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Article

The association between non-standard employment, job insecurity and health among British adults with and without intellectual impairments: Cohort study

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ABSTRACT

We sought to investigate the association between employment conditions and health among working age British adults with and without intellectual impairments. Using data from the 1970 British Cohort Study, we undertook a series of cross sectional analyses of the association between employment conditions and health (self-reported general health, mental health) among British adults with and without intellectual impairments at ages 30, 34 and 42. Our results indicated that: (1) British adults with intellectual impairments were more likely than their peers to be exposed to non-standard employment conditions and experience job insecurity; (2) in both groups exposure was typically associated with poorer health; (3) British adults with intellectual impairments in non-standard employment conditions were more likely than their peers to transition to economic inactivity; (4) among both groups, transitioning into employment was associated with positive health status and transitioning out of employment was associated with poorer health status. British adults with intellectual impairments are significantly more likely than their peers to be exposed to non-standard and more precarious working conditions. The association between employment conditions and health was similar for British adults with and without intellectual impairments. As such, the study found no evidence to suggest that research on causal pathways between employment and health derived from studies of the general population should not generalize to the population of people with intellectual impairments.

1. Introduction

There exists a well-established link between employment status and health, with unemployment being associated with poorer health (Avendano & Berkman, 2014; Bambra & Eikemo, 2009; Bartley, Ferrie, & Montgomery, 2006; Dooley, Fielding, & Levi, 1996). This association appears to be accounted for by two distinct processes; health selection (healthier people are more likely to gain and retain employment), and specific health benefits associated with employment (Avendano & Berkman, 2014; Bartley, 1994; Bartley et al., 2006; van der Noordt, Jzelenberg, Droomers, & Proper, 2014; van Rijn, Robroek, Brouwer, & Burdorf, 2014). The latter is considered of sufficient importance that ensuring equality of access to non-exploitative employment is commonly considered a key policy option for reducing health inequities (World Health Organization, 2008; World Health Organization Regional Office for Europe, 2014).

It is also clear, however, that some forms of employment are more likely to be conducive to promoting health and wellbeing than others. Most obviously poor working conditions (e.g., those associated with high rates of exposure to material hazards and/or excessive job demands) may be detrimental to health (Berkman, Kawachi, & Theorell, 2014). More recently, attention has also begun to focus on the association between exposure to 'non-standard' and 'precarious' employment conditions and health (Benach et al. 2014; Quinlan, Mayhew, & Bohle, 2001). The International Labour Organization defines non-standard employment (NSE) as comprising of four different employment arrangements that deviate from the 'standard employment relationship', understood as work that is full time, indefinite, as well as part of a subordinate relationship between an employee and an employer. These four conditions are temporary employment, part-time or on call work, multi-party employment relationships (e.g., sub-contracted labour) and disguised employment or dependent self-

Abbreviations: AORs, Adjusted odds ratios; BCS70, 1970 British Cohort Study; EI, Economic inactivity; NSE, Non standard employment; SE, Standard employment

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employment (International Labour Organization, 2016). While NSE has become more common, and is expected to continue to proliferate, there is marked variation between countries in the extent to which NSE has become normative (International Labour Organization, 2016).

Although there is no one agreed definition of precarious employment, it is generally considered to be employment that is insecure and where the employee's power and ability to negotiate work conditions is limited (Benach et al., 2014). While precariousness is higher among workers in NSE (International Labour Organization, 2016), it is not exclusively associated with NSE. NSE and/or precarious employment has been associated with a range of indicators of negative health outcomes including: workplace injuries, disability claims, sick leave, poor knowledge of workplace safety measures, and self-reported mental and physical health status (Benach et al., 2014; Bohle, Quinlan, & Mayhew, 2001; International Labour Organization, 2016; Quinlan et al., 2001). However, there is also evidence to suggest that NSE may provide an effective pathway into standard employment for people who are economically inactive (International Labour Organization, 2016).

Policies that seek to reduce health inequity need to take account of the specific situation of groups who are either more likely to be exposed to established social determinants of poor health or who may be particularly vulnerable to the effects of exposure (World Health Organization, 2011; World Health Organization Regional Office for Europe, 2014). People with disabilities are one such group (Emerson et al., 2011). While it is clear that people with disabilities have significantly reduced access to employment (Australian Bureau of Statistics, 2015; Roulstone, 2012; World Health Organization and the World Bank, 2011), very little is known about the employment conditions of people with disabilities who are employed and the association between employment conditions and health for people with disabilities. The available evidence suggests that: (1) in the U.S. people with disabilities were twice as likely to be in NSE than non-disabled Americans (Schur, 2002a, 2002b); (2) if in NSE, disabled Americans are less likely than non-disabled Americans in NSE to receive employer sponsored benefits, more likely to be low paid, more likely to transition to economic inactivity and less likely to transition to standard employment (Schur, 2002a); (3) in Australia employed people with disabilities (especially those with self-reported intellectual impairments) are more likely to experience job insecurity and other employment adversities than non-disabled employees (LaMontagne, Krnjacki, Milner, Butterworth, & Kavanagh, 2016; Milner, Aitken et al. 2015; Milner, Krnjacki, Butterworth, Kavanagh, & LaMontagne, 2015); and (4) the strength of association between employment adversities and poor mental health is similar for employees with and without disabilities (Milner, Krnjacki et al., 2015).

Disability is associated with a wide range of health conditions or impairments and increasing evidence suggests that some impairments are associated with greater levels of disadvantage. For example, people with disabilities with intellectual impairments have much lower rates of employment than people with disabilities generally (Australian Bureau of Statistics, 2015; Berthoud, 2006; Public Health England, 2016).

In this paper we investigate the association between non-standard and precarious employment conditions and health among two groups of people with intellectual impairments; people with intellectual disability and people with borderline intellectual functioning. Intellectual disability refers to a significant general impairment in intellectual functioning that is acquired during childhood. It is commonly defined as scoring more than two standard deviations below the population mean on tests of general intelligence (IQ < 70). While estimates of the prevalence of intellectual disability vary widely (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011), it has been estimated that approximately 2% of the adult population of England have an intellectual disability (Public Health England, 2016). Borderline intellectual functioning is most commonly defined as scoring between one and two standard deviations below the population mean on tests of general intelligence (IQ 70–84), with an estimated prevalence of 12–15% of the adult population (Peltopuro, Ahonen, Kaartinen, Seppala, & Narhi, 2014; Salvador-Carulla et al. 2013). It is well established that adults with intellectual impairments have significantly poorer health than their peers and that this difference is, to an extent, related to exposure to more adverse living conditions (Emerson & Hatton, 2014). However, very few population-based studies have examined the employment conditions of people with intellectual impairments who are employed and the association between employment conditions and health among people with intellectual impairments. This omission is particularly stark for people with borderline intellectual functioning (Peltopuro et al., 2014). Evidence does suggest, however, that adults with intellectual disability in employment have better self-rated general health than economically inactive adults with intellectual disability (Emerson & Hatton, 2008; Emerson, Hatton, Robertson, & Baines, 2014).

Given the dearth of existing studies in this area, the aims of the present paper are: (1) to describe the conditions under which people with intellectual impairments were employed; (2) to determine whether the association between non-standard or precarious employment conditions and health is similar for adults with and adults without intellectual impairment; and (3) to describe transitions between employment conditions over time for people with and without intellectual impairments.

2. Methods

We undertook secondary analysis of data from eight waves of the 1970 British Cohort Study (BCS70). Details of BCS70 are available in two cohort profiles (Brown, 2014; Elliott & Shepherd, 2006) and in an extensive series of technical reports and supporting documentation (e.g., interview questionnaires) that are available for download from the UK Data Service (https://www.ukdataservice.ac.uk/). Key methodological aspects of the study are briefly summarised below.

BCS70 is following up over 17,000 children born during one week in the UK in 1970. In the first wave of data collection (soon after birth) information was collected from midwives on 17,198 infants (the cohort members). Since then, information has been collected on various aspects of the lives of cohort members at irregular intervals (age 5 n = 12,939, age 10 n = 14,350, age 16 n = 11,206, age 26 n = 8654, age 30 n = 10,833, age 34 n = 9316, age 38 n = 8874 and age 42 n = 9717) (Hacker et al. 2010; Ketende, McDonald, & Dex, 2010; TNS BMRB, undated). The surveys cover a wide range of issues such as: health; health behaviours; wellbeing; educational attainment; employment and occupation; financial status; social and civic participation; social support; family formation and crime. Data collection in adulthood has been by postal survey (age 26) and computer aided interviews with study members (ages 30, 34, 38, and 42). At age 38 the interview was conducted via telephone. At all other ages the interviews were conducted face-to-face. BCS70 is currently managed by the Centre for Longitudinal Studies at University College London (http://www.cls.ioe.ac.uk/) and is funded by the UK's Economic and Social Research Council (http://www.esrc.ac.uk/). Confidentialised data from the age 5, 10, 16, 26, 30, 34, 38 and 42 follow-up surveys were downloaded from the UK Data Service (Butler & Bynner, 2016, 2017; Butler, Dowling, & Osborn, 2016; Bynner, 2016; Centre for Longitudinal Studies, 2016a, 2016b, 2016c, 2016d).

2.1. Identifying participants with intellectual impairments

While BCS70 included direct measurements of child cognitive functioning at ages 5, 10 and 16 (Parsons, 2014), at no age were complete validated tests of IQ administered. Instead, a range of brief tests were administered, some drawn from validated tests of IQ, others assessing attainment that is likely to be related to IQ. In similar circumstances a number of previous studies have used factor analytic procedures to establish the presence of a general cognitive ability factor across tests (traditionally named '*g*') and, if present and accounting for