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Health Lifestyles at Work: Availability, Barriers and Participation in Workplace Wellness

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Abstract

The workplace is an ever more popular site for health promotion, but remains an underexplored factor in health lifestyles theory; whereas, sociological accounts of workplace wellness view it critically as managerial control. These perspectives both miss that participation in workplace wellness may represent socially structured health lifestyles. Addressing this gap, I extend a theoretical model for bringing together health lifestyles theory and critical wellbeing studies. Supporting this model, I provide an empirical account of the availability of, participation in and barriers to workplace wellness. I analyse a multi-organisation sample of British workers ($N = 27,919$ individuals; 143 organisations) to reveal that engagement with wellness has distinct associations with multiple social factors (class, race and gender), job factors (level, contract, working hours and commute) and organisational context. Theories of health lifestyles ought to include work characteristics and managerial regimes, and critiques of wellness must analyse how social position affects workers' experiences of wellness.

Keywords: Health behaviour, Health lifestyles, Health sociology, Workplace wellness

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Introduction

The workplace is a prominent site for health promotion, with employer-sponsored wellness programmes the main strategy for achieving this aim. Sitting at the intersection of public agendas on economic performance and population wellbeing, wellness initiatives are formally recommended to all employers and often enshrined in public policy (Black, 2008; Chait & Glied, 2018; European Commission, 2014; NICE, 2017). Workplace wellness covers manager-led interventions that encourage normatively healthy lifestyles and good mental hygiene. The assumed function is that by participating in various programmes and adhering to health-related guidance, workers will change their lifestyles, behaviours, attitudes or mental states, thereby improving their physical and mental wellbeing in and out of work. Voluntary participation in workplace wellness programmes must, therefore, be understood as health-related behaviour and can be constitutive of health lifestyles. Health lifestyles are ‘constellations of health behaviours underpinned by group-level identities and norms that are consequential for health and well-being’ (Mollborn et al., 2021: 389). These patterns are structured by social position, the result of ‘choices from options available to people according to their life chances’ (Cockerham, 2010: 159).

Worker participation in wellness programmes varies across organisations, practices, jobs and demographics, with extant descriptive and atheoretical literature seeking to determine these predictors (Robroek et al., 2009; Tsai et al., 2019). Typically, the motivation for these investigations comes from the ‘business case’, with managerialist perspectives seeking efficient returns on investment (ROI) through improved productivity, reduced absenteeism or, especially in the US, decreased employer-sponsored health insurance premiums (Baxter et al., 2014). For public health researchers, the legitimacy of the workplace as a site for preventative health interventions is dependent on who engages, to what extent and to what effect (Glasgow et al., 1993). The latter question of effectiveness is extensively debated, with leading experimental trials finding little benefit (Jones et al., 2019; Song & Baicker, 2019). Any positive results rely on selection effects, whereby the types of people who engage in workplace wellness are those who already practice normatively healthy behaviours. These biases appear a typical failure of health promotion for addressing health inequities through the omission of structural

factors (Baum & Fisher, 2014; Lupton, 1995). Theorising the social forces that drive participation in workplace wellness is an important task.

In contrast to research from public and occupational health, sociology as a discipline offers little on the question of participation in workplace wellness. Most attention is given to normative exclusion in the practices offered (e.g. Foster, 2018), and how wellness is emblematic of contemporary management regimes which reach beyond the workplace (Holmqvist & Maravelias, 2011; Maravelias, 2009, 2018; Watson et al., 2023). Only one attempt has been made to study the role of social identity in shaping workers' engagement with wellness (Kotarba & Bentley, 1988). Yet sociologists do offer accounts of health behaviour generally, appreciating social structures of class, race and gender in constituting meanings and practices (Cockerham, 2005, 2010; Cockerham et al., 1997; Mollborn et al., 2020, 2021). Analysis of the contemporary workplace also reveals it to be an arena where people increasingly practice lifestyles, infusing and aligning labour market decisions with various personal and social values or 'passions' (Boltanski & Chiapello, 2018; Cech, 2021; Dorschel, 2022). However, health lifestyles theorists are yet to engage with the workplace as a site for the practice and formation of lifestyles, with, for example, no mention of work in Cockerham's (2005) model and only a passing mention in Mollborn et al.'s (2021) review of the field.

This article addresses these gaps in the literatures on workplace wellness and on health lifestyles. I offer an empirical account of the availability of, participation in and barriers to workplace wellness and a theoretical model integrating workplace wellness into health lifestyles theory. I begin by discussing structural health lifestyles theory and argue that, in failing to include employment and work experiences, it makes a crucial omission. I then move on to the dominant, critical account of workplace wellness, arguing that it misses important structural accounts of participation as health behaviours and therefore constitutive of health lifestyles. Next, I extend a theoretical model to integrate health lifestyles theory and critical workplace wellness. The empirical sections of the article then substantiate the main undeveloped paths in the model: first, that engagement with workplace wellness is socially structured and, second, using workplace wellness as an example, that work enables and constrains health lifestyles. Results report who has workplace wellness programmes available, who participates and what are the

barriers to engaging. Drawing on a clustered sample larger than previous studies, empirical results develop understanding of engagement with workplace wellness. The theoretical synthesis I propose extends the structural account of health lifestyles, as well as advances understanding of the heterogenous ideological functions of workplace wellness.

Health lifestyles theory

Health lifestyles theory is a popular structural account of health-related behaviours. Cockerham (2005) develops this position, arguing that health lifestyles should not be considered on purely individualistic terms, but instead are shaped by structural factors. Cockerham positions health lifestyles as the product of ‘life chances’ and ‘life choices’ (structure and agency). Social structures shape people's dispositions and their practices; meaning health practices are both representative of position in social fields and determinants of behaviours. Social class is the primary pillar of this model, but interacting with gender, age and race, as well as peer groups and living conditions. Applying Bourdeusian practice theory, Cockerham argues that the ‘life choices’ people make are produced by these structures, which construct the propensity for action and explain existing practices.

The crucial gap in Cockerham's model and health lifestyles literature (Mollborn et al., 2021) is the omission of employment and the workplace. Flood & Moen (2015) and McGann et al. (2012) show that work shapes health-related behaviours but they do not integrate their findings into general theories of health lifestyles. Elsewhere, Eakin & MacEachen (1998) and Foster (2018) argue the vital role of workplace relations and conditions in the social construction of health, illness and disability, but these types of insights are not recognised in health lifestyles theory. While the overarching model of health lifestyles remains effective as a theoretical guide to interpreting health behaviours and is successfully applied in many studies (Cockerham, 2006; Eriksen et al., 2024; Lawrence et al., 2017; Mize, 2017; Mollborn et al., 2020), it must be extended to consider work. For example, managerial expectations and job demands will affect workers' engagement with wellness practices in both directions, and organisational life is also both gendered (Acker, 1990) and racialised (Ray, 2019) in complex ways.

Work will affect health lifestyles in many ways. Here, I focus only on wellness programmes as one health behaviour to synthesise health lifestyles and workplace wellness scholarship.

Critical perspective on workplace wellness

Separate from the health lifestyles theory, sociological accounts of workplace wellness typically adopt a critical stance claiming employer action on health extends managerial control over workers' bodies and subjectivities (Dale & Burrell, 2014; Maravelias, 2018). The intention, it is said, is to optimise productive capacity through individual responsibility for health. Workplace wellness is therefore understood as a 'new' corporate health ethic (Allender et al., 2006). Engagement with health takes managerial control beyond the workplace, blurring boundaries of work and home and extending corporate values (Harvey, 2019; Maravelias, 2009). Strategies urge specific health-related behaviours to construct the ideal worker and conceptualises health as fitness for work (Foster, 2018; Watson et al., 2023).

The most extensive analysis of workplace wellness is Holmqvist & Maravelias's (Holmqvist, 2009; Holmqvist & Maravelias, 2011; Maravelias, 2009) ethnographic research of health promotion in a Swedish firm. They witnessed how wellness 'operates as a specific form of management of employees, expanding the principles of control of corporate culture programs and traditional human resource management techniques' (Holmqvist & Maravelias, 2011: 4). Holmqvist & Maravelias go so far as to argue they are 'primarily about controlling productivity by shaping values and attitudes of employees toward lifestyles which are aligned with corporate cultures that reward activity, motivation, self-discipline and responsibility' (ibid.: 5).

Critique of corporate health ethics in workplace wellness is now well-established, and is further developed towards workplace wellbeing discourses more broadly (Watson et al., 2023). These theoretical accounts offer explanation for wellness as components of broader 'managerial regimes', the set of control mechanisms applied by managers that balance coercion and consent (Murphy & MacMahon, 2022; P. Thompson & van den Broek, 2010).

Other critics of workplace wellness practices also suggest wellbeing practices are strategic ploys from management to justify poor treatment at work in a ‘reputational alibi’ (Southwood, 2019: 31). Such cynical deployment of wellbeing discourse and practice would not require employee participation in wellness offerings, but different managerial patterns in regards to health and wellbeing initiatives are apparent (Valsecchi et al., 2023) and must be recognised in critique. Further, Conrad (1987: 269) highlights the potential for ‘middle class bias’ in workplace wellness; a concern largely forgotten in more recent polemical critiques. Existing critical perspectives fail to recognise that workplace wellness may be an olive branch for upper and middle classes, while remaining extensions of managerial control for others.

Sociological analysis must move towards understanding participation in wellness as both managerial control *and* expressions of health behaviour. Doing so will allow investigation into how experiences of workplace wellness discourse and practices are shaped by social position, developing the ideological critique without taking for granted that participation in wellness is a normative good.

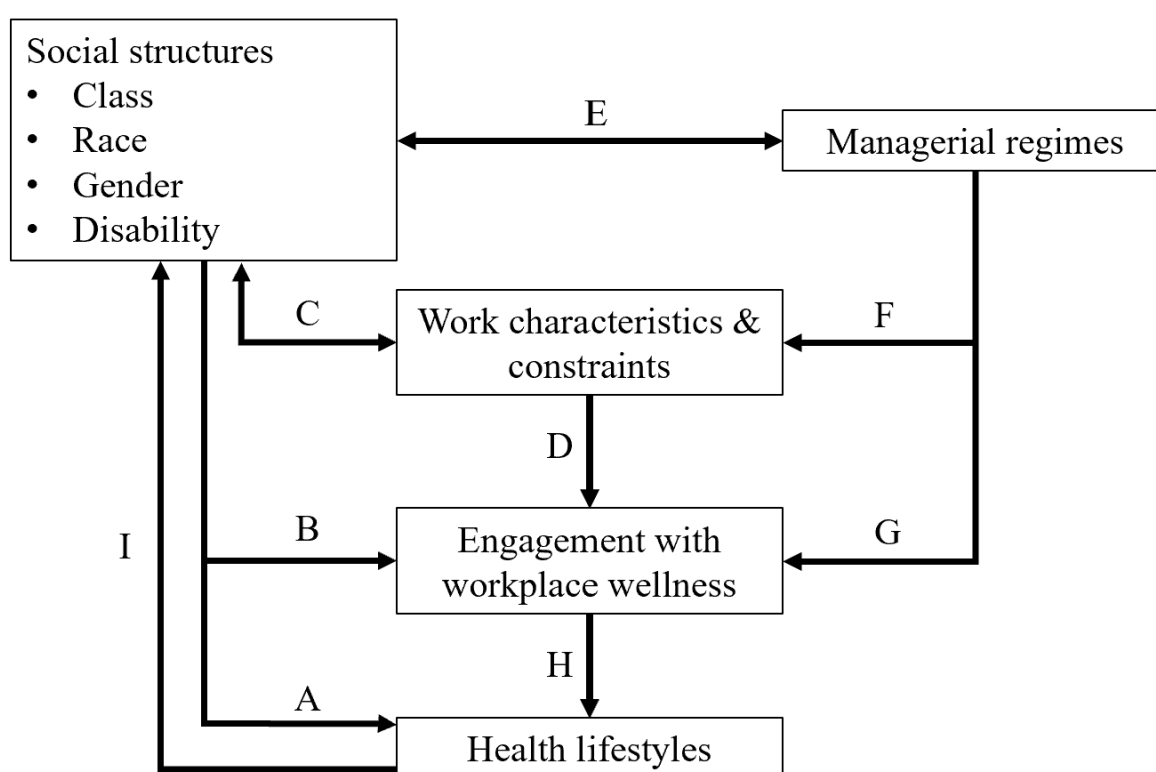
Extending health lifestyles theory into work.

The aim of this article is to extend theories of health lifestyles and workplace wellness. I propose an integrated theory for understanding how both social structures, work characteristics and managerial regimes explain engagement with workplace wellness. Health lifestyles are, of course, made up of constellations of health behaviours and cannot be fully explicated by a single health behaviour like participating in a workplace wellness programme. However, by focusing only on workplace wellness programmes, these two scholarships can be brought together to advance both.

Figure 1 provides a path diagram of the theoretical model, designed as to be comparable to Cockerham’s (2005: 57, Figure 1) structural model of health lifestyles. (A) Social structures shape health lifestyles and (B) the availability of and participation in workplace wellness. (C) Social structures affect work characteristics and constraints that workers experience, which in turn reconstitute those social structures. (D) These work factors also predict the availability and participation in workplace wellness. (E) Managerial regimes play an important role in constructing social structures and are applied

and experienced differently dependent on factors such as class, race, gender and disability, thus revealing a bidirectional relationship. (F) Managerial regimes also shape work characteristics and constraints, and (G) workplace wellness programmes are seen as extensions of these regimes. (H) Participation in workplace wellness is a practice of health behaviour and therefore constitutive of health lifestyles. Path H, that workplace wellness is constitutive of health lifestyles, is the basic theoretical argument of this article laid out in the first paragraph. (I) Finally, health lifestyles are in a feedback loop with social structures, reinforcing social position.

Figure 1. Theoretical model of health lifestyles and workplace wellness



To substantiate this model, the following empirical sections present quantitative analysis of the availability of, participation in and barriers to workplace wellness. The current gaps in the model which this analysis explicates are paths B (social structures and workplace wellness) and D (work characteristics, wellness and health lifestyles). The extant literature offers evidence for the other paths. I propose four hypotheses to correspond with paths B and D through which I structure the results.

- *HB*: Social structures are associated with workplace wellness availability and participation

- *HD1*: Work characteristics are associated with workplace wellness availability and participation.
- *HD2*: Work constraints are associated with workplace wellness availability and participation.
- *HD3*: Participation varies by organisational context.

Alone, most of the descriptive analysis that I present is not novel, with other more limited samples used to identify patterns of participation. Prior studies suggest higher participation among workers who are higher income (Jørgensen et al., 2016), women (Robroek et al., 2009), middle-aged (Tsai et al., 2019), white (Robroek et al., 2009; S. Thompson et al., 2005), have existing good health (Persson et al., 2013), normatively positive beliefs about health and the organisation (Ott-Holland et al., 2019; Rongen et al., 2014), better quality jobs (Jørgensen et al., 2016; Tsai et al., 2019) and who are recipients of organisational characteristics and policies that promote participation (Lier et al., 2019; Robroek et al., 2009; Tsai et al., 2019). However, I develop these accounts in two ways. Firstly, by analysing a larger and clustered sample. A larger sample increases the power of the analysis and clustered data by organisations allows statistical inclusion of variance between organisations. *HD3* has not been previously demonstrated with multilevel data. The major development I provide is the integration of the empirical findings into sociological theories of health lifestyles and of ideological critiques of workplace wellness.

Materials and methods

Data

This analysis used the 2018 wave of the Britain's Healthiest Workplace (BHW) survey – N = 27,919 individuals; 143 organisations. BHW is a cross-sectional survey with a convenience sample providing matched data at both employee and organisation levels. Individual employees provide information on demographics, job characteristics, lifestyles, health behaviours and physical and mental wellbeing. For organisations, a senior manager or HR representative provides general information on the organisation and internal strategies for wellbeing.

BHW is a unique sample in its topic coverage on workplace health and larger than any other known multi-organisational survey of workplace wellness. Most studies addressing this research question include only single organisations (Robroek et al., 2009) or had smaller samples (e.g. N = 10,605 Danish workers in Jørgensen et al. (2016); N = 2,843 US workers in Linnan et al. (2019)). Analysing a British sample is beneficial because of the increased likelihood that participation is voluntary, rather than tied to employer-sponsored health insurance.

BHW does suffer from various limitations, with sampling biases at both survey levels. Participating organisations must opt-in to completing the survey, while I also assume those who do hold an existing corporate interest in health lifestyles. In terms of representativeness of organisations, financial and insurance services are slightly over-represented. Employee respondents are also all voluntary, with women, younger workers, mid-to-high incomes and white workers all over-represented. Although as a convenience sample the survey is limited for inference in not being representative of the whole British workforce, there is currently no stronger source for these research questions. A final limitation is that the survey is collected by a commercial data owner, *VitalityHealth*, and only accessed through formal license agreement. As a result, data and code cannot be made open for replication.

Availability, Participation and Barriers

For the key outcomes of participation and availability, I used employee self-reported binary indicators of availability and participation. BHW provides survey respondents with a list of possible health promotion programmes and asks whether their organisation offers each initiative, whether they participate and whether they feel it improved their health and wellbeing.

The simplicity of these measures brings a series of limitations. There may be discrepancy in how respondents interpret each possible intervention and in how they define their own participation. A more serious limitation is that there is no indication of the extent of participation, which is especially relevant for certain initiatives such as gym memberships. Unfortunately there is not a more robust measure of participation available.

The binary measure of availability only indicates employees' perception. Those who respond that they do not have a programme available consist of two groups: those whose employer does not offer a programme either at all or not universally; and those who are merely unaware of programmes. The organisation-level survey does include a binary indicator of whether each programme is available, but the employee perception was taken as a more appropriate measure because the organisation-level response may not apply for all employees.

I selected interventions from the list in BHW based on whether they promoted normatively positive physical or mental health behaviours. Tables 1 and 2 show the interventions as they are described in the survey material with the participation rates for each. Separate analyses were conducted on mental and physical wellness programmes. Count and percentages for participation in Tables 3 and 5 are only for physical wellness.

Employees are also asked directly about perceived barriers to lifestyle change - 'what would you rate as the three biggest barriers to changing your lifestyle?'. I only include the first reason given.

Table 1. Availability and participation rates for physical wellness programmes

Programme	Not available	No	Yes	No:Yes
	Count (%)	Count (%)	Count (%)	% Ratio
Any physical wellness programme	3,645 (13.1)	12,029 (43.1)	12,245 (43.8)	49.6:50.4
Health and wellbeing team discussion and activities	15,794 (56.4)	7,692 (27.5)	4,488 (16.1)	63.2:36.8
Workshops on physical and mental health issues	14,738 (52.6)	9,730 (34.9)	3,505 (12.5)	73.5:26.5
Offsite gym/health club membership	17,257 (61.8)	8,163 (29.2)	2,531 (9)	76.3:23.7
Employer-wide step or activity challenges	21,913 (78.5)	3,649 (13)	2,390 (8.5)	76.3:23.7
Fitness classes	20,699 (74.1)	5,069 (18.1)	2,182 (7.8)	60.4:39.6
Walk or cycle to work programmes	13,719 (49.1)	12,559 (45)	1,641 (5.9)	88.4:11.6
Running clubs or other informal groups	20,567 (73.6)	5,974 (21.4)	1,408 (5)	80.9:19.1

Talks or workshops on nutrition and its health impacts	22,339 (85.7)	2,364 (8.5)	1,386 (5)	63:37
Talks or workshops on benefits of physical activity	24,068 (86.2)	2,590 (9.2)	1,292 (4.6)	66.7:33.3
Sponsored walks or runs	21,575 (77.2)	5,120 (18.3)	1,254 (4.5)	80.3:19.7
Digital platform which provides incentive for health behaviours	25,680 (91.9)	1,227 (4.4)	1,040 (3.7)	54.1:45.9
Bicycle purchase scheme	12,984 (46.5)	13,943 (49.8)	1,019 (3.6)	93.2:6.8
Stairs initiative	26,295 (94.1)	1,005 (3.6)	652 (2.3)	60.7:39.3
Dietician/nutritionist	26,078 (93.4)	1,360 (4.9)	513 (1.8)	72.6:27.4
Bootcamps	26,023 (93.2)	1,554 (5.6)	375 (1.3)	80.6:19.4

Table 2. Availability and participation rates for mental health programmes

Programme	Not available	No	Yes	No:Yes
	Count (%)	Count (%)	Count (%)	% Ratio
Any mental wellness programme	11,447 (41)	9,653 (34.6)	6,819 (24.4)	58.6:41.4
Volunteering or charity work	18,394 (65.9)	6,393 (22.9)	3,160 (11.2)	66.9:30.1
Mindfulness	21,807 (78)	4,524 (16.2)	1,617 (5.8)	73.7:26.3
Resilience, energy or stress management classes	23,121 (82.8)	3,650 (13.1)	1,178 (4.1)	75.6:24.4
Wellbeing app targeting broad range of physical health, mental health and lifestyle issues	24,442 (87.5)	2,381 (8.5)	1,124 (4)	67.9:32.1
Massage or relaxation classes or programmes	23,439 (83.9)	3,447 (12.3)	1,063 (3.8)	76.4:23.6
Workload or time management training	23,142 (82.9)	4,153 (14.9)	653 (2.2)	86.4:13.6
Financial wellbeing courses or programmes	24,071 (86.2)	3,456 (12.4)	423 (1.4)	89.1:10.9
Events promoting healthy sleep	26,792 (95.9)	857 (3)	299 (1.1)	74.1:25.9
Apps/programmes promoting healthy sleep	26,817 (96)	837 (3)	294 (1)	74:26
Coaching	25,686 (92)	1,976 (7)	288 (1)	87.3:12.7
Online coaching	26,943 (96.5)	863 (3.1)	142 (0.5)	85.9:14.1

Independent variables

There are a range of personal, social and job factors that may predict availability and participation in workplace wellness.

Social class is measured in two ways. First, through a recoded binary of self-reported occupational status: managers and professionals; and second group comprising technicians, clerical workers, service, sales, agriculture, crafts and manufacturing. The second measure was self-reported income and results are presented separately.

Race/ethnicity includes categories of Asian, black, mixed & other and white. Mixed and other were recoded to a single category due to small counts. I use the term race/ethnicity because the survey question, 'What is your ethnic origin?', and answer, e.g. 'White (British/Irish/Any other white background)', combines the constructs.

Health condition measures employee self-reported long-term health condition ('During the past 12 months, has a doctor told you that you have any of the following diseases or conditions?'). For physical health, a list of possible health conditions is given, and these were recoded into a binary indicator. For mental health, a binary indicator reports 'long-enduring mental illness (depression, anxiety, panic disorder, bipolar disorder, schizophrenia, post-traumatic stress disorder)'.

Contract type was simplified into three groups: permanent contract, self-employed contractor, and a recoded heterogenous group comprised of fixed-term contracts, temporary agency contracts, zero-hours contracts, apprenticeships and trainees, no contract, and other.

'Surveillance' is a recoded binary measure of whether an employee indicated they participated in workplace health screening: 'condition specific screening, such as for cancer', 'basic clinical screen offered through an employer-provided wellness day', 'executive medicals and advanced screening' or 'Overweight and body fat assessment for customised nutritional advice'.

'Respect', 'health company success' and 'manager wellbeing' are self-reported 5-point measures of whether employees 'receive the respect at work I deserve from my colleagues', 'leaders view the level of employee health and wellbeing as one important indicator of the organisation's success', and

‘line manager cares about my health and wellbeing’, respectively. These variables were selected to indicate employee perceptions of corporate culture and social support.

Binary measures were included for gender, married/cohabiting or not, whether they have caring responsibilities (‘Do you have caring responsibilities?’), if they work in an office (‘How would you describe your main workplace environment?’), shift work (‘Do you work irregular hours (e.g. shift work)?’) and private health insurance offering (‘Are you and/or your family offered?: private medical insurance’).

Variables collected through the organisational level survey are trade union recognition, firm size, industry sector (recoded dummy of service industry or not), incentives offered (‘providing incentives for participation and/or recognising or rewarding employees for healthy behaviour and health improvement’) and if employers allow participation during work time (‘Allowing participation in activities during work time’).

Table 3. Descriptive statistics and physical health programmes

Variable		Not available %	Available %	Participate %	Count n
Gender	Women	11.3	42.6	46.0	14,153
	Men	14.6	43.5	41.8	13,710
Age	18-29	16.7	41.1	42.1	7,618
	30-44	11.4	41.8	46.8	11,412
	45-59	11.6	45.9	42.5	7,825
	60+	15.3	50.1	34.6	1,064
Race/ethnicity	Asian	14.2	41.9	43.9	1,203
	Black	14.4	41.8	43.8	443
	Mixed & Other	16.5	38.4	45.1	677
	White	12.8	43.4	43.9	25,283
Income (GBP£)	Less than 10,000	30.2	37.8	31.9	529
	10,000-19,999	21.3	47.2	31.4	3,257
	20,000-29,999	12.6	46.3	41.0	6,058
	30,000-39,999	8.7	45.3	46.0	4,974
	40,000-49,999	7.8	44.3	47.8	3,493
	50,000-59,999	7.5	46.5	46.0	2,213
	Over 60,000	6.1	39.1	54.8	4,455
	<i>Missing</i>	29.9	31.0	39.0	2,940
Job level	Manager/Professional	8.0	43.5	48.5	14,906
	Other ^a	15.4	45.9	38.7	11,154
Carer status	Yes	12.8	43.3	49.9	10,337
	No	13.2	43.0	43.8	17,582

Marital status					
	Married/Cohabiting	11.2	44.1	44.7	17,211
	Not	15.9	41.6	42.5	10,434
Mental health condition					
	Yes	17.1	41.5	41.5	2,004
	No	12.7	43.2	44.0	25,915
Contract					
	Permanent	12.6	43.1	44.3	26,124
	Temporary	19.3	44.0	36.8	1,624
	Self-employed	31.0	31.6	37.4	171
Work shifts					
	Yes	33.7	38.3	27.9	1,722
	No	11.7	43.4	44.9	26,197
Working hours					
	< 35 hours	20.7	41.2	38.1	4,484
	35-40 hours	10.5	44.1	15.4	21,625
	> 40 hours	25.2	35.7	39.1	1,810
Work environment					
	Office	9.5	43.5	47.0	21,265
	Other	24.3	41.8	33.8	6,654
Commute					
	< 30 mins	14.4	42.2	43.5	13,605
	30-60 mins	11.0	43.7	45.3	9,745
	> 60 mins	13.5	44.5	42.0	4,569
Length					
	< 1 year	16.4	46.8	36.8	3,822
	1-5 years	13.9	39.8	46.4	10,023
	5-10 years	12.5	42.8	44.7	5,524
	> 10 years	11.0	15.5	43.5	8,550
Trade union recognition					
	Yes	14.4	39.4	46.2	11,815
	No	11.3	48.1	40.7	16,104
Size					
	Large	13.2	43.7	43.0	21,461
	Medium	11.9	41.6	46.5	4,400
	Small	13.1	39.4	47.5	1,884
Sector					
	Service	13.6	42.9	43.5	22,889
	Other	10.1	44.0	45.9	4,856
Incentive					
	Yes	12.3	38.8	48.9	12,103
	No	13.5	46.5	40.0	15,642
Surveillance					
	Yes	2.6	29.6	67.8	6,638
	No	16.3	47.3	36.4	21,281
Private insurance					
	Yes	6.9	40.3	52.8	13,164
	No	18.6	45.6	35.9	14,755
Respect ^b					
		3.72 (0.92)	3.94 (0.78)	4.05 (0.74)	3.95 (0.79)
Health company success ^b					
		3.13 (1.11)	3.53 (1.04)	3.84 (0.99)	3.62 (1.06)
Manager wellbeing ^b					
		3.62 (1.03)	3.97 (0.88)	4.13 (0.82)	3.99 (0.89)

Notes: $N = 27,919$. $a = '.$ $b =$ continuous variable on 1-5 scale, means and (std. dev.) reported.

Analytical strategy

First in Tables 1, 2 and 3, I present descriptive information through frequency counts of the availability and participation in the different health promotion interventions. I also include counts for the main barriers to lifestyle change that employees report in Table 5.

