



Early-life characteristics and educational disparities in smoking



Matthew A. Andersson*, Vida Maralani

Yale University, United States

ARTICLE INFO

Article history:

Received 21 June 2015

Received in revised form

17 September 2015

Accepted 20 September 2015

Available online 25 September 2015

Keywords:

Education

Smoking

Life course

Health disparities

ABSTRACT

Educational inequalities in adult health outcomes are well-established, but it remains unclear when and how these disparities emerge across the life course. We use the 1970 British Cohort Study (BCS) to examine the links between early-life characteristics (cognitive, social and emotional, familial, peer, socioeconomic, school- and health-related) and emergent disparities in smoking. We examine whether characteristics from childhood explain differences in smoking initiation at ages 16 and 26 by the education respondents eventually obtain. Using characteristics from ages 0, 5, 10, 16, and 26, our results reveal that cognitive, socioeconomic, and health-related factors together explain little of the education-smoking link. However, characteristics measured during adolescence such as school attachment and having friends who smoke account for about half (49%) of the education-smoking association at age 16 and most of the association (67%) at age 26. Models of smoking initiation between ages 16 and 26 reveal a similar pattern of results. In contrast, educational disparities in quitting at age 26 exist only for men and are not explained by observed life-course characteristics, including those from adolescence. Further analyses using an extended vector of life course covariates from age 10 uphold our findings.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

The association between education and health in adulthood, including self-rated health, disease burden, and physical limitations, is one of the most robust findings in the population health literature (Cutler and Lleras-Muney, 2010; Pampel et al., 2010). Still, it remains unclear when and how educational disparities in health emerge across the life course (Elo, 2009; Pampel et al., 2010). While educational differences in health behaviors such as diet, exercise, and smoking contribute substantially to mid-to late-life inequalities in morbidity and mortality (Cutler and Lleras-Muney, 2010; Pampel et al., 2010), adult health is also shaped by factors originating in childhood and adolescence (Braveman and Barclay, 2009). Indeed, a key component of understanding educational disparities in adult health is explaining the fact that educational inequalities in health behaviors such as smoking, physical activity, and diet are present well before education is actually completed (Maralani, 2014). Thus, education and health in adulthood may be correlated because early educational experiences shape early health behaviors, health-related factors and schooling decisions

may be jointly determined, or education and health might have a reciprocal relationship (Conti and Heckman, 2010; Maralani, 2014; Smith, 1999).

In developed nations, smoking is the most important behavioral risk factor for mortality, accounting for about one-fifth of all deaths each year (CDC, 2008; Marmot, 2006). Smoking accelerates death through acute myocardial infarction or debilitating conditions such as vascular and respiratory diseases, and cancer (CDC, 2008). Gaining a better understanding of the education-smoking link, therefore, is a pivotal step in illuminating educational disparities in overall health and well-being.

In this study, we draw on representative longitudinal data from a UK birth cohort that includes life course histories of smoking into adulthood. While prior work has characterized age-specific educational disparities in health behaviors among adolescents and adults, it has been hampered by a lack of data from early childhood and the pre-teen years, and it has yet to focus squarely on smoking initiation as an evolving process based on educational and life course factors. Without data linking childhood to adulthood, it has been impossible to study in detail the potential factors that might explain how education and smoking become intertwined across the early life course.

The 1970 British Cohort Study offers extensive early-life measures of cognitive, social, emotional, familial, peer, socioeconomic, school- and health-related characteristics beginning at birth and

* Corresponding author. Department of Sociology, Yale University, P.O. Box 208265, New Haven, CT, 06520, United States.

E-mail address: matthew.andersson@yale.edu (M.A. Andersson).

continuing through adolescence and adulthood. Using these data, we examine whether disparities in smoking initiation by the education respondents eventually obtain is explained by characteristics present early in the life course. Using this approach, we are better able to pinpoint how and when educational differences in smoking initiation occur, based on characteristics and endowments that are present before and during the process of schooling.

2. Background

Numerous studies document substantial associations between education and adulthood physical health at the population level (for reviews, see [Adler and Stewart, 2010](#); [Conti and Heckman, 2010](#); [Pampel et al., 2010](#)). Researchers have now directed attention to understanding the mechanisms behind these observed associations (e.g., [Chandola et al., 2006](#); [Cutler and Lleras-Muney, 2010](#)). While identifying the relevant mechanisms may be important for reducing educational disparities in adult health in the population, it is equally important to identify life course factors that jointly determine both education and health. Broadly construed, these early-life mechanisms may shed light on promising targets for preventative, cost-effective interventions aimed at improving both educational attainment and health outcomes ([Campbell et al., 2014](#)). They can also clarify which parts of the education–health relationship are unlikely to be causal.

Educational health disparities in part reflect differences in health behaviors in adulthood by level of schooling, such as differences in diet, physical activity, or smoking ([Conti and Heckman, 2010](#); [Pampel et al., 2010](#)). For example, adults with more education are more likely to quit smoking ([de Walque and Damien, 2010](#)). Educational gradients in adult smoking, however, are largely explained by never smoking rather than quitting, and smoking typically initiates while schooling is in progress ([Maralani, 2013, 2014](#)). These patterns suggest that, in addition to studying health behaviors in adulthood, we need to take a life course view of how educational inequalities in health behaviors emerge across childhood and adolescence ([Braveman and Barclay, 2009](#); [Maralani, 2014](#); [Widome et al., 2013](#)).

In this regard, a life course paradigm illuminates health disparities as they emerge. This paradigm defines health as a multifaceted, age-graded process involving the accumulation of health behaviors, outcomes, and risk factors, rather than as an aggregated, distal outcome such as adulthood mortality or comorbidity rate. By focusing on “norms, expectations, and constraints that characterize the age grades” ([Crosnoe and Riegle-Crumb, 2007:268](#)), a life course approach situates individuals within changing social roles and contexts linked to homes, schools, and neighborhoods. For smoking disparities in particular, the life course paradigm distinguishes any cumulative effects of childhood socioeconomic advantage from transitions into adult roles and achieved adult SES, while recognizing that such transitions partly reflect early-life advantages ([Pampel et al., 2014](#)). In short, life course research integrates factors across childhood, adolescence, and adulthood to illuminate the “how” and “when” — the specific mechanisms and patterns of timing — driving the association between education and health outcomes. It also describes the direct effect of childhood health on health in adulthood ([Elo, 2009](#)).

In the US, those without a college degree are more than twice as likely to currently smoke and also much less likely to have never smoked as those with at least a Bachelor’s degree ([Maralani, 2013](#); [Pampel et al., 2010](#)). Socioeconomic disparities in smoking and overall rates of smoking in the UK are comparable ([Huisman et al., 2005](#); [Marmot, 2006](#)). Yet disparities in smoking by eventual educational attainment, such as degrees eventually completed or

standardized achievement tests, are present even by grade school or early adolescence ([Maralani, 2014](#); [Widome et al., 2013](#)), suggesting that educational attainment may proxy for earlier school-related experiences or factors that jointly determine both education and health ([Farrell and Fuchs, 1982](#)). It remains unclear, however, when and how educational factors and health behaviors become intertwined. Due to data limitations, these studies have not evaluated antecedent characteristics prior to adolescence.

Our study extends the existing literature by conducting a life course investigation of emergent disparities in smoking using the 1970 British Cohort Study (BCS). [Conti and Heckman \(2010\)](#) utilize BCS data to identify and estimate the contributions of life course factors to educational disparities in smoking. They focus, however, solely on factors present at age 10 as they relate to daily smoking at age 30, leaving the contributions of early life and adolescence unclear. [Maralani \(2014\)](#) connects characteristics from adolescence to adulthood, but lacks data from childhood. As such, neither study is able to provide a comprehensive life course view. Our study bridges these approaches and extends them, by connecting smoking-related factors from infancy and early life to factors from adolescence and young adulthood.

3. The links between smoking and education across the life course

Educational disparities in health are well-theorized, at least with regard to adulthood ([Cutler and Lleras-Muney, 2010](#); [Link, 2008](#); [Mirowsky and Ross, 2003](#)). Individuals with more schooling have more information, money, power, autonomy, and social support at their disposal for securing or producing better health. However, in order to understand educational disparities in adult health behaviors such as smoking, which originate much earlier in the life course, our existing theories need to refocus on mechanisms operating in childhood and adolescence ([Braveman and Barclay, 2009](#); [Case and Paxson, 2010](#); [Maralani, 2014](#)). Our study takes this approach by studying characteristics, endowments, and experiences in childhood and adolescence as predictors of smoking status at ages 16 and 26.

Education is a multidimensional process that typically unfolds across childhood, adolescence, and young adulthood. The process that eventually results in years of school completed involves characteristics of schools as institutions, the cognitive and social and emotional skills of children, their expectations about the future, the characteristics of their peers and families of origin, and their commitment to school completion. These different parts of the schooling process inform how young people perform in school, as well as their school experiences, major school transitions, and final educational attainment in adulthood. Meanwhile, cognitive, social, peer and socioeconomic factors that define the schooling process also carry well-established relevance to the initiation and progression of smoking trajectories across the life course ([Conti and Heckman, 2010](#); [Gilman et al., 2008](#); [Maralani, 2014](#)). Therefore, in the analyses that follow, we capture several dimensions of educational experiences, which may be correlated with years of education completed as well as smoking initiation and quitting during adolescence and young adulthood.

3.1. Data and methods

Our analyses use the 1970 British Cohort Study to estimate the relative contributions of early life, childhood, and adolescent characteristics to emergent educational disparities in smoking outcomes. These data offer a unique opportunity for understanding the origins of socioeconomic health disparities from childhood to

Download English Version:

<https://daneshyari.com/en/article/952241>

Download Persian Version:

<https://daneshyari.com/article/952241>

[Daneshyari.com](https://daneshyari.com)