Institution: University of Leicester

Unit of Assessment: 4 – Psychology, Psychiatry and Neuroscience

Title of case study: Quantifying adversity: Policy-led interventions to prevent mental illnesses, self-harm and suicide

Period when the underpinning research was undertaken: 2000 - 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:**
Traolach (Terry) Brugha	Professor of Psychiatry	1987 – present

Period when the claimed impact occurred: September 2014 to January 2020

Is this case study continued from a case study submitted in 2014? N

1. Summary of the impact (indicative maximum 100 words)

University of Leicester Epidemiological Psychiatry research on adult mental health disorders (MHD), led by Professor Brugha made significant advances in quantifying the links between MHDs and self-harm, suicide, co-morbid diseases and premature death – particularly for young people and older adults. Brugha's statistical evidence informed the UK government, the National Suicide Prevention Alliance, Samaritans, and the NHS to devise intervention policies to prevent self-harm and suicide. These measures reduced preventable UK MHD-comorbid deaths by 2.5% (2017) and in-patient suicides by 50% (2019); and directly informed the NHS Long-Term Plan (2019).

2. Underpinning research (indicative maximum 500 words)

Childhood maltreatment and adult mental health disorders

Brugha's research made significant advances in quantifying links between childhood adversity and adult mental health disorders. Brugha led the clinical development and analyses for the large-scale survey programme: *The Adult Psychiatric Morbidity Survey* (*APMS*) (2000 – 2014) [**R1**], and co-authored *The Global Burden of Disease Study (GBDS)* (2010-2016) [**R3**], a secondary analysis of surveys and hospital and health care data—which also drew on [**R1**].

Since 2000, Brugha and team surveyed adults 16 years old and up through the ONS- and NHS-funded *APMS* [**R1**] (2000: England, Scotland, Wales; 2007, 2014: England) to monitor UK adult mental illness rates. [**R1**] employed Brugha's extensively used and independently validated method for measuring adverse life events: *The List of Threatening Experiences* (LTE) (1990). By incorporating Brugha's survey-led 'short list' of 12 LTE categories, [**R1**] was able to address all common and highly psychologically threatening stressful event categories. *APMS* (2014) revealed that 17% of adults (England) met the criteria for Common Mental Disorders (CMD)—anxiety, depressive and somatic complaints.

Furthermore, [**R3**] showed that rates of key conditions such as anxiety and depression have not improved, despite increases in treatment availability. Both [**R1**] and [**R3**] showed that CMD links carry long-term, increased risks for suicide and self-harm in over-16s, and require early intervention and prevention policies. Suicides are most preventable if individuals are in contact with mental health services [**R1, R3**]; yet the team identified that only 28% of men and 43% of women received medical or psychiatric treatment following attempted suicide [**R1**].

The Team's subsequent, large-scale surveys (2011 – 2018) confirmed that >25% of adult CMDs are attributable to adverse childhood experiences such as neglect and abuse, particularly non-consensual intercourse <16 years old, which increases the likelihood of psychosis in adulthood ten-fold [**R2**].

Increased mental illness in young women and 'Baby Boomers'

Brugha and team identified the particular need for early intervention policy for women 16-24; and adults 55-64 – groups at high risk for mental illness, suicide and self-harm [**R1**].

In 2014, >20% of women aged 16-24 reported CMD symptoms, compared with 8% of young men; and 12.6% reported post-traumatic stress disorder symptoms, versus 3.6% of men [**R1**]. The Team's extensive, repeated cross-sectional surveys of the general population in England (2000-2014) into the prevalence of non-suicidal self-harm (NSSH) [**R7**] highlighted the rise of NSSH across England over 14 years. NSSH increased in all young people aged 16-24 to nearly 1 in 5 [**R1, R7**]. By 2014, 1 in 4 women aged 16-24 reported to have self-harmed [**R1, R7**]. Despite >25% of young women having self-harmed in their lifetime, most did not seek professional help afterwards. Individuals who use self-harm as a long-term coping strategy increase the risk of the behaviour in others; and may lead to a higher suicide rate [**R1**].

Brugha's research also identified older adults at greater risk of CMD, with 16% of adults aged 55-64 accessing mental health treatment (versus 5.5% aged 16-24) [**R1**]. Lifetime self-harm and suicidal thoughts doubled in this age group and suicide attempts sextupled. Men in this age group have the highest rates of registered suicide in the UK [**R1**].

Overall, in 2014, >59% of all participants who had engaged in NSSH reported no consequent medical or psychological service contact, compared with >51% in both 2000 and in 2007. Male participants and those aged 16-24 years were less likely to have contact with health services [**R1**].

