

Relationship Between Remote Work Loneliness and Job Satisfaction Among IT Professionals in India: The Moderating Role of Perceived Social Support

Vani M S

Jain University, Department of Psychology, Jain (Deemed-to-be University), Bengaluru, India

Abstract: *The rapid and sustained shift towards remote and hybrid work in India's IT sector post Covid pandemic has brought renewed attention to the psychosocial costs of working away from office. This study intends to examine the relationship between remote work loneliness and job satisfaction among Indian IT professionals and test whether perceived social support helped this relationship. Driven by the job demands resources model and conservation of resources theory, remote work loneliness was conceptualised as a job demand and perceived social support as a buffering job resource. Participants participated in an adapted workplace loneliness scale, a shortened job satisfaction survey, and a shortened Multidimensional Scale of Perceived Social Support (MSPSS). Contrary to usual expectations, remote work loneliness was not significantly related to job satisfaction and perceived social support did not significantly moderate this relationship. Job satisfaction did not differ significantly between fully remote and hybrid employees, though the difference approached significance in the expected direction. These null findings are discussed in relation to sample size, measurement, and the broader literature, with recommendations for future research with larger samples.*

Keywords: remote work loneliness, job satisfaction, perceived social support, moderation, IT professionals, India

1. Introduction

The global shift to remote and hybrid work, accelerated by the COVID-19 pandemic due to continuous lock downs, and has sustained since across India's IT and knowledge-work sectors. It has reshaped the everyday social experience of employment. While remote work offers flexibility and autonomy, it has also been linked to a distinct psychosocial cost resulting in remote work loneliness, a subjective sense of social and emotional disconnection tied specifically to one's work context. This loss of informal, unplanned social contact has been repeatedly linked to reduced job satisfaction, a construct with well-established consequences for retention, productivity, and well-being.

The relationship between remote work loneliness and job satisfaction is unlikely to be uniform across individuals. Perceived social support is the belief that one is cared for and can rely on others has consistently emerged as a resource that buffers the negative impacts of workplace stressors. Employees who perceive stronger support may better withstand the isolating effects of remote work and sustain higher job satisfaction, while those with weaker support may show a steeper decline and dissatisfaction.

This proposition is grounded in the job demands resources model, which frames remote work loneliness as a job demand and perceived social support as a job resource whose protective effect is strongest precisely when demands are high, and in Conservation of Resources theory, which holds that strong compensatory resources help individuals withstand resource loss. Despite India's large remote/hybrid IT workforce, empirical research testing this specific

moderation model within the Indian context remains limited. Most Indian studies on remote work examine occupational stress broadly rather than isolating loneliness and its buffering by social support. This study addresses that gap.

Hypotheses:

H1 — remote work loneliness would show a significant negative relationship with job satisfaction.

H2 — perceived social support would significantly moderate this relationship, weakening it at higher levels of support.

H3 — job satisfaction would differ significantly between fully remote and hybrid employees.

2. Method

Design

A descriptive, correlational, cross-sectional design incorporating a moderation-analytic framework.

Participants

Sixty-seven IT/knowledge professionals in India (37 male, 30 female) working fully remote (n = 28) or hybrid (n = 39) for a minimum of six months participated through survey, sampling through professional networks and online platforms. Ages ranged from 21–50 years, with the largest concentration in the 36–45 band. Most respondents worked in Software/IT Services (n = 30) or Product/Tech companies (n = 17).

Measures

Remote work loneliness was assessed using a 3-item scale adapted from Wright et al.'s (2006) Workplace Loneliness Scale for the remote-work context (possible range 3–15; one

item reverse-scored). Job satisfaction was measured using a 4-item shortened version of Spector's (1985) Job Satisfaction Survey (possible range 4–24). Perceived social support was measured using a 3-item shortened version of the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988), covering family, friends, and significant-other support (possible range 3–21).

Procedure

Following informed consent, participants completed a demographic sheet and the three measures via a structured Google Forms survey distributed through professional networks, LinkedIn, and referral.

Statistical Analysis

Descriptive statistics, Shapiro-Wilk tests of normality, Pearson's correlations, mean-centered hierarchical moderation regression, and an independent samples t-test (Welch's correction) were conducted using Python (NumPy/SciPy), with significance set at $p < .05$.

3. Results

Descriptive statistics for the three study variables are presented in Table 1. Job satisfaction ($W = .90$, $p < .001$) and perceived social support ($W = .96$, $p = .018$) significantly deviated from normality; loneliness did not ($W = .97$, $p = .07$).

Table 1: Descriptive statistics for study variables ($N = 67$)

Variable	M	SD	Range	Possible Range
Remote Work Loneliness	7.16	2.06	3–12	3–15
Job Satisfaction	16.42	3.1	11–24	4–24
Perceived Social Support	14.96	3.15	7–21	3–21

Contrary to H1, remote work loneliness was not significantly correlated with job satisfaction, $r(65) = .15$, $p = .23$; the direction was positive rather than the hypothesised negative. Social support was also not significantly correlated with job satisfaction, $r(65) = .15$, $p = .23$, and loneliness was not significantly correlated with social support, $r(65) = -.13$, $p = .31$.

