

Institution: University College London		
Unit of Assessment: UoA 23 Education		
Title of case study: Tackling mental ill-health among young people across the UK: the data and research evidence that underpin national policy and planning		
Period when the underpinning research was undertaken: 2000 to 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Emla Fitzsimons	Professor of Economics and Director of the Millennium Cohort Study (MCS)	October 2013 to present
Praveetha Patalay	Associate Professor	April 2015-June 2016; June 2018 to present
Period when the claimed impact occurred: 2017 to 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words) <p>Until recently, there was growing concern among policymakers, health care professionals and the wider public that mental health issues amongst young people were escalating, but with no nationally representative research to quantify the extent of the issue. By using the Millennium Cohort Study (MCS), a major UCL-led longitudinal birth cohort study, Fitzsimons and Patalay were able to provide such figures, examine changes in mental health and other health behaviours over time, and distinguish between mental ill-health and mental wellbeing in young people. Through Fitzsimons' and Patalay's close engagement with policy-makers, the findings have led to young people's mental health becoming a public health priority, the extension of mental health measures and services to include wellbeing, and the use of risk and protective factors to help identify those most at risk.</p>		
2. Underpinning research (indicative maximum 500 words) <p>Millennium Cohort Study The MCS, designed and run by UCL Institute of Education Principal Investigator Fitzsimons, collects extensive data from over 19,000 young people born in the UK in 2000–02 and their families at regular intervals, every two to four years, through home-based surveys. The following features of the study combine to make it uniquely primed to uncover how mental health and wellbeing change through childhood and adolescence, for whom and why: (a) it is nationally representative; (b) it has multiple measures from the same people at different ages, including on the socio-emotional wellbeing of children and adolescents (hereon: young people); and (c) it is accompanied by uniquely rich data from parents and children, covering many dimensions of life – including early childhood education, parenting, education and schooling, physical and mental health, poverty and economic circumstances. Each MCS survey is designed in consultation with leading experts across a wide range of academic disciplines as well as several government departments. Data from the study are freely shared with researchers via the open access ESRC-funded data repository, the UK Data Service, accompanied by detailed user documentation [e.g. User Guide to the Data, Technical Report on Fieldwork] and scientific publications about the data (e.g. R1). A comprehensive programme of user training and support is also provided by the team.</p> <p>Methodology R2 drew on all five waves of data (available at the time) from the MCS to explore the prevalence of poor mental health amongst these children at ages 3, 5, 7 and 14 based on</p>		

surveys of their parents. In sweep 5, at age 14, young people answered questions about their mental health difficulties for the first time using the Short Moods and Feelings Questionnaire.

R3 utilised data from two sweeps (ages 11 and 14) of the MCS, a sample of 9553 children, to investigate a range of childhood socio-demographic, human capital, family and wider environment risk and protective factors.

R4 used five waves of data spanning ages 3 to 14 from the MCS and employed fixed effect models to examine the effect of paternal absence on children's mental health (i.e. externalising and internalising problems) in a sample of 6,245 children.

R5 used two cohorts of UK adolescents born a decade apart (1991/92: Avon Longitudinal Study of Parents and Children (ALSPAC) and 2000/02: MCS) to identify changes in mental health. Participants from the larger MCS sample were matched or weighted to make them comparable to the ALSPAC sample on key demographic factors including sex, age, ethnicity, maternal education and maternal age at birth. This was done using propensity score matching and entropy balancing.

In **R6** an ecologic framework of correlates including individual family, social, and wider environmental factors were examined in 12,347 children at age 11 from sweep 5 of the MCS.

Throughout, Fitzsimons and Patalay used rigorous quantitative methods suitable for longitudinal datasets and applied appropriate statistical techniques (e.g. on weighting, and missing data) to ensure findings were generalisable to the population of this generation, thereby ensuring value for informing policy and practice on young people's mental health.

Fitzsimons and Patalay have used the MCS to study mental health and wellbeing among young people across the UK, leading to a range of influential findings:

1. Among young people, one in six 14-year-olds reported high levels of depressive symptoms, rising to one in four girls, underlining the extent of mental ill-health among young people today and the need for urgent policy action (**R2**).
2. Children with higher cognitive ability are at greater risk of adolescent depressive symptoms, and risk factors including socio-economic disadvantage are more salient in the development of symptoms in young women compared to young men (**R3**).
3. Family break-ups in later, but not early, childhood are detrimental to adolescent mental health (**R4**).
4. By comparing two cohorts of UK 14-year-olds in 2005 and 2015, the findings showed that depressive symptoms and self-harm have increased, antisocial and substance use behaviours have decreased and other outcomes like obesity, insufficient sleep and poor body image have increased (**R5**).
5. Correlates of children's mental illness and wellbeing are largely distinct, stressing the importance of considering these concepts separately and avoiding their conflation. In distinguishing between young people's mental ill-health and wellbeing, the findings demonstrated that high (low) wellbeing and good (poor) mental health are not synonymous with each other. The wide-ranging factors associated with mental health difficulties and wellbeing can be helpfully conceptualised at several levels, including the individual, family, school and wider environment (**R6**).

There was no other national data source that could provide nationally representative prevalence figures of this kind – and it remains the case that MCS is the only one that can do so within a longitudinal context. The embedding of this information within a longitudinal study makes it all the more powerful for understanding drivers of mental health, including from very early in life. In recognition of the outstanding research and its contribution to policy, Fitzsimons and Patalay were winners of the Panel Choice Award in the ESRC Celebrating Impact Prize 2020. The research and associated impact activities were funded by the Economic and Social Research Council as part of the age 14 sweep of the Millennium Cohort Study (grant amount: GBP8,400,000).

3. References to the research (indicative maximum of six references)

R1 Joshi, H. & Fitzsimons, E. (2016) [*The Millennium Cohort Study: the making of a multi-purpose resource for social science and policy*](#). *Longitudinal and life course studies* 7(4), 409–430. DOI: 10.14301/llcs.v7i4.410 www.llcsjournal.org/index.php/llcs/article/view/410

R2 Patalay, P. & Fitzsimons, E. (2017) *Mental ill-health among children of the new century: trends across childhood with a focus on age 14*. Centre for Longitudinal Studies, London. <https://www.ucl.ac.uk/ioe/file/13867>

R3 Patalay, P. & Fitzsimons, E. (2018) Development and predictors of mental ill-health and wellbeing from childhood to adolescence, *Social Psychiatry and Psychiatric Epidemiology*, 53(12), 1311–1323. <https://doi.org/10.1007/s00127-018-1604-0>

R4 Fitzsimons, E. & Villadsen, A. (2019) Father departure and children's mental health: how does timing matter? *Social Science and Medicine*, 222, 349–358. <https://www.sciencedirect.com/science/article/pii/S0277953618306427>

R5 Patalay, P. & Gage, S.H. (2019) Changes in millennial adolescent mental health and health-related behaviours over 10 years: a population cohort comparison study, *International Journal of Epidemiology*, 48(5), 1650–1664.

<https://livrepository.liverpool.ac.uk/3035807/1/submitted%20manuscript.pdf>

R6 Patalay, P., & Fitzsimons, E. (2016) Correlates of mental illness and wellbeing in children: are they the same? Results from the UK Millennium Cohort Study, *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(9), 771–783.

<https://www.sciencedirect.com/science/article/pii/S0890856716302842>

Research quality indicators: publications that have been through a rigorous peer review process, ESRC award.

4. Details of the impact (indicative maximum 750 words)

Reach, significance and beneficiaries: In providing vital evidence to precede and inform the release of the Government Green Paper on Transforming Children and Young People's Mental Health Provision (Dec 2017), Fitzsimons' and Patalay's research raised the nation's awareness and understanding of the scale of mental ill-health among young people across the UK and underlined the urgent need for policy action. The scale of the problem was stark: the research estimated that one in four 14-year-old girls and one in ten boys of the same age were suffering high symptoms of depression (**R2**). As the MCS is representative of all individuals born in the UK at the turn of the millennium, this translates to 166,000 girls and 67,000 boys. In response the Chair of the Royal College of Psychiatrists' child and adolescent faculty said: '*This confirms that mental illness among young people has reached crisis point*' (**S1**). NHS England's national mental health director concurred: '*After decades in the shadows, children's mental health is finally in the spotlight, with more young people seeking help and years of unmet need being addressed*' (**S2**).

The MCS findings that distinguished population wellbeing and mental health, and examined different spheres of young people's lives and contexts (**R6**), have reframed policy-makers' approaches in this area. According to Public Health England (PHE) the work has helped '*to clearly communicate the case for a whole system response to children and young people's mental health*' (**S3**). As such, the research has exceptionally wide reach, with the ultimate beneficiaries being young people and their families across the UK, through the impacts it has on the work of policymakers in PHE and the Department for Education (DfE).

Mobilising the research findings

The first action critical to overall impact was the purposeful development of the research to fill major gaps in the knowledge base and provide evidence on the prevalence of mental illness among young people in the UK. The second was to time the research to be of highest possible value to policy needs – in particular, the work was rapidly accelerated to inform the 2017 Green Paper on 'Transforming Children and Young People's Mental Health Provision'. The researchers developed a briefing paper with the National Children's Bureau, and expedited a peer review to provide timely evidence.

To mobilise the impact of the research, Fitzsimons and Patalay developed an infographic (**S4**), based on the insights that high cognitive ability and socio-economic disadvantage are key risk factors (**R3**), to communicate the findings to non-academics. The infographic has been praised for its ability to express complex ideas in an accessible way. Evidencing this, PHE's Programme Manager wrote *'we are proposing to commission an abbreviated mapping review of evidence for interventions that show promise in positively impacting on factors influencing mental health outcomes for children and young people. We are interested in the idea of using the findings summarised so helpfully in your infographic as a framework for helping define the scope of the review'* (**S5**). PHE further praised the infographic for its ability to *'readily communicate the value of the research findings and potential for translation to practice'* (**S3**). It has been used in several contexts, not only in defining and underpinning the conceptual and methodological approach of the PHE Special Interest Group (**S6**), but also by Public Health practitioners as seen in the Annual Report of the Director of Public Health for Somerset (**S7**).

Reframing policy-makers' approaches to mental health and wellbeing

1. Impact on PHE:

PHE have used the research's distinction between mental ill health and well-being (**R6**) to inform a review of existing metrics within the 'Children and Young People's Mental Health and Wellbeing' profile and to consult on the best measures to use for young people's mental wellbeing and associated risk and protective factors. As part of this process PHE convened a Special Interest Group from July 2018-March 2019, of which Fitzsimons was part, and published its recommendations (**S6**). In the report the contribution and impact of **R6** is acknowledged:

*'This report has been informed by the findings from an analysis of data from the Millennium Cohort Study (**R6**) and an understanding of the relevance of complex systems thinking on tackling children and young people's mental health' (p10)... The Centre for Longitudinal Studies analysis highlights factors influencing both wellbeing and mental illness in children and young people... These findings have led to Recommendation 1: Develop an outcomes framework and indicators to guide research, evaluation and practice in relation to children and young people's mental health. Include mental wellbeing and risk and protective factors spanning individual, family, learning environment, community and structural domains' (p21/2), with seven subsequent actions to evidence its impact (p30) (**S6**).*

The Special Interest Group's report further states *'The Centre for Longitudinal Studies has published a report (**R6**) highlighting statistically significant risk and protective factors found to influence children's mental wellbeing and mental illness by the age of 11 years. The infographic summarised in Figure 4 highlights these factors, categorised according to whether they operate across an individual, family, school/community or wider socio-economic domain'*. Figure 1 of the report also utilises the conceptual framework provided by the infographic. The report contains a specific acknowledgement, to *'Emla Fitzsimons for sharing data findings of relevance to children and young people's mental health and wellbeing from the Millennium Cohort Study' (p4) (**S6**).*

As a further response to the research and in follow up to the Special Interest Group's report, PHE is using the findings to consult on whether the researchers' categorisation of risk and protective factors (**R3**), which also highlights opportunities for action across the spheres of young people's lives, can be used to inform local commissioning decisions. PHE established a steering group (February 2020) to take forward the SIG's recommendations, with Fitzsimons as a member. The aim was to identify a framework and desirable set of indicators for populating a children and young people's mental health and wellbeing outcomes profile that can be used at a local and national level. In June 2020, a first draft of the outcomes framework was shared with the group, proposing the main metrics to be used as population measures.