The 'global burden' of mental illnesses

These large-scale studies [**R3, R4, R5, R6**] measured healthcare performance in 195 countries (2018) [**R5**], in the UK (2013) [**R6**], and disability-adjusted life years in 21 UK regions 1990–2010 (2012) [**R4**]. The studies identified that stigma and poor healthcare access and/or performance, contribute to a 'global burden' of depression, anxiety, psychotic disorders and suicide attempts. As part of a global team of >100 researchers, Brugha et al's research demonstrates that, although more people were in treatment (2007–2014), the 'global burden' of CMD is rising as the older-age population grows [**R3**].

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

[R1]. McManus S, Bebbington P, Jenkins R, **Brugha T**. (eds.) (2016) *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014*. Leeds: NHS Digital. http://content.digital.nhs.uk/catalogue/PUB21748

[R2]. Bebbington PE, Jonas S, **Brugha T**, et al. "Child sexual abuse reported by an English national sample: characteristics and demography". *Social Psychiatry and Psychiatric Epidemiology 2011*; 46: 255–262. DOI: https://doi.org/10.1007/s00127-010-0245-8

[R3]. Global Burden of Disease Collaborative Network (**Brugha T**). *The Global Burden of Disease Study, 2010 – 2016. Health-related Sustainable Development Goals (SDG) Indicators 1990-2030*. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018. https://www.thelancet.com/gbd http://ghdx.healthdata.org/gbd-2016

[R4]. Murray, C. J., Vos, T., Lozano, R., Naghavi. . . . **Traolach S Brugha**. "Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010". *The Lancet*, Volume 380,

Issue 9859, 15 December 2012–4 January 2013, Pages 2197-2223. DOI: https://doi.org/10.1016/S0140-6736(12)61689-4

[R5]. Nancy Fullman, Jamal Yearwood . . . **Traolach S Brugha**. "Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016". *The Lancet*, Volume 391, Issue 10136, 2–8 June 2018, Pages 2190-2192. DOI: https://doi.org/10.1016/S0140-6736(18)30994-2

[R6]. Christopher JL Murray, Michael A Richards . . . **Traolach S Brugha**. "UK health performance: findings of the Global Burden of Disease Study 2010". *The Lancet*, Volume 381, Issue 9871, 23 – 29, March 2013, Pages 970-972. DOI: https://doi.org/10.1016/s0140-6736(13)60355-4

[R7]. Sally McManus, David Gunnell . . . **Traolach Brugha**, et al. "Prevalence of non-suicidal self-harm and service contact in England, 2000–14: repeated cross-sectional surveys of the general population". *The Lancet Psychiatry*, Volume 6, Issue 7, July 2019, Pages 573-581. DOI: https://doi.org/10.1016/S2215-0366(19)30188-9

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

Since 2014, Brugha's body of work has decisively demonstrated the need for mental health policies to focus on prevention and early intervention—not solely on treatment of identifiable cases—and the urgency to address healthcare access and treatment inequalities.

Influencing NHS funding and policies for mental health

The NHS directly used [**R3**] data and research methods to design the *NHS Long Term Plan* (2019) (LTP) "to aid future health-service spending plans" – citing MHD as one of the "biggest killers and disablers of our population" [**E2, E3a,b,c**]. As a condition for accessing LTP funds, NHS England requires all major national programmes and every local area across England to employ "measurable goals and mechanisms [for] narrowing health inequalities" within 10 years, specifically requiring "actions for . . . people with long term MHD" [**E2**].

Informing Public Health England (PHE) strategies

PHE relied extensively upon [**R2 – R5**] data to devise strategies to "reduce the burden of risk factors" of MHD-comorbid diseases [**E1a,b,c, E2**]:

- PHE's *Global Health Strategy 2014-2019* stated that [**R5**] "increased our understanding of trends in diseases, injuries and risks at global, regional and national levels" and "enabled regions and countries to compare the health of their populations." [**E1a**].
- Data and methodology from [**R2 – R5**] directly shaped PHE's new *Mortality Profile* (2018), which provided local authorities with data on premature deaths from MHD-comorbid diseases [**E1b**]. PHE had previously implemented recommendations from [**R5**] in the Longer Lives Programme, which reduced preventable CMD-comorbid deaths by 2.5% (2017) [**E2**].
- PHE used [**R2 – R5**] data to rank the top-ten causes of comorbidity and mortality (2010-2020), highlighting that depression and anxiety "remain major sources of morbidity" which are "likely to consume healthcare resources" [**E1c, E2**].
- PHE's *2020 NHS England* reports used [**R4**] findings to demand interventions to improve England's Healthcare Access and Quality Index scores, which rank in "the lowest 25% of our peer group" (EU, USA, Canada, Australia) [**E2, E1c**].