A hierarchical moderation regression tested H2. Step 1 (main effects of centered loneliness and social support) accounted for 5.1% of variance in job satisfaction, which was not significant, $F(2, 64) = 1.71$, $p = .19$ (loneliness: $B = 0.26$, $SE = 0.19$, $p = .17$; social support: $B = 0.17$, $SE = 0.12$, $p = .17$). Adding the loneliness $\times$ social support interaction in Step 2 did not improve the model, $\Delta R^2 = .00$, $F(1, 63) = 0.001$, $p = .98$ (interaction: $B = 0.002$, $SE = 0.06$, $p = .98$). H2 was not supported.

For H3, job satisfaction did not differ significantly between fully remote ($M = 15.64$, $SD = 2.53$) and hybrid employees ($M = 16.97$, $SD = 3.38$), $t(64.8) = -1.85$, $p = .070$, though the difference trended in the expected direction, with hybrid employees reporting somewhat higher satisfaction.

4. Discussion

None of the three hypotheses reached statistical significance in this sample. Remote work loneliness was not significantly associated with job satisfaction, and, notably, the observed relationship trended in the opposite direction to that hypothesised, though the effect was small and not statistically distinguishable from zero. Perceived social support did not moderate the loneliness-satisfaction relationship, and the interaction term was negligible in magnitude, suggesting no evidence of a buffering effect within this sample. The comparison between fully remote and hybrid employees approached, but did not reach, conventional significance.

These findings diverge from prior international literature reporting negative associations between workplace/remote loneliness and job satisfaction and from studies documenting a buffering role for social support in adjacent domains. Several factors may account for this divergence.

First, the sample size ($N = 67$) was underpowered to detect small-to-moderate interaction effects, which typically require substantially larger samples than main effects.

Second, the loneliness, job satisfaction, and social support measures used here were substantially shortened versions of their parent instruments (3–4 items each, rather than the full 10-, 20-, and 12-item versions respectively), which may have reduced reliability and restricted the range of experience captured.

Third, two of the three variables significantly violated normality assumptions, which may have attenuated the linear correlations and regression estimates reported.

Theoretically, these null results do not necessarily contradict the Job Demands-Resources model or Conservation of Resources theory, but they do suggest that, within this sample, remote work loneliness may not function as strongly as a job demand- or perceived social support as strongly as a buffering resource- as prior literature would predict. It is also possible that other variables not measured here, such as organisational support specifically (rather than general family/friend support) or tenure with the current organisation, play a more central moderating role for this population.

This study's principal limitations include its modest, convenience-sampled size, its use of shortened rather than full-length psychometric instruments, its cross-sectional design precluding causal inference, and the resulting inability to draw strong conclusions about the absence of the hypothesised effects versus insufficient power to detect them. Future research will employ the full-length validated instruments, targeting a larger sample (consistent with a priori power considerations for moderation designs), and consider organisation-specific support alongside general social support as an additional moderator.

In conclusion, while this study did not find support for its hypothesised relationships between remote work loneliness, job satisfaction, and perceived social support among Indian IT professionals, it contributes a rare India-specific empirical test of this model and highlights the need for adequately powered replication before firmer conclusions can be drawn about the psychosocial dynamics of remote work in this population.

G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30–41.

References

- [1] Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285.
- [2] Bryant, C., Sharma, N., & Watkins, E. (2024). A cross-sectional investigation on remote working, loneliness, workplace isolation, well-being and perceived social support in healthcare workers. *BJPsych Bulletin*.
- [3] Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300–314.
- [4] Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357.
- [5] Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524.
- [6] Kuriakose, V., Sreejesh, S., Wilson, P., & Anusree, M. R. (2019). The differential association of workplace conflicts on employee well-being: The moderating role of perceived social support at work. *International Journal of Conflict Management*, 30(5), 680–705.
- [7] Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1349). Rand McNally.
- [8] Okabe-Miyamoto, K., Durnell, E., Howell, R. T., & Zizi, M. (2021). Job stress and loneliness among desk workers during the COVID-19 pandemic in Japan: Focus on remote working. *Environmental Health and Preventive Medicine*.
- [9] Prasad, K. D. V., Vaidya, R., & Rani, R. (2023). Remote working and occupational stress: Effects on IT-enabled industry employees in Hyderabad Metro, India. *Frontiers in Psychology*, 14, 1069402.
- [10] Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology*, 13(6), 693–713.
- [11] Toscano, F., & Zappalà, S. (2021). Lonely@work@home? The impact of work/home demands and support on workplace loneliness during remote work. *Computers in Human Behavior*.
- [12] Wright, S. L., Burt, C. D. B., & Strongman, K. T. (2006). Loneliness in the workplace: Construct definition and scale development. *New Zealand Journal of Psychology*, 35(2), 59–68.
- [13] Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley,