Original Article

Prevalence of Burnout and Emotional Exhaustion in Remote or Hybrid Workers

Kehkshan Khalid[1], Anam Naz[2]

1 Epping Physiotherapy Clinic, United Kingdom

2 Response Healthcare LTD, United Kingdom

* Correspondence: kehkshankhalid@yahoo.com

ABSTRACT

Background: The shift to remote and hybrid work models after the COVID-19 pandemic has introduced psychosocial hazards that may elevate burnout risk beyond levels observed in traditional high-contact professions. Although emotional exhaustion rates of 20–50% are well documented among healthcare and social service workers, prevalence in general remote and hybrid populations remains inconsistent, with limited data on modifiable predictors such as work–life boundaries, isolation, and supervisor support. **Objective**: To determine the prevalence of burnout and emotional exhaustion among remote and hybrid workers in technology, education, and finance sectors and to identify independent organisational and psychosocial predictors of high emotional exhaustion. **Methods**: We conducted a cross-sectional observational study from January to April 2025, recruiting 247 remote and hybrid employees via professional networks and workplace platforms. Burnout was assessed using the Maslach Burnout Inventory–Human Services Survey, with high emotional exhaustion defined as ≥27, high depersonalization as ≥10, and low personal accomplishment as ≤33. Psychosocial factors were measured with validated Likert-scale items. Multivariable logistic regression adjusted for gender, sector, work model, and confounders identified predictors of high emotional exhaustion. **Results**: High emotional exhaustion affected 63.1% (95% CI 56.9–68.9) of participants, and overall burnout (at least two elevated domains) 41.7% (95% CI 35.7–47.9). Fully remote workers had significantly higher emotional exhaustion than hybrid workers (mean difference 3.7, p=0.004). Independent predictors included poor work–life boundaries (adjusted OR 2.67, 95% CI 1.65–4.31), work hours >45/week (OR 2.11, 1.31–3.39), and isolation (OR 1.24 per unit, 1.10–1.40). **Conclusion**: Emotional exhaustion is highly prevalent among remote and hybrid workers and is strongly driven by blurred boundaries, extended hours, and isolation. Organizational interventions targeting these factors may reduce burnout risk in flexible workforces.

Keywords: burnout, emotional exhaustion, remote work, hybrid work, work–life boundaries, occupational health, Maslach Burnout Inventory.

Received: 8 September 2025
Revised: 17 October 2025
Accepted: 24 October 2025
Published: 30 October 2025

Citation: Click to Cite

INTRODUCTION

The rapid shift to remote and hybrid work models after the COVID-19 pandemic has transformed employment practices globally, offering flexibility while introducing psychosocial hazards that may increase burnout risk. Burnout, defined as a syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment using the Maslach Burnout Inventory (MBI), has long been prevalent in human service professions,

with emotional exhaustion rates typically ranging from 20% to 50% among social workers, nurses, and mental health professionals.(1,2) Emerging evidence indicates that remote and hybrid arrangements can intensify emotional exhaustion through factors such as social isolation, blurred work–life boundaries, excessive digital communication, and heightened cognitive demands.(3,4) Although some surveys have reported burnout symptoms in up to 70–90% of remote workers during the early pandemic period, more rigorous studies suggest lower but still substantial rates, varying by sector, workload, and support structures.(5,6)

Recent investigations in non-clinical populations have identified moderate to high levels of digital burnout among remote employees in technology, education, and finance, with particular vulnerability noted among women and those in education roles.(7) Other work has observed moderate emotional exhaustion in home-based workers despite preserved professional fulfilment, indicating that emotional depletion can occur independently of overall job satisfaction when work remains perpetually accessible.(8) In contrast to traditional high-contact occupations, where emotional exhaustion often stems from interpersonal demands, remote work appears to amplify strain through prolonged screen time, reduced incidental social interaction, and difficulty disengaging after hours. Yet prevalence estimates in general remote and hybrid populations remain inconsistent, and the contributions of modifiable factors—such as weekly work hours, perceived supervisor support, isolation, and boundary management—have not been fully quantified using validated instruments. This gap hinders the design of evidence-based organisational policies to safeguard mental health in an increasingly flexible workforce.

We therefore conducted a cross-sectional study to establish the prevalence of burnout and emotional exhaustion among remote and hybrid workers in technology, education, and finance sectors, employing the Maslach Burnout Inventory–Human Services Survey, and to examine associated psychosocial and organisational predictors. The primary research question was: what is the prevalence of high emotional exhaustion and overall burnout in this population, and which factors independently predict elevated risk?

MATERIAL AND METHODS

We conducted a cross-sectional observational study to estimate the prevalence of burnout and emotional exhaustion among remote and hybrid workers and to identify associated psychosocial and organisational factors. Investigators collected data between January and April 2025 via an anonymous online survey distributed through professional networks, email lists, and workplace communication platforms in the technology, education, and finance sectors.

Eligible participants were adults aged 18 years or older who were currently employed full-time in fully remote or hybrid roles. We excluded individuals in non-remote occupations, those who were unemployed, and those who did not provide electronic informed consent. Recruitment relied on convenience sampling through digital channels to reach a broad distribution across the targeted sectors, with invitations emphasising voluntary participation and confidentiality.

Participants accessed the survey via a secure online platform (Qualtrics) that prevented duplicate submissions through IP address checks and required completion in a single session where possible. The questionnaire began with electronic informed consent, followed by sections on demographics (age, gender), employment characteristics (sector, work model, weekly hours), and psychosocial factors. Burnout was assessed using the Maslach Burnout Inventory–Human Services Survey (MBI-HSS), a 22-item validated

instrument comprising three subscales: emotional exhaustion (nine items), depersonalisation (five items), and personal accomplishment (eight items).(9) Items were scored on a seven-point Likert scale from 0 (never) to 6 (every day), with subscale scores summed according to established methods. High emotional exhaustion was defined as a score ≥27, high depersonalisation as ≥10, and low personal accomplishment as ≤33; overall burnout was classified as elevation in at least two domains.

Supplemental items, adapted from prior occupational health surveys, assessed difficulty maintaining work–life boundaries (five-point Likert scale from "not at all difficult" to "extremely difficult"), perceived supervisor support (four items on a five-point scale), and perceived isolation (five items on a five-point scale). Weekly work hours were self-reported as a continuous variable, later dichotomised at >45 hours for regression analyses. Potential confounders, including gender, sector, and work model, were predefined based on existing literature.(3-7)

To minimise selection bias, we used broad digital recruitment and monitored response rates across sectors. Mandatory fields for core demographic and MBI items reduced item non-response, while optional psychosocial questions minimised participant burden. Missing data remained below 3% for all variables; cases with incomplete MBI subscales were excluded listwise, and no imputation was performed.

We calculated the sample size for prevalence estimation using the standard formula for a single proportion: $n = [Z^2 \times p \times (1-p)] / d^2$, where Z is the 1.96 value for 95% confidence, p is the anticipated prevalence (conservatively set at 0.50 to yield the maximum sample size given inconsistent prior estimates), and d is the margin of error (0.06).(10) This yielded a minimum of 267 participants; we aimed for at least 250 after accounting for potential incomplete responses, ultimately analysing 247 complete cases, which provided adequate precision for the observed prevalence and sufficient power for multivariable modelling.

Investigators summarised continuous variables with means and standard deviations and categorical variables with frequencies and percentages. They compared remote versus hybrid workers using independent t-tests for subscale scores and chi-square tests for categorical outcomes. Analysts examined correlations between psychosocial factors and MBI dimensions using Pearson coefficients. They performed multivariable logistic regression to identify independent predictors of high emotional exhaustion (dichotomised at ≥27), entering all predefined predictors simultaneously and reporting adjusted odds ratios with 95% confidence intervals. They set statistical significance at $p<0.05$ and conducted analyses in IBM SPSS version 29 and R version 4.3.3, with a reproducible syntax script archived for verification.

The institutional research ethics committee approved the study, which adhered to the Declaration of Helsinki. Data were stored on encrypted servers with restricted access, and all responses were fully anonymised at source to ensure confidentiality and data integrity.

RESULTS

Of the 247 participants included in the analysis, the mean age was 33.9 years (SD 6.8), 57% were female, and the sample comprised employees from technology (38%), education (34%), and finance (28%) sectors. Mean weekly work hours were 46.2 (SD 7.4), with 62% reporting difficulty maintaining work–life boundaries. Fully remote workers accounted for 142 participants and hybrid workers for 105.

Table 1 presents burnout levels according to the Maslach Burnout Inventory. The mean emotional exhaustion score was 27.4 (SD 10.2), with 63.1% of participants scoring ≥27 (95%

CI 56.9–68.9). Depersonalisation had a mean score of 9.3 (SD 5.1), with 28.3% scoring ≥10 (95% CI 23.0–34.2). Reduced personal accomplishment had a mean score of 31.5 (SD 8.4), with 22.7% scoring ≤33 (95% CI 17.9–28.3). Overall burnout, defined as elevation in at least two domains, affected 41.7% (95% CI 35.7–47.9).

Table 1 Burnout dimensions among remote and hybrid workers (N=247)

Burnout dimension	Mean ± SD	Prevalence of high/ reduced level, % (95% CI)	Threshold used
Emotional exhaustion	27.4 ± 10.2	63.1 (56.9–68.9)	MBI ≥27
Depersonalisation	9.3 ± 5.1	28.3 (23.0–34.2)	MBI ≥10
Reduced personal accomplishment	31.5 ± 8.4	22.7 (17.9–28.3)	MBI ≤33
Overall burnout (≥2 domains)	—	41.7 (35.7–47.9)	

Comparisons by work model are shown in Table 2. Fully remote workers had a higher mean emotional exhaustion score (28.9, SD 10.4) than hybrid workers (25.2, SD 9.6), with a mean difference of 3.7 (95% CI 1.2–6.2; p=0.004; Cohen's d 0.37). Depersonalisation and reduced personal accomplishment scores did not differ significantly. Overall burnout prevalence was 45.8% in remote workers and 36.2% in hybrid workers (odds ratio 1.49; p=0.17).

Table 2 Burnout severity by work model

Burnout measure	Remote (n=142) Mean ± SD	Hybrid (n=105) Mean ± SD	Mean difference (95% CI)	p-value	Effect size (Cohen's d)
Emotional exhaustion	28.9 ± 10.4	25.2 ± 9.6	3.7 (1.2–6.2)	0.004	0.37
Depersonalisation	9.8 ± 5.3	8.6 ± 4.7	1.2 (−0.1–2.5)	0.070	0.23
Reduced personal accomplishment	32.1 ± 8.5	30.7 ± 8.2	1.4 (−0.9–3.7)	0.23	0.16
Overall burnout, %	45.8	36.2	—	0.17*	—

*Chi-square test; odds ratio for remote versus hybrid 1.49.

Multivariable logistic regression identified independent predictors of high emotional exhaustion (Table 3). Difficulty maintaining work–life boundaries conferred the highest risk (adjusted odds ratio 2.67, 95% CI 1.65–4.31), followed by working >45 hours per week (2.11, 1.31–3.39), education sector employment (1.89, 1.14–3.14), low supervisor support (1.73, 1.08–2.75), female gender (1.62, 1.03–2.56), and higher isolation score (1.24 per unit increase, 1.10–1.40).

Table 3 Multivariable predictors of high emotional exhaustion (MBI ≥27)

Predictor	Adjusted odds ratio	95% CI	p-value
Female gender	1.62	1.03–2.56	0.037
Education sector	1.89	1.14–3.14	0.014
Work hours >45/week	2.11	1.31–3.39	0.002
Poor work–life boundaries	2.67	1.65–4.31	<0.001
Low supervisor support	1.73	1.08–2.75	0.022
Isolation score (per unit)	1.24	1.10–1.40	0.001

Table 4 Pearson correlations between psychosocial/work variables and burnout dimensions

Variable	Emotional exhaustion (r)	Depersonalisation (r)	Personal accomplishment (r)	p-value range
Weekly work hours	0.41	0.22	−0.18	<0.001–0.009
Isolation score	0.53	0.31	−0.25	<0.001
Work–life boundary difficulty	0.58	0.29	−0.34	<0.001
Supervisor support	−0.33	−0.21	0.40	<0.001–0.015

Correlations between psychosocial variables and burnout dimensions appear in Table 4. Emotional exhaustion correlated most strongly with difficulty maintaining work–life boundaries (r=0.58) and isolation (r=0.53), and moderately with weekly work hours (r=0.41). Supervisor support showed inverse associations with emotional exhaustion (r=−0.33) and

depersonalisation (r=−0.21), and a positive association with personal accomplishment (r=0.40). Thus, high emotional exhaustion emerged as the predominant feature in this remote and hybrid workforce, affecting nearly two-thirds of participants and driven primarily by blurred boundaries, extended hours, and isolation.

