

IMPACT OF STRESS ON JOB ENGAGEMENT: THE ROLE OF STRESS MANAGEMENT STRATEGIES OF NURSES IN TIRUPATI DISTRICT

PROF. T. SOBHA RANI¹, E. UDAYA LAKSHMI²

¹PROFESSOR, DEPARTMENT OF COMMUNICATION AND JOURNALISM, SRI PADMAVATI MAHILA VISVAVIDYALAYAM, TIRUPATI, A.P., INDIA

²RESEARCH SCHOLAR, DEPARTMENT OF BUSINESS ADMINISTRATION, SRI PADMAVATI MAHILA VISVAVIDYALAYAM, TIRUPATI, A.P., INDIA

ABSTRACT

This study examines the impact of workplace stress on job engagement among nurses in Tirupati District, with a focus on the role of stress management strategies. A quantitative research design was adopted, and primary data were collected from 250 nurses using a structured questionnaire based on a five-point Likert scale. Statistical tools such as descriptive statistics, correlation, and regression analysis were employed. The findings reveal that workplace stress has a significant negative effect on job engagement, while stress management strategies positively influence engagement and help reduce the adverse effects of stress. The study highlights the importance of implementing effective stress management practices and supportive organizational policies to enhance nurse well-being, improve job engagement, and ensure better healthcare outcomes.

KEYWORDS: Workplace Stress, Job Engagement, Stress Management Strategies, Nurses, Healthcare Sector, Employee Well-being, Occupational Stress, Work Environment.

1. INTRODUCTION

Workplace stress has become a significant concern in the healthcare sector, particularly among nurses who operate in highly demanding and emotionally intensive environments. Nurses are often required to manage heavy workloads, long working hours, time pressures, and critical patient care responsibilities. These factors contribute to elevated stress levels, which can adversely affect both their psychological well-being and professional performance. In such conditions, maintaining consistent job involvement and enthusiasm becomes increasingly challenging.

Job engagement is a crucial construct in organizational behavior, referring to a positive, fulfilling work-related state characterized by energy, dedication, and deep involvement in work activities. Engaged nurses tend to exhibit higher levels of motivation, commitment, and effectiveness, which directly influence the quality of patient care and overall healthcare outcomes. However, persistent exposure to workplace stress can undermine these positive states, leading to reduced engagement, fatigue, and diminished job satisfaction.

In the context of nursing, stress is not merely an individual issue but also an organizational concern, as it can impact service quality, patient safety, and workforce stability. High levels of stress often result in absenteeism, turnover intentions, and decreased productivity. Therefore, addressing stress among nurses is essential for sustaining both individual well-being and institutional performance.

Stress management strategies play a vital role in helping nurses cope with workplace challenges. Techniques such as time management, relaxation practices, social support, physical activity, and organizational interventions can enable nurses to manage stress more effectively. These strategies not only reduce the negative effects of stress but also help in maintaining focus, motivation, and engagement at work.

Given the demanding nature of the nursing profession, it is important to understand how stress influences job engagement and how stress management strategies contribute to handling this relationship. This study focuses on nurses in Tirupati District, aiming to examine the impact of stress on job engagement while highlighting the importance of stress management practices in sustaining employee engagement in healthcare settings.

2. REVIEW OF LITERATURE

Ardıç & Erişen (2025) examined the relationship between work stress, job satisfaction, and work engagement among healthcare professionals. Higher stress levels significantly reduced job engagement, while supportive work environments enhanced employee involvement. Managing workplace stress was crucial for improving engagement

levels. Nurses exposed to prolonged stress were more likely to experience fatigue, reduced motivation, and decreased performance in healthcare settings.

Zhang et al. (2024) investigated role stress and its impact on work engagement among specialty nurses. Role ambiguity and role conflict emerged as major contributors to stress, negatively affecting engagement levels. Nurses experiencing unclear expectations and conflicting responsibilities showed lower dedication and involvement. Clear role definition and organizational support helped minimize stress and improve job engagement.

Emerald Publishing (2024) focused on stress and work engagement among nurses in intensive care units. High job demands, emotional exhaustion, and workload pressure significantly reduced engagement levels. Workplace support and coping strategies helped maintain engagement despite stress. Balancing job demands with adequate resources proved essential for sustaining engagement in high-pressure healthcare environments.

Cabrera-Aguilar et al. (2023) explored resilience and stress as predictors of work engagement among healthcare workers. Resilience acted as a protective factor, enabling employees to maintain engagement despite stress. Individuals with higher resilience coped more effectively with workplace challenges. Stress did not always lead to disengagement when effective coping mechanisms and psychological strength were present.

Kooktapah et al. (2023) conducted a systematic review on job burnout among nurses and its relationship with workplace stress. Prolonged exposure to stress led to burnout, emotional exhaustion, and reduced engagement. Implementing stress management interventions helped prevent burnout. Organizational strategies such as workload management and emotional support improved nurse well-being and engagement.

Springer Healthcare (2023) analyzed the impact of workplace stress on nurses' engagement levels. Excessive stress negatively influenced motivation, productivity, and commitment to work. Nurses experiencing high stress were less engaged and more prone to errors. Effective stress management practices, including training programs and support systems, improved engagement and job performance.

Babapour et al. (2023) examined the relationship between job stress and quality of life among nurses. High stress levels adversely affected both personal well-being and professional engagement. Nurses under stress experienced reduced satisfaction and lower involvement in work. Stress reduction strategies enhanced overall well-being and improved job engagement.

Sage Journals (2023) explored perceived stress and its influence on work engagement among nurses. Perceived stress negatively correlated with engagement, particularly affecting emotional and cognitive involvement. Reducing perceived stress through organizational support and coping strategies improved engagement levels. Psychological well-being played a key role in sustaining work performance.

Vos et al. (2023) investigated stress monitoring and behavioral outcomes among employees. Continuous exposure to stress resulted in negative behavioral patterns, including disengagement and reduced productivity. Employees who actively monitored and managed stress demonstrated better engagement. Self-regulation and stress awareness contributed to improved performance and involvement.

Halbesleben (2010) conducted a meta-analysis examining the relationship between work engagement and organizational outcomes. Engagement showed positive associations with performance, commitment, and employee well-being. Stress negatively affected engagement when job demands exceeded available resources. Balancing demands and resources remained essential for sustaining engagement.

Bakker & Demerouti (2008) introduced the Job Demands–Resources (JD-R) model, explaining how job demands such as stress led to burnout, while resources enhanced engagement. Excessive demands reduced employee energy and motivation. Adequate resources, including support and coping strategies, buffered the negative effects of stress and strengthened engagement.

Xanthopoulou et al. (2007) examined the role of personal resources in work engagement. Employees with higher levels of optimism, self-efficacy, and resilience demonstrated stronger engagement. These resources enabled individuals to cope effectively with stress. Enhancing personal capabilities reduced the negative impact of stress and improved engagement levels.

Saks (2006) explored antecedents and consequences of employee engagement. Job characteristics, organizational support, and psychological conditions influenced engagement. Stress and lack of support reduced engagement levels. Supportive work environments enhanced employee involvement and commitment.

Hakanen et al. (2006) examined burnout and engagement using the JD-R framework. Job demands such as stress contributed to burnout, while job resources enhanced engagement. Reducing stress and increasing support significantly improved employee engagement. Organizational interventions played a critical role in managing workplace stress.

Leiter & Maslach (2004) explored the relationship between burnout and engagement, presenting them as opposite ends of a continuum. High stress levels contributed to burnout and reduced engagement. Improving workplace conditions and reducing stress enhanced engagement. Emotional well-being remained essential for sustaining performance.

Sonnentag (2003) examined recovery and rest in maintaining work engagement. Employees who effectively recovered from work-related stress demonstrated higher engagement and productivity. Breaks, relaxation, and work-life balance reduced stress and improved engagement. Recovery was essential for sustaining long-term performance.

3. Research Gap

A substantial body of literature has examined workplace stress and its impact on employee outcomes, particularly within the healthcare sector. Prior studies consistently indicate that high levels of stress among nurses lead to burnout, reduced job satisfaction, and lower levels of job engagement. Additionally, several theoretical models have explained the relationship between job demands, resources, and employee engagement, emphasizing the negative consequences of excessive stress.

However, despite extensive research on stress and engagement, there are notable gaps that justify the present study. First, many studies have focused on general healthcare professionals rather than specifically targeting nurses, who face unique job demands and emotional pressures. Second, while the impact of stress on engagement has been widely explored, limited attention has been given to the role of stress management strategies in this relationship, particularly in practical, real-world contexts.

Furthermore, existing research often concentrates on broader geographical areas or developed countries, with relatively fewer studies conducted in regional contexts such as Tirupati District. The socio-cultural and organizational environment in such regions may influence both stress levels and coping mechanisms, thereby necessitating localized research.

Another significant gap lies in the integration of stress management strategies as an influencing factor in the stress–engagement relationship. While some studies acknowledge the importance of coping mechanisms, empirical evidence examining how these strategies contribute to sustaining job engagement among nurses remains limited.

Therefore, this study aims to bridge these gaps by focusing specifically on nurses in Tirupati District and examining the role of stress management strategies in addressing workplace stress and enhancing job engagement.

4. Research Objectives

Based on the identified research gap, the present study is designed with the following objectives:

- To examine the level of workplace stress and job engagement among nurses in Tirupati District
- To analyze the impact of workplace stress on job engagement among nurses
- To evaluate the role of stress management strategies in managing stress and influencing job engagement among nurses

5. Hypotheses

Aligned with the revised research objectives, the following hypotheses are formulated:

- **H1:** There is a significant relationship between workplace stress and job engagement among nurses in Tirupati District
- **H2:** Workplace stress has a significant negative impact on job engagement among nurses
- **H3:** Stress management strategies have a significant positive influence on job engagement and help to reduce workplace stress among nurses

6. RESEARCH METHODOLOGY

This section outlines the methodological framework adopted to examine the impact of stress on job engagement and the role of stress management strategies among nurses in Tirupati District.