PHE also used the findings to *'inform conversations with policy leads in the Department of Health and Social Care about the significance of risk and protective factors that underpin public health outcomes – including not only physical health, but also mental health and wellbeing' (**S3**).* This has fed through to the Health Prevention Green Paper 'Advancing our health: prevention in the 2020s', where mental health is prioritised and reference is made to 'parity of esteem' in how

conditions are prevented (**S8**). It states that *'more attention is needed on improving our mental health and wider sense of wellbeing'* and references the need to take an approach that tackles risk factors and invests in protective factors (p42).

2. Impact on the DfE

The DfE is using the research findings to guide decision making around young people's mental health and the impacts that can be expected from school-based interventions to support their mental health (**S9**, **S6**). The leader of the Mental Health, Character and Wellbeing analysis team for the DfE, commented: *'Results from the Millennium Cohort Study and the resulting infographic that illustrates the findings are widely used by me and several colleagues in the Department for Education. The main reason we keep coming back to the research and the resulting infographic so much is that it really reinforces the importance of being clear what you are measuring and/or seeking to have an impact on. We have used it numerous times at a wide range of levels, including with ministers and senior civil servants, to make the case that mental ill-health and wellbeing are not the same thing and don't share all the same common factors, and this helps inform policy around what impacts we might expect from different actions'* (**S9**).

Evident from this testimonial is how Fitzsimons' and Patalay's work has *'provided a conceptual framework for how we [the DfE] approach children's mental health in schools and more widely in the community'* (**S9**). Actions arising from Recommendation 1 of the PHE Special Interest Group report, which is a direct result of the research include for (a) DfE to publish a State of the Nation report on children's and young people's wellbeing, working with the Office for National Statistics (published October 2020), and (b) DfE to publish wellbeing measurement advice for schools.

Influencing wider discourse

Through extensive media engagement Fitzsimons and Patalay have influenced public discourse about wellbeing and mental health. Key articles citing the research were shared widely (Shareaholic estimate of share counts relating to (**R1**): 29,652). Patalay appeared on programmes including BBC4 Today and Sky News. Front page Guardian headlines 'Depression risk for bright girls and those in poor families' followed (**R3**). There was coverage for (**R4**) and (**R5**) by BBC News, the Times, Guardian, Telegraph, Daily Mail, Huffington Post and the Independent, and Fitzsimons featured on the BBC Inquiry podcast, 'Do children of married parents do better?', and on the UCL recording 'Children's mental health: an urgent issue' alongside the Children's Society.

In addition, Fitzsimons and colleagues hosted an ESRC Festival of Social Science event; presented at a Conservative Party roundtable on youth mental health, the PHE annual conference, and held meetings with national/local government. In summary, the findings about the prevalence of mental illness among young people, the distinction between wellbeing and mental health, and the identification of risk and protective factors have been a catalyst for policy change and practice at a national level.

5. Sources to corroborate the impact (indicative maximum of 10 references)

S1 Chair of the Royal College of Psychiatrists [Independent 20 September 2017](#)

S2 NHS England's National Mental Health Director [The Guardian 18 May 2018](#)

S3 Testimonial Programme Manager Public Health England.

S4 [Infographic](#)

S5 Email from Programme Manager (Children, Young People & Families Team) at Public Health England, to Emla Fitzsimons 11/7/18.

S6 Public Health England Special Interest Group Report (October 2019).

S7 Annual Report of the Director of Public Health for Somerset 2018, pages 20-21.

S8 HM Government (2019) Advancing our health prevention in the 2020s, London: Crown Copyright, page 42.

S9 Testimonial Team leader – Mental Health, Character and Wellbeing analysis team, DfE.