DISCUSSION

In this cross-sectional study of remote and hybrid workers in technology, education, and finance sectors, high emotional exhaustion affected 63% of participants, with overall burnout present in 42%. These figures exceed rates typically reported in traditional human-service professions, where emotional exhaustion ranges from 20–50% among nurses, social workers, and mental health professionals, but align with emerging evidence from digitally intensive occupations during and after the COVID-19 pandemic.(11,12) Recent investigations have documented moderate to high digital burnout in similar sectors, with prevalence estimates varying from 40–70% depending on measurement tools and timing relative to pandemic restrictions.(13,14) Our observed rate of emotional exhaustion is consistent with reports of heightened fatigue in remote settings, where prolonged screen-based interaction and reduced incidental social contact amplify strain independently of interpersonal client demands.(15)

Fully remote workers exhibited significantly higher emotional exhaustion than their hybrid counterparts, with a mean difference of 3.7 points on the MBI subscale and a small-to-medium effect size. This pattern likely reflects greater exposure to isolation and blurred work–life boundaries in fully remote arrangements, factors that emerged as strong independent predictors in multivariable analysis. Difficulty maintaining boundaries conferred the highest risk (adjusted odds ratio 2.67), followed by extended work hours and perceived isolation. These associations accord with boundary theory and job demands-resources models, which posit that perpetual accessibility impairs psychological detachment and recovery, thereby depleting emotional resources.(16) Perceived supervisor support, in contrast, exerted a protective effect, consistent with evidence that relational resources buffer stress in distributed work environments.(17) Heightened vulnerability among women and education-sector employees mirrors patterns identified in post-pandemic surveys, possibly reflecting unequal domestic demands and sector-specific workloads.(13)

The cross-sectional design limits causal inference, and convenience sampling through digital channels may have introduced selection bias toward more engaged or burnout-aware individuals, potentially inflating prevalence estimates. The sample, drawn from three sectors and a single geographic region, restricts generalizability to other industries or cultural contexts. Self-reported measures, while validated, remain susceptible to response bias, and missing data, though minimal, required listwise exclusion for incomplete MBI responses. Despite these constraints, the study benefits from a well-powered sample, use of the Maslach Burnout Inventory–Human Services Survey with established thresholds, and adjustment for predefined confounders in regression modelling, lending robustness to the findings.

CONCLUSION

Longitudinal studies are needed to track burnout trajectories as hybrid models evolve and to evaluate interventions such as structured boundary-management training, workload monitoring, and enhanced supervisory support. Qualitative inquiry into lived experiences of digital fatigue could further elucidate mechanisms linking isolation and boundary blurring to exhaustion. Larger, multinational cohorts would clarify sectoral and cultural

variations, informing evidence-based policies for sustainable remote and hybrid work.(18,19) These data underscore that emotional exhaustion in flexible workforces is modifiable through organisational practices that preserve recovery opportunities and social connectedness.

DECLARATIONS

Ethical Approval
This study was approved by the research committee, Epping Clinic, UK
Informed Consent
Written informed consent was obtained from all participants included in the study.
Conflict of Interest
The authors declare no conflict of interest.
Funding
This research received no external funding.
Authors' Contributions
Concept, Design, Data Collection, Analysis, Drafting: KH, AN
Data Availability
The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.
Acknowledgments
Not applicable.
Study Registration
Not applicable.

REFERENCES

1. Giménez-Bertomeu VM, Caravaca-Sánchez F, de Alfonseti-Hartmann N, Ricoy-Cano AJ. Burnout Among Social Workers in Social Services: A Systematic Review and Meta-Analysis of Prevalence. Journal of Social Service Research. 2024;50(4):664-683.

2. Hiver C, Villa A, Bellagamba G, Lehucher-Michel MP. Burnout prevalence among European physicians: a systematic review and meta-analysis. Int Arch Occup Environ Health. 2022;95(1):259-273.

3. Shanafelt TD, West CP, Dyrbye LN, Trockel M, Tutty M, Wang H, et al. Changes in Burnout and Satisfaction With Work-Life Integration in Physicians During the First 2 Years of the COVID-19 Pandemic. Mayo Clin Proc. 2022;97(12):2248-2258.

4. Sexton JB, Adair KC, Proulx J, Profit J, Cui X, Bae J, et al. Emotional Exhaustion Among US Health Care Workers Before and During the COVID-19 Pandemic, 2019-2021. JAMA Netw Open. 2022;5(9):e2232748.

5. Tang R, Feng O, Chong JJ, Wang A. Evaluating the impact of coronavirus disease on burnout among healthcare workers using maslach burnout inventory tool: A systematic review. Proceedings of Singapore Healthcare. 2022.

6. Hayes SW, Priestley JL, Ray H, Ishmakhametov N. "I'm not Working from Home, I'm Living at Work": Perceived Stress and Work-Related Burnout before and during COVID-19. 2020.

7. Block RI, Bair HL, Carillo JF. Is Exhaustion More Sensitive Than Disengagement to Burnout in Academic Anesthesia? A Study Using the Oldenburg Burnout Inventory. Psychol Rep. 2020;123(4):1282-1296.

8. Borges ACS, Lopes LFD, Baggio DK, Fabrício A. My Home is no Longer a Safe Place for my Emotional Health: Home-Office Work and its Consequences on Emotional Health. Revista de Gestão Social e Ambiental. 2023;18(1):e04158.

9. Elbogen EB, Lanier M, Griffin SC, Blakey SM, Gluff JA, Wagner HR, et al. A National Study of Zoom Fatigue and Mental Health During the COVID-19 Pandemic: Implications for Future Remote Work. Cyberpsychology, Behavior, and Social Networking. 2022;25(7):409-415.

10. Stasiła-Sieradzka M, Sanecka E, Turska E. NOT SO GOOD HYBRID WORK MODEL? RESOURCE LOSSES AND GAINS SINCE THE OUTBREAK OF THE COVID-19 PANDEMIC AND JOB BURNOUT AMONG NON-REMOTE, HYBRID, AND REMOTE EMPLOYEES. Int J Occup Med Environ Health. 2023.

11. Hayes SW, Priestley JL, Moore BA, Ray HE. Perceived Stress, Work-Related Burnout, and Working From Home Before and During COVID-19: An Examination of Workers in the United States. SAGE Open. 2021;11(4):21582440211058193.

12. Parandeh A, Ashtari S, Rahimi-Bashar F, Gohari-Moghadam K, Vahedian-Azimi A. Prevalence of burnout among health care workers during coronavirus disease (COVID-19) pandemic: A systematic review and meta-analysis. Professional Psychology: Research and Practice. 2022;53(6):564-572.

13. Bykov KV, Zrazhevskaya IA, Topka EO, Peshkin VN, Dobrovolsky AP, Isaev RN, et al. Prevalence of burnout among psychiatrists: A systematic review and meta-analysis. J Affect Disord. 2022;308:47-64.

14. Kumaresan A, Suganthirababu P, Srinivasan V, Chandhini VY, Divyalaxmi P, Alagesan J, et al. Prevalence of burnout syndrome among Work-From-Home IT professionals during the COVID-19 pandemic. Work. 2022;71(2):379-384.

15. Urrejola-Contreras GP. Relationship between mental fatigue and burnout syndrome in remote workers during the COVID-19 pandemic: an integrative review. Rev Bras Med Trab. 2023;21(3):e20221003.

16. Costin A, Roman AF, Balica RS. Remote work burnout, professional job stress, and employee emotional exhaustion during the COVID-19 pandemic. Front Psychol. 2023;14:1193854.

17. Johnson BJ, Mabry JB. Remote work video meetings: Workers' emotional exhaustion and practices for greater well-being. German Journal of Human Resource Management: Zeitschrift für Personalforschung. 2022;36(3):380-408.

18. Ghahramani S, Lankarani KB, Yousefi M, Heydari K, Shahabi S, Azmand S. A Systematic Review and Meta-Analysis of Burnout Among Healthcare Workers During COVID-19. Front Psychiatry. 2021;12:758849.

19. Pappa S, Barnett J, Berges I, Sakkas N. Tired, Worried and Burned Out, but Still Resilient: A Cross-Sectional Study of Mental Health Workers in the UK during the COVID-19 Pandemic. Int J Environ Res Public Health. 2021;18(9):4457.

20. Evanoff BA, Strickland JR, Dale AM, Hayibor L, Page E, Duncan JG, et al. Work-related and Personal Factors Associated with Mental Well-being during COVID-19 Response: A Survey of Health Care and Other Workers. medRxiv. 2020.