

Section A		
Institution: The University of Manchester		
Unit of Assessment: 21 (Sociology)		
Title of case study: The impact of research on work, stress and wellbeing on influencing employment policies and public campaigns on improving working conditions		
Period when the underpinning research was undertaken: 2004 - 2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name:	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Tarani Chandola	Professor of Medical Sociology	2010 - present
Period when the claimed impact occurred: 2014 - 2020		
Is this case study continued from a case study submitted in 2014? No		
Section B		
1. Summary of the impact		
<p>Research on work, stress, health and wellbeing, led by Tarani Chandola since 2004, has shaped public policies on employment in EU and UK contexts, and informed campaigns and debates in the UK on the effect of poor quality and stressful working conditions on health. Specifically, the research has led to three key impacts:</p> <ol style="list-style-type: none"> 1. influenced policy debates leading to changes in European Union legislation in 2018 to improve the precarious working conditions of employees in the EU; 2. developed the evidence base for UK policy initiatives around “Good Work Standards” from the London Mayor and the association of UK Healthcare Professionals; 3. reframed the public debate from the deleterious effects of unemployment to considering the health damaging effects of poor quality and precarious work. 		
2. Underpinning research		
<p>Chandola was funded in 2010 by the British Academy (i) to write a policy report on work and stress [1] in the aftermath of the 2008 - 2009 UK recession. The report showed that work stress levels among UK workers had increased following the recession, partly as a result of reductions in job security and increases in the level of work pressure. The report estimated the economic costs of work stress and argued that any estimated cost savings from budget cuts arising from the recession needed to be balanced against the economic costs of work stress.</p> <p>From 2013 to 2018, Chandola was funded by the Economic and Social Research Council (ESRC) to conduct further research on work, health and wellbeing over the lifecourse (ii). A key feature of this interdisciplinary research was the analysis of chronic stress-related biological measures (biomarkers), in addition to self-reported health and stress measures, to analyse key debates in the sociology of work literature. The research used biomarker data to demonstrate the effect of poor quality and stressful working conditions on health and wellbeing [2, 3, 4], strengthening the argument that work stress and poor job quality have physiological effects, and that the associations with poor health are not driven by subjective reporting. Chandola’s research has also investigated whether workplace interventions to train managers can improve the wellbeing of workers (funded by the National Institute for Health Research (NIHR) (iii) and published in [5]), how work stress affects retirement [4], and the role of job quality in relation to worker’s health and wellbeing</p>		

[2, 3]. Much of this research was conducted with multidisciplinary teams [3-5], with Chandola leading on the study design, analysis and writing of the outputs [2-4].

This research has shown that stressful working conditions have health damaging consequences and that these effects cannot simply be dismissed as a result of personality or pre-existing mental health problems [1]. The use of chronic stress related biomarkers in this research has highlighted novel patterns associated with poor quality jobs that were not evident from survey respondents' self-reports of stress and wellbeing [2]. The research has shown that "any job" is not necessarily always better than "no job" in relation to impacts on health and wellbeing [2]. It also argues that employment policies need to take account of "good quality work" and "job quality" by making flexible work more available to workers [3], training managers to help their employees with high levels of stress [5] and tackling work stress to enable older workers to remain in work for longer [4].

3. References to the research

- [1] **Chandola, T.** (2010) Stress at work. British Academy- Policy Centre, London. <https://bit.ly/2E0ObaA>
- [2] **Chandola, T.** and Zhang, N. (2017) 'Re-employment, job quality, health and allostatic load biomarkers: prospective evidence from the UK Household Longitudinal Study', *International Journal of Epidemiology*, 47(1): 47-57. <https://doi.org/10.1093/ije/dyx150>
- [3] **Chandola, T.**, Booker, C., Benzeval, M., Kumari, M. (2019) 'Are flexible work arrangements associated with lower levels of chronic stress-related biomarkers? A study of 6025 employees in the UK Household Longitudinal Study', *Sociology*, 53(4): 779-799. <https://doi.org/10.1177/0038038519826014>
- [4] **Chandola, T.**, Rouxel, P., Marmot, M.G., and Kumari, M. (2018) 'Retirement and Socioeconomic Differences in Diurnal Cortisol: Longitudinal Evidence from a Cohort of British Civil Servants', *The Journals of Gerontology: Series B Psychological Sciences and Social Sciences*, 73(3): 447-456. <https://doi.org/10.1093/geronb/gbx058>
- [5] Stansfeld, S.A., Berne, L., Bhui, K., **Chandola, T.**, Costelloe, C., Hounscome, N., Kerry, S., Lanz, D. and Russell, J. (2015) 'Pilot study of a randomised trial of a guided e-learning health promotion intervention for managers based on management standards for the improvement of employee well-being and reduction of sickness absence: the GEM (Guided E-learning for Managers) study', *BMJ open* 5 (10), e007981. <https://doi.org/10.3310/phr03090>

Underpinning Research Grants:

- (i) Chandola T. (PI), 'Work and stress', British Academy, 2010 GBP10,000
- (ii) Sacker A., Montgomery S., Kelly Y., Chandola T., Neutevelli G., 'International Centre for Life course Studies in Society and Health: Centre Mid-Term Review Proposal', ESRC, 2013-2018 GBP3,700,000
- (iii) Stansfeld S., Bhui K., Chandola T., Clark C., Kerry S., Russell J., 'GEM Study (Guided E-learning for Managers)', NIHR, 2013-2015, GBP433,500

Research Quality: [2] was one of the "Best of IJE" papers in the International Journal of Epidemiology in 2018 and was awarded an "Honourable mention" at the Understanding Society 2019 conference where it was a plenary paper. It has been cited 59 times (Google Scholar 8 October 2020). [1] has been cited 106 times (Google Scholar 8 October 2020).

4. Details of the impact

Chandola's research on work, stress and wellbeing has shaped public policies on employment, contributing to the evidence base for European Union (EU) legislation to

improve the precarious working conditions of EU employees, and to the new “Good Work Standards” adopted by UK national and local governments. In addition, it has been used by Trade Union and Living Wage campaigns to improve the working conditions of low wage and precarious workers in the UK.

1. Shaping employment policies at the European level

Research demonstrating that workers in poor quality and insecure jobs had higher levels of chronic stress biomarkers than their unemployed peers [3], was showcased in a study commissioned by the European Parliament’s Policy Department for Citizens’ Rights and Constitutional Affairs in 2017 to assess the nature and extent of employment precariousness. This was the first case study used by the European Parliament study as evidence that employee health is affected “*by the precarious social environment of individuals in unfavourable labour market positions*” [A]. This policy document was the evidence basis for the European Parliament resolution to tackle precariousness and the abusive nature of fixed-term contracts. The resolution directly led to legal reform through the adoption of the EU Directive 2019/1152 on Transparent and Predictable Working Conditions, which set new rights for all EU workers and addressed insufficient protection for workers in more precarious jobs, such as online platform workers or on-demand workers.

Chandola’s research on the health and economic costs of work stress [1], was cited four times in critical reviews about the costs of work stress by the European Agency for Safety and Health at Work (EU-OSHA), demonstrating the strong ‘business case’ for preventing stress at work [B]. This review was used by EU-OSHA as part of their healthy workplace campaign in 2014 - 2015, which resulted in the joint EU-OSHA and Eurofound 2014 report on ‘Psychosocial risks in Europe: Prevalence and strategies for prevention’ and new guidance in 2018 for EU National Labour Inspectorates to improve workplace inspection procedures to address risk management measures with regard to workplace psychosocial risks. The 2014 EU-OSHA and Eurofound report documents the “*shift from physical demands associated with manufacturing to psychosocial risks more typical of the service sector*” based on the research findings that “*poor psychosocial work environment may lead to work-related stress and to negative health and well-being outcomes*” [B].

2. Shaping employment policies in the UK

The research [2] was cited in the 2018 Annual Report of the UK Chief Medical Officer who was concerned that “*the rise of precarious, poor-quality work has created the extraordinary situation where being in poor quality work has been associated with higher levels of allostatic load (chronic stress related biomarkers) than peers who remained unemployed*” [C]. In recognition of his expertise on the topic of work and health, Chandola was invited by Public Health England (PHE) to participate in policy discussions led by PHE and the UK Departments of Work and Pensions and Health and Social Care around the “*work as a health outcome*” programme [D]. Three face-to-face meetings were held by PHE and UK government departments on this policy agenda. This resulted in the 2019 Healthcare Professionals’ Consensus Statement on Health and Work, agreed by the Academy of Medical Royal Colleges, the Royal College of Nursing and the Allied Health Professions Federation. Chandola’s contributions to these discussions emphasised the importance of good work, not just any work, in the policy statement [D]. A recent assessment of the consensus statement’s influence stated that “*it provides important symbolic evidence of the importance of the programme across clinical disciplines and government and that it has been widely used as a credibility tool*” [D]. Chandola’s expertise is acknowledged in

new resources for undergraduate medical training on work and health created by PHE and the Department for Health & Social Care [E].

The research [2] was also directly quoted in several of the London Mayor's employment policies, including the Health Inequalities strategy document [F, p.110], the background research cited for both the London Healthy Workplace Charter and the Mayor's Good Work Standard [F, p.349], and the Evidence Base for London's Local Industrial Strategy [F, p.508 and 511]. These strategies led to the development of the London Healthy Workplace Award, an accreditation scheme to help employers create healthier workplaces. As stated in a press release from the Mayor's Office, as of March 2020, "...more than 60 employers signed up to the Good Work Standard - meaning more than 200,000 employees benefit from good pay and the highest working conditions in a range of industries across the capital" [F, p. 634]. The Good Work Standard helps "organisations attract and retain talent, reduce absenteeism and achieve higher levels of employee engagement, motivation and productivity" [F, p.635].

3. Reframing the public debate from the deleterious effects of unemployment to considering the health damaging effects of poor quality and precarious work

Research findings highlighting the impact of the last UK recession on work stress levels [1] had considerable media coverage, including the BBC news website (coverage 16.5 million), the UK Guardian newspaper (coverage 232,000), BBC Radio 4 Women's hour (coverage 3.7 million) and Men's Health magazine (coverage 246,000). This led to an invitation for Chandola to present his research at the 2011 meeting of the UK Work Stress Network (UKWSN), a charity and trade union based organisation which campaigns for the better protection of workers against work-induced stress. The UKWSN has over 500 members, including experienced caseworkers on work related stress, counsellors, occupational health workers and trades union officers. The network used the research [1] extensively in their campaign handbook on work stress and its debilitating effects on health and wellbeing [G], and distributed over 10,000 copies of this handbook to their members and at events. Feedback received stated how useful this handbook was in their efforts to improve working conditions in their organisations. The convenor of the network states "*This is the sort of evidence that our members could take back to their employers and organisations to make the case for improvements in their stress management policies...This has helped us deliver higher levels of training to Safety Representatives, Shop Stewards and conference delegates from the management and HR side*" [G].

In addition, the research [1] has been used by mental health and employment professionals as important evidence in their resources to support line managers and workers dealing with work stress [H]. The Mindful Employer is a UK wide initiative run by Devon Partnership National Health Service (NHS) Trust, providing employers with easy access to professional workplace mental health training, information and advice. The research [1] has been used extensively in their website and training resources, which include a charter for 'employers positive about mental health', workplace mental health training, advice line for staff, and mental health publications [H]. This organisation has supported more than 2,000 employers, with over 1,000 of them having signed up to the charter.

The research [2] is being used by campaigners for improved job quality as evidence of how stressful jobs impact negatively on the health of workers, and the need for employers to increase wages to prevent negative health impacts. The Health Foundation, the second largest endowed foundation in the UK focusing on health, used the research to "*shift the*

debate on health” in their report on the wider determinants of health, which led to an ongoing discussion with Public Health Scotland and the special adviser to the Prime Minister on the quality of work [I]. Reports of this research [2] were published in at least 45 English language news stories from around the world in 2017. This included three UK Guardian newspaper editorials which called the research a “*landmark study*” and questioned the UK government’s use of high national employment figures as an indicator of success, when the true cost to society for some of those jobs was to “*wear out workers mentally*” [J]. The then UK Labour leader (Jeremy Corbyn) referenced the study [2] in his speech to the Trades Union Congress in Manchester, September 2017, which highlighted the dangers of the gig economy for health and wellbeing [J]. An analysis of the impact of the Living Wage on ten city regions in the UK by the Living Wage Foundation and the Smith Institute cites this research as part of the evidence that “*jobs that are insecure, low-paid and that fail to protect employees from stress and danger make people ill*” [K].

5. Sources to corroborate the impact

- [A] European Parliament Policy Department C: Citizens’ Rights and Constitutional Affairs. Temporary Contracts, Precarious Employment, Employees’ Fundamental Rights and EU Employment Law. Brussels: EU; 2017. (P8_TA(2018)0242) <https://bit.ly/3hiCPwO>.
- [B] European Agency for Safety and Health at Work. Calculating the Cost of Work-Related Stress and Psychosocial Risks - Safety and Health at Work - EU-OSHA. Luxembourg: Publications Office of the European Union; 2014. <https://bit.ly/30vPZjc>
- [C] Department of Health and Social Care. Chief Medical Officer Annual Report 2018. <https://bit.ly/3fO55Y6>
- [D] Testimonial from Head of Health and Work Programme, Public Health England (received 17 June 2020)
- [E] Health Education England. Health and Work in Undergraduate Medical Education programme. <https://bit.ly/36KHZzW>
- [F] London Mayor’s employment policies: (a) Greater London Authority. The London Health Inequalities Strategy. London; 2018. <https://bit.ly/3jq0FZI>; (b) Paper [2] is referenced in the background research cited for both the London Healthy Workplace Charter and the Mayor’s Good Work Standard <https://bit.ly/30BwXrL>; (c) The Evidence Base for London’s Local Industrial Strategy, February 2020 <https://bit.ly/3iOzMht>; (d) Press Release from the Mayor’s Press Office. 5 March 2020. <https://bit.ly/38GXJD1>.
- [G] Testimonial from former Convenor, UK Work Stress Network (received 4 December 2020)
- [H] Mindful Employer: Line Managers’ Resource; 2011 <https://bit.ly/2DroO1l>; ‘Mindful Employer: making a difference in mental health’, Occupational Health and Wellbeing. 1 February 2013. <https://bit.ly/36wbq4E>.
- [I] Testimonial from Senior Analyst, The Health Foundation (received 20 July 2020)
- [J] ‘The Guardian view on the gig economy: stop making burnout a lifestyle’, 30 December 2019 <https://bit.ly/3ePeo8N>; ‘The Guardian view on life expectancy stalling: a political choice’, 5 November 2018. <http://bit.ly/3dBEDCP>; ‘The Guardian view on a caring capitalism: healing an unhappy society’, 19 January 2018 <https://bit.ly/30yMJnr>; Jeremy Corbyn’s speech to TUC Congress, 12 September 2017 <http://bit.ly/3ppZKKs>
- [K] Hunter, P. The Local Living Wage Dividend. Smith Institute and Living Wage Foundation; 2018. <https://bit.ly/2Bgh3uv>