

Interrelationships between Work Engagement, Job Burnout and Emotional Exhaustion among Employees

Anandhitha S¹ and Vandana V S^{2*}

¹Second Year BSc Psychology, Department of Psychology, Christ College (Autonomous) Irinjalakuda, Kerala, India

²Assistant Professor, Department of Psychology, Christ College (Autonomous) Irinjalakuda, Kerala, India

*Corresponding Author E-Mail ID: vandana@christcollegeijk.edu.in

Abstract

Currently, the demanding nature of the contemporary information technology (IT) sector places significant psychological strain on employees, making constructs such as work engagement (WE), job burnout (BU), and emotional exhaustion (EE) critical areas of occupational health research. While previous literature highlights the opposing nature of engagement and burnout, the precise interrelationships between these variables, along with the impact of demographic factors in modern IT settings, require continuous exploration. The aim of the present researcher is to explore the interrelationships between work engagement, burnout, and emotional exhaustion among IT employees, and also analyzing whether these well-being variables differ based on gender and daily working hours. We conducted a quantitative cross-sectional study using a convenient sample of 70 IT professionals. Data was collected via an online questionnaire utilizing standardized psychological tools: the Utrecht Work Engagement Scale (UWES), the Oldenburg Burnout Inventory (OLBI), and the Maslach Burnout Inventory – Emotional Exhaustion Subscale. Since the data was not normally distributed, non-parametric tests (Kruskal-Wallis and Spearman correlation) were applied. The findings demonstrated that there were no significant differences in work engagement, burnout, or emotional exhaustion based on gender or daily working hours. Nevertheless, correlation analyses showed major relationships among the core variables: WE was negatively associated with both emotional exhaustion and burnout, while burnout showed a significant positive association with emotional exhaustion. Notably, these results suggest that while demographic factors and hours worked may not dictate well-being levels, engagement acts as a crucial protective factor against emotional depletion, highlighting the necessity for organizations to actively foster work engagement to mitigate burnout.

Keywords: *Work engagement, Job burnout, Emotional exhaustion, IT professionals, psychological strain*

Introduction

The modern workplace, especially within the information technology (IT) sector, is characterized by rapid technological advancements, high performance expectations, and demanding work environments (Tarafdar et al., 2015; Ayyagari et al., 2011). Employees in this sector are often required to manage tight deadlines, prolonged screen time, and continuous cognitive engagement, making them especially vulnerable to psychological strain (Ragu-Nathan et al., 2008; Moore, 2000). In this context, understanding positive and negative aspects of employee well-being—such as work engagement, job burnout, and emotional exhaustion—has become crucial for both organizational effectiveness and individual mental health (Bakker & Demerouti, 2008).

Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by strength, dedication, and absorption (Schaufeli et al., 2002). Engaged employees tend to exhibit greater levels of energy, strong involvement in their work, and a sense of enthusiasm that contributes to enhanced performance and organizational commitment (Bakker & Albrecht, 2018). Conversely, job burnout shows a psychological syndrome that develops as an extended reaction to persistent social and work-related stressors (Maslach et al., 2001). It is typically characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment (Maslach & Jackson, 1981).

While considering all these dimensions, emotional exhaustion is found to be the core component of burnout and reflects feelings of being emotionally overextended and depleted of emotional resources (Maslach et al., 2001; Wright & Cropanzano, 1998). It is relevant in high-demand professions like IT, where continuous problem-solving, extended working hours, and pressure to meet performance targets can lead to significant mental fatigue (Shih et al., 2013; Tarafdar et al., 2015). Analyzing previous research exhibits that work engagement and burnout are negatively related, which indicates that burnout is experienced less likely by the employees who are more involved in their work. (Schaufeli & Bakker, 2004; Halbesleben, 2010). It has been found that emotional exhaustion tend to be positively correlated with burnout and negatively correlated with work engagement (Demerouti et al., 2001; Lee & Ashforth, 1996).

These relationships highlight the importance of examining these constructs together to better understand employee well-being comprehensively (Bakker & Demerouti, 2008).

Along with these psychological constructs, demographic and work-related elements such as gender and daily working hours has also been explored in relation to employee well-being, though findings remain inconsistent (Purvanova & Muros, 2010; Burke & Greenglass, 2001). Some studies report significant differences, while others suggest minimal or no impact, indicating the requirement for further empirical investigation (Maslach et al., 2001). However, the current study aims to examine the interrelationships between work engagement, job burnout, and emotional exhaustion among IT employees (Schaufeli & Bakker, 2004). Furthermore, it seeks to explore whether these critical well-being variables differ based on demographic factors, specifically gender and daily working hours, to provide a clearer picture of occupational health in the IT sector (Purvanova & Muros, 2010).

