancy. To better build the body of evidence requires a common nomenclature about the life course. We have presented a set of key life course principles and concepts from sociology, psychology, and epidemiology to enrich work and health research. A better theory- and evidence-based understanding of the life course mechanisms that put young individuals at risk for poor labor market outcomes or put them on a positive more resilient trajectory is required. More research must focus on the role of the social context to better inform policymakers and practitioners at the intersections of youth health, mental health, and occupational health.

To further advance science on how early life influences later life work outcomes, a more rigorous investigation of life course mechanisms is needed. Relevant questions to better understand the transition into work and the subsequent working life trajectories of young adults’ concern: “*which* life course mechanisms matter (e.g., sensitive periods, accumulation of disadvantage/advantage, and chain of risk), *when* do they matter (i.e., in which life phase), and *how* do they matter (e.g., whether they work in a complementary or competitive way)”. A comprehensive example from psychopathology is the study by Dunn et al. (2018), who examined three life course theoretical models (i.e., sensitive periods, accumulation, and recency) to explain the relationship between exposure to childhood adversity and psychopathology symptoms. By using existing birth cohorts with long-term follow-up and/or matured longitudinal youth cohorts, researchers have opportunities to examine these life course mechanisms when constructing the educational and early working life trajectories of young adults.

Future life course research should further elaborate on transitions in building young adults’ mental health and early working life trajectories, considering varying

views for subgroups of society (Bültmann et al. 2020). More explicitly, intersectional research, which acknowledges the interconnected nature of social categorizations, such as gender, class, and race, which may create systems of disadvantage or discrimination that affect transitions and track into adult working life, is deeply needed. Also, transition research should focus on the positive impact of transitions during young adulthood on a person's life. Having multiple roles, for example, as an employee and as a parent, and thus having more responsibilities, may result in a breakup of old patterns, e.g., a reversed day-night rhythm often cannot be combined with a job or care for children or both.

When investigating both life course mechanisms and transitions in the context of young adults' working lives and mental health, more attention should be paid to the contextual factors that shape these mechanisms and transitions. A prominent contextual factor is the Covid-19 pandemic. In their paper "Understanding the Effects of Covid-19 Through a Life Course Lens" Settersten and colleagues argue "*one thing is sure: there is a time before Covid-19 and a time after it. This watershed moment is marking the psyches and lives of individuals, families, and cohorts in ways both known and unknown. A life course perspective is necessary to bring these effects, and the mechanisms that create them, into focus for investigation and intervention*" (Settersten et al. 2020). In line with the seminal life course research in the past century of Glen Elder Jr (1974) on "Children of the Great Depression," rigorous life course research in this century is needed on the long-term impact of Covid-19 on today's youth. For example, the first OECD data show that the prevalence of symptoms of depression and anxiety increased in particular among young people compared with pre-crisis levels and other generations (OECD 2021). The increase of mental health problems may be attributed to disruptions in access to mental health services, the wide-ranging impacts of school closures, and a labor market crisis that disproportionately affected young people. Not only the effects of Covid-19 should be addressed in further life course research, but also other contextual factors that may shape the lives of youth and young adults, such as, e.g., access to mental health services across the life course, the availability and affordability of childcare and living spaces, the provision of informal care, and the rapidly changing worlds of education, training, work, and labor markets.

Further life course research and evidence will provide policymakers and practitioners with a better understanding of the potential long-term, negative and positive, impact of early life exposures and transitions on later life employment outcomes. The identification of sensitive periods ("when") and chains of risk ("how") will offer policymakers and practitioners insights for the most effective entrees for intervention, i.e., points, periods, and and/or places. Further, the knowledge on how the social, historical, and/or cultural context has shaped past and shapes present exposures and experiences and how these experiences induce, exacerbate, or ameliorate future health and labor market outcomes will help to define policies and practices to support the young individuals early in life during education and training as well as the young adults at work.

To conclude, as *today's youth is tomorrow's workforce* and as *a person's mental health does not start when work begins*, further research with both a life course lens

and action is needed from all people with a stake in the support of today's youth and the generations to come to build their careers and to respond to the challenge of healthy working lives.

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