Suicide and self-harm prevention

Brugha's research [**R1, R7**] formed the basis for the UK Government and NGOs to improve health pathways and prevention laws, particularly for at-risk groups. The Chief Medical Officer (CMO) used [**R1**] data – that older males 55-74 have the highest *suicide* rate of all

populations – as evidence for their 2015 Annual Report, outlining a healthcare Suicide Prevention Framework for older males, including screening programmes [**E4**]. Brugha also authored the report's mental health chapter [**E4**].

Samaritans used [**R1**] statistics – that >25% of young women 16-24 reported *self-harming* at least once; and all young people 16-24 are more likely to *self-harm* than other age groups – in their *Suicide Statistics Report* (2019) to demand the government prioritises self-harm prevention for young people, and additional research on the links between suicide and self-harm [**E9**]. These [**R1**] statistics also underpinned the influential NatCen (the UK's largest independent social research agency) report raising awareness of the use of surveys to inform suicide and self-harm prevention work [**E6a,b**].

Reducing barriers for improved SSH care models

Brugha's discovery that >30% of suicides were under mental health services and >60% had seen their GP in the prior year [**R1, R5**] influenced the 2019 *House of Commons National Suicide Prevention Strategy* (NSPS) to recommend greater community and secondary mental health care [**E5**]. NSPS confirmed that these actions swiftly improved in-hospital patient safety: "[We] have more than halved the number of inpatient suicides in recent years due to improvements in patient safety." [**E5**].
APMS findings on stigma and insufficient help-seeking for at-risk groups [**R1**] informed the 2016 UK Department of Health's (DoH) suicide prevention strategies for reducing stigma [**E7a,b**]. The National Suicide Prevention Alliance (NSPA), with PHE, (2016-2019) used [**R1**] to develop a strategic framework to reduce stigma, encourage help-seeking and provide support, "particularly for men" [**E7a,b, E8a,b,c**]; and incorporated Brugha's [**R4**] findings into a new resource for local authority public health teams to develop local suicide prevention plans [**E8c**].

Accessible data to save lives
Brugha's research identifying young women and older males as at-risk groups for SSH [**R1, R6**], provided the evidence base for a number of bodies, including the Samaritans and PHE, to call for improved data access to save lives [**E6 – E9**]. NatCen specifically called for 'pooling' APMS data [**R1**] to enable SSH "trends to be updated and . . . specific types of suicidal thoughts or behaviours to be examined" [**E6b**]. Samaritans (2019) drew upon [**R1**] to lobby for improved government data and additional research into risks for young people and older males. "In particular, we need to understand more about 'what works' for high-risk groups, such as middle-aged men." [**E9**]. The NSPA, with PHE**,** (2016 – 2019) [**E8b**], implemented Brugha's findings [**R4**] to devise a 'data improvement work-stream' as part of its strategic framework [**E8a**].
PHE implemented [**R1, R4, R5**] findings as key indicators for their *Public Health Outcomes Framework* (2016-2019) under the 2016 suicide prevention strategy. This framework requires NHS Trusts in England to collect data on people who present at hospitals for self-harm [**E7a,b**]. By 2017, improved hospital admissions and A&E monitoring "saw one of the lowest overall suicide rates and the lowest male suicide rate in England since records began in 1981." (2019) [**E8c**].

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

[E1a]. Public Health England *Global Health Strategy*: 2014 to 2019.
[E1b]. Public Health England *Mortality Profile Report,* December 2018.
[E1c]. Public Health England *International comparisons of England with 22 peer countries from the Global Burden of Disease programme, Technical appendix*. January 2020.

[E2]. *The Burden of Disease in England compared with 22 peer countries: A report for NHS England.* January 2020.

[E3a]. NHS Long-term Plan and additional NHS funding.

[E3b]. Government announcement of the NHS LTP and PM's additional NHS funding, June 2018.
[E3c]. The NHS Long-Term Plan, January 2019.

[E4]. UK Government *Annual Report of the Chief Medical Officer 2015 On the State of the Public's Health Baby Boomers: Fit for the Future*.

[E5]. House of Commons Briefing paper *Suicide Prevention: Policy and Strategy*. Number 08221, 10 October 2019.

[E6a]. NatCen *Suicide and self-harm in Britain: researching risk and resilience using UK surveys.* Main Report 2019.
[E6b]. NatCen *Suicide and self-harm in Britain: researching risk and resilience using UK surveys.* Summary Report 2019.

[E7a]. The UK Department of Health. *Preventing suicide in England: Third progress report of the cross-government outcomes strategy to save lives*.
[E7b]. DOH Public Health Outcomes Framework summary-2016

[E8a]. PHE and The National Suicide Prevention Alliance: suicide prevention practice resources for local authorities, 2016.
[E8b]. Strategic Framework, 2016-2019.
[E8c]. Strategic Framework 2019-2021.

[E9]. Samaritans *Suicide Statistics Report*, September 2019.