3. Full extraction tables for included studies

3.1 Full extraction tables for peer reviewed papers

Author Year Country	**Study design Analysis**	**Population**	**Outcome measures**	**Aims**	**Results Key messages**	**Conclusion**	**Limitations / notes**
Allen 2021 UK	Online survey (recruited through social media and university courses (for course credit)). Data collected between 15th April and 8th June 2020. Differences on outcomes between groups (organised by 'shift in lifestyle' questions, including working from home) were analysed using one-way ANOVAs and independent	People aged 18+. N = 200 Mean age 24.7 (SD 7.2) years, 86% female, 93% White, 93% UK-based, 74% students, 71% employed, 92% cohabiting. 47.0% reported working from home.	COVID-19 concerns – assessed using a bespoke 7-item measure (0-5 scale, high score indicates greater concerns validated). Psychological wellbeing – assessed using the PWB18 measure (18 items relating to 6 aspects of wellbeing and happiness, 1-7 scale, score range	"to explore how social, economic and occupational disruption and appraisal of the COVID-19 pandemic may have influenced psychological well-being, anxiety, depression, loneliness, insomnia and diurnal preference"	Participants working from home did not significantly different on wellbeing-related outcome measures. "A linear regression model with self-isolation predicting PWB18 scores was significant [F(1,186) = 20.53, p< .001] and remained significant with the addition of GAD7, PHQ9 and UCLA3 scores [F (4,183) = 43.91, p< .001] predicting an additional 39.0% of the variance, however self-isolation (β = −.162, p= .004) and UCLA3 scores (β = −.596, p< .001) were the only significant predictors."	"In summary, individuals self-isolating and/or facing reduced income reported greater deficits in psychological well-being, whereas those working from home reported a potential behavioural shift towards later diurnal preference. Concerns about the pandemic were also associated with poorer mental health and sleep. These findings highlight the need to tackle psychological well-being and loneliness as priority in the aftermath of the pandemic and the potential positive effect of remote working on sleep should be considered	Self-report data, recruitment through social media and for course credit through the university. Three quarters of participants were students, so may not be representative. Also predominantly White and female. Some potential confounders were not measured, e.g. health status. Data collection occurred in a dynamic pandemic situation, and restrictions were changed during the data collection period, which may have affected findings.

	t-tests, with potential mediation assessed using linear regression.		18-126, higher scores indicate greater wellbeing, validated). Anxiety – assessed by the GAD-7 scale (7 items, 0-3 scale, scores range 0-21, higher scores indicate greater anxiety, validated). Depression – assessed by the PHQ-9 (9 items, 0-3 scale, scores range 0-27, with higher scores indicating greater depression). Loneliness – assessed by			by employers and policy makers during the transition to the 'new normal'."	

			the UCLA loneliness scale (UCLA3, 20 items, 1-4, scores range 20-80, higher scores indicate increased loneliness). Insomnia – assessed by the SCI (8 items, 0-6, scores range 0-32, higher scores indicate better sleep). Diurnal preference was also assessed (not extracted).				
Alpers 2021 Norway	Online survey, available between 15th April and 30th April 2020	Random sample of adult residents in Bergen.	Alcohol consumption – assessed through the AUDIT-C (measures	"to investigate various patterns of alcohol consumption and its association with	Self-assessed increased alcohol consumption during the lockdown period was more frequently reported by people working or studying from home (OR 1.4, 95% CI 1.3-16) (as well as those reporting economic worries and in	"more than half of respondents reported hazardous drinking behaviour and one-tenth reported increased alcohol	Response rate of 36% (32% with valid answers), possibility of selection bias. There were no changes in COVID-19 restrictions

	Self-assessed increased alcohol consumption was estimated using a multiple binary logistic regression model.	N = 25,708 (with valid answers) Aged 18+ 56% female, 13% aged 18-29, 16% aged 30-39, 18% aged 40-49, 21% aged 50-59, 18% aged 60-69, 14% aged 70+, 49% working / studying at home	frequency of drinking, typical quantity consumed, and frequency of heavy drinking, scored on 0-4 scale, scores range 0-12, higher scores indicate greater consumption, cut-offs of 3 for women and 4 for men indicate consumption above recommendations). Also assessed mean units consumed per week. Health worries – assessed with a scale containing	COVID-19 related impacts and worries"	quarantine).	consumption during the pandemic lockdown period. Increased alcohol consumption was particularly common in the age group of 30–39 years, among people with economic worries due to COVID-19, and among those who were placed in quarantine or working or studying from home. This could be important information for policymakers to keep in mind when revising measures to tackle pandemics."	during the data collection period. Recruitment was conducted using a national registry, which was randomly sampled. Large sample improves generalisability. WFH was conflated with studying from home. The period of data collection (late April, just after Easter) is typically associated with increased alcohol use. Those with no internet access and who did not speak Norwegian would have been excluded from the survey.

			items on how COVID-19 may affect own or others' health, wit response options SA, A and D. If at least one item was answered SA, health worries score was 1, otherwise scored 0.				
Anderson 2014 USA	Survey on 4 days including at least 1 teleworking day.	Large US federal Agency N=102 Average telework 2.88 days per week. 50% F 3.65% < 25, 25.61% 26-35, 19.51% 36-45, 28.05% 46-55, and 20.73% 56-65 years old.	Job-Related Affective Well Being Scale – positive and negative affect wellbeing (PAWB/NAWB). Also measured: openness to experience, trait rumination and sensation seeking,	To explore whether work location influences employees' emotional wellbeing and if it does, for whom?	Respondents generally had fairly high levels of positive affect(M = 3.74, SD = .81) and low negative affect (M = 2.33,SD = .95) when averaging across the 4 days. Only two of the individual difference variables were significantly correlated (social connectedness and rumination, r = .36, p < .01). Employees had average levels of sensation seeking (M = 2.88, SD = .57), openness to experience (M = 3.38, SD = .29), and social connectedness outside of the workplace (M = 3.35, SD = .40), and somewhat low levels of trait rumination (M = 2.07, SD = .58). Openness moderated the relationship	The relationship between telework and positive affect was more strongly positive for individuals higher in openness to experience, lower in trait rumination, and with greater social connectedness. Those with higher levels of social connectedness had a more strongly negative relationship between telework and NAWB.	Rumination is a way of coping with negative emotions that involves repetitive and passive attention on one's negative emotion and the meaning of one's negative feelings.

			social connectedness outside the workplace		between teleworking and positive affect (more positive as openness increased ($\gamma = .74, p < .05$) but openness does not influence the telework–negative affect relationship. Telework–positive affect relationship becomes more negative as trait rumination increases ($\gamma = -.38, p < .01$)., but it does not moderate the telework–negative affect relationship. The relationship between telework and positive affect is moderated by one's social connectedness outside of the workplace such that the relationship becomes more positive as social connectedness increases ($\gamma = .75, p < .001$), also individuals experience less negative affect while teleworking as social connectedness increases; $\gamma = -.73, p < .01$).		
Argus 2021 Estonia	Online survey, May to June 2020. Analysed with descriptive statistics, paired t-test, Chi squared test and Pearson	Office workers, working with a computer ≥6 hours a day, aged 18-60 years N = 161 64.6% female,	Musculoskeletal pain (MSP) – assessed by a modified NORDIC Musculoskeletal Questionnaire, records MSP in	"The aim of this study was to evaluate the impact of COVID-19 lockdown caused changes in musculoskeletal pain (MSP), physical activity	There were no statistically significant differences in the prevalence of MSP before and during the COVID-19 lockdown in different body areas and in total. Self-reported PA was significantly lower during than before the lockdown, in terms of sport-related PA (mean change in BPAI -0.52, SD 0.98, 95% CI -0.67 to -0.37, $p < 0.001$, Cohen's d = 0.42 (small	"Maintaining habitual physical activity level and preparing a more comfortable and ergonomic workspace can play a role in a healthier transition to working from home."	Pre-COVID-19 PA assessed retrospectively. PA was self-reported. A correlation matrix was not provided and so non-significant correlations were not presented nor discernible. Intensity of pain was

	correlation coefficients.	Mean age 38.2 (SD 9.5) years, From 10 organisations within the telecommunication, banking and IT sectors.	different body regions with prevalence in previous 7 days or 6 months, with the following (modified) response options: (1) no pain, (2) onset 3 months before lockdown, with the pain disappearing during the lockdown, (3) onset during the lockdown, and (4) onset before the lockdown , but the pain is still persistent. Physical activity (PA) – assessed	(PA), workplace properties, and their in-between relationships among office workers."	effect)) and total PA (mean change in BPAI -0.41, SD 1.37, 95% CI -0.62 to -0.19, $p < 0.001$, Cohen's $d = 0.26$ (small effect)), but not leisure-time PA (mean change in BPAI -0.07, SD 0.59, 95% CI -0.16 to 0.02, $p = 0.15$, Cohen's $d = 0.11$), and work-related PA significantly increased (mean change in BPAI 0.18, SD 0.54, 95% CI 0.10 to 0.26, $p < 0.001$, Cohen's $d = 0.50$ (medium effect)). There was a significant negative correlation between change in self-reported sports-related PA and change in the numbers of body regions with MSP during the lockdown ($r = -0.206$, $p < 0.01$). The number of body regions with MSP onset during the lockdown was also negatively correlated with change in workplace comfort score ($r = -0.262$, $p < 0.001$) and change in workplace ergonomics score ($r = -0.231$, $p < 0.01$).		not measured, and neither were mental health issues. Period of time since lockdown may have been insufficient for MSP symptoms to appear. Some other confounders not assessed, for instance the presence of children in the home during lockdown.

			by the Baecke Physical Activity Questionnaire (BPAQ), 16 items and 3 parts: work-related PA, sport-related PA, leisure-time PA, index for each section calculated and scores summed as Baecke Physical Activity Index (BPAI). Assessed 3 months before coronavirus (retrospectively) and during lockdown. Also assessed work environment (at home).				
Bennett	Online survey	Individuals	Videoconfer	To “examine the	Qualitative findings emphasised that	“videoconferences at	Fatigue following video

2021 US	with closed (quantitative) and open-ended (qualitative) questions. Cross-sectional (over 5 days).	working in a range of industries. N = 55 58% male, 73% White, mean age 33.6 years (SD 9.1), mean hours worked = 43.8 per week (SD 6.5). Located in the Eastern US time zone, working from home in some capacity due to the COVID-19 pandemic, ≥18 years old, work ≥20 hours per week, have remote meetings planned for the week of data collection. Incentivised with gift cards.	ence fatigue, measured using the fatigue item from the Profile of Mood States scale, scored on a 6-point scale. Predictors were: attention, webcam off, microphone off, watches self, group belongingness (from the Work group interaction scale), meeting duration, work past hour and videoconference meeting (number of meetings since last survey, most recent meeting).	nature of videoconference fatigue, when this phenomenon occurs, and what videoconference characteristics are associated with fatigue using a mixed-methods approach"	videoconference fatigue is a unique construct, characterised by feeling "exhausted, fatigued, tired, drained, or worn out". **Aim 1: When does videoconference fatigue occur?** Videoconference meetings were associated with higher fatigue at certain times of the day, with more instances occurring later in the day, and lower fatigue around/just after lunchtime. In qualitative data, participants reported being particularly fatigued by multiple (including consecutive) videoconference meetings. **Aim 2: which videoconference characteristics are associated with fatigue?** Muting the microphone (γ = −.09, p = .02) and perceptions of group belongingness (γ = −.21, p = .003) were negatively related to fatigue (i.e., were associated with lower fatigue, whereas turning the webcam off, attention during the meeting, and videoconference meeting duration were not significantly related to post-meeting fatigue. The authors tested the interaction between muting and perceptions of belongingness (which	different times of the day are related to deviations in employee fatigue beyond what is expected based on typical fatigue trajectories… turning off the microphone and having higher feelings of group belongingness are related to lower post-videoconference fatigue... [and] higher levels of group belongingness are the most consistent protective factor against videoconference fatigue. Such findings have immediate practical implications for workers and organizations as they continue to navigate the still relatively new terrain of remote work."	conferences was compared with what may be expected based on typical fatigue trajectories, and there was no comparison with fatigue following face-to-face meetings. Strengths of this study include the mixed methods approach and diverse sample of industries.

			First aim (when videoconference fatigue occurs) tested through a quadratic growth model. Second aim (which characteristics are associated with videoconference fatigue) examined using multi-level regression modelling. Open-ended response were analysed using thematic analysis (Braun & Clarke method),		were significantly negatively correlated with each other; −.45, $p < 0.05$) in a multilevel regression, and the interaction was significant: "mute levels do not impact fatigue at high levels of group belongingness, indicating the importance of group belongingness to reduce videoconference fatigue. For individuals with low group belongingness, not using the mute function has a compensatory effect, meaning that meeting attendees who reported lower group belongingness but had their microphone on (i.e., less mute) experienced less fatigue post-meeting." Qualitative data revealed that a key factor is the effort that was required to sustain attention and avoid distractions. Interestingly, unlike the quantitative data, participants spoke about having the camera on as a source of fatigue. Participants also noted that more effort was required in fostering personal connections during videoconferences, which could also impact on fatigue, and that turning on the webcam could aid this connection.		

			informed by the Attention Restoration Theory.				
Bentham 2021 UK	Online and paper survey, administered 4th to 12th May 2020. Comparisons made using non-parametric tests and qualitative responses were analysed using thematic analysis.	People working in a CAMH service (including medical, psychological, therapy, nursing, and social work clinicians.) N = 51 72.5% female, 0% aged ≤25, 29.4% aged 35-44, 23.5% aged 45-54, 15.7% aged 55-64 and 2% aged ≥65 years. 31.4% nursing staff, 9.8% medical staff, 47.1% therapists, 2.0% social workers, 9.8% not disclosed profession.	Wellbeing, assessing using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), 14 items, scores range 14-70 (high score indicates high wellbeing). Also elicited views on current working environment and perceptions of children's and families' service needs.	"to quantify the impact of the COVID-19 virus on adaptations to CAMHS working practice including workforce perceptions of: (1) the primary method of delivery of clinical contacts, (2) the ability to undertake clinical roles, (3) the supportive structures in the service, and (4) outstanding needs to work effectively"	"An independent samples Kruskal-Wallis H-test showed no statistically significant differences in wellbeing score based on the proportion of hours worked remotely during the pandemic (χ^2 (4) = 4.45; p = 0.349). However, the proportion of remote working was associated with COVID-19 worry (χ^2 (4) = 12.26; p = 0.016). Post hoe analysis (Bonferroni-corrected) indicated that clinicians working from home for 100% of contracted hours experienced significantly higher levels of COVID-19 worry (median= 7; IQR: 7-8) than those working from home for only 25% of hours (median = 4; IQR: 2.5-6; adjusted p = 0.046). Due to the additional burden of caring responsibilities, it was also proposed that clinicians working from home with children would have lower levels of wellbeing, however, no significant differences were observed between those with and without dependents (U = 172.5; p = 0.161)."	"CAMHS clinicians require additional support, training, and guidance during a pandemic to promote mental wellbeing and effectiveness in completing clinical tasks."	Response rate not reported. Cross-sectional, therefore unclear if there has been a change from pre-pandemic, and also unclear if wellbeing during pandemic values are normative for pandemic wellbeing. No possibility of following up on qualitative responses with further questions as in an interview. Protective factors were mentioned in the qualitative responses, but were not quantified in the survey.

		39.2% working full time, 56.9% part-time, 3.9% not disclosed.					
Bentley 2016 New Zealand	Online survey. Path analysis, using Partial Least Squares-Structural Equations Modelling	Knowledge workers across a wide range of sectors N = 804 47% female, Mean age 30.9 (SD 11.4), 87% full time, 58% non-managerial, 8% first-line managers / supervisors, 26% middle managers, 8% senior managers. N=509 teleworked 1-7 hpw [low telework intensity] and n=295 teleworked ≥8hpw [hybrid telework intensity].	Social isolation, assessed using the Golden et al. (2008) scale, 7 items, validated. Psychologcia l strain, assessed using the GHQ-12, validated.	"to examine the role of organisational social support and specific support for teleworkers in influencing teleworker wellbeing, the mediating role of social isolation, potentially resulting from a person-environment mismatch in these relationships, and possible differences in these relationships between low-intensity and hybrid teleworkers"	Telework intensity was not significantly correlated with social isolation or psychological strain. In the path analysis, psychological strain was significantly predicted by organisational social support (this did not differ significantly between hybrid and low telework) and teleworker support (although this was only significant in the whole sample and not in the hybrid and low telework sub-samples). Social isolation was significantly predicted by organisational social support (to a significantly greater extent in hybrid telework) but not teleworker support.	"These findings suggest that providing the necessary organisational and teleworker support is important for enhancing the teleworker-environment fit and thereby ensuring desirable telework outcomes."	Large, representative sampling frame. Cross-sectional. Only a small proportion of the sample teleworked >3 days per week.

		6% teleworked >3 days per week.					
Boncori 2020 UK	Feminist reflection (auto-ethnography?), qualitative (stream of consciousness)	One female academic	The experiences of living and working during the COVID-19 pandemic (early stages). Only content related to working from home and wellbeing has been extracted.	To offer "a feminist reflection written as a nocturnal stream of consciousness exposing the embodied, emotional and professional experience of living and working during a pandemic outbreak"	"My emotions send shock waves on the frayed surface of my consciousness. My many identities and conflicting priorities overlap in waves - daughter who must care from a distance for my elderly and ill parents in Italy; female academic in a quest for professorship; senior leader with responsibility to take forward a plan of action to counteract the negative impact of COVID-19 on our community and organization; mother who wants to spend quality time with her child; wife who treasures every moment with her partner; homeowner with walls to repair; chef with meals to plan; over-planner with anxiety to manage… I try to stay positive and count my many blessings; I try in vain to free my mind and my heart. How long will this last? Have we found an alternative for practical assessment in that department? How are we meeting stubborn external accreditation requirements under lockdown? How can we support students in difficult situations? Is the leftover sauce still edible for lunch? Do we have enough nappies in the cupboard? Do we have enough paracetamol to keep her fever down in case she has febrile convulsions again? What time is my first meeting tomorrow? I need to cancel the dentist."	"And so I make a promise to myself to think more effectively of new ways of living and organizing within the current circumstances, to create solutions that stem from feminist values in order to foster collective and individual approaches based on respect, solidarity and support. And feminist re-actions to life in today's organizations, in this case specifically within the academic context, also include writing differently, honestly and instinctively about the emotional, embodied and contested experiences of people at work; we need stories that explore the current increasingly ambiguous space of 'the workplace', to open up spaces of awareness,	This paper focuses on the lived experience of one person, and thus has very limited generalisability. Nevertheless, it contains great depth of insight into these experiences of working from home and the potential wellbeing implications, and thus can form part of the bigger picture. There is little information on how the data were collected and analysed.

					“The past month is really having an emotional toll on me. I need some time to recover, to do nothing, to read and exclude myself from the world. This forced isolation is actually enforcing a complete blurring of boundaries; and, if there ever was any distance before, there is now complete overlap in my life - no more hyphen or separation in 'work-family balance', and definitely no balance at all. I feel guilty for being so selfish in my unarticulated prayers focused on the wellbeing of my family, my ability to provide for them and others, and recognition for my efforts. There are more urgent needs, more disadvantaged environments, more paralysing tragedies.” “At this time of social distancing, online socializations have become even more important through video phone calls made not only with relatives far away, but also with colleagues and friends from work who share virtual coffees with me, their insecurities and fears, their spaces and personal environments.” “Staff have been told from the start of our communications regarding COVID-19 that our wellbeing and our families are recognized priorities, so people who need to stay home due to caring responsibilities and self-isolation will	dialogue and togetherness.”	

					continue to be paid; capital investment has been put second to people's jobs. I am proud of the decisions we have taken and the calls we have made to protect our community so far. We were given tools and equipment to work from home, training is available and flexible support is plentiful, but that seems to be a rare occurrence in our industry… Only four days ago the Prime Minister asked people to remain home and imposed restrictions on movement. We don't know for how long this pandemic emergency may continue. This is an unprecedented level of insecurity and it makes managing and supporting others even more challenging." "Last week, the first two days of working from home I had six and eight hours of virtual meetings, respectively. It feels like it's getting a bit better this week, but work at the moment is intensive and tiring. These meetings were urgent, strategic and encapsulated within a framework that had been developing over the previous four weeks: approving hundreds of alternative assessment methods in each of the seven departments I am responsible for; conceiving new courses that may attract students; re-envisaging ways to teach and learn in this new university context; managing panic and stress from a number of staff; providing advice and reassurance; selling projects we		

					ourselves may not be completely in agreement with. This pace of change and decision-making is not sustainable, and I hope we will reach a point when things will be easier. Many of my colleagues only started coming to terms with the urgency and gravity of the situation last week, while I felt already exhausted after weeks of liaison with key role holders in departments and sections. I think given the role I chose to take on and the current circumstances, we'll have to just hang in there and plough through this for now. I don't have the luxury to stop; I have to work as efficiently as possible to make sure I support the organization in implementing the best plan we could design in order to address - and hopefully overcome - the unprecedented challenges brought by this pandemic." "My child wants to play now, even if it is in the middle of the night, and every day. She wants to build Duplo towers and read stories whilst her father and I try to alternate childcare and working from home. I wish that working from home was just responding to a few emails and reading books for my research. I haven't been able to work on my scholarly activity in over a month, and I miss it. I am not able to focus on my research now, as all work apart from COVID-19 activity has been de-		

					prioritized. What will the effects be on my career? Am I selfish for thinking about my future at this time? Of course, this is the year when I decided to finally put in an application, and all promotions have been postponed. Hopefully not cancelled. Will I need to ask for an extension to deliver the book manuscript next year? What happens if my co-author and I are asked to do further work this summer on the paper we submitted last month? Most of my books and resources are in my office, Internet services are slow and overwhelmed, and systems are limited. Even doing literature research for this piece seems an unsurmountable mountain, so I give up – maybe my own life tale will be enough." "The emotional labour involved in doing this work is unprecedented for me. My father pointed out that this type of activity is what I am best suited for, what I thrive in, the time where my best skills come out. He says I have always been particularly good at shifting into action and 'going up a gear' in times of emergency or need, which is when I give the best of me. I wish it felt that way for me too. But I do feel somewhat proud, almost honoured I'd say, to be in a position whereby I can support others and make a difference, even if it is a challenging time."		

					“This form of working from home and digitalization of tasks and relationships is extremely challenging. I see my husband delivering teaching and assessment online, supporting colleagues who have never had experience of this, having to catch up on knowledge and technology hardly ever heard of before, and balance it all off with his own studies, family life and childcare. If life commitments and work are two shifts in a woman's life, as articulated in the book by Arlie Russell Hochschild with Anne Machung, this new way of working in times of pandemic emergency feels like 'The Never-ending Shift'. Private homes are invaded through monitors; tiny cameras open up an immense window into our personal lives: our messy living rooms, the laundry hanging up in the kitchen, the pets needing limelight and children seeking undivided attention. I am very protective of my family space and I only want to share it selectively. Our sleep is often interrupted with worry and pain, our processes and habits are manipulated into something new that we do not recognize and yet need to adjust to at pace. This digital invasion is chipping off at the source of wellbeing my home offers in terms of comfort, protection and safety from the outside world. I wonder what my life looks like from the outside, from the other side of the camera lens. I am comforted by the opportunity to use a virtual backdrop in		

					my online conversations, and yet I feel disturbed by it as it introduces a fake filter against the authenticity of my interpersonal connection." "I was so absorbed in back-to-back meetings today that I forgot to drink water, and then developed a headache, which made work even more exhausting. My back issues are now tormenting me, and the only way to avoid being crippled by pain is to work whilst sitting in bed, which may not be perceived by many as 'professional enough', so on goes the fake room background. The incredibly fast-paced rhythm of the past few weeks has demanded a very full schedule, which makes shopping for groceries problematic, as things like milk, eggs and other necessary items are only but memories on empty shelves adorned by meaningless price tags at the end of the day." "I wish I could just go back to sleep now, but my brain has gone into analytic overdrive and I start to consider assessment options, blended delivery plans, staff cover issues, student welfare and a million other matters. I think that I might as well have a look at my emails now, since I am awake; it will be fewer to do in the morning. Yesterday, I had almost 200 emails coming in during my first three hours of meetings; those are		

					emails that require an action or an answer. I am on constant hyper-performativity or speed-dial mode, but I need to create pockets of normality within my work to ensure self-care and foster wellbeing. Sometimes it's just easier to keep going, but I must be more disciplined with this."		
Burstyn 2021 US	Online survey administered between 17th April and 3rd July 2020. Multiple regression models of HADS scores, estimated using binomial regression	People living in Philadelphia who had a job since the first case of COVID-19 was reported in Philadelphia. N = 911	Anxiety and depression assessed using the HADS. Scores of ≥11 were considered 'cases' of anxiety or depression, for each subscale.	"to describe symptoms of anxiety and depression in a sample of general population of Philadelphia, PA, in relation to features of work during COVID-19 epidemic, with emphasis on associations with perceived and actual changes in work precipitated by the outbreak, while accounting for sources of support and general health"	"Starting or substantially increasing telecommuting appeared to be associated with increased anxiety in both sexes as well, with the effect more prominent among men."	"Heightened anxiety and depression during COVID- 19 pandemic can be due to widespread disruption of working lives, especially in "non-essential" low-income industries, on par with experience in healthcare."	Convenience sampling – potential for selection bias.
Chakrabarti 2018 US	Cross-sectional analysis of	Employed people aged 18-64	Physical activity, assessed	"to explore the effects of telecommuting	Frequent and occasional telecommuters had similar PA levels, however frequent telecommuters made marginally more	"This cross-sectional analysis using 2009 NHTS data generally	Not able to isolate those who took leave on the 'travel day'.

	national dataset, in March 2008 to April 2009 timeframe. Linear regression, controlling for personal and household characteristics (e.g. income).	N = 123,810 12.5% reported having the option to telecommute ('option to work at home' per NHTS definition), 62.1% of whom reported telecommuting ('working at home for an entire work day').	using the Day Trip File (one-day travel diary) calculated into minutes of PA, assumed to be at least moderate intensity. Telecommuters were classified into 'frequent' (≥4 days over the past month or once per week on average), and 'occasional' (1-3 days over the past month).	on non-motorized travel, public transit use, physical activity, and vehicle miles travelled in order to estimate health and environmental impacts of telecommuting"	walk trips per week than occasional telecommuters on average, and both made more walk trips than non-telecommuters. Both frequent and occasional telecommuters engaged in 8-9 minutes more per day of PA than non-telecommuters, on average. 31% frequent, 27% occasional and 21% non-telecommuters met or exceeded the 30 minutes per day activity target. On the 'travel day' (that the survey/diary related to), those who telecommuted engaged in an average of 15 minutes of PA more than those who travelled to work on that day.	suggests that the increasing adoption and expansion (e.g. in terms of days/hours offered and employees covered) of telecommuting programs by firms may help promote non-motorized travel and physical activity in the U.S., if latent demand for sustainable travel and healthy living exists."	
Charalampous 2021 UK	Semi structured interviews. Thematic analysis	Forty (23 male) remote e-workers working for a British IT Company, mean age of 46.86 (SD =	Work related wellbeing (affective, professional, social, cognitive, and	Explore the impact of the remote e-working experience on employees' well-being.	Interviewees were working full time from home and only occasionally visiting the office or customers sites (N =13); some others equally working from home and office locations (N = 10); some splitting their time between office, home and customer locations (N = 8).	Findings of the present study overall supported the complex and multidimensional impact that remote e-working experience has on individuals' well-being	

		8.43)	psychosomatic well-being).		Overall remote e-working seemed to have a positive effect on emotions. Individuals advised that compared to working in an office, they were more satisfied with their jobs and felt happier with getting a better balance between their working and non-working lives. However, numerous remote e-workers said that it was easy to feel lonely, bored and sad when the social interaction was reduced or eliminated. Also, feelings of anger, frustration, and stress were mainly linked to issues with technology, or not being able to get hold of colleagues when needed. Regarding individuals' psychosomatic health, it appeared that none of the employees reported serious and exasperated health conditions resulting from remote e-working. However, increased sedentary behaviours combined with the absence of breaks was a prominent risk factors for psychosomatic health. Regardless of the risk of not taking enough breaks, and not having appropriate ergonomics, interviewees suggested that a healthier lifestyle was available to them. Interviewees suggested that being part of an organisation that embraces and supports remote e-working was fundamentally important for their career progression and development.		

					This was because results ultimately drove their progression. Some dangers of not being physically present about career opportunities and relevant training were outlined though, especially when individuals first started e-working remotely.		
Clark 2021 Ireland	Qualitative – IPA (semi-structured interviews via video call). Thematic analysis was undertaken, based on the principles of Smith and Shinebourne (2012).	Working mothers with their children, recruited through convenience and snowball sampling. N = 30	The impact of working from home with children during the COVID-19 pandemic (including psychological wellbeing, and the circumstances that influenced it).	"to understand the experience of working mothers who managed work and home duties during the COVID‑19 pandemic in Ireland."	Most participants reported increased levels of psychological distress as a result of the pandemic and resultant changes to the dynamic of work and family life: *"I was very distressed and I'm sure most parents where because it's like what do we do now? And everything was just everything was all. Everybody was worried, you know, 'cause we didn't. We've never experienced this before so it was all thrown up in the air and then we were left to deal."* This was due in part to being disproportionately affected by additional tasks such as increased childcare and domestic duties, which became more than they could manage: *"I think that, um, I think it's. I think it's too much. I think it's too much. My mother had a stroke last year. My mother in law died last year. You know, we've had we've had some challenges, but nothing like the psychological challenge of this."*	"The findings show the working mothers in Ireland are experiencing psychological distress, encountered negative emotions at the beginning of the pandemic, and are redefining family roles to account for consequences of COVID‑19. As the crisis continues, these issues will likely persist, and as such, more consideration needs to be given to creating support systems for families and especially working mothers."	From my own experience (in the UK) this study has good face validity. Relatively large sample size for a qualitative study. In-depth nature of data collection has meant that factors relating to wellbeing were explored. May not extrapolate beyond a pandemic context, although the results clearly highlight where pandemic-specific factors have impacted wellbeing.

					An additional challenge was managing the psychological welfare of their children during the pandemic, and help them to cope: *"And as a mother when you see your children upset and crying, and I found it myself. I'm not gonna, like some days I felt like crying…because I'm telling (my child) no don't be silly. Everything is going to be fine but inside I'm going is it, you know?"* The psychological burden of being a working mother was compounded by grief and trauma related to the pandemic, including losing loved ones. In the early stages of the pandemic, working mothers experienced negative emotions, including higher levels of stress, guilt, increased pressure, disconnectedness and isolation. Women reported their work being affected by disproportionately increased childcare responsibilities and domestic duties in addition to working from home: *"I know, I know in the first few weeks, I was stressed I was giving out to the kids and then I just had to say, listen, I have to stop. Just stop because nobody knows what we're doing, no one's totally and if I can't be online for 8 hours a day, I can't be on line 8 hours a day. Yeah, it's so mixed because you're a teacher you're a mother, you're a worker. You're doing the laundry, you're cooking lunch are*		

					you're not taking a lunch break. You're all in the one room, nearly. It was, it's just mad." The challenge of having to look after children while also being expected to work caused tension: *"So he only like you know, every time I back turned, he was in some um online on YouTube watching some playing [Fortnite] or something. You know he's absolute nightmare so or beating up his sister one or the other. I was on many calls where like my boss would say, do you want to go and sort that house because you could hear the fighting from 2 rooms away."* This was a particular challenge for lone mothers. Guilt, relating to children not being able to see friends of participate in activities, seeing others unemployed or ill, or issues arising from work-family conflict, was a common experience, and boundaries between work and family life became difficult to manage: *"You know you kind of felt when you were working. You were feeling guilty because you weren't. You know, helping you know? With them with more structure and then when you were doing that then you're kind of going. Oh my God, I hope nobody's looking for me….But at the same time it was tricky*		

					because and you know, I suppose you have a good work ethic and you want to do the best that you can do and it was really difficult to draw the line between being Mammy and being at home, but also having a work identity." This guilt was compounded by comparisons with other parents and participants feeling like they weren't doing enough for/with their own children (e.g. baking). Participants also reported feeling isolated, particularly if they were not able to see family members living in other towns and their neighbours could see family. The challenge of supporting their children with online learning was also a challenge for working mothers: *"You're concerned about the child's development and you want them to do well at school and you don't want them to start falling behind and regressing. So I think it's more an internal pressure that, um, I would put on myself to say God there. We have to keep up at least English, Irish, maths, and we can skip the un stuff. Um, and the extra subjects, but I think that was more my own."* The impact of the additional childcare fell disproportionately to the women in this study, and many felt they needed to try and find a part-time job or quit work		

					altogether. They also recognised the detrimental impact of this situation on their careers. Those with more flexible work found it easier but still a challenge. Participants reported having to reduce work hours and their friends taking anti-depressants. Women reported that male partners' employers did not give any consideration to their potential childcare responsibilities, which added to the burden on women.		
Collins 2016 UK	Qualitative case study approach, using semi-structured interviews. Data were analysed using template analysis. "The original focus of the research used the psychological contract as a framework to explore the employment relationship: that is the expectations that teleworkers	Staff in 3 departments in a large English local authority (council tax, benefits, and community services). N = 33 6 supervisors, 2 managers, 12 office-based clerical staff, 13 clerical teleworkers (11 FT, 2 PT). (Teleworkers were permanent – this was routine	Social relationships between teleworkers and office workers. Extracting only themes and data relevant to wellbeing within this context.	"to explore social support relationships that exist between permanent teleworkers and their office-based colleagues and supervisors through presenting the findings of a qualitative case study"	Teleworkers only had social relationships with office workers whom they already knew and had already met face-to-face. They did not know nor get to know new office staff, and typically did not call upon office staff for support unless they knew them, and therefore if teleworkers were not brought in and introduced to new office-based staff they could become increasingly more isolated. The work was not 'collaborative' and managers expected that teleworkers would work independently, therefore there was no social network functionality set up to facilitate interaction between teleworkers. However, most teleworkers would in fact contact other teleworkers via work phone, personal phone or email if they had queries (rather than their team leader or supervisor), as they might have done in the office in person. Through this communication, the teleworkers	"This qualitative study drew upon the findings of one public sector organisation and provides valuable insights into social support between permanent teleworkers, office-based staff, and supervisors. However, the results of this one case study cannot be used to make generalisations around the social support between teleworkers and office-based staff more broadly. As more workers work from home further research is needed that explores the complex relationships between teleworkers, their	As with all case studies, findings may not be generalisable beyond the case. There is little in the way of reflexivity. No detail on recruitment.

	and their office-based colleagues have of each other and the expectations they have of their supervisors and their supervisors have of them. However, the importance of work and social relationships in the workplace emerged from the data and forms the focus of this paper."	clerical work, and some people had to be demoted or hold back on promotion in order to be able to work from home.)			created a collective identity, seeing themselves as a distinct group with issues particular to teleworking: *"We might have certain issues that wouldn't affect somebody in the office and we do actually speak together a lot, like if anybody has got an issue with something we all ring each other and discuss it with each other, before we take it any further" (Amy, teleworker)* Teleworkers also turned to each other for emotional support, usually using personal rather than work phones, to have conversations similar to the ones they would have had in the office with each other: *"... because you don't have somebody to go to so we're quite good at picking up the phone - not the work phone I hasten to add - just have a quick moan" (Louise, teleworker)* Teleworkers felt committed to fulfilling the team leader's expectations, and were concerned that they would be recalled to work in the office again if it was felt they were under-performing. Just over half of teleworkers also had a more personal relationship with their team leader, and sought emotional support from them, which team leaders provided, as managers often felt that teleworkers missed out on face-to-face support. For instance, one teleworker described how her section manager	office-based co-workers, and supervisors. As this research shows teleworking may lead to more personal, intense work relationships and further research is also needed to explore how this impacts upon other household members of the teleworker."	

					visited after a poor performance review, to find out how she was. The teleworkers generally required more emotional support than office-based workers, due to getting drawn in to personal issues in the home domain. Teleworkers and office workers had different views on office life. One benefit perceived by teleworkers was that they could avoid the negative aspects of office work, such as "backbiting" and "bitching": *"I don't like being in an office. I find offices full of, typically, large groups of women who* *are very, very catty" (Amanda, teleworker)* For some, this was the reason they chose to work from home, and one teleworker reported that if they hadn't moved to teleworking they would have left the organisation because of this. This worked both ways, with supervisors reporting a desire to move disruptive or underperforming staff to telework: *"They're hying to send somebody from [the office] to work at home because they're a disruptive influence in the office. Which is one of the worst possible reasons I can think of, but we are, and I'm sure all organisations do it to a degree if they do homeworking, is get the person who upsets your team members out of the team" (Robert, team*		

					leader) But this may in turn make managing such staff problematic, and supervisors may be less willing to visit teleworkers.		
Cotterill 2020 UK	Online survey, 5th May to 5th June 2020. Descriptive analysis of quantitative data with Mann-Whitney U test for examination of differences between groups; thematic analysis of qualitative data (open-ended responses).	Water sector employees N = 502 60.6% male, 84.2% worked from home. Diverse range of jobs. 64% from England, 6% Scotland, 5% Wales, 2% NI, 9% other (non-UK) countries.	One question related to wellbeing – "My general wellbeing has improved since lockdown", rated on a Likert scale. No further information on this item and its rating was provided.	"to analyse the challenges facing the UK water sector from COVID-19, capture best practice and identify learning opportunities to improve resilience"	More women saw a decrease in wellbeing (39%) than men (32%), although this was not statistically significant, and there were no significant difference between the median wellbeing values for men and women ($U = 27\,030$, $z = -1.472$, $p = 0.141$). The authors report: "This is likely due to each individual coping with and adapting to the pandemic in different ways. Individuals were subject to different challenges: some may have had significant childcare responsibilities, whereas others may have struggled with isolation. Respondents reported negative and positive impacts, each of which may have counteracted any significant deviations in wellbeing and positivity." (p.6) Essential workers had the largest improvement in wellbeing (29%), whereas those who were unsure as to whether they were an essential worker had the highest decrease (47%) in wellbeing, although no significant differences were found between 'essential workers', 'non-essential workers' and those 'not sure'. The authors report: "These moderate	"At the sector level, coping involved the ability to meet an increased water demand with a remote workforce. Lessons learned highlight the importance of communication and collaboration. Future crisis plans should prepare for prolonged crises of international magnitude and multiple threats."	Sample was representative of water sector workers more broadly. Most but not all data relates to those working from home and no separate analyses conducted.

					differences suggest that uncertainty, perhaps through poor communication, can impact wellbeing." (p.6) Wellbeing challenges mentioned in open-ended responses included care responsibilities (which were more frequently mentioned by women than men), isolation, a lack of social interaction, and missing face-to-face contact (by both). Some participants commented that their work-life balance was better, resulting in better wellbeing: "There have been some good things to this lockdown. Spending more time with family and a reminder that the pace of life is too fast and a consultant reflected, cutting to a 4-day working week and spending more time with the family has improved my life quality. More widely this should be an opportunity for society to evaluate its priorities"		
Daniel 2018 UK	Inductive and qualitative – interviews analysed with "continuous recursive movement between data and concepts resulting in an iterative process of theory/construct	Knowledge workers with online home-based businesses "e.g. web-designing; developing revenue generating community portals; promoting information	Participants' views and experiences on working from home (with their own business)	To "enhance current conceptual understandings of mobility, isolation and paradox by analysing knowledge-workers' interrelated, multidimensional experiences within	Participants described feeling more fulfilled by having more time and mental space for creativity and creative work, by working online and thus being 'freed' from daily face-to-face workplace interactions, which they saw as a distraction. Participants also enjoyed the inherent autonomy of scheduling inherent in working from home (particularly with their own business), for example alternating working patterns to fit around preferences for each day, such	"Despite enjoying career, mental and virtual mobility through internet-connectedness, they were found to seek face-to-face social and/or professional interactions, their isolation engendering loneliness, despite their solitude paradoxically often fostering creativity and	Something to bear in mind is that all participants ran their own business from home. Snowball sampling – sample may not have been representative (although researchers sought a range of participants and a range of views).

	development”	about goods… and services” n = 23 65% female		restrictive home-based working contexts”	as taking an extending lunch break and catching up in the evening. In contrast with the positive feelings of reflective solitude (and creativity), participants also experienced loneliness and isolation: “*The one very dark porridge is I find it very isolating…very, very isolating.*” Participant #7 “*After two or three years, it's really hard…a lonely, lonely journey*” Participant #20 So it seemed that the isolation/solitude was a double-edged sword, with simultaneous advantages and disadvantages. Also that some participants enjoyed the solitude more than others. For instance: “Despite needing daily physical interactions, ex-teacher Participant #2 enjoyed solitude. She had found working as a teacher very intense in terms of the large number of people faced daily in that role. She felt happier running her online business without “all those voices” from previous physical working-day interactions disturbing her sleep.” In terms of isolation, people distinguished between social and professional isolation. With social isolation, people would feel isolated from face-to-face contacts and would deliberately change location (even just	innovation.”	

					in the house) to seek out others. The type of interaction is also important. One participant described missing daily friendly face-to-face interactions, but not the superficial and alienating interactions that took place in a large company she previously worked for. Some participants addressed this by deliberately going out to interact with people, socialising at the school gate, planning evening or weekend activities, connecting with friends and family (via telephone or social network), and having the radio on in the background while working (which could also be switched off when peace and quiet was required). In terms of preferences, the participants in this study valued being in control over communicating with others. Social isolation could be exacerbated by flexible working, for instance if they spent time with their family during the day, then they would need to work evenings or weekends, which also created isolation from the family. To avoid professional isolation, participants would connect with others who ran similar businesses, for mutual benefit. This would help their businesses as well as helping them to feel less cut off from others in the same field. They also used these networks and support communities for sharing clients/work and trouble-shooting problems. People		

					also described telephone and in-person contact with others in these networks as being helpful in alleviating isolation. Isolation was exacerbated by working long and irregular hours, particularly when in regular contact with people from overseas (e.g., clients, collaborators): "*I went to bed at the same time that my parents got up to go to work. It doesn't make any sense, personally*" Participant #20 Fear of the IT equipment/online connection failing was pervasive and driven by a fear of being completely cut off.		
De Sio 2021	Web based cross sectional survey.	Teleworkers 348 (60.52%) females and 227 (39.48%) males, Median age of 40 years (IQR: 33-49). One-third of the sample (30.09%) claimed that they worked more than before the	psychological distress and perceived well-being GHQ-12.	To assess the consequences of the Covid-19 pandemic on job organization, exploring the effects of lockdown measures on the psychological distress and perceived well-being of workers experiencing telework.	Psychological distress was associated with educational level, with habits, and with reporting poor well-being. Poor well-being was associated with a higher job demand during pandemic, lifestyle and habits variables, and psychological distress. Psychological distress was associated with post-graduate (OR 2.20; 95% CI 1.20-4.03) and graduate (OR 2.01; 95% CI 1.21-3.34) educational level, with feeling not "sheltered at home" (OR 4.73; 95%CI 1.28-17.48), and with reporting poor well-being (OR 7.39; 95%CI 3.44-15.86).	These results indicate that people with lower educational levels had a lower risk of psychological distress than those with higher educational levels. That assumption contrasts with strong evidence that low socioeconomic position is often associated with severe mental health disorders, such as Depression.	

		pandemic and two thirds (72.87%) to have participated in video conferencing more often than before.			Poor wellbeing was associated with having a higher job demand during pandemic (OR 2.61; 95% CI 1.10-6.19), with feeling not "sheltered at home" (OR 8.80; 95%CI 2.60-29.75), with smoking more cigarettes during pandemic (OR 2.47; 95%CI 1.13-5.59), and with experiencing psychological distress (OR 8.01; 95% CI 2.57-24.97).		
Delanoeije 2020 Belgium	Quasi-experimental study – employees allocated by two department heads to either teleworking (≤2 days per week) or control (no teleworking, as per usual), based on commuting time and job performance. Analysed using multivariate repeated	Employees of a large international construction and property development firm in Brussels. N = 78 (n = 39 allocated to teleworking and n = 39 allocated to control); n = 64 (n=34 in teleworking and n=30 in control groups) completed the follow-up assessment).	Stress, assessed by the GHQ, subsample of 5 items, 1-7. Assessed at T1 and T2 with reference to past month but also adapted for daily assessment (wording changed to 'today'). Work to home conflict, work engagement	"to improve our understanding of the impact of telework by simultaneously examining between-person and within-person effects of telework using a quasi-experimental design."	"The univariate F tests showed there was a significant interaction effect between time and group for stress ($F(1,62) = 4.21$, $p = .04$, $\eta_p^2 = .06$)", whereby stress decreased among the teleworking group but not the control group – once commuting time was included as a covariate, there was no group by time interaction effect for stress, suggesting that the decrease in stress among the teleworking group could be accounted for by pre-existing differences in commuting time. For daily stress, "the standardized estimate of teleworking day on daily stress ($\gamma = -0.20$, $p < .001$) was negative and significant", supporting the hypothesis that the intervention group would have less daily stress on a teleworking day compared with a non-teleworking day. There was no significant effect of group	"Our results provided support for within-person but no multivariate between-person effects of telework, yet our between-person design was likely to be underpowered to observe between-person effects… There were no differences between teleworkers and non-teleworkers on these outcomes on non-teleworking days. We therefore encourage scholars and practitioners to use different levels of analysis when studying or evaluating telework policies since effects between employees	Commuting time and job performance were considerations in allocating to groups, and participants did differ between groups on these variables, therefore these factors may have impacted on findings. T2 response rate of 83%. Looks like commuting was the only confounding variable accounted for in analyses. One company case design, thus low external validity. Small sample size, lack of power (although no formal power analyses conducted).

	measures MANOVA.	75.6% male, range of job titles and levels of seniority, 0-4 children (mean 1.23, SD 1.10)	and job performance were also assessed but not extracted.		in any of the models, demonstrating that "on office days, employees in the teleworking group and employees in the control group report similar levels of daily stress".	and effects within employees may not necessarily be the same."	Shortened versions of validated scales were used, which in themselves may not have validity. All measures were self-reported.
Delfino 2021 Italy	Qualitative field study, using semi-structured interviews (conducted May to June 2020). Data were clustered and analysed using a pattern matching approach (Crang, 1997), which involves thematic coding, and the development of a theorised narrative.	Employees from professional service firms, at various grades (apprentice, analyst, consultant, senior consultant, manager, senior manager, senior auditor) N = 15 (9 female, 6 male)	Management control practices, and employees' responses to these (including wellbeing, and factors affecting wellbeing).	"to investigate how remote working impacted the use of management control in professional service firms and explore how these changes affected employees."	Wellbeing was directly alluded to. Employees experienced stress in relation to increased demands and fear of management, which led them to miss breaks to increase their availability, decreased their motivation for their job (and subsequently looked for other work), and a serious impact on mental health. Employees (even senior ones) felt unable to discuss this with management: *"In our world these issues are very sensitive [...] I do not talk about this with my manager, since I do not want to signal that I do not want to work. Maybe that would piss him off. The only people I can talk about this are my colleagues [at the same level], who agree with me." (Giulio, emphasis added)* Several working practices that could impact on wellbeing were also mentioned. These included the use of 'action controls' (including increased monitoring, borne out of a lack of trust in employees by management),	"The field study of professional service firms in Italy presents findings that can inform the management control literature, both empirically and theoretically, and may inspire future research."	The research was cross-sectional – the authors suggest longitudinal future studies may be insightful to see how responses to the crisis unfold over time. Also, only short-term effects were examined (i.e. from the start of the pandemic).

					including management scheduling more video calls (than they previously had in face to face meetings), and monitoring employees' online/offline status and calling them when it changed. This made employees feel uncomfortable. Employees also felt they should always be available, including before and after the expected start/end of the working day, not taking lunch breaks, and responding to chat messages immediately. Some employees also reported an increase in workload and expectations, and others reported a removal of previous responsibilities (e.g. dealing with clients). Some experienced an increase in the hierarchy, and others a decrease, as video conferencing had resulted in the breakdown of hierarchical barriers. Some participants reported increased autonomy through possibilities such as being able to ask colleagues of the same level queries via MS Teams, where they would previously have asked a manager. The authors note: "Although no generalizations should be drawn from our explorative study, the collected evidence suggests that managers who provide more autonomy to their employees and employ less strict types of MC have team members who seem more motivated." (p.9)		
Di Tecco	Prospective	Public	General	"The aim was to	There was no significant change in	"This study highlights	High response rates in

2021 Italy	cohort study to investigate the impact of a smart working pilot. Analyses comparing data from T1 and T2 were conducted using paired samples t-tests, and random effects regression models were calculated to account for unobserved variables.	administration workers, who moved to working from home (smart working) one day per week. N = 187 78.6% female, Mean age 50.7 (SD 6.8) years, 52.9% educated to degree, 0.8% managers, 14.3% professionals, 84.4% administrative and technical staff.	health – assessed by a single item asking workers to rate their own health, 1-5 (1 = very good, 5 = very bad). Wellbeing – assessed by the WHO measure, 5 items, 1-5 scale. Also assessed job satisfaction, work-life balance, and psychosocial factors at work (including demands, control, peer support, managerial support, role and change), as well as demographic	investigate the effects of work organization on work attitudes, work-life balance and health outcomes before and after the introduction of the smart working"	general health (T1 mean 3.69, T2 mean 3.69, mean difference 0.00, SD 0.70, p = 1.00) and wellbeing (T1 mean 14.12, T2 mean 13.72, mean difference 0.40, SD 4.72, p = 0.247) from T1 to T2 as evaluated by t-tests. In the regression models, significant predictors of wellbeing were demands (-0.703, p = 0.027) and effective management of change (1.461, p = 0.003), and demands (-1.00, SE 0.048, p = 0.037) and higher education (0.238, SE 0.100, p = 0.018) significantly predicted general health.	the beneficial health effects of workplace flexibility and suggests that organizations may benefit from building a culture of flexibility. Given the growing number of workers using smart working during the epidemiological emergency, this issue currently assumed great relevance for the OSH and organizational productivity implications."	both waves – 74.3% of those invited completed the T1 survey and 78.9% of those completing the T1 survey completed the T2 survey. Longitudinal design an advantage. WFH was standardised across all workers, but was only one day per week so may not generalise to all situations.

			information.				
Docka‐Filipek 2021 USA	Online survey, recruited via Facebook, from 28th March 2020 to 26th May 2020. Comparisons made using Welch's *t* and examination of impact of predictors on mental health made with bivariate analyses and multiple regression.	University faculty working from home at the start of the coronavirus pandemic. N = 345 77% female, 21% male, 2% transgender, genderqueer or nonbinary, Mean age 42.84 (SD 9.23), range 23-83, 89% White, 6% Hispanic ethnicity, 71% married, 7% living with partner, Mean number of dependents 0.96 (SD 1.01), Mean number of courses taught on during spring semester 3.63 (SD 1.37).	Self-reported mental health (depression and state anxiety) was assessed using a shortened version of the Center of Epidemiologic Studies Depression scale (CES‐D: Zhang et al., 2012), 10 items, and the state anxiety subscale of the 6‐item version of the State Trait Anxiety Inventory (Tluczek et al., 2009), both validated. Ongoing impact of	"to examine the impact of the transition to working and teaching remotely on faculty during the Spring 2020 semester, specifically in response to the COVID pandemic"	Women faculty reported significantly higher depressive symptoms (mean score 14.86, SD 5.79) than men (mean score 12.75, SD 6.75) (Welch's $t(1, 97) = 5.76$, $p = 0.018$). Women also reported higher state anxiety (mean score 16.52, SD 4.00) than men (mean score 15.07, SD 4.20) (Welch's $t(1, 105) = 7.27$, $p = 0.008$). In bivariate analyses, having a higher teaching load ($r = 0.12$, $p < 0.05$) and greater financial concerns ($r = 0.27$, $p < 0.001$) were associated with higher depressive symptoms, and having more dependents in the home ($r = 0.11$, $p < 0.05$) and greater financial concerns ($r = 0.21$, $p < 0.001$) were associated with higher state anxiety. Two multiple regression models were run, which accounted for significant variance in depressive symptoms ($F(6, 322) = 7.29$, $p < 0.001$) and state anxiety ($F(6, 322) = 5.93$, $p < 0.001$). Gender accounted for unique variance in both depression ($\beta = 0.17$, $p \leq 0.01$) and anxiety ($\beta = 0.17$, $p \leq 0.01$) risk, after covarying for race, academic position, teaching load, number of dependents in the home, and financial concern at separate steps. Higher financial concern accounted for unique risk for both depression ($\beta = 0.30$, $p < 0.001$) and anxiety ($\beta = 0.26$, $p < 0.001$), and having	"women faculty's well‐being and career advancement are threatened by disparate, obscured service burdens both within the academy and at home during the pandemic."	Questions asked about the number of dependents, but not who was looking after them (i.e. self or partner). Potential for selection bias due to recruiting through social media (and using an online survey), and the sample was not representative (e.g. a much greater proportion of securely funded staff (tenure track) than is commonly in institutions).

		Women were over-represented and part-time or adjunct faculty were under-represented. Job included adjunct instructor (9%), lecturer / instructor (11%), assistant professor (35%), associate professor (27%), full professor (17%).	Covid (case numbers) was also examined.		more dependents accounted for unique risk for anxiety ($\beta = 0.13$, $p < 0.05$).		
Dunatchik 2021 US	Online survey, nationally representative, April 2020.	Adults, nationally representative sample. N = 2200 (focusing on 478 partnered parents and 151 single parents)	How pressured parents feel to oversee their children's distance learning. (Other outcomes not extracted include	To "examine how the shift to remote work altered responsibilities for domestic labour among partnered couples and single parents"	Among partnered parents, where both parents worked from home, 66% mothers and 65% fathers reported feeling "some" or "a lot" of pressure regarding children's home learning during the pandemic. This pressure was felt by 50% mothers and 28% fathers when only the respondent worked at home.	"In sum, the rise of remote work during the COVID-19 pandemic has not appreciably altered the domestic division of labour. When the jobs of both parents moved into the home, the gender gap neither increased nor decreased."	Wellbeing was not the main outcome and it is difficult to infer anything useful from this study. Cross-sectional survey – only a snapshot. Recruitment was not clearly described, potential for selection bias unclear. Items not validated but have face validity. No statistical analysis of results.

			whether participants were spending more time on housework and childcare and who is primarily responsible for these activities.)				
Evans 2021 UK	Online survey (longitudinal, 4-wave), administered from 13th May to 24th August, with a 1-month time lag between each wave. Analysed using growth curve models and changes over time (trait x time interactions).	UK remote workers N = 974 61% female (0.2% non-binary). Mean proportion of time WFH 91% (SD 21%), 73% worked from home 100% of the time.	Burnout, assessed over the preceding month, using 5 items (Bakker et al 2000), internally validated. Also assessed personality, using HEXACO traits, job performance, work engagement, job	To examine how personality shaped responses to COVID-19 in terms of (1) the relationship between personality and job outcomes during the transition to enforced remote work; and (2) the longitudinal relationship between personality and within-person changes in job outcomes over	Burnout did not change over time. At the first wave, those scoring high on extroversion and conscientiousness were less likely to experience burnout, whereas those high in extraversion reported higher levels of burnout over time. Those higher in emotionality reported lower levels of burnout over time.	"The first wave of COVID-19 caused rapid transition to enforced remote work. Our results suggest that individual differences in extroversion and conscientiousness played roles in how employees adapted to this transition. Under normal circumstances, extroversion and conscientiousness are associated with a range of advantages at work. However, our results suggest that these advantages disappear over the course of a forced (pandemic-related)	No pre-pandemic baseline, and changes were only observed over a 3-month time period, thus unclear if effects persist over longer timeframes and/or are seasonal. Pandemic context itself may be a confounding factor.

			satisfaction, and turnover intentions.	time.		transition to remote work."	
Fukumura 2020 USA	Online survey, administered from 27th April to 11th June 2020. Open-ended responses analysed qualitatively using content analysis with an inductive approach.	Individuals who transitioned to WFH during the pandemic. N = 988 (n = 648 responded to the positive benefits question, mean age 41.7 years (SD 12.9), 65.4% female, 59.7% Caucasian; n = 366 responded to the additional information question, mean age 43.2 years (SD 13.0), 66.1% female, 60.7% Caucasian)	Physical and mental wellbeing were assessed using "Likert-type categorical response questions" – no further detail. Two free-response questions were also asked, relating to positive benefits of WFH and additional information about experience of WFH.	"to explore the benefits and challenges of WFH during COVID-19 to identify supports and resources necessary… to minimize the impacts of occupational disruption in future shifts to WFH"	Some participants reported stress from being constantly monitored: "My supervisor's level of communication has been stress-inducing. Not only is it much more frequent, it knows no time boundary. I receive communication all hours of the day on numerous platforms that seem to multiply weekly. Oftentimes the alerts are redundant and result in giving me and my colleagues communication fatigue. I understand there is an adjustment period and oversight is difficult remotely, but the sheer amount and persistence implies that we must be micromanaged in order to complete our work – which in an office space has never been true and remains untrue." Having to care for a child/children has also impacted on mental health and wellbeing while working from home: "I am having to adjust hours to home school my 2nd grader [7-8 yo] since schools have closed, which takes away from the hours put in at work during regular business hours. Since these hours have to be adjusted, I feel as if I start my day at 7:30 am and finish after 7:30 pm. These long days can sometimes make me feel burnt out." "I'm a single parent of an eight-month-	"Organizations should consider the complex intersections of work-life and home-life to develop supportive policies and resources."	Unclear what wellbeing measures were and if they were validated. Thorough recruitment process, however still possibility of selection bias as survey was online. Convenience sample – did not seem to be representative of the country's population; were more educated and higher-income than country average. Prompts were positive in focus, thereby prompting positive responses. Qualitative responses were survey not interview, so no chance to respond or ask follow-up questions.

					old infant and have a demanding full-time career. I work 90 minutes away from my office, and that's where her daycare is, so I withdrew her from daycare and care for her full time while working full time from home. It's the hardest thing I've ever done, my work performance and mental health both have suffered." Other people reported a benefit to wellbeing: "The positivity and improved attitude is so huge. I have anxiety thinking about returning to work already. I want to work from home from now on. It has changed my outlook that much!" Freeing up time from commuting reduced stress both in terms of being able to do other activities during that time and not having the stress of commuting: "am less stressed now that I am not driving in traffic. I feel a lot healthier not sitting in a car an hour or more each way." Some people preferred the special arrangements at home, for instance those with internal offices in the workplace, and no natural light, where they could work at home in a more comfortable space and take breaks in the garden. However this varied between people, with some describing		

					the home environment less conducive to work, due to the presence of others including children, a lack of privacy and a lack of appropriate technology. Others reported well-being benefits in not having to speak to colleagues that they didn't want to speak to, or be distracted by other people's conversations in the office. Respondents also reported pandemic-related stress while working from home, highlighting the unusual nature of this circumstance, and expectations from employers to 'carry on as normal' confounded this stress.		
Galanti 2021 Italy	Online survey, administered May to July. No details on recruitment. Reliability and validity of the scales was assessed. Descriptive statistics and correlations between the major variables were conducted. Hierarchical multiple	All working from home full time, in public and private organisations. N = 209 71.3% female, Mean age 49.8 (SD 9.4) years (range 25 to 65). ~70% had ≥1 child, 32% had children aged <14 years, and 9.1% had	Stress – assessed using 4 items designed to measure workers' perception of exhaustion and fatigue due to WFH (e.g. "I feel exhausted from working from home"), 1-5 scale.	To investigate "the impact that family-work conflict, social isolation, distracting environment, job autonomy, and self-leadership have on employees' productivity, work engagement, and stress experienced when WFH during the pandemic"	Stress was positively correlated with family-work conflict ($r = 0.50$, $p < 0.01$), social isolation ($r = 0.62$, $p < 0.01$), distracting working environment ($r = 0.36$, $p < 0.01$), and negatively correlated with productivity ($r = -0.39$, $p < 0.01$) and work engagement ($r = -0.47$, $p < 0.01$). The hierarchical regression relating to stress found that family-work conflict ($\beta = 0.31$, $p < 0.01$) and social isolation ($\beta = 0.48$, $p < 0.01$), but not distracting work environment ($\beta = 0.05$, $p > 0.05$), were positively related to stress at Step 2, showing a significant increase in explained variance ($ADjR^2 = 0.44$, $\Delta R^2 = 0.42$, $p < 0.01$). Both family-work conflict ($\beta = 0.31$, $p < 0.01$) and social isolation (β	"Individual- and work-related aspects both hinder and facilitate WFH during the COVID-19 outbreak."	No detail on recruitment. Cross-sectional design, so not possible to investigate causality. May have been subject to selection bias (due to being an online survey), and so the results may not be generalisable.

	regressions were performed for each of the three outcome measures (stress, productivity and work engagement – latter two not extracted).	worked from home before.	Other outcomes were work productivity and work engagement. Also measured were job demands related to WFH (family-work conflict, perceived social isolation, distraction), job autonomy, self-leadership.		= 0.48, $p < 0.01$), but not distracting work environment ($\beta = 0.05$, $p > 0.05$), were positively associated with stress at Step 3, although neither autonomy nor self-leadership had a significant impact on WFH stress, and therefore, no significant increase in explained variance was observed ($ADjR^2 = 0.44$, $\Delta R^2 = 0.00$. $p > 0.05$).		
Gao 2020 UK	Auto-ethnography (personal reflections of three researchers). No detail on analysis given, but written as a narrative. It looks like the	Female academics. N = 2	The lived experiences of working from home and living alone, as explored through reflection.	To recognise and draw attention to "the suppressed thoughts, voices and realities of single women who live alone during the lockdown. We call for further	Both women experienced social isolation as a result of being physically distanced from their workplace and colleagues, even if working alone was previously sought/preferred: *"I am an introvert and used to work from home. Normally, I would spend at least one day a week working remotely from home on my research projects. Initially, the lifestyle shift after lockdown did not seem that different from my usual daily*	"In this reflection, we have touched on neglected voices and things that have been left unsaid; we have interpreted feminism in pandemic times as a distinctive sensibility that focuses on speaking up and voicing suppressed but	These are the perspectives and experiences of two people with specific circumstances – female academics who live alone. This research is not necessarily generalisable, however it is not intended to be

	two authors deliberately explored certain elements of their experience, as the article is organised into categories. They may have generated these first them explored their own lived experiences – or given their own accounts then organised these into categories – it isn't clear. It looks like some journaling was involved.			exploration on this topic as a reminder of reaching this group of people, who maybe are struggling with social isolation and intensified workloads but are often overlooked in the neoliberal academia."	*working routine. But now I am unable to get those small doses of face-to-face interaction with my colleagues, to have scheduled dinners with friends, or to enjoy the warmth of a big hug as I usually greet others. I realise that it's not just my ability to reason that has been negatively affected, as my thinking is often blocked, but the importance of human contact that makes me feel truly connected to the workplace and social networks."* This was also explored in the context of possible regret for choosing to live alone (e.g. rather than starting a family), as one thing that added to the sense of isolation was not being able to see other people or to hug them. They also experienced challenges relating to elements of their academic roles, including technological challenges, and the way silence is used and perpetrates their working lives (as well as their lives overall). For example, one spoke of frustrations with online teaching and student engagement: *"I had a session where some students did not have a stable Internet connection and a working microphone/audio. We had to revert to written discussion which takes longer even if you type very fast. I figured that the silence can be disconcerting when you can't see them. It seems we need to get used to giving students the space to think and write a*	vivid emotions; we have perceived feminism as beyond any single woman's choices and ideas of empowerment. In this way, we have tried to open up a way of articulating the lived experience of two single women, early career academics who live alone in this pandemic."	– it functions more as a part of the overall picture.

					response to a question. In another session, only two students attended. Three others logged on, but le~ immediately. I don't know why this happened, perhaps because they were shy or did not have their audio switched on. I can use the share content tool to upload and present PowerPoint slides and share a Chrome tab to play a video. Neither of the students had looked at the preparatory materials beforehand. In the end, we discussed their assignment." Silence was also a feature of virtual interactions with colleagues: "*As a way to keep in touch during the pandemic, monthly coffee meetings in the business school have switched to daily virtual coffee meetings, a virtual place where staff get together. I noticed that unlike other virtual meetings with specific agenda, the virtual coffee meetings have many silent gaps. A sense of awkwardness infuses the virtual environment. I wonder if this is because people are trying to avoid talking over each other or are they uncomfortable with expressing their opinions in these supposedly casual conversations? I keep silent and watch people leave during these silent moments*."		
Gijzen 2020 Netherlands	Online survey, conducted 12th to 19th June 2020.	Representative sample of population, subset of	Many outcome measures were taken.	"to investigate the mental health and well-being of adults	Working from home was reported as a positive outcome of the COVID-19 pandemic for 17% (n=142) participants.	"This study shows that, ten weeks after the start of the crisis and five weeks after	Very little on working from home. The item used was no validated. The sample was

		people signed up to be part of an earlier survey panel. N = 1519 Mean age 53 (SD 16) years (range 18 to 91), 52% female, 29% lived alone.	The only one assessed in relation to working from home was "Positive aspects of COVID-19", which was an open-ended response item whereby participants were asked whether they could name any positive outcomes emerging from the COVID-19 pandemic so far.	in the Netherlands ten weeks after the start of COVID-19, and five weeks after relaxation of the COVID-19 restrictions" and also "to identify supportive factors to stay mentally well during the pandemic, and if participants were able to identify any positive aspects arising from the COVID-19 pandemic"	The authors speculate: "This might be due to reduced commute times (and fewer trafficc jams), more perceived control and autonomy, greater eefficiency [26] or more time with family and for loved ones."	relaxation of restrictions, peoples' self-reported mental health was better when compared to outcomes of surveys at the start of the crisis. Despite the unprecedented and uncertain circumstances caused by the novel coronavirus outbreak, people were able to perceive positive outcomes, and the majority reported stable and high levels of mental health and well-being."	representative, however. Delay since peak of pandemic – possibility of recall bias (but, on other hand, people had been working from home for a longer period than if they had been surveyed earlier in the pandemic).
Grant 2013 UK	Qualitative thematic analysis of in-depth interviews	N=11 e-workers, across five organisations and three sectors. All participants	Wellbeing	To explore the impact of remote e-working on the key research areas of work-life balance, job effectiveness and well-being	Communication and support from colleagues emerged as two critical success factors to ensure successful remote working and to balance the psychological aspects of well-being. The themes of building relationships and interacting, including where boundaries could be crossed over, where both important themes	Well-being needs to be considered by those managing e-workers, discussion of social isolation and the building of relationships may need to be mediated by some planned face-to-	

		worked remotely using technology independent of time and location for several years.			seen to affect psychological well-being. Building relationships and maintaining communication channels both at work with colleagues and relationships outside of work emerged as a common theme for maintaining the psychological well-being of the interviewees. Being able to manage social interaction when away from the office and missing social cues when remote working were also raised. Wellbeing enhancing: Fewer days lost through absenteeism. Working from home can relieve stress from travel and child-care issues. Wellbeing detracting: Social interaction may be limited to family and local friends. Office grapevine may be missed and important information missed. Sitting behaviours may increase.	face contact with team members. This would also enhance trust between supervisors and co-workers.	
Hall 2019 UK	Online survey, administered in September 2018 Descriptive statistics presented.	UK employees who work ≥2 days a week from home N = 897 No demographic information reported	How homeworking makes people feel (open-ended response?)	Unclear. To find out what people thought of working from home?	Most homeworkers used words like “free”, “in control” and calm to describe how it makes them feel. Around 25% described homeworking using words like “isolated”, “remote” and “lonely”. 75% of employers had made adjustments to connect homeworkers to the workplace by “adopting the use of regular face-to-face meetings, video conferencing and dedicated employee benefits”.	“Homeworking can increase employee engagement, job satisfaction and wellbeing. By considering what appropriate support and adjustments are necessary to keep up with a modern workforce, employers can reap the many	Research question not clear. Very little detail on the methods. Survey conducted by an online polling company (OnePoll) on behalf of BHSF, who have provided guides on homeworking – this may represent a COI.

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td>benefits that flexible working brings.”</td><td></td></tr>
<tr><td>Hallman 2021 Sweden</td><td>Cross-sectional online survey, with diary and accelerometer data, comparing activity between working in the office and working from home.

Analysed with within-subject MANOVA.</td><td>Office workers, full-time
N = 27
81.5% female
Mean age 43.4 (SD 9.9)</td><td>Accelerometer-assessed physical activity (proxy to physical health), standing, sedentariness and sleep.</td><td>“to determine the extent to which the 24-h allocation of time to different physical behaviours changes between days working at the office (WAO) and days WFH in office workers during the pandemic.”</td><td>Sedentariness, standing and movement did not differ significantly between working from home (WFH) and working at the office (WAO). Time spent sleeping (relative to time spent awake) was significantly greater on working from home days than for days working at the office.

Sleep time (minutes/day):
<table><tr><th>WAO days Mean (SD)</th><th>WFH days Mean (SD)</th></tr><tr><td>460 (50)</td><td>494 (63)</td></tr></table>
Work time (minutes/day):
<table><tr><th></th><th>WAO days Mean (SD)</th><th>WFH days Mean (SD)</th></tr><tr><td>Sedentary</td><td>373 (86)</td><td>361 (116)</td></tr><tr><td>Standing</td><td>102 (63)</td><td>88 (63)</td></tr><tr><td>Moving</td><td>37 (17)</td><td>36 (27)</td></tr></table>
Leisure time (minutes/day):
<table><tr><th></th><th>WAO days Mean (SD)</th><th>WFH days Mean (SD)</th></tr><tr><td>Sedentary</td><td>258 (50)</td><td>256 (71)</td></tr><tr><td>Standing</td><td>141 (44)</td><td>143 (58)</td></tr><tr><td>Moving</td><td>70 (34)</td><td>62 (30)</td></tr></table></td><td>“We found that office workers during the COVID-19 outbreak in Sweden spent more time sleeping relative to awake during days when they worked from home, compared to days when they went to the office, while physical behaviours during work and leisure did not change markedly. The observed changes in 24-h time use during days working from home may be beneficial to health.”</td><td>During the pandemic, working in the office may have differed from ‘usual’ practices (e.g. in regard to moving round the building). This does not seem to be accounted for.
The proportion of the sample recruited that had accelerometer data was very small, raising the possibility of selection bias.</td></tr>
<tr><td>Hayes 2021</td><td>Online survey (cross-</td><td>People aged ≥18 years who</td><td>Stress – assessed by</td><td>To address the question “How</td><td>Overall perceived stress scores were significantly higher since restrictions</td><td>“The results suggest that working from</td><td>Seems like a disproportionately high</td></tr>
</table>

USA (and possibly global)	sectional), available 24th March to 19th May 2020. T-tests were used for comparisons.	were working from home due to COVID-19 restrictions. N = 326 52.2% female, 30.7% aged 18-34, 38.3% aged 35-54 and 31.0% aged ≥55 years. 40.8% worked exclusively remotely before COVID-19 and 43.0% of those with a non-remote job had the flexibility to work remotely.	the Perceived Stress Scale (PSS), validated, 10 items, 0-4 scale, scores range 0-40. This was asked twice, once in relation to the month before restrictions, and once relating to the current time. Burnout – assessed using the Copenhagen Burnout Inventory (CBI), validated, 3 components (personal burnout (6 items), work-related burnout (7 items), client-	have the COVID-19 restrictions impacted perceived stress and work-related burnout for people who are now working from home?"	began (mean 19.6, range 0 to 37) than (retrospectively scores) pre-COVID (mean 16.3, range 0 to 34) ($t = 9.50$, SD = 5.99, $p < 0.0001$). There was a significantly greater increase in perceived stress score from pre-COVID (retrospectively rated) to the current time among those whose job typically did not provide opportunities to work from home (mean increase 3.9, SD 6.4) than those whose did (mean increase 2.4, SD 5.3) ($t(290) = 2.23$, $p = 0.03$). Conversely, those who previously had flexibility to work from home before the pandemic had higher work-related burnout scores at data collection (mean 57.9, SD 21.5) than those without the flexibility to work from home (mean 41.0, SD 21.6) ($t(284) = -16.84$, $p < 0.0001$). Although women had lower pre-COVID and during-COVID perceived stress scores than men, however the mean increase in stress scores was higher for females (4.2, SD 6.0) than males (2.4, SD 5.8) ($t(294) = 2.59$, $p = 0.01$). Women had significantly lower mean work-related burnout scores (43.3, SD 20.8) than men (53.0, SD 24.6) ($t(299) = -3.82$, $p < 0.0002$). Those who worked PT and FT did not	home may create more stress and result in more burnout, which challenges the current moves by some employers to make working from home a permanent arrangement. The authors believe that having research based on valid and reliable instruments will help employers and schools make better decisions about how to support those who can remain at home to avoid the potential for secondary outbreaks."	proportion of the sample worked exclusively remotely prior to the pandemic. Retrospectively reporting stress from prior to the restrictions may be subject to recall bias, thus reports of changes in stress may not be accurate. Used a fairly heterogeneous group of professionals, with people from various types of roles and working patterns. Potential selection bias from online survey, recruited via social media, with little detail on recruitment.

			related burnout (6 items)), 5-point scale, scores ranged 0-100. Only work-related burnout used. Cut-off of 50 used for high vs. low burnout. Respondents were also asked about challenges of working from home.		differ significantly in terms of perceived stress scores either (retrospectively rated) pre-COVID or during-COVID, nor on the increase in perceived stress scores. Similarly, those who worked PT and FT did not differ in terms of work-related burnout score. The challenges of working from home most frequently selected were "Maintaining appropriate levels of communication with my team/colleagues" (21.4%), "Managing technology/communication tools" (19.2%), and "Managing my time/Avoiding distractions" (18.2%). 15.5% selected "Balancing personal/family responsibilities with workload", 13.8% selected "Maintaining productivity", 9.0% selected "Receiving clear communication from supervisors/managers" and 2.8% selected "Other".		
Heiden 2021 Sweden	Online survey. Descriptive statistics were presented as proportions, means and standard deviations, and univariate and multivariate analyses of	Teaching and research staff (engaged in teaching and/or research for ≥50% of their working time) at Swedish public universities. N = 392	General Health Questionnaire (GHQ; 12 items, 0-3, validated), Work Stress Questionnaire (21 items, 1-4, validated), validated items for	"to determine whether frequency or amount of telework is associated with perceived health, stress, recuperation, work-life balance, and intrinsic work motivation	The multivariate ANOVA demonstrated significant differences between different groups of academics with different telework frequency ($p = 0.005$), including when adjusting for age, gender, marital status, children at home, form of employment, commuting time, and proportion of research performed at work, although age, gender, marital status, and form of employment were significant. Separate ANOVAs for each outcome	"The present study showed that frequent telework was associated with increased stress among academics that all had the opportunity to telework. We found no evidence of intrinsic work motivation, work-life balance, or general health being related to frequency of telework.	Low response rate (14%) and the sample may not be representative of academic staff in Sweden. Only one type of organisation was studied (academic institutions) and it is possible that this type of work differs from others and thus the

	variance were performed on the outcome measures. Regression models were fitted for each dependent variable, with the amount of telework per week as an independent variable (for those who provided this information), and were adjusted for age, gender, marital status, children, form of employment, commuting time, and proportion of research performed at work.	63% female, Mean age 48.9 (SD 9.9) years, 79% living with partner, 88% permanent, Spending a mean (SD) proportion of time on teaching of 63% (89), research of 24% (26), management of 8% (17), Mean commuting time of 72.2 (SD 127.8) minutes, Mean number of hours of telework per week (n = 190) 15.8 (SD 13.4), 4% never did telework, 11% did telework less than once a month, 41% several times a month, 41%	assessing recuperation (8 items, 1-5, covering fatigue and rest / recuperation), Basic Psychological Need Satisfaction at Work Scale (for assessing intrinsic work motivation – not extracted), and parts of the Copenhagen Psychological Questionnaire (for assessing work-life balance – not extracted). Telework was assessed with the	among teaching and research academics"	variable did not show any significant differences in health (or GHQ subscales), work stress related to individual demands and commitment, and influence at work, or rest, but did show significant differences on fatigue ($F = 3.47$; $p = 0.032$) and work stress relating to indistinct organisation and conflicts ($F = 4.80$; $p = 0.009$). Post-hoc tests revealed that those who teleworked several times per week or more reported more stress relating to indistinct organisation than those who teleworked less than once a month. There were no significant pairwise differences for fatigue. None of the outcomes were significantly predicted by the amount of telework per week in regression analyses.	Nor did we find that amount of telework had any association with the outcomes. The different findings for frequency and amount of telework support previous studies emphasizing the importance of considering how telework is distributed over time (cf. Haddad et al. 2009) and should be verified in larger samples as they may have implications for recommendations regarding telework practice. Considering the situation in academia, particularly with respect to work-life balance among employees, flexible working arrangements have been proposed as a means to reduce stress (Mudrak et al. 2018). In light of the present findings, we argue that teleworking may not ease the situation. Although we cannot conclude	findings may not be generalisable. There is the possibility of confounders – for instance, the authors note in the Discussion section, "It is possible that the main reason for teleworking in our sample was to cope with increasing job demands (Tremblay et al. 2006) and that higher frequency of telework implied working longer hours. This could not be verified in the present study but might partly explain the tendency for high frequent teleworkers to rate more fatigue." (p.717) Cross-sectional design limits inferences on causality. The internal consistency of the influence at work subscale of the Work Stress Questionnaire was low.

		several times a week, and 3% always did telework.	item “How often do you work outside your conventional workplace?” (never, less than once a month, several times per month, several times per week, always). ‘Never’ and ‘always’ were merged with their adjacent category, generating three categories (less than once a month, several times a month, several times per week or more).			whether stress is a cause or an effect of frequent telework, the results show that academics who telework several times per week or more experience more stress related to indistinct organization and conflicts than others. Thus, more attention to academics who telework frequently is warranted.”	

			A subset of the sample were asked about the average number of hours spent teleworking in the past month.				
Henke 2016 USA	Longitudinal cohort study (retrospective) – database of employee data at one firm (Prudential) from 2010 to 2011. General linear mixed models used to predict health risk status.	Active employees of Prudential Financial aged 18-64 years with continuous medical enrolment between 2010 and 2011, who had completed the Health Risk assessment in 2010 and 2011 with valid nutrition, weight and exercise values. N = 3703 62% female, 88% aged <55	Health risks: **Obesity** (BMI ≥30); **Depression** (classified as high risk if felt down, depressed or hopeless in the past 2 weeks); **Stress** (agreed or strongly agreed with the statement "In the past year, stress has affected my health or wellbeing"); **High risk for alcohol abuse** (≥2 drinks per	"to examine the relationship between telecommuting intensity and selected health indicators"	In 2011, of the 3 telecommuting categories, a greater proportion of non-telecommuters were at risk for obesity, depression, poor nutrition, physical inactivity (not statistically significant), tobacco use and Edington score. Off-hour telecommuters had the highest risk for alcohol abuse. Prime time telecommuters had the highest risk for stress (but not statistically significant). Adjusted regression estimates suggest that telecommuters were less likely to be at risk for most health risks studied. "Specifically, prime time telecommuters working at least 73 hours per month (very high intensity) had a significantly lower risk for alcohol abuse compared with non-telecommuters (1.8% vs. 2.9%). Employees in this group had the highest DxCG risk score. Prime time telecommuters working 9 to 32 hours per month (medium intensity) had a significantly lower risk for physical inactivity compared with non-	"Results suggest that employees may benefit from telecommuting opportunities."	Retrospective data from employee records. Lifestyle behaviour tools do not seem very specific and do not look like validated, standardised measures.

		years, 58% were prime time telecommuters, 20% were off-hour telecommuters and 22% were non-telecommuters.	day for females, ≥3 drinks per day for males); **High risk for nutrition** (≤4 servings of fruit and vegetables daily); **High risk for physical inactivity** (<3 days of cardiovascular exercise per week); **High risk for tobacco use** (currently using cigarettes); **Edington score of overall risk** (number of risk factors per person - ≥5 of a list of risk factors) Telecommuting status was assessed		telecommuters (35% vs. 41%). Prime time telecommuters working 33 to 72 hours per month (high intensity) had a significantly lower tobacco risk compared with non-telecommuters (4.5% vs. 7.2%)." Low, medium and high prime time telecommuters had significantly lower Edington risk scores compared with non-telecommuters. There were no significant differences in trends over time apart from that those who telecommuted for ≤8 hours per month (low-intensity telecommuters) were likely to reduce their rate for depression at a greater rate than non-telecommuters over time. Across all health risks, "after controlling for employee characteristics, telecommuters had favourable (but not necessarily significant) obesity, depression, physical inactivity, tobacco use, alcohol abuse, and Edington risk scores compared with non-telecommuters. Findings varied by the intensity of telecommuting (i.e., the category based on the number of hours worked from home per month). There was a trend for a U-shaped or J-shaped relationship; that is, employees in the middle-intensity telecommuter categories had the lowest predicted risk, and the non-telecommuters and very		

			through categorisation: prime time telecommuters (≥51% of remote hours were during prime work hours of 0600-1800); off-hour telecommuters (≤50% of remote hours were during prime work hours); non-telecommuters (no remote hours).		high-intensity telecommuters had higher predicted risk. The U-shaped relationship was observed for depression, poor nutrition, physical inactivity, and (to a lesser extent) obesity risk. For alcohol abuse, tobacco use, and Edington risk score, the predicted probability of being at risk declined with increasing telecommuting intensity. For stress risk, the predicted probability of being at risk appeared to increase with increasing telecommuting intensity."		
Hislop 2015 UK	Qualitative – open-ended interviews, analysed using qualitative content analysis as per Berg (2006). Findings were framed in terms of a combination	Self-employed homeworkers (from a larger study investigating stress and wellbeing among this population) undertaking IT-based office support /	Participants' experiences of work and isolation in relation to information and communication technologies (ICTs).	To "examine how the use of mobile information and communication technologies (ICTs) among self-employed homeworkers affects their experience of work, focusing	**General experiences of homeworking** The homeworkers were broadly happy with their work, with the main benefit being the spacio-temporal flexibility inherent in homeworking, as they can structure their own time and vary the location as needed: *"It's flexible work. I can start at 5 o'clock in the morning and I can be finished by 10 o'clock, so I can have a couple of hours to myself to do what I want to do... I haven't got to sit around and wait*	"Positively, [ICT] use enhanced people's sense of spatio-temporal freedom by allowing them to leave the home without compromising their work availability. This also helped reduce people's feelings of social isolation. More negatively, their use	Lack of reflexivity. In-depth consideration of issues among a particular group of homeworkers, in a particular profession, but the authors note this limits generalisability.

	of Nippert-Eng's boundary work theory, with an 'emergent process' perspective on socio-technical relations.	administrative work. N = 14 Gender NR, 7 FT, 7 PT, 5 with a child/children, 2 with an adult child at home, 7 with no children, 11 lived with spouse, 2 lived alone and 1 lived with children only.		particularly on where work is carried out, how the work/non-work boundary is managed, and people's experiences of social and professional isolation."	*to start work at 9 o'clock. I can get started early or if I've got only one job and I need to go out, I can start it 3 or 4 o'clock in the afternoon." (4SJ)* This enabled workers to balance their work with domestic commitments such as shopping, and also with childcare: *"I enjoy being able to slip out and hang my washing out, come back in. I can pop out to Brent Cross Shopping Centre if I need to for an hour, back again and nobody has particularly missed me." (12 MB)* *"It's the flexibility of it [work] and I'm here for my daughter and it doesn't matter if she's sick, it doesn't matter if she's on school holiday. I haven't got to panic about childcare or paying it or... That is absolutely fantastic." (4SJ)* The "single most negative aspect of their work" was the sense of social isolation, in terms of a lack of opportunity to interact with others for both professional and social reasons. Having no colleagues (peers or managers) meant a lack of support with problem-solving, including after experiencing a stressful situation: *"There are times when not having somebody to bounce things off of... you know, like when you work in a corporate environment you have other people to talk to and you kind of... I have to come up with my own solutions all the time." (1LJ)*	enhanced people's sense of 'perpetual contact', creating a sense that work was difficult to escape from. However, the extent to which mobile ICTs were used, and the extent to which their impact on people's experiences of work were understood, were found to vary significantly, highlighting the agency that users have with regard to technology use"	

					"You can have a bad time with a client and you've got no one to bounce it off, so you tend to sort of take it all in on yourself" (12BB) Because these people worked as individuals, and even communication with clients was electronic (e.g. via email), a number of participants identified a lack of opportunity to chat and socialise with other people as a negative aspect of homeworking: "It can be very, very lonely because you don't get to talk to the client face to face or even on the phone most of the time... You don't get to, you know, meet round the water cooler and have a natter and stuff. The biggest negative thing is that you just don't see any other adults all day and that can be quite isolating sometimes." (9SD) **ICT-related experienced of homeworking** ICT (in particular smartphones) enabled the homeworkers to have flexibility around the location of their work, enhancing their experience of spatio-temporal flexibility, and which participants appreciated: *"Because the phone is a smartphone and it gets emails on it. It goes off when I get a work email so I know that somebody's looking for something and I can check that on the phone and see what they want...I have been contacted by a client*		

					while I was shopping in Meadowhall one day who wanted me to do something and I managed to do it on the phone while in Meadowhall and I managed to bill for it as well, so that was great... the phone really does give me the freedom to not have to be indoors all the time." (9SD) *"I kind of like it when I'm, for example, outside in the sun with a couple of friends and one of my clients is calling. It gives me a great feeling." (6AJ)* Similarly, homeworkers experienced netbooks as similarly liberating, allowing them to work from Starbucks or while holidaying for a long weekend on a narrowboat. The authors note (in the discussion section) that in this way, ICT "helped people to address the social isolation that they occasionally experienced" (p230). This flexibility afforded by ICT could be a double-edged sword, however, with the downside being that clients expect people to be available all the time, and will contact them outside of normal working hours and expect a response: *"I think it [a smartphone] forces you to be 24/7 and you're forever jumping to look at your emails and you never get away from it... I've seen other virtual assistants and all their clients that get everything to their phone and they're kind of like jumping every five minutes*		

					when something comes through and I'd hate that." (5CT) *"I don't think they're a good thing or a bad thing. I think they can be a nuisance obviously because you're constantly looking and you just want to have a look... Emails... come through on the phone, so they're always with me. I do think though sometimes because I'm self-employed, even if I'm on days out, I find myself checking the email because you never know, it just might be that million pound job that someone wants me to do!" (11 PM)* *"I've got my [smartphone], so that's picking up emails without my computer being on. So I can actually see when I am out and about if an email comes in and it looks urgent, I can choose whether or not to answer it...They're a pain in that you can't put them down, you get addicted to them. But on the other hand, it does give you the freedom to leave the office because you can still pick up stuff and deal with it if necessary." (12 MB)* Thus, ICT, in particular smartphones, were viewed as a paradoxical aspect of homeworking.		
Hoffman 2021 USA	Online survey. Quota sampling (90 only had dogs, 90 only had cats, 50 who had both	Individuals who had experience working from home and from their employer's office.	Wellbeing Exploratory factor analysis: Positive Affective Well-Being	"Explore perceptions regarding how companion animals factor into the teleworking Experience".	Most participants expressed a workplace location preference, with just over half indicating they preferred working from home (51%, n=232) and 39% (n=178) indicating they preferred working from the office. Neither the presence of dogs or cats nor the presence of other humans in the	Neither PAWB scores nor NAWB scores differed significantly by workplace location, nor by the presence of dogs or cats in the home.	Survey. Self-reported.

	dogs and cats, 150 who had neither dogs nor cats). Logistic regression analysis. ANOVA.	18 years or older, employed full-time, not self-employed. N=454 231 female. Age 19 - 72 (M = 41.3 years, SD = 11.5 years). 61% (n=277) working exclusively from home at the time they completed the survey, but only 12% (n = 54) did so prior to COVID-19	(PAWB) and Negative Affective Well-Being (NAWB) subscales.		household predicted where participants preferred to work (p = 0.68). Participants reported spending more quality time with their companion animals and family members when they worked from home. Although dogs created distractions for some participants when teleworking, their presence was also associated with behaviours that contribute positively to well-being. Participants with dogs reported socializing more with others on days they worked from home than did participants who did not have dogs (β = 0.62, SE = 0.22, p = 0.005). Participants who had dogs also reported getting more physical activity on days they worked from home when compared to those without dogs (β = 0.70, SE = 0.19, p < 0.001). In addition, dog owners were more likely than those without dogs to report taking at least one 15-min walk during the workday on days they worked from home (β = 0.93, SE = 0.20, p < 0.001). Paired samples t-tests indicated that neither PAWB scores nor NAWB scores differed significantly by workplace location (PAWB: t = 1.17, df = 453, p = 0.24; NAWB: t = −1.74, df = 453, p = 0.08). When analyses were restricted to		

					when participants worked from home, neither PAWB scores nor NAWB scores were associated with the presence of dogs or cats in the home.		
Hornung 2009 Germany	Mailed survey. Analysed using structural equation modelling.	People working in German public administration (including teleworkers and non-teleworkers). N = 1008 27.5% female, Mean age 43.6 (SD 8.8) years, 62.6% had a teleworking arrangement (1-4 days per week, mean 1.7 (SD 1.1) days), Telecommuting intensity ranged 0% to 80%, mean 24.0% (SD 26.3%) of working time.	Quality of life (QoL), assessed using the WHOQOL-BREF, adapted (6 items with the highest factor loadings were selected), 1-5. Also assessed autonomy, work-family conflict and job satisfaction. Telecommuting intensity – a percentage calculated from number of	"Hypothesis 1: Positive effects of Telecommuting on Job Satisfaction are mediated by higher Autonomy (H_{1a}) and lower Work-Family Conflict (H_{1b}) Hypothesis 2: Positive effects of Telecommuting on the Quality of Life are mediated by higher Autonomy (H_{2a}) and lower Work-Family Conflict (H_{2b})	Telecommuting intensity (% of working time spent telecommuting) was significantly correlated with QoL (0.10, $p < 0.01$). In the SEM, there were small but statistically significant positive effects of telecommuting intensity on QoL mediated via both autonomy ($\beta_{indirect} = 0.02$, $z = 2.56$, $p < 0.01$) and work-family conflict ($\beta_{indirect} = 0.11$, $z = 5.96$, $p < 0.01$). Adding the direct effects of telecommuting intensity on QoL to the model did not significantly increase the model chi-square ($\Delta\chi^2_1 = 0.03$, $p > 0.05$).	"The efficient design of a flexible working arrangement must consider that not telecommuting per se but the associated higher autonomy and lower work-family conflict are responsible for improvements in perceived quality of work and life."	Response rate 67%. Questionnaires sent to everyone in the sector so minimal chance of selection bias (other than self-selection).

			days worked from home and number of working days				
Hubbard 2021 UK	Cross-sectional survey (online)	1000-household segment of YouGov's bi-weekly London Omnibus survey (completed on Thursday 23 April 2020), including 501 adults of working age currently working FT or PT.	Rating of satisfaction with working from home (single item – response options: very satisfied, fairly satisfied, fairly unsatisfied or very unsatisfied).	"to explore how people are adapting to homeworking"	70% of the working-age sample (n=501?) were working from home during COVID. Women reported less satisfaction than men (chi-square 7.011, df =3, p=0.071), as did people with children (chi-square 7.299, df =3, p=0.063) – especially young children aged 0-4 years (chi-square 8.01, df = 3, p=0.046). A significant predictor of dissatisfaction with homeworking was caring for a responsible adult (chi-square = 7.837, df = 3, p = 0.049). No other predictors were listed. Space/size of living space impacted on satisfaction. Those living in detached homes were 4 times more likely to report being very satisfied with homeworking than those living in flats or apartments in purpose-built blocks (chi-square = 23.744, df= 17, p = 0.070). A greater proportion of those living in properties with ≤4 rooms (64%) reported being very dissatisfied with WFH than those living in properties with ≥5 rooms (35%). A greater proportion of those living in smaller properties (70%) reported difficulties in drawing boundaries between home and work	"The implication here is obvious: if working at home is to be the new normal, especially for the 'creative' class who can most readily work from home, it seems prudent to create homes where there is sufficient working and personal space."	This is not really written up like an academic paper and the reporting lacks detail. Sample potentially not representative as a higher proportion of people worked from home than in the YouGov national sample.

					than those living in larger properties (30%) (chi-square = 4.994, df = 1, p = 0.025). Qualitative data from the survey suggest that overcrowding or a lack of desk space can be important in relation to satisfaction. For instance, one participant reported: "We are both trying to work from home in a one bed flat with no garden. There's only one table and we both make calls during the day and so one of us works in the kitchen/living room area and the other in the bedroom. Neither of us are comfortable and working sat on a bed is not ideal for multiple reasons. We are both still very busy at work and so there is no time to enjoy the day or get out for a walk until we have finished for the day" (female, 25-34 age, ABC1 respondent).		
Ignacio Gimenez-Nadal 2020 USA	Face-to-face survey (American Time Use Survey), pooled data from 2003 to 2015 (wellbeing	Employee workers aged 16 to 65 (not including self-employed). N = 5401	Daily diary where pain, happiness, sadness, fatigue and stress were each rated 0-6 on the diary day	"to analyse the time-allocation decisions of individuals who work from home (i.e. teleworkers), and compare them with their	Among males, teleworkers reported lower levels of sadness, stress and tiredness compared with commuters. Among females, teleworkers had significantly higher happiness levels than commuters. There were no other significant differences. (But also found that teleworkers worked fewer hours than commuters.)	"Using information from the Well-being Module for the years 2012 and 2013, the authors find that male teleworkers experience lower levels of negative feelings while working than	Existing dataset, with teleworking inferenced by responses to questions on work and commuting rather than directly asked about. Large, representative dataset. Several years pooled –

	assessed in years 2012 and 2013), using data from working days only.	47.9% female, from a range of industries. Mean age 43.8 (SD 10.7) for males and 43.9 (11.0) years for females.	(throughout), and while doing three randomly chosen activities on the post-diary day. The authors analysed work-related activities.	commuter counterparts"		do commuters."	unclear on whether data from some of the same respondents may have been included in more than one year. Hours worked may be a confounding variable. Cross-sectional data, therefore cannot establish causality.
Ingusci 2021 Italy	Online survey, conducted March to April 2020. Structural equation modelling was used to examine relationships between variables.	People in work during the COVID-19 pandemic, who experienced remote working or working from home. N = 530 60.4% female, Mean age 39.0 (SD 11.2), Mean time spent in remote working 4.60 (SD 1.48) days.	Behavioural stress – assessed using a 7-item scale, 1-5, validated. Also assessed work overload, job crafting.	"to explore the effect of work overload (workload and techno overload), on behavioural stress, meant as an outcome linked to the health impairment process"	Mean behaviour stress was 2.51 (SD 0.80) on a 1-5 scale (i.e. moderate), and behavioural stress was significantly correlated with workload ($r = 0.24$, $p < 0.001$), techno overload ($r = 0.30$, $p < 0.001$), increasing structural resources ($r = -0.19$, $p < 0.001$) and increasing challenging demands ($r = -0.21$, $p < 0.001$). In a structural model with good fit indices (CFI = 0.96, TLI = 0.95, AGFI = 0.91, RMSEA = 0.05 (90% CI: 0.05, 0.06), SRMR = 0.06), behavioural stress was found to be positively related to work overload ($\beta_1 = 0.48$, $p = 0.015$) and negatively related to job crafting ($\beta_3 = -0.38$, $p < 0.000$), with a significant and negative indirect effect of work overload on behavioural stress through the intervention of job crafting ($\beta_{a \times b} = -0.07$, $p = 0.029$). This reflects partial mediation, as both direct and indirect effects are statistically significant.	"Starting from the current global scenario of the pandemic that has not yet ceased its effects, the study suggested decisive theoretical and practical implications. Accordingly, findings extended the current trends in occupational health psychology research, with special reference to the mainstream topic "work and COVID-19" in the Italian context. Finally, results can give suggestions to companies engaged in managing change, recommending that they build a collaborative	Convenience sample and snowball sampling used to recruit, therefore possibility of selection bias. Range of types of companies and sectors worked for/in is a benefit. Cross-sectional design, thus causality was not directly assessed.

						workplace at the individual and collective level to implement job crafting interventions and enrich the personal and organizational resources of workers, which is useful cope with the current demands."	
Jacukowicz 2020 Poland	Online survey	Traditional office workers (n=200) and online workers (n=189). 60% of office and 82% of online workers were female, and 63% and 82% of office and online workers, respectively, had children <18 years old.	Satisfaction with work-life balance (plus work-life balance, but that is not a relevant outcome to this review, so not extracted). Single item 0 (not at all) to 6 (very much) scale: "Considering your engagement in family life, work and other activities, to what extent	To determine "whether working on-line might predict WLB (which is here depicted by the subjective satisfaction with WLB, negative work-home interaction and the social quality of life), assuming that this type of work will have an adverse impact on employees' WLB."	Working online significantly predicted lower satisfaction with work-life balance ($\beta = –0.17$, $p < 0.01$) and greater quality of social life ($\beta = 0.13$, $p < 0.05$).	"These findings confirm that technology advancement opens a new chapter in organizational psychology and occupational health, especially in the context of the emerging on-line occupations"	Possibility of selection bias due to self-selection. Focused on traditional office work, and could have examined broader range of professions (e.g. customer service). Satisfaction with WLB assessed on a single scale and validity of this measure was not reported, however it has face validity.

			are you satisfied with the way you reconcile these spheres?" Quality of social relationships was assessed using one subscale of the WHOQOL-BREF questionnaire. These were examined in a series of hierarchical linear regression analyses.				
Janssen 2020 Netherlands	Ecological momentary assessment (EMA), longitudinal, representative	Recruited from the RE-PAIR study – adolescents aged 11 to 17), and their caregivers	Affect, assessed among both parents and adolescents using EMA procedures, using an	To examine "the impact of the COVID-19 pandemic on daily affect and parenting of both Dutch parents and	Working from home was not related to the increase in parents' negative affect during the COVID-19 pandemic, as compared with pre-pandemic data.	"In our study parents, but not adolescents, showed an increase of negative affect in a two-week period (14–28 April 2020) during the COVID-19 pandemic compared	Working from home was not a focus of this study. The sample size was relatively small. Strong study design – longitudinal with EMA.

		N = 101 (34 adolescents, 67 caregivers) Parents: 56.7% female, Mean age 48.2 (SD 5.79) before COVID-19 Adolescents: 64.7% female, Mean age 16.0 (SD 1.2) years before COVID-19	adapted and shortened version of the Positive and Negative Affect Schedule for Children (PANAS-C) – "How do you feel at the moment?" with each of four affective states (happy, relaxed, sad, irritated) assessed on a 1-7 scale. Mean PA and NA scores were calculated.	adolescents"		with a similar two-week baseline period pre-pandemic. Positive affect and parenting behaviours 'warmth' and 'criticism' did not change. It can be concluded that, on average, parents and adolescents in our sample seem to deal fairly well with the circumstances. Individuals and families differed however to what extent the COVID-19 pandemic influenced their affect and (perspective of) parenting behaviour. Living surface, income, having suffered from COVID-19 symptoms, helping children with school at home, working from home, going to work, difficulties during COVID-19, and working with COVID-19 patients did not explain the increase of parental negative affect."	
Kaduk 2019 USA	Survey (in person)	IT workforce (Fortune 500 companies).	Six well-being outcomes:	Evaluate whether there are differences	13% report a 'variable schedule' they have chosen (voluntary). 9% report a variable with little or no choice	Important to distinguishing between voluntary and	

	Multinomial logistic regression	N= 823 (758 after removing missing variable responses) 69.6% response rate	work family conflict, job satisfaction, turnover intentions, emotional exhaustion (burnout), perceived stress, and psychological distress.	associated with flexible work practices and wellbeing where: (1) voluntary, chosen and desired by employees, or (2) involuntary, working over and beyond conventional times and places because managers or employers require it.	(involuntary). Over 95% of employees report doing some work at home. 31% do at least 20% of working time at home ("substantial remote work") voluntarily and 14% involuntarily. 20% of those who choose to work at home extensively also report a voluntary variable schedule, while only 9% who do less remote work and 12% of those who do substantial involuntary remote work have a voluntary variable schedule. Involuntary variable schedules are associated with greater work-to-family conflict, stress, burnout, turnover intentions, and lower job satisfaction in models that adjust for personal characteristics, job, work hours, family demands, and other factors. Unexpectedly however, involuntary remote work is not clearly linked to these outcomes. Voluntary remote work is protective, and associated with greater job satisfaction, lower turnover intentions, and less stress (relationships attenuated in the full models).	involuntary forms of variable and home working, even in a relatively advantaged workforce.	
Koehne 2012 Worldwide (mainly USA, also Estonia,	Semi-structured interviews (phone or Internet	Participants across a range of industries working primarily from	Personal experiences of working from home, and coping	To investigate "how individuals develop strategies to	A lack of possibility for person to person social interaction could negatively impact on remote workers' wellbeing: "*We had one person that used to work for us and he was not getting tasks done*	"Individual remote workers establish a unique kind of work rhythm, visibility management for	Very little reflexivity

UK, Spain and Mexico)	phone)	home, or who work in the office but have colleagues working from home (P5, P7 and P17). N = 17 29% female	strategies (main focus – only extracted findings relevant to wellbeing)	cope with the daily challenges of working remotely and alone, and what managers can do to help them"	*because he was just, I think, lacking enough social interaction from being at home […] The thing about it is he's actually a very - knowing the stuff he's done, he's very competent and talented. So, it really was just coming down to he couldn't be in an environment - because I think he was an extrovert, he couldn't be in such a work environment where he wasn't getting enough of that. And so, he ended up taking a job which was more a level of interaction, working in an office and the whole type of thing.*" (P3) "*I actually have a co-worker started working remotely for a half a year and quit because he cannot justify the remote working structure. He enjoyed seeing people every day, going to an office every day, and that's why he found another job which he can go to the office every day*" (P11) Social isolation was an issue for 10/17 participants. Remote workers would counteract this by seeking social interaction in their home communities: "*The flip side of working remote is - not feeling connected to anything. I was born in [location name], I grew up here, I went to school here. I have lots of friends and colleagues physically here. I have to make the effort, but I can get that kind of action, which I think for somebody who's in the middle of nowhere that would be a lot harder.*" (P10)	evaluation, social support infrastructure, and personal connection as a part of their coping strategies to balance their professional and personal lives."	
Kroll	Representativ	Representativ	Perceived	To "explore the	Working from home did not have a	"The results from	Working from home

2019 Germany	e sample in several waves of a panel survey – the analyses of working from home are based on data from the 1999 and 2009 waves. Analysed as cross-sectional. Fixed effects logit models were used for analysis.	e sample of those living in private households, limited to those aged 20-60 and employees (not self-employed). Working from home sample n = 6132 employees	health – assessed by the question "How would you describe your current health?", with response options being very good, good, satisfactory, poor, bad. Dichotomised into 1 = at least satisfactory, 0 = otherwise. Job satisfaction and leisure satisfaction – each assessed by the question "How satisfied are you today with your job/your leisure time?" with for each	effects of flexible work practices (FWPs) on the work attitudes (job satisfaction and turnover intention) and non-work attitudes (leisure satisfaction and perceived health) of employees based on representative large-scale German panel data"	significant effect on health when controlling for individual heterogeneity (b = 0.02, SE = 0.05, ns). Job satisfaction was significantly increased by working from home (b = 0.21, SE = 0.11, $p < 0.05$) (alongside flexitime and sabbaticals). There was no statistically significant effect of working from home on leisure satisfaction, however (b = −0.01, SE = 0.10, ns).	individual fixed-effects models show that flexitime, sabbaticals and working from home significantly increase job satisfaction, that sabbaticals and working from home significantly decrease turnover intention and that sabbaticals significantly increase leisure satisfaction. Moreover, we show that it is important to control for individual unobserved heterogeneity, such as stable personality traits."	item is vague. Controlled for many important covariates though. Smaller sample for WFH analyses, as data available from only 2 years of the survey, thus models have lower statistical power. Authors state findings may not generalise to other countries.

			responses ranging from 0 (totally unhappy) to 10 (totally happy). Working from home conceptualised as "Do you ever carry out your work activity at home?"				
Kubo 2021 Japan	Online survey, administered between 22nd and 26th December 2020. ORs were calculated, using a multiple logistic regression to control for confounding variables.	Office workers aged 20 to 65 who telecommuted N = 13,468 48.8% female, 30% telecommuted at least once per week	Dietary habits were assessed in terms of how often respondents ate breakfast (to assess how often they missed breakfast) and how often they ate alone, single items, with response options "6–7 days per	To examine "the relationship between the frequency of telecommuting and unhealthy dietary habits among Japanese workers during the COVID-19 pandemic."	"Those who telecommuted more frequently tended to have more unfavourable eating habits. Among workers who hardly telecommuted, 25.5% missed breakfast, 25.9% ate all meals alone, 1% ate less than two meals a day, and 6.6% adopted meal substitution. The corresponding proportions among workers who telecommuted in excess of four days per week were 28.7%, 37.0%, 2.5%, and 8.4%, respectively." ORs (95% CI) for those who telecommuted ≥4 days per week relative to those who rarely telecommuted: Skipping breakfast: 1.15 (1.03 to 1.29) Solitary eating: 1.44 (1.28 to 1.63) Lower meal frequency: 2.39 (1.66 to 3.44)	"Telecommuters may develop unhealthy dietary habits, indicating the need for strategies to help telecommuters manage their nutrition and diet."	The pandemic context may present confounders. Cross-sectional and therefore causality cannot be inferred (although unlikely that dietary habits would affect WFH). Eating habits (and WFH) were self-reported and thus subject to social desirability biases. Some potential confounders (e.g. bedtime and waking time) were not assessed.

			week," "4–5 days per week," "2–3 days per week," "less than 1 day per week," and "almost never." The number of meals per day and adoption of meal substitution was also assessed using single items asking about the frequency of these things. Telecommuting frequency was assessed using the item "How frequently do you currently telecommute?" with the		Meal substitution: 1.26 (1.04 to 1.51)		

			response options "more than 4 days per week," "more than 2 days per week," "less than 1 day per week," and "hardly ever."				
Lal 2021 International (mainly UK)	Exploratory, interpretive qualitative diary-keeping study, conducted May to June 2020. Analysed using Miles and Huberman (1994) guidelines, by two researchers.	People who had recently transitioned to WFH during the pandemic N = 29 48% female, 59% in the UK, 69% had previously worked from home.	"There were six standard questions that participants had to consider daily: (i) their working hours; (ii) how they felt personally/ professionally while working remotely; (iii) whether they had any social interaction with	To investigate "how homeworkers engage in technology-enabled social interactions with colleagues when working from home"	Video calls (particularly when scheduled for all/most of the day) could cause anxiety, tiredness and musculoskeletal problems: "I've noticed I'm becoming a bit more anxious on days I expect to have a video call." (P.4) "I'm sat at the computer for so long that I've been feeling it over the last few weeks ... it was a long day and I felt tired after back to back video calls throughout the day ... [I have experienced] mood changes, in terms of increased stress and also the physical effects - such as my shoulders and neck tensing up" (P.30) "Meetings back to back. 10 min lunch break ... The biggest impact while WFH is I cannot even spare a few minutes to call my Bank to sort out what I want. Day packed with meeting from start to finish." (P.19). Being more contactable (e.g. by senior colleagues) also led to anxiety:	"The main contribution of our study is to highlight that a variety of perceptions and feelings of how work has changed via an increased use of digital media while working from home exists and that organisations need to be aware of these differences so that they can be managed in a contextualised manner, thus increasing both the efficiency and effectiveness of working from home."	Participants not all in the same country. Using a snowball may have inhibited the range of responses gained in this study – also sample fairly homogenous (e.g. most aged 25 to 44 years). Responses were all written, so no opportunity for follow-up questions.

			colleagues; (iv) if' yes' to (iii), then the method of communication used, information exchanged and time of interaction; (v) whether they did any non-work-related activities to keep positive, and (vi) any other comments they wanted to make.”		"My day was busy and it felt a little chaotic as my manager phoned me several times throughout the morning with new tasks he wanted me to do urgently and I already had a lot to be getting on with so it was a bit stressful and difficult to manage." (P.12). "My team leader gave me a task and after 2 hours he kept sending me messages via teams on updates. At some point I felt like I was going crazy." (P.7). Maintaining interaction while working remotely was also an issue, with a lack of face-to-face interaction leading to worries about colleagues: " I needed to ask [a colleague to do a task] and I haven't seen him since he was ill. I worry that without that visual contact and being able to judge if he is in a place to cope with anything extra to do I might be the straw that broke the camel's back. We judge how people are and use emotional intelligence when we see and chat with them on a regular basis. Judgements are made in the dark when working in this remote manner." (P.21). " ... there was one of my office colleague who responded very rude to one of my query, I did wonder, was it working in loneliness that made my colleague to behave in the strange manner." (P.6). Some people reported sleeping for		

					longer in the mornings. Some people missed the small daily social interactions that they usually had at work, although more time with family was also appreciated.		
Limbers 2020 US	Online survey, with recruitment though Qualtrics online panels. Correlations (Pearson) were calculated among the variables. Multiple linear regression analysis was conducted for the 4 WHOQOL-BREF domains.	Females aged 18+ who would normally work outside the home but were working from home completely for ≥30 hours per week during the COVID-19 pandemic, with at least one child aged ≤5 years who lives with them ≥50% of the time. N = 200, Mean age 33.5 (SD 6.25) years	Quality of life – assessed through the WHOQOL-BREF, 26 items, 5-point scale, higher scores indicate better QoL. Assesses physical health, psychological health, social relationships and environmental health. Parenting stress – assessed using the Parental Stress Scale (PSS), 18	"to 1) evaluate the associations between parenting stress, quality of life, and physical activity in a national sample of working mothers who have transitioned to working from home due to the COVID-19 pandemic, and 2) examine if physical activity moderates the association between parenting stress and quality of life in this sample of working mothers"	Greater levels of parenting stress were associated with lower physical health quality of life ($r = -0.42$, $p < 0.001$), lower psychological quality of life ($r = -0.28$, $p < 0.001$), lower social relationships quality of life ($r = -0.21$, $p < 0.01$), and lower environment quality of life ($r = -0.19$, $p < 0.01$). Higher levels of vigorous intensity ($r = 0.29$, $p < 0.001$) and moderate intensity physical activity ($r = 0.17$, $p < 0.05$) were associated with better social relationships quality of life. Higher educational status ($r = 0.16$, $p < 0.05$) and being married ($r = 0.21$, $p < 0.01$) were associated with better social relationships quality of life. Higher levels of moderate intensity physical activity were associated with lower physical health quality of life ($r = -0.20$, $p < 0.01$). In regression analyses, all four QoL domains were predicted by parenting stress, after controlling for socio-demographic variables (maternal marital status, annual income, maternal highest level of education). For social relationship QoL and environment QoL, this relationship was moderated by moderate intensity PA, such that the negative stress on the outcome was	"Our findings suggest that moderate intensity physical activity may attenuate the negative impact of parenting stress on social relationships and satisfaction with one's environment in working mothers during the COVID-19 pandemic."	Cross-sectional study. Type of physical activity not captured. Sample was predominantly White, married and educated, thus generalisability of results may be limited. Study may exclude those without access to technology and fulfilment of inclusion criteria was based on self-report. PA was self-reported and may have been subject to recall bias and social desirability bias (despite using a validated measure).

			items, 1-5, total scores computed, higher scores indicate greater levels of parenting stress. Physical activity (PA) – assessed using the IPAQ short form, where participants reported the numbers of days and minutes/hours over the last 7 days that they engaged in walking, moderate PA, and vigorous PA. METs were computed. Higher METs indicate higher levels of PA.		weaker for those who engaged in higher levels of moderate intensity PA.		

Lundberg 2002 Sweden	Repeated measures observational field study.	Full-time (>35 hpw) white-collar workers at a Swedish government authority who worked ≤3 days at the office and ≥2 days per week at home. N = 26 46% female, Mean age 41.7 (SD 11.2) years, range 24 to 62 years, all executive officers (n=19) or in a comparable position (n=7).	Psychophysiological reactivity, using an automatic ambulatory blood pressure monitor on three separate days (awakening to 8pm): (1) During a normal day when working at the office; (2) During a workday at home; (3) During relaxation at home. Each day was 5-10 days apart and not within the same working week.	"to investigate physiological, psychological, learning, and social factors related to telework, with the present study focusing on the psychophysiological reactions"	There was no significant difference in self-ratings of stress between telework and office work. Men had higher SBP than women, therefore separate analyses were undertaken by sex. Women had significantly higher daytime SBP at the office than during telework or relaxation, but no differences between telework and relaxation. Men had significantly higher daytime SBP at the office than during relaxation at home, but no significant differences between office work and telework, or between telework and relaxation. Both women and men had significantly higher daytime DBP at the office than during relaxation. Men but not women had significantly higher daytime DBP during telework than relaxation. Women, but not men, had significantly higher daytime DBP during work at the office than during telework. There were no differences between sessions for men or women on daytime HR, or on evening HR, SBP or DBP. Women had significantly higher daytime epinephrine levels during telework than relaxation, and during office work than relaxation. Men had significantly higher daytime epinephrine levels during office	"Blood pressure was significantly higher during work at the office than when teleworking at home, and men had significantly elevated epinephrine levels in the evening after telework at home. It was assumed that the lower cardiovascular arousal during telework is due to different work tasks and that elevated epinephrine levels in men after telework are caused by continued work after normal working hours."	Those who took part in the field study were not significantly different from employees who did not participate, in terms of family situation, work characteristics, overall health, and symptom reports, but those who took part in the field study were significantly younger and had higher levels of education and seniority of position. Small sample size, which may limit power in some comparisons. Order effects were not randomised, although there was some difference in terms of the first session.

			Urinary catecholamines and salivary cortisol were also measured at regular intervals during this period. Participants also gave baseline physiological readings during a day off from work at the local authority's expense, spent reading light (non-work-related) material and listening to music. Participants also reported self-rated		work than relaxation, but not during telework. There was no significant effect of session for daytime norepinephrine for men, but women had significantly higher daytime norepinephrine levels during office work than relaxation, and during telework than relaxation. There was no significant effect of session for evening epinephrine for women, but men had significantly higher evening epinephrine levels after telework than a day of relaxation, and after a day of office work than a day of relaxation. There was no significant effect of session for evening epinephrine in either group. There were no significant effects of session for cortisol at any time period.		

			health (single item, 1-5) and wellbeing (Ryff's Psychological Well-Being Scales, 3 items, 1-6). Work characteristics were also assessed.				
Magnavita 2021 Italy	Survey (assumed face to face, completed during medical examination), completed in 2019. Analysed using SEM.	People working for trade and service sector companies that made use of part-time telecommuting (<10 h per week) / hybrid working, in one region of Italy. N = 905 36.6% male, Mean age 45.93 (SD 11.39)	Occupational stress, assessed using the Siegrist Effort/Reward Imbalance (ERI) model short questionnaire, 10 items, 4-point scale, validated. Common mental issues, assessed using the Goldberg Anxiety and	"to evaluate how workers employed in companies that made limited use of telecommuting were affected by occupational stress, happiness, and common mental issues (CMIs), i.e., relatively high levels of anxiety and depression symptoms."	Occupational stress (effort-reward imbalance) increased with off-time work, intrusive leadership, workaholism and age. Happiness increased with off-time work, was higher in males, and decreased with workaholism and age. Anxiety increased with intrusive leadership, workaholism and age, and was higher in females. Depression decreased with off-time work, was higher in females, and increased with workaholism and age. There was an interaction effect of workaholism and intrusive leadership on occupational stress, such that intrusive leadership had a stronger effect on effort-reward imbalance among workers	"In conclusion, the transition from traditional office work to telecommuting is a profitable and unstoppable phenomenon. Telecommuting is certainly a practical way of improving production, integrating workers with disabilities, diminishing commuting and environmental pollution, and reducing the spread of infection. However, great attention must be given to ensuring that this type of remote working is	High response rate (99.4%).

			Depression Scale (GADS), 9 + 9 binary items, validated. Happiness, assessed using a single item ('Do you need happy in general?'), 0-10. Also assessed workaholism, job demand and intrusive leadership style.		with high workaholism, but not low workaholism (looks like a moderating effect of workaholism on the relationship between intrusive leadership and occupational stress). Occupational stress, happiness, depression and anxiety were all significantly correlated in the expected direction.	accompanied by a correct style of leadership and respect for the privacy and needs of workers."	
Mann 2003 USA	Study 1: qualitative interviews, comparing the emotional impact of work patterns on teleworking and office-based journalists.	Teleworking and office-based journalists. 8 Male, 4 Female (study 1) 17 Male, 15 Female (study 2).	Stress. Loneliness. Enjoyment. Irritability. Worry. Resentment. Frustration. Physical health was measured by self-	Examine the psychological impact of teleworking compared to office-based work.	All teleworkers had previously been office-based and had voluntarily chosen to work from a home-base. Office-working participants had had no opportunity to follow an alternative working pattern. All the teleworkers had an area specifically devoted to their office space and the technological equipment necessary, including PC, e-mail and fax, to carry out their job. The teleworkers had no set	There is a greater percentage of teleworkers than office-workers who experience the negative emotions of loneliness, irritability, worry and guilt. The negative emotional impact of loneliness on teleworkers was especially evident and	

	N=12 Study 2: quantitative questionnaire-comparing the occupational stress and health symptoms of office-workers and teleworkers	Teleworking participants followed this working pattern (minimum of 3 days per week) from 3mths to 10yrs (average 3yrs 2mths) out of a total average working time of 17yrs 11mths. Office-workers had spent from 1yr 4mths to 17yrs following their working pattern (average of 9yrs, 2mths) out of a total average working time of 11yrs 7mths.	reported frequency of physical symptoms associated with occupational stress. Mental health was measured by the feelings and behaviours that were perceived to be affected by the pressure of the job.		time to visit the office and face-to-face contact was minimal. Results suggest a negative emotional impact of teleworking, particularly in terms of such emotions as loneliness, irritability, worry and guilt, and that teleworkers experience significantly more mental health symptoms of stress than office-workers and slightly more physical health symptoms. Independent t-tests were carried out to investigate whether there is any difference in the mental and physical health scores for the teleworkers and office-workers and revealed there was a significant difference between the mental health scores f ($t = 1.85$, $df = 60$, $p < .05$), indicating higher levels of emotional ill health for the teleworkers. There was no significant difference between the physical health scores for the teleworkers and office-workers ($t = 1.05$, $df = 60$, ns). A 2 ¥ 2 between subjects ANOVA was carried out on the mental and physical health scores by the two conditions of gender and working pattern. There was a significant main effect of gender on the mental health scores, $F(2, 58) = 6.072$, but no significant main effect of	was not experienced at all by the office-workers. It is of interest to note that even though the office-workers in Study 1 reported experiencing more stress, it was the teleworking group in Study 2 who showed more symptoms of stress. This throws up a number of issues regarding the correlation between subjective reports of 'feeling stressed' and actual stress symptoms; It could be argued that the symptoms of stress and their associated effects on health are more important to consider than whether individuals claim they do or do not 'feel stressed'	

					working pattern on the mental health scores, F(1, 58) = 3.501, ns. There was no significant interaction effect between gender and working pattern on the mental health score, F(1, 58) = .755, ns. There was a significant main effect of gender on the physical health scores, F(1, 58) = 4.237, p < .05, but no significant main effect of working pattern on the physical health scores, F(1, 58) = .984, ns. There was no significant interaction effect between gender and working pattern on the physical health score, F(1, 58) = 2.987, ns. Office-workers appeared to experience additional stress due to office politics and transport and travel to work. Teleworkers may also experience a decrease in stress attributable to the perception of having control over their work (environment and work schedules). Teleworkers emphasise the lack of social support available to talk things through which could produce other negative emotions such as feelings of insecurity and lack of confidence in their abilities. Loneliness was not experienced by office workers. The intrinsic rewards gained from their employment may motivate teleworkers, to some degree, to overcome negative		

					emotions such as loneliness. Office-workers may not experience as much resentment towards travel to work if they are looking forward to their working day. Teleworkers experience more negative emotions than office-workers relating to this area and one of the main aspects is the irritation caused by being physically distant from the source of any problems. This social isolation can restrict the ability to sort out issues, leading to frustration, and prevent emotional support from fellow workers to help deal with the situations. Another cause of irritation for the teleworkers seems to be the intrusion of family members into work time. This blurring of boundaries between work and home life, as other family members have difficulty in distinguishing the work role from the family role, may lead to feelings of frustration, anger and stress. The worry that the office-workers' experience is work related involving the actual practicalities of the job. The main worry for teleworkers seems to be lack of support. This may leave them feeling worried, panicky or fearful regarding their ability to complete a task effectively.		

					Organisations perceive telework as attractive due to expectations of greater productivity and the pressure this creates may contribute to the guilt teleworkers experience if they have control over their work scheduling. This may also lead to worry about achieving deadlines. Although teleworkers direct the frustration towards technology, office workers relate it more to other people.		
Mari 2021 Italy	Online survey, conducted from 1st to 30th April 2020. Differences between the four groups of employees (practitioners, managers, executive employees, teachers) were examined using ANOVA with post-hoc tests.	People aged ≥18 years currently employed and doing 'smart work' (working from home only). N = 628 78% female, Mean age 42.3 (SD 10.5), age range 21-70, 80% had at least one degree, 26% were practitioners (e.g. lawyer, psychologist,	Stress, assessed by the Perceived Stress Scale (PSS), 10 items, 0-4, validated. Coping with stress was assessed using the Coping Orientation to Problems Experienced – New Italian Version (COPE-NVI), using 8 out of the	"to investigate whether there are differences in the psychological variables related to four groups of professional categories (practitioners, managers, executive employees, teachers), particularly the teachers group"	There were no significant differences between professional groups on the PSS (perceived stress), nor on the perceived self-efficacy subscale. For the perceived helplessness subscale, teachers had a higher mean score (11.07, SD 3.90) than managers (9.79, SD 3.81). In terms of coping, on the emotion-oriented coping subscale, teachers had a higher mean score (7.37, SD 2.78) than practitioners (5.78, SD 2.84), managers (6.32, SD 2.95) and executive employees (6.31, SD 2.60). Attitudes and opinions on smart working – the one item that seemed to relate to wellbeing was 'Smart working is convenient for the company and the employer'. Teachers' mean scores were lower on this item (3.07, SD 1.03) than for practitioners (3.70, SD 0.902), managers (3.99, SD 0.941) and executive	"All workers have had to readjust to this new way of working, but our results show that teachers were the most affected, both in the perception of their psychological well-being and in the management of the smart working mode."	The professions were grouped by the authors (apart from teachers). Cross-sectional survey so problematic to infer causation. Convenience sampling may leave this study open to selection bias, along with online sampling and administration. Sample may not be representative.

		accountant), 20% were managers, 29% were executive employees, 25% were teachers.	original 25 items, 0-4, validated. Temporal perspectives of individuals, assessed using the Stanford Time Perspective Inventory (STPI-Short Form), 0-4, validated. Attitudes and opinions on smart working, assessed using a scale developed by the authors, 5 items, 1-5. Attitudes and moods about the new coronavirus were assessed		employees (3.92, SD 0.922). No significant differences were found between groups on time perspective.		

			with a scale developed by the researchers, 8 items, 1-5.				
Mellner 2017 Sweden	Online survey administered in 2013. Analysed using SEM.	Employed professionals working in one of four large organisations. N = 3846 62% male, Mean age 48 years	Sleep duration, assessed by how many hours were slept on average before a working day over the past week. Sleeping problems, psychological detachment, weekly work hours and work time and space were also assessed.	"to test a theoretical model of the inter-relationships between boundaryless work in time and space, weekly work hours, psychological detachment and sleeping problems as well as sleep duration with a focus on the specific role of each factor"	Working from home was negatively related with sleep duration	"In this context [of boundaryless working conditions], not being able to free oneself from work-related feelings and thoughts during leisure may be interpreted as the dark side of freedom as employees run the risk of working 'anytime – all the time', and as such, of 'always being on' resulting in disturbed sleep."	Response rate 42%. Sleep duration self-reported.
Molino 2020 Italy	Online questionnaire Completed April 2020 Pearson's correlation	Italian workers (convenience sample) N = 749 59% female, mean age 38.7 (SD 11.3)	Technostress creators – measured by the validated 11-item brief Italian technostress	"to investigate technostress during the Covid-19 emergency" using "the Italian translation of	Significant positive correlations were found between behavioural stress and work-family conflict (r=0.23), the three techo-stress creators (techno-overload, techno-invasion and techno-complexity; r=0.22, r=0.24 and r=0.23, respectively), and workload (r=0.19) (all p<0.01). Work-family conflict was also positively	"Among the main findings, results highlighted positive associations between the three techno-stressors and the two outcomes, confirming the necessity to deal	Variety of occupational sectors. Cross-sectional design is a limitation, as is the convenience sampling (and little detail on recruitment is reported). Only examined 3 out of the

	coefficients and Cronbach's alphas were calculated. A structural equation model was performed to test the hypothesised model, controlling for remote working as a dichotomous variable (1 = remote working ≥2 days/week; 0 = traditional working). Hypothesised model (Figure 2):  (see below)	years, 63% were working from home for a mean 4.7 (SD 1.3) days per week. 58% did not have children, 53% were permanent, 21% fixed term and 20% self-employed (6% had other types of contracts).	creators scale, consisting of techno-overload (4 items), techno-invasion (3 items), and techno-complexity (4 items), each rated on a 1 (SD) to 5 (SA) scale. Workload – measured by 3 items (each on a 1 to 5 scale), high score indicating high workload. Work-family conflict – measured by 3 items (each on a 1 to 5 scale), high score indicating high conflict.	the brief version of the technostress creators scale" (and also to test the psychometric characteristics of this scale (beforehand) – but this was not extracted)	correlated with the three techno-stress creators (r=0.35, r=0.48 and r=0.19, respectively) and workload (r=0.47) (all p<0.01). Remote working was positively correlated with techno-overload (r=0.29), techno-invasion (r=0.25), and workload (r=0.13) (all p<0.01), but not behavioural stress (r=-0.07), work-family conflict (r=0.03) or techo-complexity (r=0.01). The hypothesised model fitted to the data well (X^2 (154) = 502.58, p < 0.001, CFI = 0.96, TLI = 0.95, RMSEA = 0.06 (90% CI: 0.05, 0.06), SRMR = 0.04). Workload was positively related to techno-invasion, techno-overload, techno-complexity and work-family conflict. Techno-invasion was positively related to work-family conflict, which was positively related to behavioural stress. Techno-overload and techno-complexity were directly (positively) related to behavioural stress. Remote working was positively related to workload, techno-invasion and techno-overload, and negatively related to work-family conflict and behavioural stress (i.e. the sample had lower family conflict and behavioural stress when working from home than traditional working, as tested in this model). See Figure 3: 	with the massive use of technologies for work purposes and its negative consequences. Moreover, the study indicated both workload and remote working as antecedents of technostress creators; as suggested above, interventions on working cultures and in the human resources management field are necessary to prevent negative consequences of technology use and to foster a positive implementation of remote working."	5 techno-stress creators examined by the same authors in the validation study. Also, emotional distress related to the COVID-19 pandemic emergency situation was not considered. Some factors may have confounded the analysis (e.g., authors suggest personality traits) but were not examined.

			Behavioural stress – measured by 8 items from the Copenhagen Psychological Questionnaire (each rated on a 1 to 5 scale), high score indicating high stress.				
Moretti 2020 Italy	Cross-sectional survey, possibly administered by telephone, or online (not clear from paper).	Administrative officers who moved to work online during the COVID-19 pandemic, in the Campania Region. N = 51 56.9% female, Mean age 46.7 (SD 11.3) years. 56.9% had ≥3 cohabitants, 29.4% had children to	Work-related stress – not details on how this was assessed. Job satisfaction – assessed by the Utrecht Work Engagement Scale (UWES), 17 items, 0-6, 3 dimensions (vigour, dedication	"to examine the impact of home working on perceived job productivity and satisfaction, work-related stress, and musculoskeletal (MSK) issues."	39.2% reported experiencing lower stress since working from home, 33.3% reported higher stress and 27.5% reported equal stress between WFH and in the workplace. 39.2% reported lower self-perceived productivity, 29.4% higher productivity, and 27.5% perceived no difference in their own productivity. 35.3% perceived lower satisfaction, 13.7% higher and 51% equal job satisfaction. In terms of advantages listed, 82.4% agreed that WFH saved travel time, 23.5% reported that they had time flexibility, 9.8% experienced greater autonomy, 25.4% experienced more	"Depending on our data, the home environment seems to be not adequate in the mobile worker population, with an increased risk for mental health and MSK problems, particularly affecting the spine. Addressing these issues can significantly reduce risks for health, thus, improving job productivity and satisfaction and reducing cost."	Little detail on recruitment. Small sample size. Cross-sectional design, so therefore cause and effect cannot be established. Influences on productivity, satisfaction and MSK issues may not have been accounted for.

		look after.	and absorption) Productivity – self-rated, no details reported. Predictor variables assessed included: job level, cohabitants (esp children), remote working experience, factors that might improve or decrease productivity. Also assessed low back pain and neck pain, and beliefs about how physical activity and work contribute towards		time spent with family and 11.8% felt they had enhanced attention WFH. In terms of disadvantages listed, 40.6% agreed there were distractions in the domestic environment, 9.8% experienced planning difficulties, 41.2% experienced impaired interaction with colleagues and 23.5% experienced technical failures. Regarding health problems, 70.5% of participants reported MSK pain (41.2% back, 23.5% neck, 7.8% shoulder, 7.8% hip, 7.8% knee, 5.9% thigh and 3.9% elbow). Low back pain and neck pain were more severe and interfered more with everyday activities. Neck pain worsened in 50%, improved in 8.3% and was the same in 41.7% of participants, whereas lower back pain worsened in 38.1% , improved in 14.3% and was the same in 47.6% of participants. Home workers without pain reported significantly higher job satisfaction than those with pain.		

			these.				
Perry 2018 USA	2 studies: **Study 1** – online survey, 2-wave (3 months apart). Analysis by hierarchical ordinary least squares regression. **Study 2** – Online survey (cross-sectional). Analysis by multilevel modelling with random intercepts.	**Study 1:** Full-time working adults. N = 258 55% female, Mean age 55 years. **Study 2:** Full-time professional employees from 3 Southern USA organisations. N = 145 41% female, Mean age 44.3 years, 39% minority ethnic group	**Study 1:** Emotional stability, assessed by to 10-item subscale of the IPIP Big Five personality scale, 1-5. Strain, assessed by the Oldenburg Burnout Inventory (8 items) to measure exhaustion and disengagement, and the Cammann job dissatisfaction measure (3 items), 1-5. Autonomy and demographics were also	To "extend the Demand-Control-Person (DCP) model to test both person and job factors as important considerations in remote work, suggesting that emotional stability influences the utility of autonomy as a job resource in protecting employees from strain." Also to "test self-determination theory (SDT), positioning need satisfaction for autonomy, relatedness, and competence as mechanisms explaining the relationship between remote work	**Study 1:** Correlations – remote work was only correlated with disengagement aspect of strain. Model – Individuals reporting high autonomy and low emotional stability may experience more strain when they work remotely more often, compared with those reporting high autonomy and high emotional stability. [N.B. Looks like emotional stability is a moderator] **Study 2:** Correlations - the extent of remote work was not significantly correlated with any of the strain outcomes or forms of need satisfaction. Model – There was a significant remote work × autonomy interaction for exhaustion, such that there was "a positive remote work-exhaustion slope among employees reporting low autonomy (0.82; $t = 2.12$, $p < 0.05$) and a seemingly negative but non-significant relationship among those reporting high autonomy (slope = − 1.20; $t = -1.68$, $p = 0.10$)." For the remote work × autonomy × emotional stability interaction in relation to strain, those with high autonomy and high emotional stability exhibited the	"Thus, our results support the DCP and SDT models, revealing theoretical and practical implications for designing and managing remote work arrangements."	All measures were self-reported. Neither study was longitudinal, which precludes causal inference. The overall extent of remote work was low, and thus relationships may not just apply to strain and autonomy in remote work but work in general (although rates of remote work were consistent with other similar research). Low response rate for Study 2 (23.%), unknown response rate for Study 1.

			assessed. Remote work was assessed by an item asking respondents to report the proportion of the workweek spent working remotely from the office, from 1 [none] to 5 [76-100%]. Remote work, autonomy, and emotional stability were assessed at Time 1; strain was assessed at Time 2. **Study 2:**	and strain."	lowest overall level of strain compared with other combinations of these predictor variables. Need satisfaction significantly mediated the relationship between autonomy and strain. Autonomy and relatedness need satisfaction fully mediated the relationship between remote work and both exhaustion and disengagement.		

			Strain was assessed by the same measures as in Study 1. Autonomy, need satisfaction and demographics were also assessed. Remote work was assessed by asking how many hours were worked remotely each week and then how many hours were worked each week and a percentage was calculated (to improve precision on the Study 1 measure).				

Ray 2021 USA	Face-to-face nationally representative survey (GSS-QWL) (from 2002, 2006, 2010, 2014 and 2018). Regression analyses were undertaken to assess the effects of work flexibility on work-related well-being – logistic models for categorical outcome variables and zero-inflated negative binomial models for variables with zero-counts (and those with skewed count data).	Nationally representative sample, pooled data from 5 waves from 2002 to 2018. N = 7400 (approx.) Mean age 42.8 years, 52% female. Proportion working from home increased from 29% in 2002 to 33% in 2018 (remaining stable from 2010 onwards) (n =).	Flexibility – work flexibility was assessed in terms of location, leave and schedule flexibility (assessed on Likert scales). Wellbeing – assessed in terms of job stress (single item), and HRQoL (CDC-HRQOL-4 index, containing 4 core questions). Also assessed: Industry (respondents were grouped into 10 broad industries), work	"The purpose of this study is to understand flexibility trends in the US and its association with well-being. This study examined the following research questions: (1) What are the trends of flexibility over time (using descriptive analysis)? (2) What are the population prevalence rates by flexibility indicators and selected demographic and socioeconomic characteristics (using descriptive analyses)? (3) What are the well-being outcomes of flexibility (using logistic and	Of those working from home, 36.0% reported job stress, and 94.4% reported job satisfaction, with a mean of 27.3/30 days of good physical health, 26.8/30 days of good mental health, 24.4/30 healthy days, and 1.4/30 days with activity limitations. The sectors with the highest proportion of people who reported WFH were agriculture, forestry, and fishing (53.2%), services (32.6%) and construction (27.5%), with the fewest in mining (10.5%), oil and gas extraction (11.1%) and public safety (11.3%). In regression analyses, working from home was associated with a 22% increase in job stress and a 65% increase in job satisfaction ($p < 0.01$). This was modified by sex (women were 38% more likely to report job stress and 5% less likely to report healthy days than men), ethnicity/race (compared with non-Hispanic Whites: Hispanic workers were 32 % less likely to report job stress, 5% more likely to report healthy days and 39% less likely to report days with activity limitations; Black workers were 40% less likely to report job stress and 4% more likely to report healthy days; and Asian workers were 36% less likely to report job stress and 4% more likely to report healthy days), income (as income increased, the likelihood of reported job satisfaction increased, the	"This study demonstrated the importance of work flexibility for well-being, using three flexibility indicators (working at home, taking time off, and changing one's schedule) and four well-being indicators (job stress, job satisfaction, healthy days, and days with activity limitations)."	Cross-sectional data, relatively small number of observations, but wide range of sectors and recruited face-to-face so selection bias less likely. Did not control for workload or demand. Subjective well-being was not assessed. Cross-years analyses were not possible due to pooling data for a larger sample size. Macroeconomic factors were not controlled for. The quantitative nature of the study answers the 'what' but not the 'why', which can only be speculated.

			arrangements, work to home stress 'spillover'.	zero-inflated negative binomial regressions, and controlling for covariates)?"	likelihood of reported healthy days increased, and the likelihood of reported days with activity limitations decreased), health status (the odds of job stress decreased by 36% and the odds of job satisfaction increased more than two times as health status increased; higher health status was associated with a 16% increase in healthy days and a 50% increase in days with activity limitations), living with a spouse (associated with a 5% increase in job stress, 5% decrease in job satisfaction and a 1% decrease in likelihood of reporting healthy days), family interfering with work (35% greater likelihood of reporting job stress, 17% decrease in job satisfaction, 2% decrease in healthy days and 9% decrease in days with activity limitations) and more hours worked (associated with a 3% increase in job stress, 1% increase in job satisfaction and 11% increase in days with activity limitations). The authors comment, "Part of the increase in job stress could be attributed to overwork resulting from taking work home. As we could not account for that in this study, we did not distinguish among those who work at home as part of a contractual agreement versus those who are overworked and have to take work home." (p.13) Also, "This could reflect the blurred lines between work and home, the		

					perception that workers need to work even harder to prove they earned the right to work remotely, or higher demands in the types of jobs that permit working from home." (p.13)		
Restrepo 2020 USA	Large-scale survey (data collected through interview), nationally representative (2017–18 Leave and Job Flexibilities Module of the American Time Use Survey). Cross-sectional. Comparison of percentages and mean number of minutes, regression analyses for prediction of outcomes.	Prime working-age adults (aged 25-54 years) in 'white collar' occupations who worked the day before the interview. N = 1784 54.4% female, Mean age 39.0 (SD 0.2) years, 147 participants (8.2%) worked from home the day before the survey.	Sleeping, minutes Time spent on food preparation and production (proxy outcomes for healthy diet). Eating and drinking at home (including time spent) (again, proxy outcomes for dietary quality).	To "examine differences in time spent in major activities between individuals who worked from home and away from home"	Those working from home the previous day had significantly ($p < 0.10$) more minutes of sleep (mean 497.7, SD 10.6) than those who worked away from home the previous day (mean 460.6, SD 2.4). A significantly ($p < 0.10$) greater proportion of those who worked from home the previous day spent time engaged in food preparation (75.1%) than those who worked away from home (63.0%), and also spent significantly ($p < 0.10$) more minutes on average preparing food (mean 40.7 (SD 5.4) vs. mean 30.3 (SD 1.2) minutes, respectively). A significantly ($p < 0.10$) greater proportion of those who worked from home the previous day spent time engaged in eating at home (88.9%) than those who worked away from home (76.9%), and also spent significantly ($p < 0.10$) more minutes on average eating at home (mean 49.2 (SD 3.2) vs. mean 26.8 (SD 0.7) minutes, respectively). The regression analysis showed that "individuals with a spouse or partner present who worked from home spent	"Our analysis of pre-pandemic data from 2017–18 clearly demonstrates that daily time allocation varies by worksite. As the nation grapples with the pandemic, it will be important for researchers to continue investigating Americans' responses to COVID-19, including how time-use patterns are changing as well as the health and non-health implications of those changes."	Sub-sample of those who worked from home is very small relative to those who worked outside the home.

					significantly more time devoted to food production and eating and drinking at home (25 and 48 min, respectively)… Individuals without a spouse or partner present who worked from home spent significantly more time devoted to eating and drinking at home (33 min) than those who worked away from home", but a similar amount of time on food production (26 min).		
Reuschke 2019 UK	Large longitudinal dataset (UK Household Longitudinal Study ('Understanding Society') – 7 waves. Panel models (linear fixed effects regression models) calculated to examine the impact of a change in homeworking situation on change in life satisfaction.	Sample of the dataset of people of working age (18-64 years) either in paid employment or self-employment. N = 33,719 11.1% (n = 3738) mainly worked from home in at least one wave. 53.7% female.	Satisfaction – assessed with the items "How satisfied are you with your life overall / income of household / amount of leisure time / health?" rated 1-7, higher scores indicate greater satisfaction. Working from home – employees and self-employed asked where	To study "how changing geographies of work and workplaces impact on workers' life satisfaction overall and across various aspects of their lives"	Homeworking did not have an impact on overall life satisfaction among the sample overall, nor among men or women, nor by type of employment. Homeworking was found to be positively associated with health satisfaction in men, but not in women (not significant in model though?). Solo self-employment in particular was positively related to health satisfaction among men. Homeworking was found to be positively related to job satisfaction in men, although not when employment status was controlled for, as being self-employed (as an employer and solo) was strongly associated with job satisfaction. The authors explain this in terms of both homeworking and self-employment having common elements, namely autonomy and control, and hypothesised that men value these things. For women, both homeworking and self-employment (as an employer	"To conclude, the changing geographies of work and workplaces, enabled through technology, on the one hand, can help improve men's and women's social lives and may well make (for some) a contribution to a better work–life balance. This is not only important for work–family research or organisational studies, but needs more attention in geographical research that seeks to better understand well-being and place. On the other hand, working in isolation from co-workers in one's own home can also reduce	Large, longitudinal dataset, representative, wide variety of home and work circumstances and sectors. Limited by questions asked in the original survey and lack of depth in / explanation for findings.

			they mainly work in their primary employment, including their own home – homeworking defined as working most of the time at home.		and solo) was significantly positively related to job satisfaction, and homeworking has an 'additional' benefit to the advantages gained from being self-employed. The relationship between homeworking and household income satisfaction was found to be neutral in women and weak negative in men. This differed by employment type. Among both men and women, homeworking was found to be significantly positively related to leisure time satisfaction, with no significant differences between men and women, nor between people with different types of employment. Leisure time satisfaction was reduced when respondents worked longer hours, had a young child (baby) and/or caring responsibilities for other family members, but was not linked with household income.	aspects of well-being compared to mainly working outside the home."	
Ripoll 2021 Balearic Islands (Spain)	Online survey, administered from 15th March to 10th May 2020 (to cover the first lockdown period). Longitudinal – survey sent out weekly over the	Adult (aged ≥18 years) residents of the Balearic Islands. N = 681 (61.8% remained at week 8) 77% female,	Generalised anxiety, assessed using the generalized anxiety disorder (GAD-7) scale, 7 items, 0-3, validated.	"to assess the evolution of mental health and psychological wellbeing during lockdown"	Working from home (compared with other working arrangements, which in this case included working on-site and hybrid working) was associated with increased depression symptoms between weeks 1 and 8 of the lockdown (experienced by 14.2% vs. 8.3%, respectively, p = 0.014), but not between weeks 1 and 4 (experienced by 11.0% and 13.7%, respectively, p = 0.235), nor increased anxiety symptoms between weeks 1 and 4 (experienced by	"Our findings highlight the importance of supporting people in the period before future lockdowns, thus reducing distress, perhaps by providing more information to reduce excessive fears about becoming sick. More sh1dies that include other strata of	Snowball sampling – possibility of selection bias (along with online format for survey). There is no pre-pandemic baseline for data on psychological well-being – it could be that anxiety and depression increased considerably in the first week, but the

	course of 8 weeks. Paired analysis (using McNemar's test) was used to analyse differences in wellbeing outcomes from the first to the fourth week and the beginning to the end of lockdown. Generalised estimating equations were used to examine weekly changes in wellbeing outcomes. Chi-squared test was used to assess the relationship of sociodemographic and situational variables with changes in wellbeing	27% aged <35 years, 30% aged 35-44 years, 21% aged 45-54 years, 22% aged ≥55 years. 76% had higher education, 75.5% were employed, 58% of whom were working from home at week 1.	Depressive symptoms, assessed using the patient health questionnaire (PHQ-9) (a version approved for use in Spain), 9 items, 0-3, validated. Consumption of psychotropic drugs to reduce anxiety or insomnia during lockdown, yes/no. Mechanisms for dealing with mood and anxiety issues were assessed by asking participants whether they had		10.1% and 11.5%, respectively, p = 0.657) or between weeks 1 and 8 (experienced by 11.0% and 8.3% respectively, p = 0.533). Working from home (compared with other working arrangements) was not associated with increased consumption of psychotropic drugs between weeks 1 and 4 (consumed by 6.5% and 7.1%, respectively, p = 0.306) or weeks 1 and 8 (consumed by 8.4% and 8.9%, respectively, p = 0.952), nor consultations to improve mood/anxiety between weeks 1 and 4 (undertaken by 27.3% and 26.9%, respectively, p = 0.918) and weeks 1 and 8 (undertaken by 28.0% and 31.5%, respectively, p = 0.388).	the population are needed in order to better understand the impact that lockdowns have on those who are most vulnerable and who have worse living conditions, as the sample in our study is not representative of the general population."	survey would not have captured this. Possibility of other pandemic-related confounders. Longitudinal nature of this study is a strength (although there was considerable attrition). Sample not representative, over-representing higher SES groups and women.

	outcomes halfway through and at the end of lockdown. Variables relating to anxiety, depression and the consumption of psychotropic drugs were transformed to three categories – unchanged, increase or decrease.		consulted a professional, visited a website, or required neither. Life satisfaction, assessed on a 0-10 (completely unsatisfied to completely satisfied) scale. Self-perceived health, assessed as a single item with response options of excellent, very good, regular or bad. Optimism regarding the future (own), and the future of				

			society, 1-5, only assessed in week 8. No definition for working from home given, but can assume it included working from home all the timas there was another response option for hybrid working.				
Rodriguez 2020 Spain	Online survey (available 18 April to 19 May 2020) Differences in levels of each of perceived stress and stress control during confinement as a function of a mix of demographic	People living in Spain during the COVID-19 lockdown, aged 18-70 years. N = 1269 18% male, Mean age 38.8 (SD 10.6) years, "more than half" working	Stress – assessed by the 14-item Perceived Stress Scale (PSS-14) (0-4, high scores indicate greater stress). Has two factors – control of stress, and perceived	"to identify the differences in perceived stress and control of stress as a function of the sociodemographic characteristics of the population confined by COVID-19 (age, gender, civil status,	Working situation (during COVID-19 lockdown confinement) was related to stress response ($F_{(4,918)} = 4.914$; $p < 0.01$; $\eta_{p2} = 0.020$) and control of stress ($F_{(4,928)} = 4.017$; $p < 0.01$; $\eta_{p2} = 0.016$). The lowest stress response was reported by those who combined teleworking and commuting (in-person working), followed by those just commuting, whereas the highest stress response (and lowest stress control) was reported by those who were dismissed during lockdown, followed (for both outcome variables) by those whose work was	"This study showed that during the confinement, people experienced differing levels of stress and managed it with varying effectiveness depending on their demographic characteristics… Those who were able to combine teleworking with attending their workplace showed the lowest levels of stress."	This is a survey – there is no indication as to the reasons behind the perceived stress or stress control. The study was cross-sectional and did not allow for longitudinal follow-up of stress response. Online administration may have created selection bias (as may recruiting through social media).

	variables assessed using ANOVA. Cohen's criteria used to interpret effect sizes.	FT and 17% working PT or temp (8% not working and 4% studying or preparing for exams).	stress. Note: predictor variable (work situation) was assessed in the following categories: teleworking and commuting, teleworking, commuting, temporary suspension of employment, dismissed.	education, place of residence, income and work situation during confinement). In particular, given the literature reviewed, we expect to find differences in the perception and control of stress with respect to gender, age, civil status, educational level, income level, type of residence, and work situation during the confinement. Furthermore, in this study, the validity and reliability of the PSS-14, the instrument used for data collection, is also explored."	temporarily suspended. Those who were teleworking reported the highest stress control (a very slight increase), followed by those who were both teleworking and commuting. See Figure 3:  "Our results indicated that there was no significant difference in stress between those who worked from home during confinement and those who regularly attended their place of work." (p.1101)		
Russo 2021	Online survey, longitudinal.	Software professionals	Wellbeing, assessed	"What are the relevant	At Wave 1, stress, quality of social contacts, and need for autonomy had	"Overall, we conclude that working from	No pre-pandemic data. Recruitment from a

International (mainly UK, USA and countries in Europe)	Wave 1 was conducted 20th to 26th April 2020, Wave 2 conducted 4th to 10th May 2020. Pearson correlations, multiple regression.	working from home during Covid lockdown N = 192 (n = 184 in second wave) Mean age 36.65 (SD 10.77) years, 20% female,	using the Satisfaction with Life Scale, 5 items, 1-7, validated. Loneliness, assessed using the 6-item version of the De Jong Gierveld Loneliness Scale, 1-5, validated. Anxiety, assessed using the 7-item Generalized Anxiety Disorder scale, 1-5, validated. Stress, assessed using a 4-item version of the Perceived Stress Scale, 1-4,	predictors of well-being and productivity for software engineers working remotely during a pandemic?"	the strongest associations with wellbeing. Extraversion was positively correlated with wellbeing at both waves. The authors explained this in terms of social contact (online) being more 'forced', which introverts found more difficult. Multiple regression: At Wave 1, stress (negatively), social contacts and daily routines predicted stress at $\alpha = 0.05$. At Wave 2, need for competence and autonomy, stress, quality of social contacts, and quality of sleep uniquely predicted well-being at a = 0.05. Longitudinal analysis: Structural equation modelling revealed that no variable at Wave 1 was able to explain a significant amount of variance in another variable at Wave 2, thus no causal conclusions could be made. 91 participants reported increased wellbeing, 23 reported no change and 70 reported decreased wellbeing from Wave 1 to Wave 2.	home was per se not a significant challenge for software engineers. Finally, our study can assess the effectiveness of current work-from-home and general well-being and productivity support guidelines and provides tailored insights for software professionals."	sample from a previous study – may have been selection bias (as participants were already willing to participate in research).

			validated. Diet, assessed using two items on fruit and vegetable consumption from the European Social Survey, 1-7, validated. Quality of sleep, assessed with one item, 1-7, not validated. Physical activity, assessed using the 3-item Godin Leisure Time Exercise Questionnaire. Also assessed				

			productivity, self-discipline, coping, compliance with recommend-ations, boredom, daily routines, conspiracy beliefs, extraversion, autonomy, competence and relatedness, extrinsic and intrinsic work motivation, mental exercise, technical skills, social contacts outside of work, volunteering, communicati on with colleagues and managers,				

			distractions at home, financial security, office set-up, and demographic information.				
Sardeshmukh 2012 USA	Survey, no details on mode of administration. Analysed through predictive models (AMOS).	Telecommuters working for a large supply chain management company in the Midwestern USA. N = 417 29% female, Mean age 26-35 years, Had spent at least 1 year teleworking on average, spending 8-40 hours a week teleworking and most telecommuting ≤4 days per week.	Exhaustion, assessed using the Maslach and Jackson scale, 8 items, validated. Extent of teleworking was measured using the Golden and Veiga scale, 6 items, validated – participants asked to report the number of hours per week spent telecommuting.	To explore "the effects on job demands and resources to understand the processes through which telework impacts the exhaustion and engagement of the teleworker"	Job demands and resources (time pressure, role ambiguity, role conflict) partially mediated the relationship between the extent of telework and exhaustion (extent of telework was significantly related to these variables and they were significantly related to exhaustion, but extent of telework was also directly related to exhaustion). See below.	"Overall, we find that telework is negatively related to both exhaustion and job engagement and that job demands and resources mediate these relationships."	37.9% response rate. Cross-sectional. Personal and demographic factors not assessed.

			Also assessed time pressure, role ambiguity, role conflict, autonomy, feedback, social support, and job engagement.				
Sato 2021 Japan	Online survey, open 30th April to 8th May 2020 Determinants of weekday steps (as a continuous variable) assessed using a mixed linear model (random effect) with a hierarchical structure. WFH did not seem to be included in this.	Users of the health app *CALO mama*, which records diet, exercise, mood and quality of sleep and provides feedback to users. N = 2846 60% female, Mean age 43.0 (SD 12.0) years for females and 50.3 (SD 10.2) year for males.	Depressive symptoms – assessed by two validated items ("During the past month, have you often been bothered by feeling down, depressed, or hopeless?" and "During the past month, have you often been bothered by	To examine "how pandemic-related changes in work and life patterns were associated with depressive symptoms, using data from a health app called *CALO mama*"	In the logistic regression model, shifting to WFH was negatively associated with depressive symptoms (OR 0.83, 95% CI 0.69 to 0.99). The authors offer the following explanation: "In the context of COVID-19, WFH may have been beneficial to mental health because it enabled workers to keep working and communicating with their colleagues during the declaration period, which helped them have a sense of belonging. WFH may also reduce the fear of infection at or on the way to work."	"In conclusion, the study shows that weekday steps decreased during the declaration period and that a decrease in walking was associated with depressive symptoms. WFH may mitigate the risk, but at the same time may induce longer working hours. Our findings show that increased working hours during the declaration period were associated with depressive symptoms."	Cross-sectional, only sampled people who were using this app (so potentially not representative). Some covariates could not be adjusted for.

	Association of changed in work and life patterns with depressive symptoms was examined using logistic regression, adjusting for gender, age and binary variables.	83% females and 97% males were working full-time (≥6 hours/day) in the pre-declaration period and 66% females and 91% males were working full-time during the declaration period. 24% females and 32% males shifted to WFH.	little interest or pleasure in doing things?") with a "yes" response to both questions considered to indicate symptoms of depression. Physical activity – assessed by the binary variable of a lower average weekly step count in the (COVID-19) declaration period (lockdown) relative to the pre-declaration period. Changes to work patterns – assessed by the				

			following categories: “suspension of work or loss of employment”, “increased working hours”, “shift to WFH” (defined as those who worked more hours outside home in the pre-declaration period but worked more hours at home during the declaration period), and “increased time on childcare” – all for during the declaration period relative to the pre-declaration				

			period.				
Sato 2021b Japan	Online survey, administered from 30th April to 8th May 2020, with dietary data taken from the app across the same time frame. Generalised linear mixed models were used to analyse the longitudinal data.	Users of the CALO Mama health app. N = 5929 69% female, Mean age 44.0 (SD 13.8), 28.2% working from home (5.6% before the declaration period)	Dietary patterns, including the frequency of intake of vegetables, fruits, beans, mushrooms, seaweeds, fish, meats, dairy products, snacks and alcohol before and after the declaration (lockdown). Working from home was defined as those people who spent more time working from home than working away from home, according to the survey.	To examine "dietary changes in people due to the pandemic and work and life patterns"	"WFH was associated with increased intake of vegetables (1.02, 1.004- 1.03), fruits (1.06, 1.03-1.09), dairy products (1.03, 1.01-1.06), and snacks (1.04, 1.02-1.06) but decreased intake of seaweeds (0.94, 0.91-0.97), meats (0.98, 0.96-0.999), and alcohol intake (0.93, 0.86-0.997)." (p.4) "The declaration period and WFH were positively associated with the intake of self-made meals, whereas employment other than self-employed, working hours, and time spent on childcare were negatively associated with it." (p.4) "WFH was more clearly associated with increased intake of vegetables, fruits, and dairy products and decreased alcohol intake among women than men (Supplement Table C). In addition, among women, time spent on childcare was associated with reduced intakes of vegetables and fruits (Supplement Table C). When we stratified participants by the age of 45 years, WFH was positively associated with intake of vegetables, fruits, mushrooms, fish, and dairy products but was negatively associated with alcohol intake among younger participants (Supplement Table D). Similar to women, time spent on childcare was associated with reduced intakes of vegetables and fruits among younger participants (Supplement Table	"We conclude that diet quality improved during the pandemic in general, but attention must be paid to overconsumption of snacks and negative factors such as increased burden of childcare and depression for healthy eating."	Large sample is an advantage, however the sample consisted of users of a particular app, thus leaving the study open to selection bias. Sample not representative – most participants were female and in their 40s. Some possible confounders not adjusted for, including education, household income, number of children, marital status, and whether participants usually cook by themselves. The app used an unvalidated method of recording food intake. The longitudinal nature of the app data allowed for pre- and during-pandemic comparisons.

					D).” (p.4) “WFH was associated with increased intake of seaweeds and fish, fruits and beans, and snacks among self-employed, non-management workers, and managers and irregular workers, respectively (Supplement Table E)” (p.4)		
Schifano 2021 France, Italy, Germany, Spain & Sweden	Longitudinal online survey COME-HERE (COVID-19,MEntal HEalth, REsilience and Selfregulation) representative panel survey. Data from first 4 waves used – 1st May, 9th June, 5th September and 20th November 2020.	Representative panel of people from 5 European countries. N = 9700 observations N = 8000 participated in Wave 1, 83% of whom responded to at least one more survey (42% in all four surveys, 25% in three and 16% in two surveys).	Wellbeing was assessed in terms of 5 variables, all scored so higher scores indicate better wellbeing: Life satisfaction and life worthwhile – assessed using 2 questions, 0-10, higher scores indicate greater satisfaction or feeling life is worthwhile.	To “track the well-being of individuals across five European countries during the course of the coronavirus disease 2019 (COVID-19) pandemic and relate their well-being to working from home”	Proportion working from home peaked in April 2020, when almost 30% of respondents (and over 50% of those working) reported WFH, and fell to 15% (25% of those working) in August and September before rising again in the autumn. Working from home was associated with lower wellbeing on all 5 variables – life satisfaction (coefficient = -0.09, $p < 0.01$), worthwhile (coefficient = -0.07, $p < 0.05$), not lonely (coefficient = -0.08, $p < 0.05$), not depressed coefficient = (-0.09, $p < 0.01$) and not anxious (coefficient = -0.09, $p < 0.01$), although not working had a greater negative impact. Switching to working from home reduced anxiety (coefficient = 0.05, $p < 0.10$) but also reduced the sense of a worthwhile life (coefficient = -0.07, $p < 0.05$), with no significant impact on other wellbeing variables. The authors offer the following interpretation: “The comparison of the	“Our main broad result is that the working from home that has become so widespread during the COVID-19 pandemic is associated with lower levels of well-being in the cross-section analysis. However, the results in panel data (where we look only at people who switch status) are less clear on this front, with even a small fall in anxiety when moving to working from home. Harking back to our hypotheses in Section 2, we thus find little strong evidence of pent-up demand by employees for working from home.”	Unbalanced panel data were used – not all respondents were observed in all four waves. Information on home working was collected retrospectively in Wave 4, which may have introduced recall bias.

			Loneliness – assessed using an 8-item version of the UCLA Loneliness Scale, 1-4, scores range 8-32, inverted so higher scores indicate less loneliness. Depression – assessed using the 9-item Patient Health Questionnaire (PHQ-9), 0-3, scores range 0-27, inverted so higher scores indicate lower depression. Anxiety – assessed using the 7-item Generalised		cross-section and panel results could therefore reflect some kind of selection into working from home. Those who are more anxious, depressed etc. would prefer to work from home if possible all the time: as such, we do not observe them changing work status between May and November. A second possibility is adaptation, in that the movement from work at the office to home relieves anxiety around the time it takes place, but this effect vanishes and indeed switches sign, over time, producing an average positive correlation between working at home and anxiety in the cross-section." (p.10) The impact of working status variables was found to not be mediated by income or household characteristics (having children of various ages, one room or more per person, garden, park, balcony or terrace). Also, being male or female was not found to moderate the relationship between WFH and wellbeing, neither did level of education. Age, however, was found to be a moderator, with older workers experiencing worse wellbeing when WFH, particularly in terms of life satisfaction and loneliness.		

			Anxiety Disorder (GAD-7) Scale, scores range 0-21, inverted so higher scores indicate lower anxiety. Working from home – participants reported whether they were working mostly from home, working mostly not at home, or not working.				
Shockley 2021 US	Longitudinal online survey, available 18th to 23rd March (Time 1 survey) and 7th to 18th May 2020 (Time 2). For outcomes relevant to	Heterosexual married couples (as dyads) where both spouses worked full-time (>32 hours/week), were required to work during COVID-19	Psychological distress – assessed by Kessler et al. (2002) 10-item measure, 5-point scale. Sleep quantity –	"In the COVID-19 context, are couples using unique, new work-family (WF) management strategies or are they falling back on the familiar gendered	In the latent class analysis, for health outcomes (psychological distress and sleep quality), those adapting the strategy of 'alternating days' fared the best (mean PD score 1.54 and 1.58 for wives and husbands, respectively).	"when parents did create more novel and egalitarian strategies for managing childcare in the crisis, particularly by alternating work days, their performance and well-being were preserved"	Snowball sampling via the researchers' networks and contacts – may have introduced selection bias.

	this review, mean differences in outcome variables were examined using the latent class analysis 3-step approach for auxiliary variables, controlling for income.	lockdown, and had ≥1 child aged <6 years with their usual childcare unavailable. N = 274 at T1 N = 133 at T2 Mean age at T2: 35.2 (SD 3.4) years for wives and 36.3 (SD 7.0) years for husbands. Mean weekly work hours at T1: 41.3 (SD 5.7) for wives and 44.2 (SD 7.9) for husbands. Mean weekly work hours at T2: 40.7 (SD 4.7) for wives and 44.0 (SD 8.3) for husbands.	assessed by single item "During this time period, on average, how many hours of actual sleep did you get at night?" Also assessed plan for managing childcare and work commitments (T1), implementation of plan (T2), family functioning (T2), self-rated job performance, and attention checks.	patterns found in previous research? To what extent do the respective WF strategies relate to wives' and husbands' family functioning (relationship tension, family cohesion), health (sleep hours and psychological distress), and job performance?"			
Smith 2021	Online survey, available	Non-healthcare	Anxiety and depression –	"to understand the relationship	Among those working remotely, the adjusted proportion of respondents with	"Our results suggest that the adequate	Survey was available in English and French.

Canada	between 26th April and 6th June 2020. Separate regression models were run to examine the relationship to exposures.	workers, recruited through various labour organisations. N = 3305 61% female, 15.4% aged <34, 23.7% aged 35-44, 29.6% aged 45-54, and 30.3% aged ≥55 years. 41.6% working remotely.	assessed by the Generalised Anxiety Disorder (GAD-2) and the Patient Health Questionnaire (PHQ-2) measures. Range of scores for both is 0-6 and scores of ≥3 (on both scales) is used as a cut-point for potential anxiety or depression. WFH was assessed in terms of asking participants if they were working remotely. Site-based workers were asked about ICP	between working arrangements, infection control programs (ICP), and symptoms of anxiety and depression among Canadian workers, not specifically working in healthcare"	GAD-2 scores of ≥3 was 35.3% (95% CI 27.1 to 43.5) and the adjusted proportion of respondents with PHQ-2 scores≥3 was 27.4% (95% CI 20.1 to 34.8), both of which were significantly lower than among site-based workers or those no longer employed.	design and implementation of employer-based ICP have implications for the mental health of site-based workers. As economies re-open the ongoing assessment of ICP and associated mental health outcomes among the workforce is warranted."	Little detail on the labour organisations through which recruitment took place. Unsure how generalisable the findings are, as participation across age categories and provinces in Canada was uneven, and some industries were over-represented relative to others.

			and PPE on-site – not extracted.				
Song 2020 USA	American Time Use Survey Well-Being Modules (telephone interviews and time use survey). Individual fixed-effects models.	N=3962	Subjective well-being. Homeworking: all day and in addition to working all day in the office (bringing work home, telework, nonworking and working in the workplace).	Examine how subjective well-being varies among wage/salary workers between working at home and working in the workplace.	Compared to working in the workplace, bringing work home on weekdays is associated with less happiness ($p<0.005$), and telework on weekdays or weekends/holidays is associated with more stress ($p<0.005$). The effect of working at home on subjective well-being also varies by parental status and gender. Parents, especially fathers, report a lower level of subjective well-being when working at home on weekdays ($p<0.005$), but a higher level of subjective well-being when working at home on weekends/holidays ($p<0.001$). Non-parents' subjective well-being does not vary much by where they work on weekdays, but on weekends/holidays childless males feel less painful ($p<0.005$), whereas childless females feel more stressed($p<0.001$), when teleworking instead of working in the workplace.	Working at home has heterogeneous effects. On weekdays bringing work home and telework are more likely to deteriorate the SWB of parents than that of non-parents.	

Stitou 2018 Canada	Qualitative – semi-structured interview study. Analysed according to the coding	Home-based childcare (HBC) workers (regulated, affiliated) in Ottawa and Gatineau. N = 11	The context and experiences of HBC workers (qualitative).	To examine "the job content, context, and requirements of regulated Home-Based Childcare workers in Canada"	A preference for working from home (in order to better manage family life) was one reason given by participants for choosing the profession. Not having a commute was also seen as advantageous. The job involves carrying and moving children and equipment, which	"HBC workers' health and well-being are mainly affected by a higher number of job context factors rather than job content factors. HBC workers perform business administration tasks,	Only a limited number of interviews were conducted, because of the difficulty recruiting HBC workers, due to the long hours

	approach of Blais and Martineau (coding and refinement until saturation).	All female, aged ≥32 years, married, and had ≥2 children (minors). 7 had immigrated within the last 8 years.			participants reported as repetitive tasks that caused fatigue, pain and injury to the back of the neck, particularly among those working in the basement (as opposed to the first (ground) floor). Stress could arise from the mental and emotional effort needed to remain alert, attentive and patient with the children, particularly when children have a behavioural condition or a disability: *"It happened to me to have children with behavioural disorders. Often they live in* *economically disadvantaged families and their parents do not care about them, it* *makes my job stressful." (Cora)* Additional mental and emotional effort arose from a group where there are more boys than girls, and from difficult relationships with infants, home visitors and parents, which could cause stress. *"The home visitor comes only to give statements of offence for any reason instead of supporting, guiding, and helping us. For example, during an unannounced visit, she came during the snack time, she saw pieces of cookies on the ground thrown by one kid just before I opened the door to her and she said that my work*	more housekeeping and domestic work compared to those in the centre-based childcare. Finally, the work of HBC workers had many advantages such as being their own boss and working while taking care of their own family."	they work. May not translate to other countries due to certain features of the local context (e.g. regulations).

					environment is not clean and I got a 'statement of offence'. After a number of statements of offence, the daycare is closed." (Kate) *"I had one parent who always came late after the daycare closing hours and I had to fight with them to pay the extra costs. So I did not renew his contract." (Kate)* Factors affecting health and wellbeing were reported as the absence of contact with other adults during working hours, a lack of external help during working hours (i.e. working alone, without breaks), difficulty filling spots, noise, interference with personal and family life, low and precarious remuneration, and incomplete or no benefits. The absence of contact with other adults during working hours left all participants feeling socially isolated and lonely, impacting on their mental health: *"…{I} work alone, see no one, and remain socially isolated, is hard for me." (Kate)* Working alone and receiving no formal assistance made the workdays of HBC workers challenging and stressful. However outside of working hours, families and colleagues provided assistance and moral		

					support. The noise and odours inherent in childcare impacted on the auditory health and overall stress levels of HBC workers. This included children screaming, crying, scraping toys on the floor, and playing with noisy toys, as well as odours from toileting, illness, art materials and disinfectant: *"The noise stress on a daily basis is a real source of disturbance. It is detrimental to many aspects of health and behaviour... I'm also exposed to bad odours. For example, each time when I change a diaper." Hana* The job also carries the risk of being exposed to infectious illnesses such as gastrointestinal illness, cold, flu and diarrhoea from the children in their charge. Interference between the HBC work and family life of the HBC worker could also cause stress, for instance from the HBC work disturbing the family (e.g. noise from the children) or having to close their daycare because of the need to have people in the house that do not live there, due to regulations that govern the profession, e.g. a family member or a decorator: *"I must close my daycare for several days without any pay when I plan to*		

					hire someone to paint my own kids' bedrooms in the other floor because we are not allowed to have a stranger adult at home while working with kids. I mean an adult not living at home usually. If it happens and by chance the home visitor came in, she will close my daycare for several days as a punishment... This is another source of stress." (Lina) HBC workers also experience stress from the nature of the remuneration, which is based on the number of children they have in their care. Sometimes workers struggle to fill places due to requirements for ratios of children of certain ages, and competition with other HBC workers. They feel under-valued by government regulators and childcare agencies, who they feel conflate working from home with a break: "Our tasks need to be recognized. HBC workers' tasks are different from those who are working in the centres. We have more tasks such as cleaning, cooking, accounting... to open our HBC, we must go through a process of two to three years, fill out many forms, pass many interviews, adapt our home as requested by the childcare agency, etc. The Minister in our province thinks that we spend the day doing manicures or pedicures because we work at home and we do		

					nothing else at home. Our income is not representative of the number of hours worked. We are paid for only 35 hours, while we work 70 hours a week." (Stephanie) Only some of the HBC workers are in a union and get to experience benefits such as access to life insurance, health insurance, maternity leave, sick leave and holiday pay, and this depends on geographical location. None of the HBC workers have access to a pension plan.		
Taser 2022 Turkey	Online survey, date not specified. Structural model, using AMOS	Financial services sector employees, working from home during the pandemic. N = 202 51.5% female, 2.4% aged 18-25, 25.7% aged 26-35, 42.2% aged 36-45, and 29.7% aged ≥46 years.	Technostress, assessed using the Tarafdar scale, 23 items, 1-5, validated. Loneliness, assessed using the Russell measure, 20 items, 1-4, validated. Also assessed flow.	"to gain insights and to explore the relationship between remote e-working and employee flow experiences by introducing two key stressors; technostress and loneliness"	Those who had a positive e-working experience had lower levels of technostress. Those experiencing technostress were more likely to feel lonely. Loneliness was negatively related to flow at work (participants were less likely to experience flow when they felt lonely). Technostress and loneliness mediated the relationship between remote e-working and flow at work.	"The findings have contributed to the related literature by enhancing the understanding of remote e-working experiences. Given the swift and extensive transition to working from home during the pandemic, it seems that remote e-working will remain a critical issue on the agenda of organizations. Therefore, organizations need to create opportunities to improve the technological knowledge and abilities of their	Response rate 40%. Cross-sectional. Limited sample. Participant characteristics were not taken into account. Psychological variables were not examined.

						employees to adopt ICTs and overcome the technostress that can be associated with loneliness and low levels of flow."	
Thulin 2019 Sweden	Online survey, administered in March 2016. Cross-tabulation was used to compare the characteristics of the employment groups and binary logistic regression models were used to explore associations between telework variables and outcomes (time pressure and time use control).	Home-based teleworkers employed by six governmental agencies, both from 'routine' (less qualified) and 'nonroutine' (more highly qualified) roles. N = 456 (response rate 40%) Included n = 128 conducting case work ("case workers") and n = 184 conducting analytical or management work ("analytical workers"). 68.4% worked from home on a	Perceived time pressure – assessed by a single item: "Do you experience time pressure in everyday life?" (4-point scale). Time use control – assessed by a single item: "Do you feel that you can decide how to use your time in everyday life (as you wish)?" (4-point scale). Both outcomes were coded in binary terms (no = 0, yes = 1) for logistic regression analyses. Other variables investigated include employees' job	To explore "how changing conditions for home-based telework affect the quality of life and social sustainability of workers in terms of time pressure and time use control in everyday life"	Advantages of teleworking included being able to work more undisturbed, work more efficiently, avoid commuting, and facilitate everyday life. Telework outside regular working hours was perceived as useful for preparing for ongoing work and meetings, and was also described as satisfying and challenging. "Among those teleworking only during regular working hours, 52% of the case workers and 56% of the analytical workers feel time-pressed constantly or quite often; among those also teleworking outside regular hours, the corresponding figures are 71% and 74%." (p.10) In the logistic regression model for time pressure, never teleworking ($\beta = -0.644$, $p < 0.05$), only teleworking within regular hours ($\beta = -0.866$, $p < 0.01$), age (being older; $\beta = -0.032$, $p < 0.01$), working full time ($\beta = -0.806$, $p < 0.05$), and using a smartphone for private purposes often ($\beta = -1.115$, $p < 0.05$) or all the time ($\beta = -1.089$, $p < 0.05$) were associated with experiencing less time pressure,	"Time pressure is intensified by family-related factors, telework performed outside of working hours, and part-time work, and is moderated by the private use of smartphones. We find no significant associations between subjective time use control, job qualifications, and teleworking practice. Family situation and having small children at home reduce time use control. Also, high levels of smartphone use for work-related purposes are associated with reduced control."	Cross-sectional and therefore cannot establish causal relationships. Limited sample of civil servants participated. Lack of description of recruitment in terms of how the companies were chosen and how employees were approached.

		regular basis, Mean years of telework experience 3.2 (SD 5.1). 70.6% female, Mean age 43.2 (SD 10.9) years. 85.7% FT.	qualifications/type of work assignments, their teleworking practices, and their smartphone usage (to examine associations with outcomes). Working from home was determined by an affirmative response to the question: "Do you sometimes work remotely from home during and/or outside your regular working hours?"		whereas having children at home (β = 0.406, p < 0.01) was associated with experiencing more time pressure. In the logistic regression model for time use control, having children in the home (β = -0.503, p < 0.01) and often using a smartphone for work purposes (β = -0.785, p < 0.05) were associated with experiencing no control over time use, whereas often using a smartphone for private purposes (β = 1.433, p < 0.01) was associated with experiencing control over time use.		
Tietze 2011 UK	Qualitative – case study (interpretive, short-term longitudinal), using interviews and focus groups Theoretical approach – psychological contracts.	People working in local authorities, taking part in a 3-month homeworking pilot. N = 7	Psychological contracts ("the individual beliefs, shaped by the organisation, regarding terms of an exchange agreement between the individual and their organisation", p.319, from Rousseau, 1995,	"the specific aim of this article is to explore changes to obligations characterising the exchange relationships of homeworkers who make the transition from office to home-based working."	Pre-implementation, participants expected to gain better personal wellbeing form working from home, particularly in relation to being calmer and less stressed. *"We spend so much time at work and it is very depressing and stressful, and you know, I just want to be a nicer person at home and so that's why I really want to do it." (R3)* Post-implementation, this expectation was realised for many participants, who felt less stressed and more	"To conclude, it is worth reflecting on the success of the homeworking initiative. The outcome for our participants was very positive, and with the organisation benefitting from increased output, it appears to be a win-win situation for both employer and employee. Caution is	One benefit is that the study explored the impact of a short-term (3-month) homeworking pilot, in-depth using qualitative methods. The authors note that interviewing the staff who remained in the office (e.g.

	Template analysis was conducted (templates are provided in an appendix)		p.9) These can be relational or transactional. Fulfilling or violating / transgressing these contracts can have consequences for wellbeing. Only those elements of homeworking relating to wellbeing have been extracted.		relaxed. Some attributed it to escaping "bickering and gossiping" in the office, as some who had needed to return for a meeting emphasised: *"I was in for a team meeting yesterday and the bad atmosphere and the stress, it* *really hit you. I don't want to go back, I want to continue with this." (R2)* Those with children described feeling like better parents (mothers in this case), with more quality time with their families and for themselves. Participants also reported being better able to combine their work and domestic responsibilities (e.g. meal preparation, housework, shopping). Participants explained this in terms of greater flexibility for performing tasks, travel time saved, and special proximity of 'work' and home. Two participants reported a more equal distribution of tasks between them and their partner, either through the need/preference to work in the evenings, or getting a better sense of what their partner does while working from home. Working from home also made it easier for participants to manage their own workloads and consequently address equity issues and experience improved wellbeing: *"If it hadn't been for the homeworking*	needed here however. The findings also suggest that managers need to carefully consider the impact of homeworking not just in relation to those making the transition, but also in relation to those left behind in the office, with feelings of resentment from office-based staff potentially creating a new set of problems for managers to deal with"	managers) would have provided a more complete perspective on the impact of the homeworking pilot. Another limitation is that this study was conducted with staff from a specific LA department and may not be applicable more widely. There does not appear to be any reflexivity.

					I'd have left the council by now because they were expecting so much for the money I was getting... but now I do the work for my scale and that's it." (R1) One participant reported not enjoying the job and stated that working from home made it bearable. Participants also reported increased productivity, with more work being done, targets being exceeded more often, backlogs of work cleared, and people feeling they were working harder and with fewer interruptions, which made them more effective. In terms of hours, many stressed they adhered to their 37 hours per week. Some reported deliberately maintaining productivity in order to remain working from home and not be pulled back into the office. Participants reported that new working procedures (including having to contact particular people by telephone relating to queries) were a source of stress, as the named contact started to ignore their requests and respond rudely, and the teleworkers didn't want to phone too often as they were concerned it might look like they were struggling. Another concern related to being micro-managed by managers, phoning or emailing to		

					check up on those working from home, which caused tension. Working from home generally had a positive impact on relationships with family members, particularly partners and children, although there was tension in some cases where partners had to take on additional domestic duties, a grandparent was upset about no longer being needed for childcare, and a worker who was being constantly contacted by their mum during working hours. Social isolation was not really a concern among the participants in this study, as they stayed in contact with the people that mattered to them: *"I might have lost contact with people you might spend 10 min a day with but not with real friends." (R7)* Participants reported proactively organising meet-ups with other homeworkers whom they regarded as friends, and for two participants who did miss the social side of working in the office, this was offset by the benefits of working from home.		
Toscano 2020 Italy	Online survey, available April and May 2020. A moderated double	Employees working exclusively from home during April / May 2020.	Social isolation – assessed using 4 items from the Golden et al. scale, 1-5, validated.	To investigate "the correlates of social isolation in terms of stress, perceived remote work	Mean social isolation score was 3.33 (SD 1.00) and mean stress score was 2.55 (SD 1.17). Social isolation was significantly correlated with stress (0.50, $p < 0.01$), perceived remote work productivity (-	"In particular, this study highlights a strengthening of the adverse effects of social isolation on remote work satisfaction in workers	Cross-sectional design, thus does not examine cause and effect relationships. Online survey and recruitment

	mediation model was developed to examine the relationships between the variables measured.	N = 265 63% female, 42% aged 26-35, 21% aged 36-45, 17% aged 46-55, 11% aged <25 and 8% aged ≥56 years, 78.5% were experiencing remote working for the first time.	Stress – assessed by the Ayyagari et al. telework exhaustion scale, 4 items, 1-5, validated. Perceived remote working productivity, remote job satisfaction, concern about COVID-19, and experience with remote work were also assessed.	productivity and remote work satisfaction, proposing the sequential mediation of stress and perceived remote work productivity, and the moderating role of concern about the new coronavirus"	0.43, $p < 0.01$), remote work satisfaction (-0.50, $p < 0.01$) and COVID-19 concern (0.32, $p < 0.01$). Stress was significantly correlated with perceived remote work productivity (-0.35, $p < 0.01$), remote work satisfaction (-0.54, $p < 0.01$) and COVID-19 concern (0.16, $p < 0.05$).	who are very alarmed about COVID-19 and, at the same time, a greater incidence of productivity perceptions on remote work satisfaction among workers who are less concerned about the virus."	methods could have resulted in selection bias, and sample were not necessarily representative (mainly young and well educated).
Travers 2020 UK (mainly; worldwide)	Netnography – internet-based ethnography. Qualitative analysis (no details given, looks like a form of thematic analysis as the paper mentions themes) of internet-based contributions from "group members", in the form of	People working at home during the COVID-19 pandemic. N = 211 (at the moment – the study is ongoing)	Insight into the demands of home working	"to gain insight into the demands of homeworking during the pandemic; to inform the development of guidance to help people manage homeworking more effectively post Covid-19 and to explore the use of netnography as a novel method for understanding	Working from home during lockdown was interpreted as "a time of contradictions and transitions", with new and excessive demands creating worry, stress and pressure, but also opportunities afforded by a lack of commute and spending more time with the family, also the opportunity to exercise: *"..I find it hard when school insist on calls, Zoom or work submitted by a certain time, or just call you in bed at 9 am and expect you up answer. I normally pay for a team of folk to look after my kids so find the expectation that I work directed hours a bit sexist and not family friendly. My line manager clearly does not parent his own kids much! [emoji] ... on a*	"The study highlights the value of the netnographic method as a data-gathering tool. It has allowed us to determine patterns in postings; an initial deluge subsequently settled into a rhythm, where the weekend is quiet, but Mondays are quite active. Key government announcements also appear to be triggers for activity, as new guidance is provided. We are continuing to determine themes and	New methodological approach, benefits are the diverse range of possibilities, however there is very little detail reported on the methods of data collection and analysis.

	blogs, video posts, photos, snapshots, memes, verbal accounts or reflections.			remote-working"	*positive note I only got a 6 week mat(ernity) leave as it was a new job so the extra paid time with my new baby has been delightful, getting my garden, loft, clothes cupboards cleared out is a joy for someone who loves a clear out... family walks in forests I want to keep doing after lock down is lifted as it has been tonic for the soul.."* *"..all very reminiscent of the 70s when I was growing up. Meals from scratch, baking, hobbies, plant growing and all the things I usually do not have time for. My defences against anxiety are going quite well"* The social element was important to people, with video calling providing a way to connect, albeit awkwardly (certainly at first): *"Had my first online meeting today. Six colleagues looking very awkwardly out from my screen and me looking even more awkward in return. However, it was very comforting to see them, we're quite a close-knit bunch I suppose, and the fact that these familiar faces are still out there, has lifted the spirits a little."* Some participants were keen to return to the workplace, whereas others wanted to continue to work from home following lockdown, as they liked the flexibility it afforded.	analyse the rich visual images that are being posted. Unexpectedly, the group appears to have evolved into a source of support and a way for people to make sense of their experiences, with members frequently offering validation and tips to others."	

					Some participants reported a brain fog or fuzziness in relation to home working, and feelings of fatigue were also common: *"started out with brain fog. But looking back I'm wondering if that was extreme anxiety about delivering teaching online and feeling deskilled with minimal tech resources - with no practical or constructive responses to any expression of anxiety from boss. I felt paralysed with fear to be honest."* Some people reported struggling with a lack of routine, and others crafted their own routines, although there was concern that these may not be sustainable over the longer-term: *"Sometimes, I just wake up crazy early and am unable to get back to sleep. This results in me feeling rubbish, tired and at the end of the working day, in no mood for exercise."* *"Now, I'm thinking more clearly than usual. I enjoy the focus, but that's only when combined with a daily 2 hr run/walk at 6pm and 20 minutes cardio activity at 12.00. So, although I'm working effectively, I'm having to use unsustainable compensatory behaviour to maintain that."* This changed throughout lockdown, as time went on, and reported their wellbeing and job performance		

					fluctuating – sometimes described as the “corona-coaster”. Some people developed strategies to overcome some of the challenges: *“The first week of lockdown I was really productive and thought I was going to get a lot done. But then I hit a wall and had five weeks when I just managed to keep on top of things. The simplest of tasks took hours. But last week I moved my working to another room, set specific targets for each day (smaller targets than I would otherwise set) and I seem to have become more productive again. Hopefully the fog has lifted.”* The availability or lack of availability of suitable work space at home also impacted on people’s wellbeing. Working in unsuitable spaces (e.g. landing, blocking fridge door) and competing for space with other family members (e.g. children, pets) could cause problems, but people also expressed warmth for their children and pets. Photographs depicted these scenes and people also spoke about the worry of people seeing these things in the background on video calls, although some people enjoyed the informality of this way of communicating. People also spoke of their ‘space’ being invaded: *“I've worked from home for 20 years now. These last 5 weeks the landscape*		

					of that has changed drastically ... The house during the day is no longer my own! It feels cramped. My "space" has been invaded." Scheduling differences created problems for those with children, and differences in routines could be distracting for some: *"take my lunch breaks at 12 (because I'm starving by then!!). My youngest follows her school schedule and has hers at 1:10. I can't take all that time out of my day and make 2 lunches at different times. It's all very hit and miss!!"* Incompatibility with housemates in terms of workload and others' responses to the lockdown also impacted on people's wellbeing: *"30 April at 11:59 (5 weeks in)* *Anyone finding their housemates are struggling this week?* *I think it's the change of weather, but I've got a bit more work than I've had in recent weeks, whereas my housemates are struggling to find things to do during the rain when they can't get outside, and are constantly interrupting me/whinging/being needy/snapping at each other and me/ranting about things that can't currently be changed.* *It's making me feel very tired, and unable to concentrate on work fully.*		

					I've sent both of them off to do some tasks separately, while I try to get on with work. It's like having two kids again - they are 20 & 51!!! [two frustrated emojis]"		
Trent 1994 USA	Mailed survey	People working at private sector companies N = 38 (15 telecommuters, mean age 46.3 (SD 7.0); 9 people who worked exclusively from home, mean age 33.8 SD 6.0); people who worked exclusively from the office, mean age 41.7 (SD 8.6) years).	Stress, assessed using the PSS, 14 items, 1-5. Perceived social support, assessed using the Social Support Index – Revised, 30 items, true/false, 3 domains & composite score. Working from home was defined as all those who worked exclusively from home, telecommuters were defined as those who worked partially from home but also visited/worked from the office.	To examine "stress experienced by telecommuters and their social support"	There were no differences in perceived stress score between the three groups (telecommuters, those who worked from home, those who worked from the office), although the authors suggest this may be due to the sample size. Isolation scores were highest among the work-at-home group (mean 3.1, SD 1.1) than the office group (mean 2.4, SD 0.9), and lowest in the telecommuting group (mean 1.7, SD 1.0), and the ANOVA showed a significant difference of group ($F = 5.82$, $p = 0.007$). In terms of social support, both telecommuters and office workers differed significantly from those who worked exclusively at home (but not from each other). The authors suggest that this may be because "frequent regular trips to the office keep telecommuters from feeling isolated or forgotten" or that "people who work at home may not have easy access to co-workers' support which may lead to stress from loneliness and isolation".	"telecommuters and office workers perceived more support than those working at home. Telecommuters also reported less stress and a stronger preference for this new work option."	Short paper, little detail. Also from 1994, so may be of little relevance to today's context (e.g. lack of Internet access). Possibility of being under-powered due to the small sample size.

Virick 2010 USA	Online survey, administered 2000.	Telecommuters working for a large telecoms organisation in the USA. N = 85 75% male, Mean age 41.5 (SD 9.15) years.	Life satisfaction, assessed using a 4-item scale by Diener et al., 1-7, validated. Extent of telecommuting, assessed using an item asking respondents to estimate the average number of days worked from home (1-6 scale). Also assessed job satisfaction, worker types, perceived performance outcome orientation and control variables (tenure and gender).	"to determine factors that are related to employee satisfaction with telecommuting"	Life satisfaction was significantly correlated with job satisfaction (and no other variables). In a regression model predicting life satisfaction, no linear relationship was found between extent of telecommuting and life satisfaction. A curvilinear relationship was identified, whereby "for employees with high drive and low enjoyment, life satisfaction is low when there is a moderate amount of telecommuting. However, with other employees, the relation is the opposite. Life satisfaction is high when there is a moderate amount of telecommuting". (See below) Thus **drive and enjoyment moderate the relationship between telecommuting and life satisfaction**.	"Our findings fail to support the linear contention that the more employees telecommute, the more satisfied they are (Pinsonneault and Boisvert, 2001), or that telecommuting leads to decreased job satisfaction (Cooper and Kurland, 2002). On the contrary, the findings of this study add to the evidence of a curvilinear inverted U-shaped relation first posited by Golden and Veiga (2005). In addition, the current study adds to the existing literature on telecommuting by proposing and finding higher order relations influencing the complex relation."	Small sample, with smaller subsamples that may not be adequately powered. Does not account for 'happy workaholics'. Cross-sectional.
Vittersø 2003 Europe (UK, Norway, Iceland, Portugal)	Mixed methods: self-administered questionnaires (probably paper-based? Does not say); followed by qualitative	Workers (including those who did and did not telework) form companies where teleworking seemed possible / likely.	Subjective quality of life (QOL), assessed using the CHP's QoL Profile, measuring 4 dimensions (3 of human growth and 1 of overall life satisfaction),	"(1) to re-analyse the material from the EURESCOM study (Akselsen et al., 2001) according to a revised model of QoL, and test	The model showed that employees' sense of belonging increased with a greater number of days working from home ($\beta = 0.30$, $p < 0.001$). There were no significant impacts of WFH on control, flexibility or concentration in this model. Interviews revealed that a sense of	"We found that for employees, number of days working from home did not affect overall satisfaction with life. However, it did predict an increase in the workers' sense of belonging. We did	Response rate of 41%. Convenience sample. No detail on collection or analysis of qualitative data.

	interviews on a more focused set of issues. Quantitative data were analysed using structural equation modelling.	N = 217 Mean age 38.25 years Also included a subsample of partners of workers (n = 112), 65% of whom worked FT and 18% of whom worked PT themselves (not extracted). N = 89 Participants of in-depth interviews (42 workers, 18 partners, 8 children, 3 friends, 9 managers and 9 colleagues)	108 items (importance and satisfaction rates for 54 items), 5-point scale. Telework was assessed with the item "On average, how many days per week do you work at home?"	the hypothesis that telework increases the QoL for employees; (2) to explore the possible effects of control, flexibility and concentration as mediating variables between the working situation and subjective QoL; (3) to explore the relationship between employees' work situations and the QoL of their partners; (4) finally, since empirical confirmation of the hypothesized factor structure of the QoL Profile Inventory is still defective, we wish to contribute with an empirical	belonging (e.g. in terms of family concerns, affinities with local regions and closeness to old friends) would drive the teleworking arrangements (rather than teleworking increasing a sense of local belonging). Spending less time commuting allowed workers to spend more time with family and friends (which had a positive impact on wellbeing, although this was more inferred than explicitly stated). Those who had worked for a whole week at home described it as an isolating experience: "*If you are going to stay at home for five days, you get isolated... It is strenuous, and you need high self-discipline to make it work. Working at home once a week is the ideal situation.*" (Norwegian teleworker) The SEM analysis did not support the prediction that concentration, flexibility and control were mediators of the effect of teleworking on wellbeing, whereas interview data suggests these factors could have been important mediators. The authors suggest this may have been due to measurement error in the survey, as each were measured using three items and the measures were not validated.	not detect any relations between remote work and any of the three hypothesized mediating variables, namely control, flexibility and concentration."	

				validation of the scale by means of a confirmatory factor analysis."			
Waizenegger 2020 Worldwide	Qualitative interpretive study, conducted in April 2020. Focus on affordances. Data were analysed using thematic analysis (Braun & Clark, 2006).	Knowledge workers who were previously working in office spaces and worked from home during the lockdown. N = 33 (29 interviews) 39.4% female, Aged 20-50	Experiences of home-workers.	To gain / contribute "understanding of the substitution of affordances for team collaboration during COVID-19, and how knowledge workers can use technology to achieve their goals during this pandemic"	The authors noted some differences between any pre-COVID-19 home-working scenarios and the present scenario, and they suggest findings should be interpreted in the context of these things: • No-one had a choice about working from home, it was a requirement; • Most of the company's workforce needed to work from home; • Employees were concerned about their own health and that of their families and work colleagues; • Participants often worked in a space shared with other occupants of the household, and this caused distraction and difficulty in focusing on work tasks; • Participants' mental and physical wellbeing was (equally) affected by a lack of physical activity, due to sports facilities being closed and minimal contact with others being allowed. Some workplaces and teams had implemented daily video meetings to check in on the wellbeing of staff in the team, which people felt helped them to feel part of the team.	"This paper contributes to the affordance theory by providing an understanding of the substitution of affordances for team collaboration during COVID-19. The shifting of affordances results in positive and negative effects on team collaboration as various affordances of technology were perceived and actualised to sustain "business as usual"."	Participants recruited from a range of industries. Online recruitment may have led to selection bias. Limited reflexivity.

					Some people found video-conferencing overwhelming and suffered from “virtual meetings-fatigue”, due to the additional attention demands of virtual meetings. Some people also found virtual meetings intrusive (schedule-wise), particularly if a number of meetings were scheduled. The amount of virtual meetings and the accompanying resultant exhaustion could negatively impact on collaboration outside of virtual meetings. The enforced nature of working from home meant that everyone faced different challenges. People who live on their own might feel isolated and crave social contact, whereas working parents and caregivers might struggle with the number of online meetings: *“It drives me nuts. I think the thing is everyone is coping with this so differently. There's some people who don 't see a single person in a day, and then there is me who is surrounded by people. it's different, because even the other people in the team with kids, they still want adult conversation, whereas I get enough adult conversation in my daily conversations with my team members" (Rajani)* For working parents in particular, the home environment was often not		

					conducive to working. Under pre-COVID-19 circumstances, children would have been in school or childcare however during the lockdown it was common for workers to have other household occupants in the shared work/home space, and this environment was not conducive to being able to focus on work tasks or video meetings, for instance, if children were playing loudly or screaming in the background. Socialisation was something that generally improved as organisations and teams would arrange video meetings for social purposes. Employees appreciated having the opportunity to catch up with team members they didn't usually see anyway (e.g. if they were in another country), and these opportunities have allowed the team to bond. Some organisations and teams already held a physical social event, which they moved online, and some created an online social event, where previously there was no culture of socialising in the workplace, and people found this social support useful for wellbeing: *"But the remaining have been incredibly caring of each other and we've seen that different level of bonding coming out." (Laura).* In some workplaces, pre-COVID-19, workplaces would arrange physical		

					social events, which remote workers had often missed out on, however now everyone was working remotely and there was a feeling of team bonding: *"We're speaking more frequently than we ever did before. Which I'm finding better just because I can communicate more regularly, and so I feel more connected than I ever did before when I used to go up once a month or once every two months. Now that everybody's doing it, and we've figured out ways to make it work, it's actually much more quality now, in my opinion, much more consistent"* *(Wendy)*		
Weitzer 2021 Austria	Online survey, available 3rd to 23rd June 2020 (with reference to the time period 16th March to 1st May 2020). Multinominal regression models were used to calculate ORs and 95% CIs of improved / decreased	General population, quota sampled, aged 18-65. N = 1007 55% female, 65.3% were employed FT or PT, 17.7% were not WFH, 29.3% were WFH part of the time and 21.0% were WFH all of the time.	Quality of life – assessed using a self-report item asking respondents if their QoL had changed (response options: decreased importantly, decreased, no change, improved, improved importantly) during the COVID-19 mitigation period (compared with before the	"To explore changes in quality of life and perceived productivity, focusing on the effects of working from home during the first COVID-19 50-day mitigation period in Austria"	"In the working sample, those working from home were more frequently men (75.1% vs. 72.9% working from home), younger (< 30 years, 82.6% working from home; 30‑49 years, 78.1%; ≥ 50 years, 61.1%), and participants who had received higher education (high school or less, 57.7% working from home; University entering exam, 80.8%; University degree, 85%)." Those who worked from home all the time were more likely to report an increased QoL compared with those who were not working from home (OR 3.69, 95% CI 1.86 to 7.29). Similar for men and	"A transition to more flexibility of workplace and working hours for employees could have important positive consequences for family and professional life, for stakeholders, for public health, and ultimately for the environment."	Representative sample recruited from panel. Employment history (e.g. prior WFH), working environment and related conditions at home were not assessed. Changes in self-reported QoL could not be quantified (or rather were not quantified). Cross-sectional, therefore cannot

	QoL in the entire sample (and productivity in a sub-sample – not extracted).		mitigation period). Also assessed productivity at work. Working from home was assessed using a self-report measure with the response options: not working from home, working partially from home, working from home all the time. (Also asked about employment.)		women. Working part of the time from home was also associated with an increased QoL compared with not working from home (OR 2.07, 95% CI 1.09 to 3.91). Likewise, not working from home appeared to be associated with decreased QoL compared with working part or all of the time from home.		infer causality. Possibility of confounders.
Wickens 2021 Canada	Online survey, available 8th to 12th May 2020. Hierarchical binary logistical regression analyses were conducted to examine associations between depressive symptoms and	Adults aged ≥18 years, who were members of the AskingCanadians web panel. N = 1002 49.7% female, 13.2% aged 18-29, 26.1% aged 30-39, 23.9% aged 40-49, 17.7% aged 50-59, 30.4% aged ≥60 years.	Depressive symptoms – assessed by a single item from the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff 1977): "In the past 7 days, how often have you felt depressed?" Response options: "rarely or none of the time (less than	To assess "household- and employment-related risk factors for depressive symptoms during the pandemic"	Of those working from home, 20.4% experienced depressive symptoms. This was lower than for those laid off or not working (28.5%), and similar to those with no change (18.0%) (those laid off/not working experienced significantly higher depression than those working from home and with no change, according to a Chi-squared analysis, $p < 0.05$). In the regression analysis, after adjusting for demographic variables, working from home was not a significant predictor of depressive symptoms (adjusted OR 1.16, 95% CI	"Pandemic responses must include resources for mental health interventions. Additionally, further research is needed to track mental health trajectories and inform the development, targeting, and implementation of appropriate mental health prevention and treatment interventions."	Panel designed to be representative, but may have excluded people who were not on that panel, thus may have introduced selection bias. Cross-sectional study with correlational data. Some variables may overlap (e.g. working at home, and looking after

	household- and employment-related risk factors.		1 day)", "some or a little of the time (1-2 days)", "occasionally or a moderate amount of the time (3-4 days)", and "most or all of the time (5-7 days)", converted to binary coding for analysis (those who reported feeling depressed 3-7 days per week; those who reported feeling depressed <3 days per week). Employment-related risk factors included job exposure to COVID-19 (yes, no), change in employment situation experienced (working from home, laid off or not working, no change or other), and worry about the impact of COVID-19 on		0.75 to 1.77) (the odds of experiencing depressive symptoms were higher among whose with a job at high risk for exposure to COVID-19 and who experienced financial worry due to COVID-19).		small children) but this was not examined. May have been subject to non-response bias. Depressive symptoms were self-reported with a single item measure, and this was dichotomised for analysis.

			financial situation (not at all or not very worried, somewhat worried, very worried). Household risk factors were also reported (not extracted).				
Wilke 2021 Worldwide (14 countries)	Online survey (large survey – ASAP (Activity and Health during the SArs-CoV2 Pandemic; Simpson 2020) administered in April and May 2020. Wilcoxon tests used to compare pre- to during-pandemic values. Binary logistic regression used to calculate ORs for variables potentially moderating	People aged ≥18 years living in countries with confirmed cases of SARS-CoV2 and confinement measures limiting movement in public spaces. N = 14,975 58.1% female, Mean age 38 (SD 15) years.	Mental wellbeing, assessed using the World Health Organization Well-Being Index (WHO-5), 5 items, 0-5, total scores range 0-100, scores ≤50 may indicate depression. Completed twice – once referring retrospectively to before restrictions and once referring to during restrictions. Physical wellbeing, assessed using the bodily pain subscale of the SF-36, 2 items on	To investigate whether "restricting public life to address the COVID-19 pandemic is globally associated with decreases in markers of psychological and physical health"	Working outside the home vs. working remotely was associated with clinically relevant reductions in mental wellbeing (OR 1.29, 95% CI 1.16 to 1.44), as was working both outside the home and remotely vs. working remotely (OR 1.35, 95% CI 1.23 to 1.47). No associations with physical wellbeing (bodily pain) were found for work mode (p = 0.76).	"Study findings suggest lockdowns instituted during the COVID-19 pandemic may have had substantial adverse public health effects. The development of interventions mitigating losses in MWB and PWB is, thus, paramount when preparing for forthcoming waves of COVID-19 or future public life restrictions."	Large multinational survey is a benefit. Selection via social media may introduce selection bias. Retrospective completion of wellbeing – may be recall bias.

	reductions in wellbeing.		musculoskeletal pain (6-point scale) and the resulting disability (5-point scale).				
Wöhrmann 2021 Germany	Telephone survey (large-scale, population-level) undertaken in 2015. Path analyses were conducted, starting with telework vs. no telework as the independent variable in the first step.	Qualified and highly qualified white collar workers aged ≤65 years who reported the use of modern information and communication technology for their work. N = 9165 49% female, Mean age 46.2 (SD 10.2) years, 62% educated to HE, 74% living with partner, 36% had children in household, 77% worked FT, 18% teleworked, an average of 1.92 days per week.	Psychosomatic health complaints were assessed by aggregating into an index following Franke (2015), and included: headache; fatigue, weariness or lassitude; stomach and digestion complaints, tension and irritability, sleep disorders, dejection, physical exhaustion and emotional exhaustion. Participants rated whether they occurred frequently in the last 12 months while working / on work days, 0-8, validated. Telework was assessed with the question, "Do you	"Does telework affect employees' mental health indirectly via different working conditions? More specifically, we examine the employees' situation with regard to psychosomatic health complaints, which comprise different aspects of mental health such as headache, dejection, irritability, sleeping problems and exhaustion."	No significant correlations were found between telework and psychosomatic health complaints. The 'telework' path analysis model showed a good fit to the data. Significant indirect relationships of telework with psychosomatic complaints were found via working conditions that could be regarded as job resources (working time control, relations with co-workers – negative relationship with psychosomatic complaints) and working conditions that could be regarded as job demands (time pressure, boundaryless working hours, disturbances and interruptions – positive relationship with psychosomatic complaints). Telework was indirectly related to more psychosomatic health complaints via boundaryless working hours, quality of relations with co-workers and time pressure. Telework was indirectly related to less psychosomatic health complaints via more working time control and fewer disturbances and interruptions. The 'extent of telework' path analysis	"These findings add to the debate on the beneficial and detrimental effects of digitisation by focusing on significant working conditions related to telework."	Variety of occupational sectors. Cross-sectional, therefore common methods bias could have inflated correlations and cannot infer causation. Generalisability may have been limited by the disproportionately small numbers of teleworkers in Germany at the time of the survey (in comparison with international numbers). Due to small numbers of less highly skilled and blue collar workers, these types of workers were not investigated.

			have a telework agreement with your employer?" and the extent of telework was assessed with the question "On how many days per week do you make use of this telework agreement?"		model showed a good fit to the data. The extent of telework to be positively related to boundaryless working hours, but was unrelated to working time control as well as to time pressure, and was negatively related to the quality of relations with co-workers and to disturbances and interruptions. The extent of telework was indirectly related to more psychosomatic health complaints via increased boundaryless working hours, and decreased quality of relations with co-workers, disturbances and interruptions. The model variables together explained 18% of the variance.		
Wood 2021 UK	Four week diary studies over two time periods.	Two UK universities (staff). N=784 (20% response).	Three measures of wellbeing (hedonic affect: anxiety–contentment and depression–enthusiasm). Warwick–Edinburgh Mental Well-being Scale (WEMWBS)	Impact of homeworking on homeworker wellbeing.	Fewer variables were significantly related to well-being for the between person investigation than in the within-person investigation, but the effects are stronger. For phase 1, these accounted for 73.4% of the variance for anxiety–contentment, 70% for depression–enthusiasm and 70.4% for mental well-being. For phase 2, the variance explained decreased to 58.5% for anxiety–contentment, 62.6% for depression–enthusiasm and 61.9% for mental well-being. Of the predictors tested at the between-person level, loneliness was associated, (negatively) with all well-being measures for both phases. Job	The factors that emerged as the most consistent predictors of well-being were the job characteristics of autonomy and social support (both positive predictors), the work–nonwork interface factor of detachment from work (also a positive predictor), the homeworking factor of loneliness (a negative predictor), and the COVID-19 factor of job insecurity (another negative predictor). Factors pertaining to	

					autonomy (positive relationship), detachment from work (positive relationship), and job insecurity (negative relationship) were related to all outcomes in phase 1; but in phase 2 job autonomy was unrelated to anxiety–contentment, detachment from work was unrelated to depression–enthusiasm, and job insecurity was associated with only anxiety–contentment. Job demands and work– to-nonwork conflict were both negatively related to anxiety–contentment only in phase 1, and social support was positively related only to mental well-being in both phases. ICT constraints was related to mental well-being in phase 2 but, contrary to expectations, the relationship was positive.	the enforced nature of homeworking and the COVID-19 factors pertaining to increases in deaths and the interaction effect of this with age had some bearing on well-being in phase 1, when it did not at phase 2, suggesting a decline in their salience over the pandemic period. In general, support for the hypotheses in the person-level analyses was weaker.	
Xiao 2021 US (mainly)	Online survey, available 24th April to 11th June 2020. Pearson correlation analyses were conducted to examine relationships among continuous variables, with correlations identified as	Those who had transitioned to WFH during the COVID-19 pandemic (assessed by screening question). N = 988 56.5% female, Mean age 40.9 (SD 13.1) years, 84.2% had another	Physical and mental wellbeing were rated overall, relative to their wellbeing prior to WFH on a Likert scale, 1 (much lower) to 5 (much higher) (3 = the same). Participants also rated 9 types of new physical health issues and 8 types of new mental health	"To understand impacts of social, behavioural and physical factors on well-being of office workstation users during COVID-19 work from home (WFH)."	Compared with pre-WFH, mean ratings were decreased for overall physical (2.84, SD .87) and mental (2.70, SD 0.93) wellbeing. Overall physical activity and physical exercise decreased, and overall food intake increased (although this was the same for 'healthy' and 'junk' food). Physical well-being was significantly correlated with mental wellbeing ($r = 0.52$, $p < 0.01$), overall physical activity ($r = 0.50$, $p < 0.01$), physical exercise ($r = 0.58$, $p < 0.01$), 'healthy' food intake ($r = 0.34$, $p < 0.01$), and 'junk' food intake ($r = 0.63$, $p < 0.01$), whereas	"This study highlights factors that impact workers' physical and mental health well-being while WFH and provides a foundation for considering how to best support a positive WFH experience."	Online survey and selection methods may have introduced selection bias. Sample worked across a range of organisational and occupational categories. Self-report of pre-pandemic outcomes is retrospective and thus subject to recall bias.

	weak (0.30 to 0.50), moderate (0.50 to 0.70) or strong (>0.70). Linear regression was conducted to examine how worker demographics, lifestyle and home environment, occupational environment, and home office environment factors affected overall physical and mental well-being.	independent adult living with them, 50.2% had a pet, and 21.5% had at ≥1 dependent or child in the home. 73.4% had adjusted their working hours, and 37.4% scheduled their work hours around others. 33.0% had a dedicated room for their work, 50.3% had a work station in a room that had other uses, and 16.7% worked in a variety of places around the house.	issues. Participants were categorised by the number of new physical or mental health issues (none, 1, or ≥2 issues). Lifestyle and home environment, occupational environment and home office environment was also assessed.		mental well-being was significantly correlated with overall physical activity ($r = 0.36$, $p < 0.01$), physical exercise ($r = 0.33$, $p < 0.01$), and distractions while working ($r = -0.30$, $p < 0.01$) (for correlations with meaningful interpretation as weak, moderate or strong). For dichotomous questions, the only variable for which there was a meaningful (or nearly meaningful) difference on physical wellbeing was between those who reported knowing how to adjust their workstation (2.93, SD 0.87) and those who did not (2.80, SD 0.87, $p = 0.04$). Similarly, those who differed on mental wellbeing were those who knew how to adjust their workstation (2.84, SD 0.96) versus those who didn't (2.65, SD 0.91, $p < 0.01$), those who reported having (2.83, SD 0.82) versus not having a good workstation set-up (2.66, SD 0.97, $p = 0.01$). Mean mental wellbeing was lower for those who adjusted their work hours (2.65, 0.95) than those who did not (2.86, SD 0.87, $p < 0.01$), those who needed to schedule their work hours around others (2.59, SD 0.95) than those who did not (2.77, SD 0.92, $p < 0.01$), and those who reported somebody in the same workspace while WFH (2.64, SD 0.95) than those who reported a solitary work environment (2.78, SD		Sample may not be representative – authors report over-representation of workers in California, Caucasian and with higher levels of education and income than the US average. Also, not all job categories represented.

					0.90, p = 0.04). In regression analyses for factors affecting physical and mental wellbeing, an annual income of 50k to 100k (presumably USD?) was the only factor that was significantly associated with (higher) wellbeing (for both types) compared with an annual salary of <50k, in the two-step model. Combining all variables gave a strong significant model for predicting overall physical well-being ($F(38, 350) = 11.462$, $p < 0.001$, $R^2 = 0.561$), where predictors were higher levels of physical exercise, healthy food intake, and communication with co-workers; lower levels of overall food intake and junk food intake; and being positively affected by having a toddler at home. Similarly, improved mental wellbeing ($F(38, 351) = 5.306$, $p < 0.001$, $R^2 = 0.371$) was predicted by increased physical exercise, increased communication with co-workers, and decreased junk food intake, along with being positively affected by having an infant in the home and negatively affected by increased distractions while working. 64.8% of participants reported new physical health issues and 73.6% reported new mental health issues arising since they switched to WFH during the pandemic. Factors		

					associated with new physical and mental health issues were similar, and included being female, earning <50k or 50-100k (presumably USD) and overall food intake, whereas increased physical activity, exercise, increased healthy food intake, and lower junk food intake were all associated with fewer issues. Living with ≥1 teenager lowered the chance of reporting new issues, whereas living with ≥1 toddler increased the chance of reporting new health issues. Having an infant at home was also associated with reporting one new mental health issue, despite this variable being associated with better overall wellbeing. Those who had to adjust their working hours, schedule work around others, and had more distractions were more likely to report ≥2 new physical or mental health issues. Those with a dedicated room for their workstation and with a good workstation set-up had fewer new issues, whereas increased time spent at the workstation, higher workloads, and not knowing how to adjust the workstation were associated with new physical but not new mental health issues. Higher satisfaction with workspace indoor environmental quality factors was associated with a lower chance of respondents reporting new physical or mental health issues.		

Xue 2021 UK	Online survey – longitudinal survey (completed monthly), by people already participating in an existing longitudinal survey (UK Household Longitudinal Study), a nationally representative survey of >100,000 individuals from 40,000 households. Analysed by linear regression models, stratified by gender (as per aim). Analysis was cross-sectional not longitudinal.	Working parents living in a (heterosexual) couple April 2020: N = 15,426 (9007 women, 6419 men) 62% women and 63% men were working FT or PT. May 2020: N = 14,150 (8291 women, 5859 men) 61% women and 62% men were working FT or PT.	Unpaid care work; Psychological distress (assessed on the GHQ, scores range from 0-36, higher scores indicate greater distress) (Confounders were age, ethnicity, whether living with partner, number of children, ages of children, pre-pandemic working hours), education, occupational class	"To describe how men and women divided childcare and housework demands during the height of the first Covid-19 lockdown in the UK, and whether these divisions were associated with worsening mental health during the pandemic."	In April 2020, while working from home with children present, in mixed-sex couples, women shared 64% of the housework and 62% of the childcare. Increased housework and childcare/home-schooling hours were (weakly) associated with higher levels of psychological distress (assessed on the GHQ) among women, with every 1-hour increase in housework hours per week associated with 0.05 (95% CI: 0.019, 0.071; p = 0.001) higher scores on the GHQ, and every 1-hour increase in childcare/homeschooling hours per week associated with 0.02 higher scores of GHQ (95%CI: 0.006, 0.037; p = 0.006). There was no association among men. Women's share of these tasks within couples was not associated with GHQ in either women or men. In May 2020, while working from home with children present, in mixed-sex couples, women shared 64% of the housework and 63% of the childcare, and were more likely than men to reduce working hours (21% vs. 11%) or change employment schedules (32% vs. 18%). Increased housework and childcare/home-schooling hours were weakly associated with GHQ score among women, with every 1-hour increase in housework hours per week associated with 0.018 (95% CI: 0.001, 0.034)	"There are continued gender inequalities in divisions of unpaid care work. Juggling home working with homeschooling and childcare as well as extra housework is likely to lead to poor mental health for people with families, particularly for lone mothers."	The main focus is not on WFH but on other things that are happening at the same time (including adjustments to working), so may be less applicable to post-COVID. Relies on self-report, but large, representative survey. Analysed cross-sectionally. Sample size of only those in work and with children is unclear. Response rates were 41% and 40%.

					higher scores on the GHQ. In May 2020, adapting work patters due to childcare/homeschooling was associated with 1.39 (95% CI: 0.403, 2.382) higher GHQ scores in women and 1.16 (95% CI: 0.296, 2.015) higher GHQ scores in men. Being the only member of the couple to adapt working pattern to accommodate childcare was associated with 1.82 higher GHQ scores (95% CI: 0.669, 2.973) in women and 2.48 higher GHQ scores (95% CI: 1.367, 3.601) in men. Lone mothers who adapted work patters to accommodate childcare/homeschooling had on average 3.93 higher GHQ scores (95% CI: 1.639, 6.223; p = 0.001) than lone mothers who did not adapt work patterns. There was no effect of adapting work patterns on GHQ in couple mothers.		
Yoshimoto 2021 Japan	Online survey, available 29th July to 19th August 2020 (to coincide with the second wave of COVID-19 in Japan). Continuous variables were analysed using	Workers (including PT, temporary and freelance) aged 20-64 who had experienced pain anywhere in their body over the previous 4 weeks (excluding those with malignant	Pain – assessed according to how the COVID-19 restrictions affected participants' pain (1-5: worsened considerably, worsened somewhat, no change, improved somewhat, improved	"to investigate the impact of the COVID-19 pandemic on pain conditions, physical activities, psychological stress, and working styles among Japanese workers suffering from	The proportions of those who had started or increased telework were significantly higher in those with pain augmentation than without pain augmentation (p < 0.001). Starting or increasing telework was significantly associated with pain augmentation in a logistic regression analysis (OR 2.32, 95% CI 1.79 to 3.02), including after adjustment for confounding factors (adjusted OR 2.27, 95% CI 1.68 to 3.06).	"Our findings suggest that measures, which consider physical activities, psychological aspects, and working styles, to alleviate pain may be required for the working population in the future."	Participants recruited from online panel, via email, stratified by age and sex. Stratification are beneficial but online recruitment (and survey) may introduce selection bias. Sample may not

	the Wilcoxon rank-sum test and categorical variables were analysed using the chi-squared test or Fisher's exact test. Logistical regression was conducted to examine the factors affecting pain augmentation.	tumour or rheumatoid arthritis). N = 1941 29.5% female, Median age 43 (IQR 33, 52), 26.8% started teleworking or increased their teleworking.	considerably or almost disappeared), with mannequin to indicate region of pain. Physical activity – assessed with the question "how has the COVID-19 pandemic impacted the amount of exercise/physical activity you participate in (including the time taken to walk when commuting, housework, or care giving), with the self-restriction on going out, changes in working styles, or changes in your family's lifestyles?" 1-5 (decreased considerably to increased considerably). Psychological stress – assessed	pain, and to examine the factors associated with pain augmentation"	The authors explored this association further. Among those who started / increased telework and did not decrease physical activity, the adjusted OR for pain augmentation was 3.18 (95% CI 1.88 to 5.36), but it was 7.45 (95% CI 4.97 to 11.18) among for starting / increasing telework and decreasing physical activity.		be representative (e.g. higher proportion of males). Unvalidated questionnaires used for changes in pain, physical activity and stress. Cross-sectional design precludes inference about causality.

			using the question "how has the COVID-19 pandemic impacted your stress levels with the declared state of emergency or the self-restrictions on going out?", 1-5 (decreased considerably to increased considerably). Working from home was assessed in an item on working style, where response options were: "my job cannot adopt to a telework style", "telework has not been introduced although it is possible to work remotely in my job", "I started teleworking during the COVID-19 pandemic", "telework was introduced before				

			the pandemic and the frequency of telework has not changed", "telework was introduced before the pandemic and the frequency of telework has increased", "telework was introduced before the pandemic and the frequency of telework has decreased", and "I am not currently working".				

3.2. Full extraction tables for grey literature

Bevan 2020 UK	Web page (presentation) Online survey N=500	Homeworkers	Mental health and wellbeing measures	Impacts of home working	75% say their employer has not carried out a health and safety risk assessment of their homeworking arrangements. Mental health is poorer for: Younger workers (MH much better for over 60s); Those looking after elderly relatives (but parents are no different to non-parents): Those living with parents or renting: Those new to homeworking	Significant decline in musculoskeletal health in 2 weeks. Poor sleep & increased fatigue a concern. Alcohol, diet & exercise declining for many. Emotional concerns over finance, isolation, energy, work-life balance & family health.	No data.

					(compared with those with long experience): Those working more than 10 hours longer than contracted hours per week: Those in less frequent contact with their boss. 20% say alcohol consumption has increased 60% worry they are taking less exercise 33% eating less healthily in lockdown 48% working long & irregular hours 26% have continued working despite illness in last 2 weeks 36% feel under too much work pressure 43% don't have enough time to get their work done	Work motivation holding up for most, especially if in regular contact with boss.	
Chung 2020 UK	Online report Survey	UK employees 86% worked from home (increased from 11% prior to lock down). N=1160 648 mothers, 236 fathers, 199 women and 78 men who did not live with a child under 18.	Outcomes linked to (but not always stated as) wellbeing.	"Understanding how the COVID 19 pandemic, the lockdown and widespread working from home has influenced a range of work-life issues".	Positive aspects of working from home during the COVID-19 lockdown included the ability to: take care of children, do housework and spend more time with their partners. 2⁄3 of non-parents and 52% of parents said it is (very) likely that they will continue to work from home after COVID-19. 76% of mothers and 73% of fathers agreed/strongly agreed that they would like to work flexibly to spend more time with children. Negative aspects included: 2⁄3 of employees identified the blurred boundaries between work/home. Missing interactions with colleagues – especially for women without children. Increased workload and conflict between	Findings indicate serious concerns for the wellbeing of parents, who are particularly stressed as a result of lockdown. Mothers in particular struggled to secure time/space to work. Increasing fathers' access to flexible working may help couples to share more housework/care responsibilities, and managers and the government will likely be under pressure in the	Survey percentages only reported.

					work and family has negatively impacted parents' mental well-being, especially for mothers. Almost half of all mothers felt rushed and pressed for time, more than half of the time during the lockdown. In addition, 46% of mothers felt nervous and stressed more than half of the time. Less than of all parents said they woke up feeling fresh and well rested.	future to find ways to support fathers to work flexibly and take a more active role in caring and unpaid work in the home.	
CIPD 2021 UK	Webpage and linked pdf report. Interviews with 32 senior managers and directors. Online survey with a total sample size of 2,133 senior decision-makers in UK organisations, conducted by YouGov	Working population	Wellbeing	Evaluate strategies which teams and their managers can use to make a success of hybrid working.	Employers reported the key benefits and challenges of homeworking as follows: Benefits • The most frequently mentioned benefit was increased wellbeing through avoiding the commute (46% of survey participants), followed by enhanced wellbeing because of greater flexibility of hours (39%). • Although collaboration is often mentioned as a challenge of homeworking, survey participants reckoned that both creating new ways to collaborate with IT tools, and IT upskilling, were benefits of homeworking, at 34% and 23% respectively. • A reduction in distractions also featured (33%), although given that lockdown enforced homeworking regardless of home circumstances, some employees were dealing with increased distractions. • Normalising the use of technology could help inclusion for those with a disability or illness that prevented or impeded travel,	This report identifies seven strategies which teams and their managers can use to improve wellbeing and make a success of hybrid working: 1 Develop the skills and culture needed for open conversations about wellbeing. 2 Encourage boundary-setting and routines to improve wellbeing and prevent overwork. 3 Ensure effective co-ordination of tasks and task-related communication. 4 Pay special attention to creativity, brainstorming and problem-solving tasks. 5 Build in time, including face-to-face	

					and for those working in distributed teams. • Finally, homeworking enabled people to get to know their colleagues better as individuals, learning more about their non-work life. Challenges 1 Reduced mental wellbeing of staff due to isolation was cited as a challenge by 44% of survey respondents. 2 Hygiene factors are those which, in a voluntary homeworking situation, would be dealt with in advance, or might preclude homeworking altogether: the unsuitability of certain jobs (36%); unsuitable home circumstances (31%); insufficient technology (15%); outdated technology (15%); and lack of staff proficiency with technology (14%). 3 Among work-related factors were: difficulty with staff interaction and co-operation (26%); lack of staff engagement (19%); line manager capability to manage homeworkers (19%); and line manager capability to monitor staff performance (18%). In all, 44% of survey participants cited reduced mental wellbeing due to isolation as a challenge to their organisation during the pandemic. Both HR and operational managers reported an increased focus on managing staff wellbeing – not only because of	time, for team cohesion and organisational belonging. 6 Facilitate networking and inter-team relationships. 7 Organise a wider support network to compensate for the loss of informal learning	

					homeworking, but because of the broader social isolation imposed by the pandemic, combined with increased health anxiety and the difficulty of home-schooling during school closures Enhanced employee wellbeing through flexibility of hours: The second highest benefit (39% of survey participants) was enhanced employee wellbeing because of greater flexibility of hours, meaning that six out of ten (61%) survey participants did not regard flexibility of hours as a benefit of homeworking. This presents a complex picture, depending on both work and non-work factors. Some types of work, when done at home, allowed greater flexibility of hours, particularly informally, but for others, the same constraints on hours applied as when working in the workplace. Some people found it harder to set boundaries around taking breaks or stopping work in the evening. Some simply preferred a traditional routine of nine to five, and some undoubtedly found that work and family clashed when homeworking.		
Deloitte 2020/21 UK	Webpage and Infographic Online survey (MORI) Data has been weighted to the known offline population	Nationally representative quota sample of 2,213 UK adults, filtered to a sample of 1,321 workers aged 16-75. Sample	Wellbeing	The impact of COVID-19 on productivity and wellbeing	Initial survey (2020): 38% of workers say lockdown had a negative impact on their wellbeing. After lockdown, 61% of desk based workers would prefer to work at home more often. Update (2021): Almost half (46%) would share their personal health data with their employers in order to improve their	None given.	Infographic data only. No link to full data or report.

	proportions for age within gender, employment status and social grade as well as government office region	reduced to 1200 in 2021.			wellbeing at work. 52% thought that wellbeing has become more of a priority for their employer since lockdown. 7.5 million (extrapolated estimate?) workers are keen to permanently work from home every day of the week.		
Felstead 2020	Report 3 online survey (April, May, June 2020) GHQ-12 wellbeing questions	UK workers	Wellbeing (mental health impact of working from home.	Evaluate the mental health impacts of working at home during Covid-19 lockdown.	Homeworking was on a gradual, but slow, upward trajectory even before the lockdown (1.5% in 1981 to 4.7% by 2019). Lockdown increased this to 43.1% in April 2020. 37.3% and 36.4% of those working always or often at home in June 2020 – the third month of lockdown in the UK – reported that they were able to concentrate less or much less than usual compared to 23.3% of those who reported that they had not worked at home at all. Similarly, those who worked mainly at home – always or often – reported greater difficulties in enjoying normal day-to-day activities compared to those not working at home, (48.2/49.3% vs. 38.5%) and more often felt constantly being under strain and unhappy with life (36.0/33.9 vs. 31.2). Similarly, new home-centred workers reported finding it more difficult to concentrate, enjoy normal daily activities than other categories of worker. They also more frequently felt constantly under strain and unhappy.	The switch to working at home has taken its toll on the mental health of those reporting that they always or often worked at home during lockdown. However, the negative effect of the change in work location subsided as workers became more accustomed to working at home or moved back to traditional places of work as restrictions were gradually eased.	Not peer reviewed.

					Furthermore, out of the 12 indicators of mental health new home-centred workers reported poorer mental health than established factory/office-centred workers on all counts in all three months of the lockdown. Nine out of ten (88.2%) of employees who worked at home during the lockdown would like to continue working at home in some capacity with around one in two employees (47.3%) wanting to work at home often or all of the time. Furthermore, employees with little previous experience of homeworking had not been put off by the experience of working at home – half (50.0%) of new homeworkers would like to work at home often or always even when Covid-19 restrictions permit a return to 'normal' working. This suggests that a key characteristic of the new normal will be much higher levels of homeworking than in the past.		
KCL 2021 UK	Report Online survey: 254 large employers. Qualitative data from 10 in-depth interviews with HR and Internal Communications	Large employers, UK. Focus on parents and carers.	Wellbeing	Investigated the impact of the pandemic on employees, especially parents and carers: how the situation has evolved and future ways of working.	One year on from the start of lockdown restrictions organisations are looking to the future: 78% are adapting their future strategy as a result of the pandemic. 90% support an increase in support for home working and 97% are planning to adopt hybrid working. However, there is a danger of 'fake-flex' where the focus is on remote working, rather than on flexible working or job redesign to evolve roles for	Support wellbeing: Be as clear as possible about the future vision to help manage uncertainty, anxiety and speculation. Even if you are not able to share details, showing that there is consensus can have a positive impact on morale.	No primary data available (% only).

	leaders				hybrid working as only 36% re planning to redesign job roles to better suit remote or hybrid working. Organisations who reported improved morale compared to this time six months ago are less likely to be anticipating restructure or redundancy than organisations where morale is the same or worse. They are also considerably more positive about the support provided, particularly for parents and carers. This suggests that offering such support can contribute towards improved morale overall. Returning to the office is a source of anxiety for many and the mental state of employees needs to be considered, especially for parents and carers. A Trades Union Congress (TUC) survey of 52,000 working mothers published earlier this month revealed that nine in ten had experienced higher levels of anxiety and stress during this latest lockdown. This research found that perceptions of mental health support are weaker in organisations where there has not been an increase in support for different types of working. This suggests a disproportionately negative impact on parents and carers. For example, organisations who have put plans in place to support mental health and wellbeing as part of the transition back to the office	Balance positivity with empathy to acknowledge the impact and influence of the experience of the pandemic for many so that efforts to turn adversity into opportunity do not feel tone deaf. Keep listening and responding through formal and informal channels to involve employees in problem solving, create a sense of connection and course correct where necessary. Re-think the approach to wellbeing so that initiatives and resources are underpinned by a strategic and cultural focus on supporting employee wellbeing. Burnout, exhaustion and mental health challenges have been intensified by the pandemic and the experiences need to be well-understood and addressed. Be clear and consistent	

					are 32 points more likely to think that the support for parents and carers has increased during the pandemic. Webinars, workshops and courses are the most commonly quoted forms of wellbeing support.	with communication. Make sure to update employees as soon and as often as possible on plans in order to minimise speculation and uncertainty	
Kotera 2020	Web page Opinion piece	Working population (not well defined)	New ways of working – including working from home. New ways of working is characterised by work time and space flexibility using information and communication technologies and clearly defined goals. NWW seeks to respond to diversified needs of employees as happier employees perform better and stay in an organisation longer.	Report the positive and negative impacts of working from home.	NWW can help work engagement, flow and connectivity among staff, it can also increase blurred work-home boundaries, fatigue and mental demands. For the many workers who are or were working from home, these positive and negative impacts may be easy to understand. There is no commuting (i.e. frustrating traffic jams), no meeting room moving, no coffee room chat, etc. More attention needs to be paid to the negative impacts of blurred work-home boundaries, fatigue and increased mental demands. Some workers don't feel a sense of 'on and off', and sometimes feel 'always on', which of course is associated with stress. Related to this, being able to focus more on each task allows you to engage with more tasks (increased mental demands), leading to fatigue. 'Zoom fatigue' is a new term coined during this pandemic, referring to mental tiredness coming from online meetings. While many workers have experienced the positives, they also encountered difficulties with working from home. Organisations and employers/managers	Many workers in general enjoy working from home and find it helpful. However, the negative impacts identified need to be addressed. It may be useful to think about how to deal with the blurred boundaries, fatigue and increased mental demands.	Discussion piece but data from original review.

					need to protect their staff from these negative impacts of this way of working. Ways in which employers can help to protect employees could include: Holding a casual short meeting to focus on staff members' wellbeing at the beginning and/or towards the end of a day. Encouraging workers to take a walk to switch their brain to on and off. Having a daily routine with these types of activities included may help workers to feel that the boundary between work and life is maintained. Fatigue and increased mental demands may be mitigated by setting a timer for you to take a short break. As mentioned earlier, you could go on without a break, however in order to have a good level of concentration for a long time, a short break would be effective. If you have a high table, you can work while standing. Sitting all day can exhaust your brain, and the negative health effects (both physical and mental) have been reported. Changing the scenery is also helpful. How you deal with those negative impacts of working from home needs to be well-thought out.		
Parry 2021 UK	Report Analysis of the national dataset Understanding Society COVID-19	Employees working from home in jobs that were more office-based	Wellbeing	Report on impact of working from home during transition out of Covid-19	Many respondents reported experiencing worse symptoms of musculoskeletal pain, higher levels of fatigue, poor sleep, and higher levels of eye strain in the two weeks prior to the survey than previously.	Reliance on individuals 'coping' is not a sustainable strategy to maintain productivity. Well-being - physical, mental and emotional	Much of report presented as text summaries without supporting data.

	Survey; 1,035 survey responses of online worker well-being survey; 38 in-depth interviews with leaders, managers, and colleagues.	prior to the pandemic. Two industry sectors: Professional, Scientific & Technical (PST) and Public Administration & Defence (PAD).		lockdown.	Only 40% of respondents said that their employer had conducted a health and safety assessment while they had been working from home. Using the World Health Organisation – Five Wellbeing Index (WHO-5) to measure well-being, on average, respondents scored 47 out of 100, relatively low compared to previous UK and Europe-wide surveys, Key determinants of better mental health using the WHO-5 measure are: Fewer physical health symptoms Working to contracted hours More frequent contact with their manager higher levels of satisfaction with work-life balance. Those self-identifying as extroverts Finding that extrovert personality types had coped better than introverts seems counter-intuitive, but lower mental well-being scores for introverts may be because of the demands upon them to communicate frequently and 'perform' intensively via video while working from home under the first lockdown.	health - should be prioritised for organisational stability and performance. Workers have proved they are highly adaptable in these unusual times. Employer focus is now needed on well-being to support people and sustain performance. Strong workforce demand for hybrid working requires employers to re-engage with flexible working and consider how to design jobs and workspaces for the future.	
PWC 2020 Malta	Web report	875 workers in Malta. Participants ranged from a number of sectors, roles	Wellbeing	Provide insights on the remote working experience (Covid-19)	69% of respondents described their remote working experience as a positive one. The largest percentage of those who viewed the experience positively were those who lived alone and age 24-35.	Employers must be well-aware of their legal and regulatory obligations as well as factors impacting the wellbeing of their workforce in the	Percentages only reported.

		and age groups with 88% of respondents stating that they were employed on a full-time basis. Age 18+ (mean 36-45)			Employee wellbeing should be a priority on an organisation's agenda no matter the working practices implemented. However, it is even more important when employees are working remotely as it may be more difficult to pick up on signs that an employee is struggling. Respondents stated that the two most likely factors that will impact their mental health if they were to continue working remotely would be lack of social interactions and feeling detached from the office. In fact, feeling lonely was amongst the top challenges experienced in this new way of working.	new working environment.	
RSPH 2021 UK	Webpage	"People who made the move to home working as a result of Covid-19".	Health and wellbeing.	Report on the mental and physical health impacts of home working during Covid-19.	Overall, more people felt working from home was better for their health and wellbeing (45%), compared to around one third (29%) who thought working from home was worse for their health and wellbeing. However, people who switched to working from home as a result of Covid-19 had experienced health and wellbeing impacts, with the most common being feeling less connected to colleagues (67%), taking less exercise (46%), developing musculoskeletal problems (39%) and disturbed sleep (37%). Over one in four (26%) are working from home from either a sofa or a bedroom. Nearly half (48%) of people who work from a sofa or bedroom said they had developed musculoskeletal problems and nearly two thirds (59%) said they felt	Recommendations: Employers to ensure that all employees have access to mental health support to help them to cope with increased isolation and anxiety. All employees to have access to equipment and a remote assessment to support them with their physical health. Organisations to develop a culture that encourages employees to separate their work and home life when working from home, including encouraging	Limited summary, no link to data.

					more isolated from their colleagues. Women were more likely than men to feel isolated (58% of women V 39% of men) and develop musculoskeletal problems (44% of women V 29% of men) as a result of working from home. Home working is having an impact on people's mental health, with 67% saying they felt less connected to their colleagues and 56% saying they found it harder to switch off. However only a third of respondents had been offered support with their mental health (34%) from their employer. People who live with multiple housemates were more likely to think that working from home was worse for their health and wellbeing (41%), compared to people who live on their own (29%) or with just their partner (24%) The findings of the survey also showed that the vast majority of people didn't want to go back to working in an office full time, with nearly three quarters of people (74%) saying that they wanted to split their time between home working and working in an office. However, the health and wellbeing issues which are affecting home workers and the fact that some groups of people are impacted more severely than others needs to be addressed by employers.	employees to block their work communications outside of work hours.	
University of Exeter 2020	Webpage Survey (weekly)	University employees working from	Wellbeing	Describe factors affecting wellbeing	38% of home-workers felt anxious most or all of the time while death levels went up during the early stages of the first	The pandemic has contributed to short term fluctuations in the	Peer review article pending.

		home (n=85)			COVID-19 lockdown, with 8% saying they felt depressed. The handling of the pandemic by government and employers was found to make those working from home more anxious and less enthusiastic about their jobs, and job insecurity, as a result of the economic impact of lockdown, also had a negative impact on wellbeing. But the loneliness of working in a home environment and increased demands to juggle work and domestic responsibilities also caused a decline in employee wellbeing, the study found. Nearly one in five (17%) remote-workers reported feeling lonely, while around a quarter (25.9%) said that the competing demands of work and domestic duties (including childcare) had taken their toll. Other aspects of remote-working that contributed to a lower standard of wellbeing included increased job insecurity, the unpredictability of future workloads, new ways of working and a lack of support from employers. These factors not only impact on wellbeing but also hamper employees' ability to make decisions and concentrate – 15% said they found it hard to make many decisions on their own and 21% could not decide how to go about doing	wellbeing of employees working at home, but the factors that affect all jobs, the extent of job discretion, potential loneliness of working alone, and job insecurity remain important and is likely to remain so after the pandemic."	

					their work.		