Second, I estimated multiple binomial logistic regression models with random intercepts for organisations. The aim was to explore associations relationships between the various personal and work characteristics of workers and the availability of and participation in workplace wellness. I estimated separate models for mental and physical health initiatives. Variables were added to the models in a stepwise manner to explore confounding, but only the final models with all variables are presented in Figures 3 and 5. The estimates for self-reported income are presented in separate Figures 4 and 6 to focus on social class, but results are from the same regression model.

All models used Bayesian MCMC estimation because of the strength of this technique for multilevel modelling and variable cluster sizes. As a result coefficients are with 95% credible intervals. Coefficient estimates are untransformed log odds as the values of interest are direction and their comparability. Table 4 includes random intercept variance estimates for *HD3*.

Results

Figure 2. Coefficient plot for physical wellness

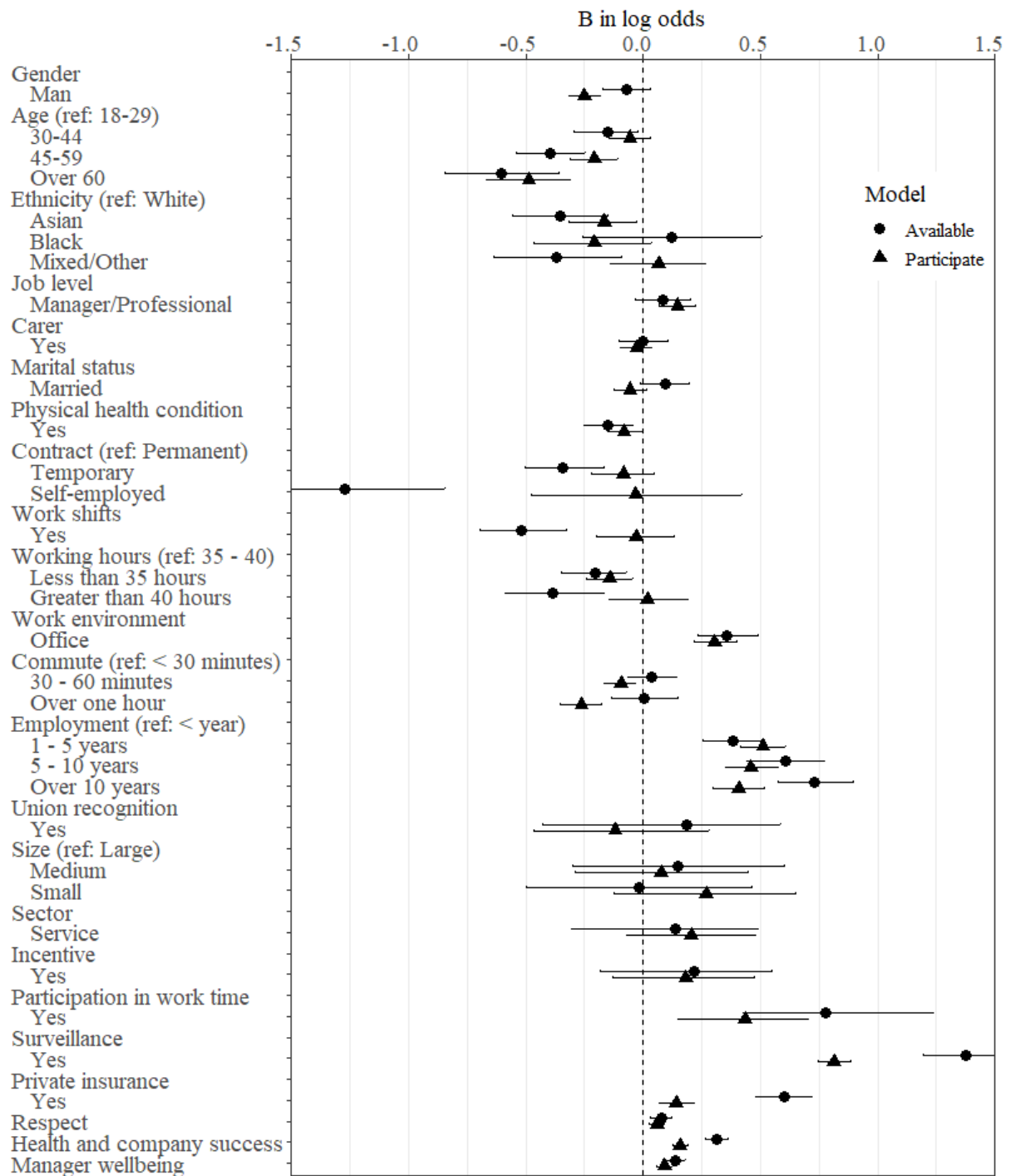
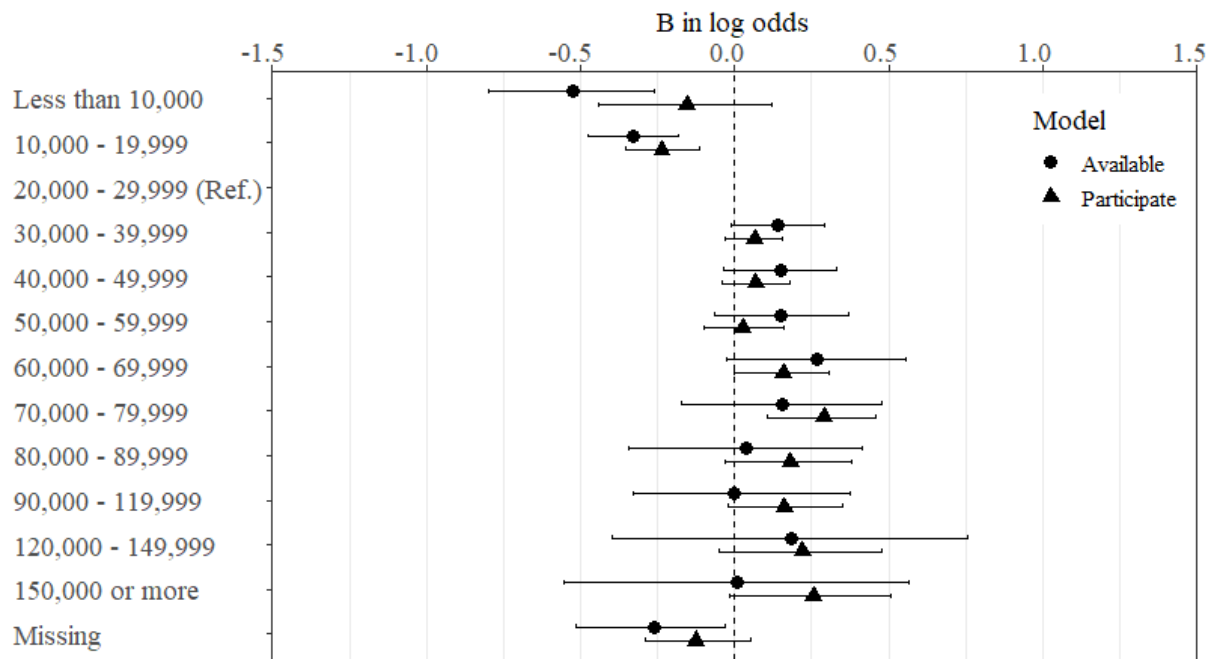


Figure 3. Income coefficients for physical wellness

Note: Model included all covariates from Figures 2. GBP (£).

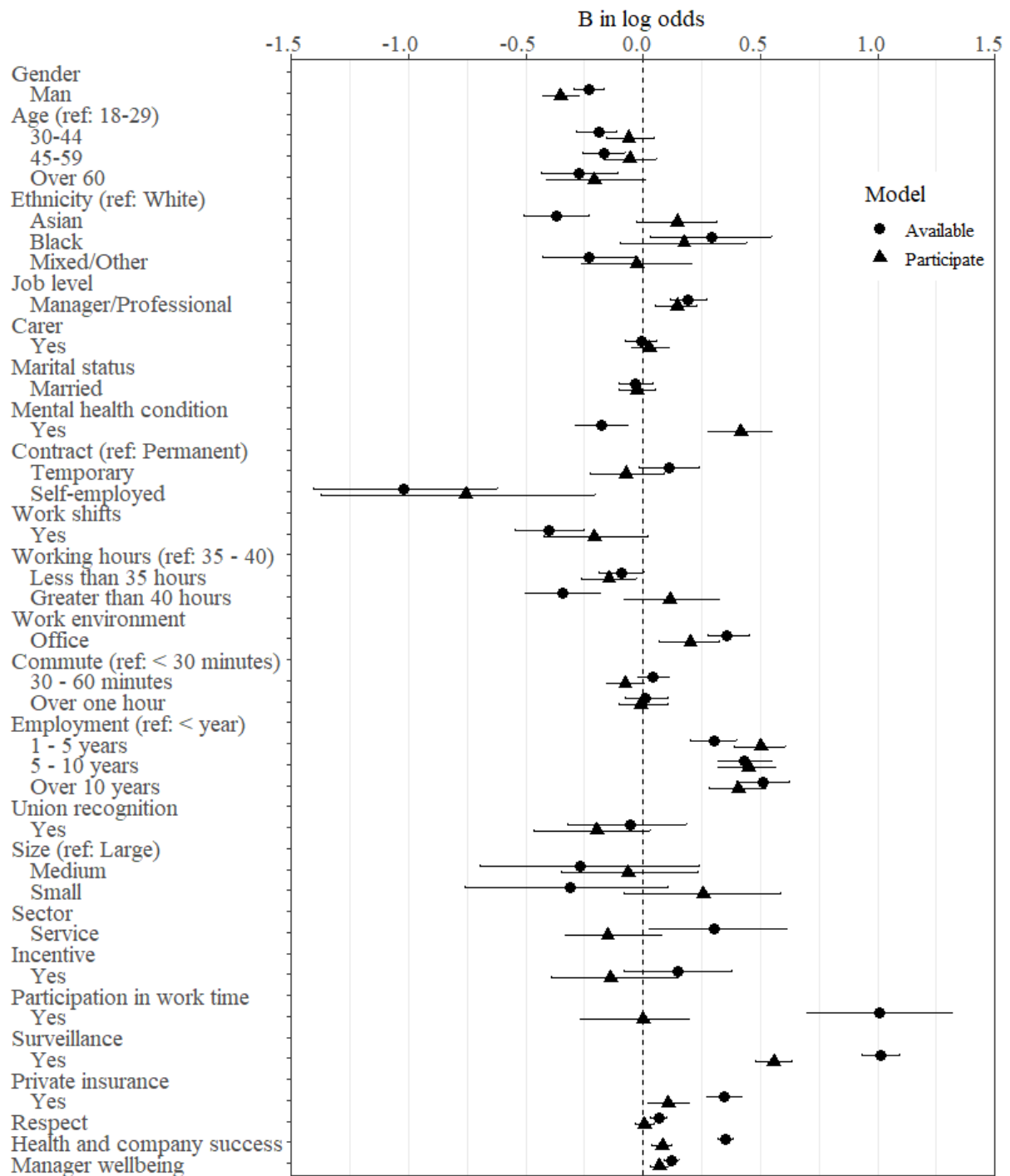
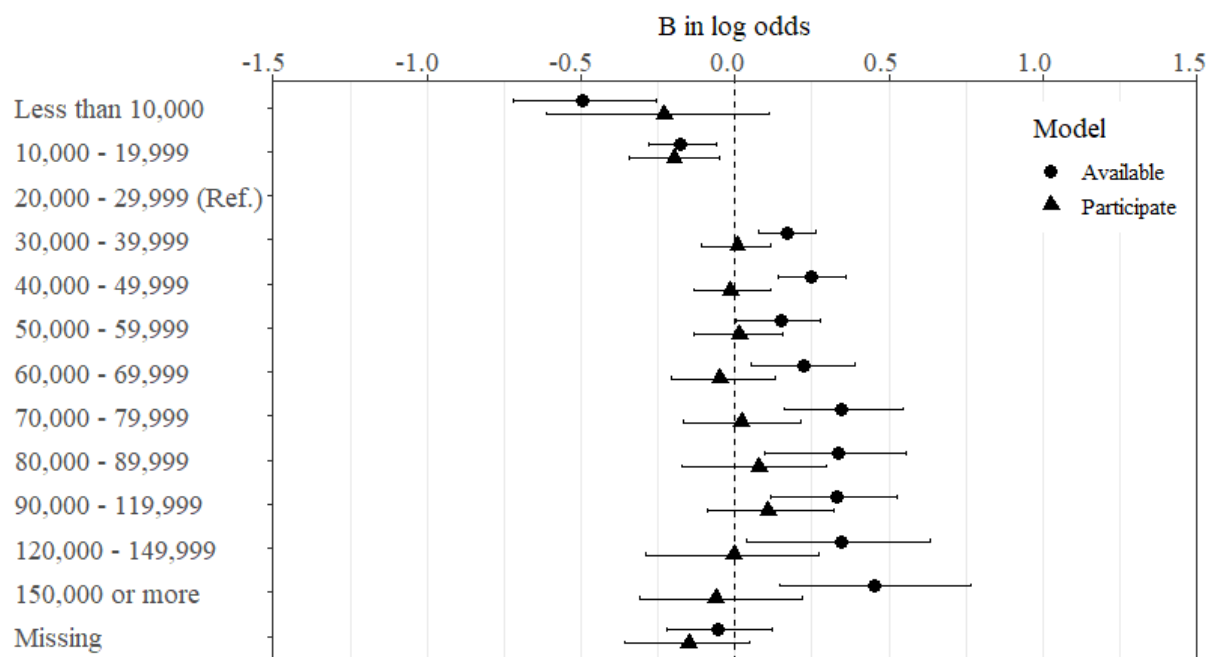
Figure 4. Coefficient plot for mental wellness

Figure 5. Income coefficients for mental wellness

Note: Model included all covariates from Figures 4. GBP (£).

Table 4. Between-organisation variance

Outcome	Model	Random intercept variance	DIC
		σ_u^2 (95% intervals)	
Mental health	Availability	0.847 (0.631, 1.118)	26,346
	Participation	0.333 (0.235, 0.461)	19,131
Physical health	Availability	0.891 (0.632, 1.22)	13,296
	Participation	0.598 (0.447, 0.792)	26,370

Note: DIC = Deviance Information Criterion.

Social structures and workplace wellness

A key argument here is that engagement with workplace wellness demonstrates health behaviour and is constitutive of health lifestyles. Health lifestyles are understood sociologically to be the products of social structures. Therefore, social structures shape engagement with workplace wellness. Results in Figures 2, 3, 4 and 5 for the regression models explore the availability and participation in both

physical and mental wellness programmes. *HB* is supported by a series of correlations for key social structures such as gender, age, race/ethnicity and disability.

Gender plays a role, with men appearing less likely to participate in both physical and mental wellness. They are also less likely to report having mental wellness available to them, and while coefficient intervals overlap with 0 in the regression results, the percentage counts suggest they are less likely to report physical wellness availability as well.

From inspecting count data in Table 3, white workers appear more likely than all other racial groups to have physical wellness available, whereas mixed/other race category of workers are least likely to have either programme type available or to participate. Interestingly, when all covariates are included in the regression models, results suggest black workers are more likely to have mental wellness available and to participate (Figure 5). A further finding from Figure 5 is that, while intervals marginally overlap with 0, Asian workers seem less likely to have availability, but more likely than white workers to participate. These unstraightforward results for race/ethnicity require further discussion.

Younger workers are more likely to report programme availability for both physical and mental health programmes, with availability declining between each age category. Younger workers also have higher participation rates in physical health programmes, with engagement declining above 45. For mental health initiatives there is no notable drop until the over 60s age group, suggesting less of an age differential. While the trend for the oldest group appears the same in the percentage counts and in the regression models, the count data suggests that age group 30-44 report the highest rates of participation. That these results differ when the covariates are controlled for suggests that this age discrepancy is moderated by other social and job factors.

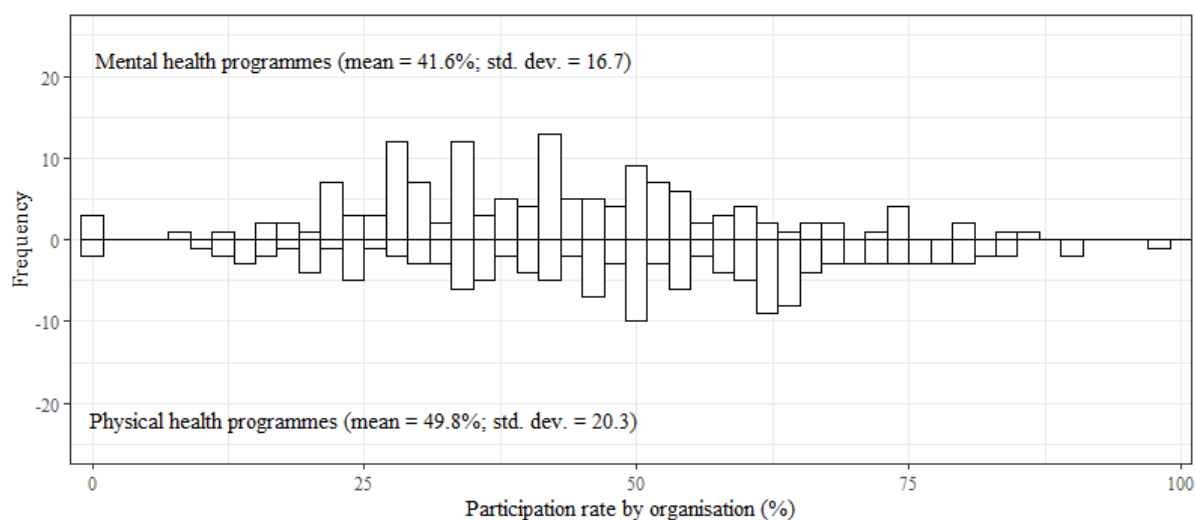
Existing health conditions appear to predict participation in both types of wellness programmes. For mental wellness, those with specified mental health conditions are less likely to report availability, but, of the relationship with participation, mental health conditions have the

strongest positive estimate of all the social covariates. For physical wellness, those with a specified condition are less likely to report availability and participation.

Social class is the central pillar to Cockerham's structural model of health lifestyles and I have argued that critical analyses of workplace wellness ought to further consider social class as a factor. That the BHW sample itself is skewed towards higher earning workers shows that there is greater interest in wellness narratives in higher paying organisations. The first indicator of social class, job level, suggests that the recoded group of managers and professionals are more likely to report availability and participation in both physical and mental wellness programmes. The second indicator was income levels, and diverging relationships were identified for the types of programmes. For mental wellness programmes, higher income workers were progressively more likely to have programmes available but no discernible difference in reported participation. For physical wellness programmes, participation appeared to correlate more with higher income as did availability, but this was not clear for the highest income categories (70,000 category and above).

Overall, these results show a number of social structures and clear associations with both availability and participation.

Figure 6. Participation rates by organisation



Note: N = 143

Work enablers and health lifestyles

Health lifestyles theory currently does not fully account for the role of work in enabling or constraining health behaviours. Engagement with workplace wellness varies considerably across organisations, with participation among the organisations in the sample averaging 41.6% (SD = 16.7) and 49.8% (SD = 20.3) for mental and physical wellness respectively (Figure 6). The level-two variance estimated in the regression models in the following sections (Table 4) further indicates the differing organisational contexts, supporting *HD3*. For availability, organisation explains a high amount of variance in the multilevel models (Physical $\sigma_u^2 = 0.902$; Mental $\sigma_u^2 = 0.859$). For participation, variance is lower but still high, especially for physical wellness (Physical $\sigma_u^2 = 0.599$; Mental $\sigma_u^2 = 0.333$).

The wider organisational approach to health and wellbeing may be partial explanation for the different results between organisations. For example, when employees also engage in health surveillance through screening initiatives, they are more likely to report wellness programmes and participate. Similarly, when they can participate during working hours, this unsurprisingly increases the rates at which workers report participation. The measures of managerial support and corporate culture also are positively associated with availability and engagement, but with cross sectional data it is not possible to interpret the direction of this relationship. Several organisation level variables were not associated either way with availability and participation (organisation size, industry, trade union recognition and incentives). Considering the wide estimate intervals, a larger organisation-level sample is required to tease out these relationships.

Certain individual work characteristics are positively associated with both availability and participation as shown in Figures 3 and 5. Not surprisingly, permanent employees are those who report higher availability as well as those who have longer tenure with the organisation. Wellness programmes are also primarily available for those working in office environments, both in terms of availability and participation.

Overall *HDI* is supported, with several work and organisational characteristics associated with the availability and participation in workplace wellness.

Work constraints and health lifestyles

While there are characteristics positively associated with workplace wellness, there are also various constraints on engaging with workplace wellness and thus on health lifestyles. As those in offices are more likely to participate, those in other work environments have less exposure to and engagement with workplace wellness. Those who work shifts are also less likely to have programmes available and to participate. Commute time also has a notable negative correlation with participation in physical wellness.

