

Summary Report

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An examination of the relationship between adolescent mental health and educational outcomes in early adulthood: Secondary analysis of Understanding Society data wave 1 to wave 8

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NOTE: The full technical report underpinning this research is available from the research team on request: Tregaskis, O, Nandi, A. and Watson, D. An examination of the relationship between adolescent mental health and educational outcomes in early adulthood: Secondary analysis of Understanding Society data wave 1 to wave 8. Technical report prepared as part of the ESRC What Works Wellbeing programme – Work, Learning and Wellbeing (R206034).

How important is adolescents' mental health to the future educational outcomes for boys and girls? The report examines the relationship between adolescent mental health and subsequent educational outcomes in early adulthood. We are particularly interested in educational outcomes in early adulthood because the educational attainment at the end of compulsory education in the UK is a significant transitioning stage for young people determining their future labour market participation.

Previous large scale survey work suggests that an individual's wellbeing resources may be a factor associated with low qualification and qualification based progression in the labour market (WWWB briefing 2017a; WWWB briefing, 2018b; Sabates and Hammond, 2008; Dolan, Fujiwara and Metcalfe (2012).

But the causal nature of the relationship between wellbeing and educational attainment is difficult to identify because it is complex being influence by a range of individual and societal factors, and dynamic fluctuation at key transition points over the life course. Nevertheless, training and development programs aimed at helping adults with poor mental health and wellbeing concerns have been found to be effective in re-engaging individuals with their learning programmes and performance (WWWB briefing 2018). However, the period of transition before adulthood has received less attention and forms the focus of these analyses.

Recent concern over the decline in childhood wellbeing (Children's Society, 2018) coupled with emerging evidence of the gendered nature of wellbeing i.e. boys and girls experience different wellbeing challenges (Children's Society, 2016) highlights further the imperative to focus on the adolescent to adulthood transition phase. We are interested in understanding how important the mental health and wellbeing of adolescents is for their educational attainment in early adulthood and the factors that might explain any variation between girls and boys.

We use data from the first 8 waves of Understanding Society (2009-17), a longitudinal household panel survey, where sample members from age 10 onwards are interviewed every year. The analysis utilises interview responses across multiple years during this period for 681 boys and 785 girls. We measure their educational attainment in early adulthood by identifying whether they achieved A-level (equivalent) or higher by age 18.

We measure mental health and wellbeing using three age-dependent measures, namely the Strengths and Difficulties questionnaire (SDQ) at age 14-15 which is specifically designed for young people; General Health Questionnaire (GHQ) at age 16 and 17 which is used for adult populations; the life satisfaction measure at age 16 and 17, which is used for adult populations. All wellbeing and mental health measures are coded so that higher scores reflect better wellbeing and mental health.

We find that girls have poorer mental health and wellbeing than boys at all these ages but a higher percentage/proportion of girls achieve A-levels than boys. Specifically, in our sample, the average (reversed) total SDQ score, which ranges from 0 to 35, is 25.1 for boys and 24.4 for girls. While 58% of girls achieve A-levels

via the academic route by age 18, only 52% of boys do so. The numbers for A-level achievement by any route (academic and vocational) is 71% for girls and 66% for boys.

Looking at the relationship between mental health and educational outcomes we find:

1. Better mental health measured at different stages of adolescences is generally associated with better educational outcomes for boys and girls.
2. However, there are gender differences in the associations between adolescence mental health and educational attainment, with mental health being more strongly associated with educational outcomes for boys than for girls. The strongest association of mental health and educational outcome is for mental health measured at 14-15 years.
3. The strength of the association between mental health and educational outcomes is greater when considering educational attainment through the academic pathway, but the gender distinction remains. In this case, a boy with 10% higher mental health score at age 14-15 (that is, 3.5 points higher scores on a 35 point scale) increases his likelihood of getting A-levels via any route 7.5% (statistically significant at 1% level of significance) and while this is only 2% for a girl but this association is not statistically significantly different from zero.
4. The differences in the mental health effect on educational outcome for girls can be explained in terms of other individual and parental characteristics and adolescent behaviours that are also found to correlate with girls' mental health. However, that is not the case for boys. For boys, the net association is almost the same as the overall association: 21% higher likelihood of getting an A-level via an academic route and 7% via any route. For girls, the net associations are 3% and 2%, respectively, but neither is statistically significantly different from zero.

Practical Implications of the research findings:

Wellbeing matters in its own right and wellbeing matters to educational attainment: The findings demonstrate that mental health and wellbeing at age 14-15 has a significant and positive association with educational attainment at age 18, and this association is stronger for A-level achievement via the academic route. This suggests that investing in activities that enable young people to develop and protect their mental health and wellbeing is likely to both enhance not only their sense of happiness and subjective wellbeing, but also supports them longer-term through gaining the human capital or qualification that in turn can facilitate progression to further educational opportunities or work opportunities.

Need for domain specific models: There are gender differences in the wellbeing effect on educational attainment that suggest the actions to support boys and girls may need to differ and be considered in the context of the educational environment. This may suggest a call for a better understanding of domain specific wellbeing capabilities, in this case educational wellbeing. This would have parallels with

workplace or community wellbeing whereby domain specific conceptual and theoretical models are used to guide policy and practice interventions.

Wellbeing and Educational outcome pathways for boys and girls differ:

For boys the wellbeing effect on educational attainment is stronger than for girls and this effect remains when we take account of other factors known to be influencing wellbeing. **For girls** the results lead to a slightly different interpretation. When other factors influencing mental health and wellbeing are taken into account then the association between mental health and educational attainment weakens. This suggests that in relation to education, there are wellbeing specific factors that our models have not accounted for that explain the association. For example, there may be educational practices that are supporting the engagement of boys in some way. These may be practices supporting the emotional or behavioural wellbeing capabilities of boys in ways that help translate into better educational outcomes. This finding would suggest more research and conceptual work is required to gain a more comprehensive understanding of wellbeing for boys, and conceptual develop that aims to understand how wellbeing is experienced in relation to the educational environment.

The finding that girls in our sample have poorer mental health but better educational outcomes than boys suggests that girls perform well even when experiencing relatively poor wellbeing. This might be described as an unintended consequence of the conscientious high performer. There is a danger that the strong academic performance may be masking the cost to girls' individual wellbeing. Equally, girls' may be using their social-emotional capabilities to enable them to hide how they are coping and prevent them from seeking or being identified as in need of mental health support.

The wellbeing-educational outcome link is much stronger when examining academic qualification pathways, rather than any pathway (vocational and academic route). This suggests that having good mental health and wellbeing is more critical in the context of academic performance. Or put alternatively, lower mental health and wellbeing makes it more difficult for individuals to meet the academic performance expectations. This might suggest that student support is particularly critical with respect to how students can mitigate anxiety around for example exam performance.

Technical note on causal interpretation: By measuring mental health at ages prior to educational attainment, we aim to reduce reverse causality. However, to the extent that later educational attainment is associated with earlier educational success which could influence mental health we are not able to eliminate problems of reverse causality entirely. We did take into account a vast array of individual, parental, neighbourhood and behavioural factors which could influence both adolescent mental health and their educational attainment during early adulthood. But we are aware that there may be other individual factors such as personality, locus of control, perseverance and contextual factors such as school and neighbourhood environments which we could not control for in these models. Thus the estimated coefficients of adolescent mental health in our models of achieving A-level (equivalent) by age 18 should be interpreted with caution, that is, these should not be interpreted as being causal in nature.