Review of literature

Work Engagement and Its Relationship with Burnout and Emotional Exhaustion The interrelationship between work engagement and burnout has been broadly investigated in organizational research. Studies consistently indicate that work engagement is negatively correlated with burnout, particularly emotional exhaustion. Employees who demonstrate greater engagement levels typically report lower levels of stress and fatigue, as engagement acts as a protective psychological resource (Schaufeli & Bakker, 2004). Conversely, low engagement is often linked to increased vulnerability to burnout and emotional strain. For instance, (Halbesleben 2010) employees with low engagement levels tend to experience exhaustion and disengagement from work roles.

Workplace factors play a significant role in shaping these interrelationships. High job demands, such as excessive workload and time pressure, increase the risk of emotional exhaustion, while job resources, including supervisor support, autonomy, and feedback, enhance work engagement and reduce burnout (Bakker & Demerouti, 2007). Employees exposed to continuous stress without adequate resources are more likely to experience emotional depletion and disengagement. The Job Demands–Resources (JD-R) Model provides a structured model for understanding the association between work engagement, burnout, and emotional exhaustion. Based on this model, excessive job demands contribute to stress and

exhaustion when they surpass an individual's ability to manage them. (Bakker & Demerouti, 2007). Emotional exhaustion emerges when job demands are high and resources are insufficient, whereas engagement evolves when employees have access to adequate support and opportunities for growth.

Emotional exhaustion, as a central component of burnout, has been strongly linked to negative psychological and organizational outcomes. Employees experiencing high levels of emotional exhaustion often report fatigue, irritability, decreased productivity and dedication to their organization (Maslach et al., 2001). Continuous exhaustion can also lead to mental health issues such as anxiety and depression.

The Role of Workplace Factors in Influencing Engagement, Burnout, and Emotional Exhaustion. Research indicates that workplace conditions considerably impact the balance between engagement and burnout among employees. Supportive organizational environments foster higher engagement and lower emotional exhaustion. For example, (Xanthopoulou et al. 2009) reported that personal and job resources increased engagement and decreased emotional strain. Among the factors influencing these variables, organizational support plays a major role in reducing emotional exhaustion. Employees who have higher levels of support from supervisors and colleagues are better able to cope with job demands and maintain involvement (Halbesleben, 2006). Additionally, autonomy and meaningful work have been correlated with increased engagement and reduced burnout (Bakker et al., 2014).

Overall, present literature emphasizes a strong interrelationship between work engagement, job burnout, and emotional exhaustion among employees. Work engagement acts as a defence against burnout, while emotional exhaustion serves as a major indicator of psychological strain. As these relationships are shaped by workplace conditions and individual resources, it is essential to examine how these variables are interconnected within different organizational contexts.

Relevance of the Study

This study is important in the field of occupational health psychology, especially in the fast-growing and demanding Information Technology (IT) sector. In today's workplaces, employees face intense workloads, technological pressure, constant performance expectations,

and long cognitive demands. These factors can adversely impact their mental well-being. The study is significant because it looks at both the positive and negative aspects of employee well-being at the same time. Understanding these concepts together help us better know how employees operate in organizational settings. The findings add to current literature by indicating that higher levels of work engagement may help protect against emotional exhaustion and burnout among IT employees. This research is also valuable for organizations. Employee burnout and emotional exhaustion can lead to lower productivity, absenteeism, low job satisfaction, reduced organizational commitment, and higher intentions to leave. By identifying the connections among these factors, organizations can create strategies based on evidence to improve employee well-being, boost engagement, and lower psychological strain. These results may help human resource professionals, organizational psychologists, and management teams design interventions such as employee support programs, stress management initiatives, flexible work policies, and practices that enhance engagement.

Additionally, the relevance of the present study is tied to the increasing concern about mental health in the workplace. As awareness of occupational stress and employee wellness increases, organizations are acknowledging the need for psychologically healthy work environments. This study presents meaningful insights into the psychological well being of IT professionals, who often deal with high levels of techno stress and work pressure. Understanding these experiences is vital for developing preventive mental health strategies and promoting sustainable work practices.

Another key aspect of the study is its investigation of demographic factors like gender and daily working hours. Although the findings show no significant differences based on these elements, this research contributes to the ongoing conversation about how demographic and work-related characteristics affect employee well-being. Academically, this study supports theoretical frameworks like the Job Demands–Resources (JD-R) Model and the Conservation of Resources (COR) Theory by highlighting empirical evidence for the relationship between work engagement, burnout, and emotional exhaustion. Overall, this study is highly relevant in today’s professional environment as it tackles important psychological issues that affect both employees and organizations.

Objectives

The main objective of this study is to conduct a comprehensive analysis of the interrelationships among work engagement, job burnout, and emotional exhaustion within the employee population, with a particular emphasis on IT workers.

This study further endeavors to explore the moderating influence of gender differences on these interrelationships.

Moreover, the main objective of the study is to evaluate the effect of the number of daily working hours on the dynamics between work engagement, job burnout, and emotional exhaustion.

Hypotheses

H1 : There will be no significant gender differences in work engagement, job burnout, and emotional exhaustion among employees.

H2 : There will be no significant differences in work engagement, job burnout, and emotional exhaustion based on daily working hours (less than 8 hours versus 8 to 9 hours).

H3 : there will be no significant relationship between work engagement and job burnout.

H4 : There will be no significant relationship between work engagement and emotional exhaustion.

H5 : There will be no significant relationship between job burnout and emotional exhaustion.

Methodology

The participants for this study consists of IT workers, a group selected because of the unique pressures and demands associated with the technology industry. IT professionals often face high levels of stress, tight deadlines, and the necessity to continuously update their skills, making them an ideal population for studying the interrelationships between work engagement, job burnout, and emotional exhaustion.

The study employed a convenience sampling technique. This indicates that respondents were chosen according to their accessibility and readiness to take part, rather than via randomized sampling techniques. Convenience sampling is often used in social sciences when time and resource constraints are present. While it may introduce some biases, it also provides a practical means of gathering data from a specific group of interest.

The demographic details of the participants will be vital for understanding the context of the findings. Respondents were requested to provide information regarding their age, sex, and length of service in the IT sector, and their typical daily working hours. A varied sample concerning age and gender is preferred to facilitate that the findings can be generalized to a broader population. In total, a sample size of 70 IT workers was targeted to ensure sufficient statistical power for the analyses.

Measurement Tools

The Oldenburg Burnout Inventory (OLBI) was used to measure burnout levels among participants. The OLBI consists of 16 items that assess two dimensions of burnout: exhaustion and disengagement. This tool is particularly relevant as it captures the subjective experience of burnout in relation to work context, making it suitable for this study's focus on IT workers. Respondents indicated their level of agreement with the statements using a four-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree). Higher scores suggest higher levels of burnout.

The Maslach Burnout Inventory (MBI) is another extensively recognized tool used to assess burnout. It consists of three scales that examine emotional exhaustion, depersonalization, and personal achievement. For this study, we mainly concentrate on the emotional exhaustion scale, as it directly relates to our investigation of emotional states among employees. The emotional exhaustion subscale includes statements such as "I feel emotionally drained from my work" and uses a similar Likert scale format.

To gauge work engagement, the Utrecht Work Engagement Scale (UWES) was employed. The UWES consists of 17 items that measure three dimensions of work engagement: vigor, dedication, and absorption. Participants provide their responses to each item such as "I am enthusiastic about my job" on a scale from 0 (never) to 6 (always), where higher scores suggest higher work engagement. This scale is particularly useful in the context of IT work, where engagement can be influenced by both individual and organizational factors.

Data Collection and Ethics

Data was collected using an online survey format to facilitate participation among IT workers who may have varying schedules and work environments. Google Forms was utilized

for creating and distributing the survey, as it is user-friendly and allows for easy data management. Before launching the survey, a consent form was included to inform participants about the need of the study, their rights as participants, and the measures taken to ensure confidentiality and anonymity. It is necessary for ethical considerations that participants are informed that their participation is voluntary, and they can back out from the study at any point without any negative consequences. The survey was distributed through various channels, including professional networking sites and social media groups related to IT professionals. To protect the confidentiality of participants, no personally identifiable information was collected. The data was coded, and responses were aggregated to ensure anonymity in the analysis. After the survey was closed, the data were examined for completeness and accuracy. Any incomplete responses were excluded from the analysis.

Statistical Analysis

The gathered data were statistically analyzed using the Statistical Package for the Social Sciences (SPSS), a commonly used software for statistical analysis in social science research. Considering the nature of the data and the hypothesis of the study, various statistical test were used to analyze the relationship among the variable. Spearman correlation coefficient: Non-parametric tests were utilized because of the ordinal nature of the data obtained through the survey instruments. Specifically, the Spearman correlation coefficient was calculated to analyze the strength and direction of the interrelationships between work engagement, job burnout, and emotional exhaustion. This method is appropriate when the data does not meet the assumptions of normality, which is often the case in psychological research.

Independent sample t-tests: Additionally, independent sample t-tests were conducted to compare the means of work engagement, burnout, and emotional exhaustion between male and female participants. This test is useful for identifying whether there are statistically relevant changes in these variables based on gender. It helps in understanding whether gender plays a role in the experience of burnout and engagement, which is one of the key areas of interest in this research.

Kruskal-Wallis test: Furthermore, the Kruskal-Wallis test was employed to analyze differences in work engagement and burnout based on daily working hours. This non-parametric method is suitable for comparing three or more independent groups and is

particularly useful when the assumptions for ANOVA are not met. It will allow us to determine if the number of working hours has a strong impact on the levels of engagement and burnout among IT workers.

Result

This section provides a detailed outline of the statistical analyses performed to analyze the interrelationships between work engagement, job burnout, and emotional exhaustion among employees. The analyses included descriptive statistics, non-parametric comparative tests, and correlation analysis to explore patterns and relationships among the variables. The major objective was to identify meaningful correlations and determine whether demographic factors such as gender and daily working hours influenced these psychological constructs.

To begin with, descriptive statistics were computed to understand the common characteristics of the sample and the distribution of the study variables. The research was carried out among 70 IT employees, representing a relatively young workforce with a mean age of 31 years ($SD = 5$). The participants reported varying daily working hours, ranging from less than 8 hours to extended work durations of up to 12 hours. These variations provided a basis for examining potential differences in work engagement, burnout, and emotional exhaustion across groups. Given that the data did not meet the assumptions of normality, the Kruskal–Wallis test, a non-parametric alternative to ANOVA, was employed to examine differences in mean scores across Gender- and daily working-hour based categories.

The analysis of gender differences highlighted that there were no statistically remarkable variations between male and female employees across the three key variables. Specifically, work engagement measures did not vary significantly between males (Mean = 37.62) and females (Mean = 34.51), $\chi^2 = 0.40$, $p = 0.52$. Similarly, burnout levels showed no significant gender-based differences, with males reporting a mean score of 32.87 and females 38.88, $\chi^2 = 1.51$, $p = 0.21$. Emotional exhaustion mirrored the same trend, displaying average scores of 34.97 among male participants and 36.95 among female participants, $\chi^2 = 1.63$, $p = 0.68$. These findings suggest that gender does not play a major role in influencing levels of engagement, burnout, or emotional exhaustion among IT employees in this sample.

Table 1: The mean comparison of variables based on gender

Variables	Gender	N	Mean	Kruskal Wallis test	Significance
Work Engagement	Male	34	37.62	0.40	0.52
	Female	37	34.51		
Burnout	Male	34	32.87	1.51	0.21
	Female	37	38.88		
Emotional Exhaustion	Male	34	34.97	1.63	0.68
	Female	37	36.95		

Further analysis was conducted to assess variations based on daily working hours. Participants were grouped into those working less than 8 hours and those working between 8 to 9 hours per day. The results shows no significant differences between these groups across all three variables. For work engagement, employees working less than 8 hours had a mean score of 36.95, compared to 35.57 for those working 8–9 hours, $\chi^2 = 0.06$, $p = 0.79$. Burnout levels were also comparable, with mean scores of 34.93 and 36.48 respectively, $\chi^2 = 0.08$, $p = 0.76$. Similarly, emotional exhaustion showed no significant variation between the two groups (Mean = 36.68 for <8 hours and 35.69 for 8–9 hours), $\chi^2 = 0.03$, $p = 0.85$. These results indicate that moderate variations in daily working hours do not meaningfully influence employee well-being in terms of engagement, burnout, or emotional exhaustion.

Table 2: The mean comparison of variables based on daily working hours

Variables	Daily working hours	N	Mean	Kruskal Wallis Test	Significance
Work Engagement	Less than 8 hours	34	36.95	0.06	0.79
	8 to 9 hours	37	35.57		
Burnout	Less than 8 hours	34	34.93	0.38	0.76
	8 to 9 hours	37	36.48		
Emotional Exhaustion	Less than 8 hours	34	6.68	0.03	0.85
	8 to 9 hours	37	35.69		

To further investigate the relationships among the core variables, Spearman's rank-order correlation was conducted. This method was chosen due to the non-normal data distribution and its suitability for assessing monotonic relationships between variables.

The correlation analysis revealed a notable negative relationship between work engagement and emotional exhaustion ($r = -0.31$, $p < 0.01$). This shows that employees who experience greater levels of engagement tend to report decreased levels of emotional exhaustion.

On the contrary, the interrelationship between work engagement and burnout was found to be negative but weak and statistically non-significant ($r = -0.15$). While the direction of the interrelationship aligns with theoretical expectations, the nonexistent statistical significance suggests that engagement may not directly influence burnout levels in a strong or consistent manner within this sample.

A key result revealed by this study is the notable positive correlation between burnout and emotional exhaustion ($r = 0.41$, $p < 0.01$). This indicates that greater levels of burnout are linked with increased emotional exhaustion among employees. This result reinforces the understanding of emotional exhaustion as a major element of burnout and highlights the close relationship between these constructs.

Table: 3: Spearman correlation of variables

Variables	Work Engagement	Burnout	Emotional Exhaustion
Work Engagement	1	-0.15	-0.31**
Burnout		1	0.41**
Emotional Exhaustion			1

**Significant at 0.01 level (Two tailed)

Overall, the results suggest the statistical findings provide meaningful understandings into the interrelationships among work engagement, burnout, and emotional exhaustion. While demographic factors such as gender and daily working hours did not show significant effects, the relationships among the core psychological variables were consistent with existing theoretical frameworks. Specifically, work engagement appears to play a protective role in

reducing emotional exhaustion, whereas burnout is strongly linked with greater emotional depletion.

Discussion

This research focused on examining the interrelationships between work engagement, job burnout, and emotional exhaustion among employees in the IT sector, while also examining the influence of demographic factors such as gender and daily working hours. One of the key findings of this study is the nonexistence of significant differences in work engagement, burnout, and emotional exhaustion based on gender. This shows that both male and female employees experience consistent levels of psychological engagement and strain within the IT work environment. This result is consistent with earlier research findings that have reported minimal gender differences in occupational stress and engagement, particularly in sectors where job roles and expectations are relatively uniform. Thus, organizational interventions aimed at improving employee well-being may not be required to be gender-specific but rather universally applicable.

Similarly, the study did not find major differences in work engagement, burnout, or emotional exhaustion based on daily working hours. It is widely believed that extended working hours lead to increased burnout and emotional exhaustion, the findings of this study do not support this assumption within the selected sample. One possible explanation is that employees may have adjusted to their work routines or developed coping mechanisms that minimize the impact of extended working hours. In addition, factors such as job independence, work flexibility, and organizational support might play a more critical role than the number of hours worked.

The correlation analysis provides meaningful insights into the relationships among the core variables. A significant negative relationship was found between work engagement and emotional exhaustion, showing that employees who are more involved in their work tend to experience decreased levels of emotional exhaustion. This finding supports the conceptual framework of the Job Demands–Resources (JD-R) model, which posits that engagement acts as a motivational process that can buffer against the negative effects of job demands. Engaged employees mostly experience a sense of purpose, enthusiasm, and energy, which helps them cope more effectively with work-related stress and reduces the likelihood of emotional depletion.

In contrast, the interrelationship between work engagement and burnout, although negative, it was not statistically significant. This implies that engagement and burnout are conceptually contrasting constructs however, they may not always exhibit a strong direct relationship in empirical settings. The weak association observed in this study shows that reducing burnout may require more targeted interventions rather than solely focusing on increasing engagement.

Another important finding is the significant positive relationship between burnout and emotional exhaustion. This result reinforces the well-established understanding that emotional exhaustion is a central component of burnout. Employees who experience high levels of burnout are more likely to feel emotionally drained, fatigued, and unable to cope with work demands. This finding is consistent with existing literature and emphasizes the need for organizations to address burnout as a critical factor influencing employee mental health.

These findings underscore the complex dynamics between positive (engagement) and negative (burnout, emotional exhaustion) aspects of employee well-being, which appear consistent regardless of gender or working hours. Practically, organizations should prioritize fostering encouraging work environments that enhance job resources, promote work-life balance, and provide mental health support to reduce burnout and emotional exhaustion.

Limitations

A major limitation of the present study is the relatively small sample size ($N = 70$). A larger and more diverse sample would allow for more reliable estimates and stronger conclusions.

Another important limitation is the application of a cross-sectional research design. Since data were collected at a single point in time, it is not possible to establish causal relationships between the variables. Longitudinal studies would be more appropriate to analyze how these variables influence each other over time. The study additionally depends on self-reported measures, which may lead to response biases such as social desirability bias, recall bias, or personal interpretation of the questions.

The non-normal distribution of data also posed a methodological limitation, requiring the use of non-parametric statistical tests such as the Kruskal–Wallis test and Spearman correlation. While these methods are appropriate under such circumstances, they are typically less powerful than parametric alternatives

Further studies should seek to address these constraints by employing larger and more diverse samples, longitudinal designs, and a broader range of variables to gain a more comprehensive understanding of the interrelationships among work engagement, burnout, and emotional exhaustion.

Conclusion

The study titled “Interrelationships between work engagement, job burnout, and emotional exhaustion among employees” concludes that there are no substantial differences in work engagement, burnout, or emotional exhaustion based on gender or daily working hours within the IT sector. The negative correlations observed between work engagement and both burnout and emotional exhaustion, along with the positive relationship between burnout and emotional exhaustion, align with established theoretical frameworks and prior empirical findings.

These results underscore the conceptual distinction yet interconnections of work engagement and burnout, particularly emotional exhaustion which is a component of burnout. The findings support the broaden-and-build theory, which indicates that positive emotions related to work engagement build personal resources protecting against burnout, and the Conservation of Resources theory, which explains how resource depletion through burnout diminishes engagement.

Given the cross-sectional characteristics of the data, the lack of significant predictive relationships signifies the importance of longitudinal research to capture the temporal dynamics and reciprocal influences between these constructs. Future studies should adopt longer time lags and explore regulating factors such as organizational support and job demands to deepen understanding.

Overall, this study provides valuable cross-sectional insights on the nuanced and temporally sensitive interrelationships among work engagement, job burnout, and emotional exhaustion in the IT sector, informing organizational strategies aimed at enhancing employee well-being by balancing engagement and burnout prevention.

References

- Ayyagari, R., Grover, V., & Purvis, R. (2011). *Technostress: Technological antecedents and implications*. *MIS Quarterly*, 35(4), 831–858.
- Bakker, A. B., & Albrecht, S. (2018). *Work engagement: Current trends*. *Career Development International*, 23(1), 4–11
- Bakker, A. B., & Demerouti, E. (2007). *The Job Demands–Resources model: State of the art*. *Journal of Managerial Psychology*, 22(3), 309–328.
- Bakker, A. B., & Demerouti, E. (2008). *Towards a model of work engagement*. *Career Development International*, 13(3), 209–223.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). *Burnout and work engagement: The JD–R approach*. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 389–411.
- Burke, R. J., & Greenglass, E. R. (2001). *Hospital restructuring, work-family conflict and psychological burnout among nursing staff*. *Psychology, Health & Medicine*, 6(2), 169–178
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). *The job demands–resources model of burnout*. *Journal of Applied Psychology*, 86(3), 499–512.
- Halbesleben, J. R. B. (2006). *Sources of social support and burnout: A meta-analytic test of the conservation of resources model*. *Journal of Applied Psychology*, 91(5), 1134–1145.
- Halbesleben, J. R. B. (2010). *A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences*. *Journal of Applied Psychology*, 95(3), 492–516.
- Hobfoll, S. E. (1989). *Conservation of resources: A new attempt at conceptualizing stress*. *American Psychologist*, 44(3), 513–524.
- Lee, R. T., & Ashforth, B. E. (1996). *A meta-analytic examination of the correlates of the three dimensions of job burnout*. *Journal of Applied Psychology*, 81(2), 123–133.
- Maslach, C., & Jackson, S. E. (1981). *The measurement of experienced burnout*. *Journal of Occupational Behavior*, 2(2), 99–113.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.

Moore, J. E. (2000). One road to turnover: An examination of work exhaustion in technology professionals. *MIS Quarterly*, 24(1), 141–168.

Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, 77(2), 168–185.

Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations. *Information Systems Research*, 19(4), 417–433.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92.

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands–Resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.),

Bridging occupational, organizational and public health (pp. 43–68). Springer.

Shih, S. P., Jiang, J. J., Klein, G., & Wang, E. (2013). Learning demand and job burnout: The moderating effect of perceived organizational support. *Information & Management*, 50(7), 482–489.

Tarafdar, M., Cooper, C. L., & Stich, J. F. (2015). The technostress trifecta—Techno eustress, techno distress and design. *Information Systems Journal*, 25(4), 375–401.

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83(3), 486–493.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82(1), 183–200.