The results for commute times, while not surprising because if workers are spending longer getting to work they will have less time for engagement with health programmes, does highlight the barriers to health lifestyles brought about by the demands of jobs. Table 5 presents the full responses to the survey question on barriers to lifestyle change, and the most common barrier reported is work commitments, reported as the number one reason by 25.8% of the sample. Family commitments is the second most common barrier, indicating that work, family and health behaviours all intersect. The importance of work commitments as a barrier is relevant for the participation in workplace wellness as expressions of health lifestyles. Yet it is also relevant for considering health behaviours beyond employer-offered initiatives, reinforcing the need to integrate *HD2* into the theoretical model of health lifestyles.

Table 5. Workers' reported barriers to lifestyle change

Biggest barrier to lifestyle change	All N (%)	Not available %	Available %	Participate %
Work commitments	7,208 (25.8)	14.5	43.4	42.1
NA (No barrier)	4,333 (15.5)	14.2	36.9	48.8
Family commitments	4,016 (14.4)	12.1	44.4	43.5
Lack of motivation to change	3,260 (11.7)	10.2	47.3	42.5
Lack of time for other reasons	2,180 (7.8)	10.4	44.4	45.3
Inability to sustain healthy behaviours over time	1,738 (6.2)	7.9	41.7	50.4

Mental tiredness	1,565 (5.6)	16.7	41.7	41.7
Financial	1,492 (5.3)	16.8	47.2	36.1
Physical tiredness	1,462 (5.3)	14.4	43.6	42.1
Other	501 (1.8)	10.0	46.1	43.9
Lack of access to professional support	169 (0.6)	20.1	36.7	43.2

Discussion

Summary of results

The aim of this article is to integrate work into health lifestyles theory through the analysis of workplace wellness to extend sociological analysis of both health lifestyles and workplace wellness. Two paths in the proposed model are missing from the existing literature. Firstly, the recognition that social structures shapes health lifestyles partly through workplace wellness, and secondly, that through this relationship, work enables and constrains health lifestyles. Four hypotheses are supported by the results: social structures are associate with wellness engagement (*HB*), work enables wellness engagement (*HD1*), work constrains wellness engagement (*HD2*) and that it varies by organisational context (*HD3*).

Results reveal several correlates of the availability of and participation in workplace wellness, indicating that when discussion is of participants in workplace wellness, it is likely to be certain kinds of workers in certain work environments. The professional managerial class, higher earners and younger workers all appear more likely to engage. Job factors such as an office environment, standard hours and contracts, and an organisation geared towards participation are all also associated with workplace wellness engagement. None of these results on work characteristics are especially surprising, corroborating, for example, Jørgensen et al. (2016) and Tsai et al.'s (2019) results for Danish and American workers respectively. The results here do extend on these studies empirically by using clustered data that allows includes between-organisation variance (*HD3*), emphasising the need for multi-level analysis of workplace health, and by providing clear evidence of work commitments acting as barriers to engaging with workplace wellness and health lifestyles (*HD2*).

Advancing the sociology of health lifestyles and workplace wellness

What do these results mean for the currently bifurcated sociologies of health lifestyles and workplace wellness? For the sociology of health lifestyles, we ought to consider the workplace as a site for enacting health behaviours and therefore constitutive of health lifestyles. Clear patterns in wellness engagement are revealed for dominant social structures like social class and gender, as they are in health lifestyles more broadly. However, results also show that job characteristics, work-family balance and organisational factors are associated with the availability and participation in wellness. These findings show that health lifestyle theory must develop to include work as an important constraint and enabler. Occupations are fundamentally a function and measure of social class, but more specific aspects of jobs and working life need to be included, such as relationships with managers, working hours, physical and psychological demands and work-life conflict. Currently work is absent from health lifestyles theory.

On the other hand, critical accounts of workplace wellness ought to pay closer attention to social patterns of engagement. The current critical perspective assumes both potency, that these programmes are effective at achieving specific values and behaviour, and ubiquity within organisations. The sample analysed here shows low overall participation. Reviews of participation rates report average participation of 10-50% (Robroek et al., 2009), but many of the specific initiatives covered in this study show far lower rates. These figures do not discount that wellness strategies are still applied as contemporary forms of managerial control, but that claims of ubiquity and effectiveness should perhaps be dampened. If workers are not participating in, or even aware of, the initiatives that are available, they would not appear to be especially effective strategies of social control. This is not to say that participation is a requisite for wellness programmes to have an exclusionary, normative effect at work. Even by introducing narratives of healthy lifestyles into work environments, these changes may create pressure to uphold ideals of perceived healthy living and a specific notion of the healthy worker (Foster, 2018).

Nevertheless, critics ought to bring social structural analysis back into their analysis of workplace wellness. Considering higher participation among higher-paid managerial employees, it appears likely that certain wellness programmes are designed to appeal to and support workers with greater individual labour market power. That availability is associated with higher paying roles indicates workplace wellness may be job perks, support for preferred workers or for those with especially demanding corporate jobs. In not including these possibilities, the extant critical perspective on workplace wellness fails to account for the fact that the practical and ideological functions may differ depending on workers' labour market power and social position. These comments invoke analysis of the values and passions instilled in contemporary work (Boltanski & Chiapello, 2018; Cech, 2021; Dorschel, 2022), positioning workplace wellness as appealing to a cadre of managerial level, white-collar workers. These workers play a core role in alleviating conflicts between workers and capital and, therefore, if setting out to satisfy managerial workers, workplace wellness may play an additional and more inadvertent ideological role not captured in the current critical accounts. Future analysis should especially focus on where wellness is designed for middle class workers, such as promoting specific health lifestyles or in initiatives like job coaching, but which are then subsequently offered to workers in low wage and precarious jobs.

Further, the results for gender and race/ethnicity signal that workplace wellness may represent or contribute to the gendered and racialised organisation. Wellbeing, health and self-help cultures outside of the workplace are all thought to be gendered and racialised (Ahmed, 2010), and the findings for workplace wellness pose a number of questions. For example, to what extent does workplace wellness contribute to disadvantaged groups experiences of work and of racial exclusion? Are wellness narratives demanding additional emotional labour or socialisation of minorities at work?

Conclusion

This article makes several empirical and theoretical contributions. First, I offer a map of several predictors of both availability and participation for British workers. This contributes to the existing empirical literature and includes both personal, job and organisational variables.

This study has several empirical limitations. Primarily, I focus on participation on workplace wellness as one health behaviour, but to fully integrate work into health lifestyles theory, an array of health behaviours must be targeted. I did not take this approach because it would not additionally extend the critical wellness literature. There are further limitations stemming from the cross-sectional survey approach. For example, the measures of participation and availability are limited as binary indicators, with no information on whether this was a one-off or continued use. Similarly, the approach was productive for considering a wide range of covariates, but more targeted analysis should be undertaken for important relationships. Longitudinal analysis would also naturally assist causal claims. The convenience sample I analysed is also an obvious limitation for inference, despite the size and appropriateness for the research questions.

In terms of theoretical contributions, I advance both the sociological literatures on health lifestyles, by incorporating work into the model, and workplace wellness, by highlighting the need to think structurally about employee experiences and managerial practices. I offer a synthesised path forward that recognises both employee behaviours, work characteristics and managerial regimes. In future research, I urge sociologists of health to engage with the workplace as a serious domain for the realisation of health behaviours, and for critics of wellbeing discourse to examine more clearly the structural experiences of related practices.

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