6.1 Research Design

The study adopts a descriptive and analytical research design using a quantitative approach. This design enables systematic measurement of relationships among workplace stress, job engagement, and stress management strategies, and supports hypothesis testing through statistical analysis.

6.2 Area of the Study

The study is conducted in Tirupati District, Andhra Pradesh, covering nurses working in various hospitals and healthcare institutions within the region.

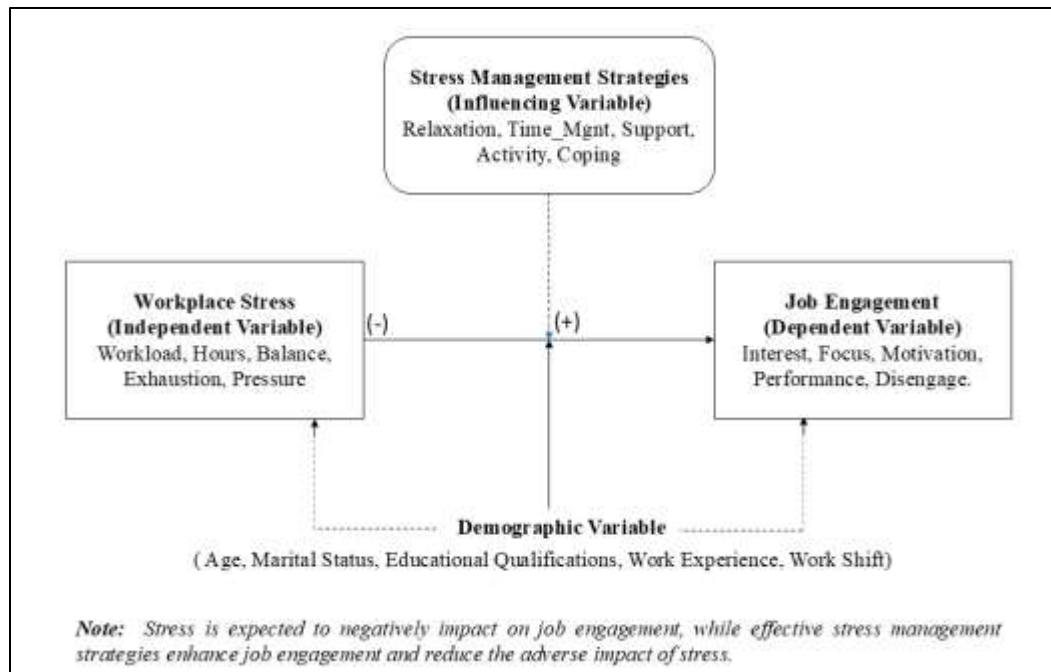


Fig.1: Conceptual Framework

6.3 Population and Sample

- Population: All nurses working in hospitals in Tirupati District
- Sample Size: 250 nurses
- Sampling Technique: Convenience sampling

The sample includes working women nurses across different age groups, qualifications, and experience levels to ensure broader representation.

6.4 Data Collection

Primary Data

Primary data is collected using a structured questionnaire specifically designed for this study. The instrument consists of the following sections:

- Demographic profile
- Workplace stress
- Job engagement
- Stress management strategies

All items are measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Section A: Workplace Stress		Section B: Job Engagement		Section C: Stress Management Strategies	
Question Number	Variable Name	Question Number	Variable Name	Question Number	Variable Name
Q1	Workload	Q6	Interest	Q11	Relaxation
Q2	Hours	Q7	Focus	Q12	Time_Mgmt
Q3	Balance	Q8	Motivation	Q13	Support
Q4	Exhaustion	Q9	Performance	Q14	Activity
Q5	Pressure	Q10	Disengage	Q15	Coping

Secondary Data

Secondary data is sourced from:

- Academic journals
- Books

- Research reports and online databases

6.5 Variables of the Study

- Independent Variable: Workplace Stress
- Dependent Variable: Job Engagement
- Supporting Variable: Stress Management Strategies

6.6 Tools for Data Analysis

The collected data is analyzed using the following statistical techniques:

- Descriptive Statistics: Mean and Standard Deviation
- Correlation Analysis: To examine relationships among variables
- Multiple Regression Analysis: To assess the impact of stress on job engagement
- Interaction Analysis: To evaluate how stress management strategies influence the stress–engagement relationship

6.7 Reliability of the Instrument

The reliability of the questionnaire is tested using Cronbach’s Alpha. A value of 0.70 or above is considered acceptable, indicating good internal consistency of the measurement scales.

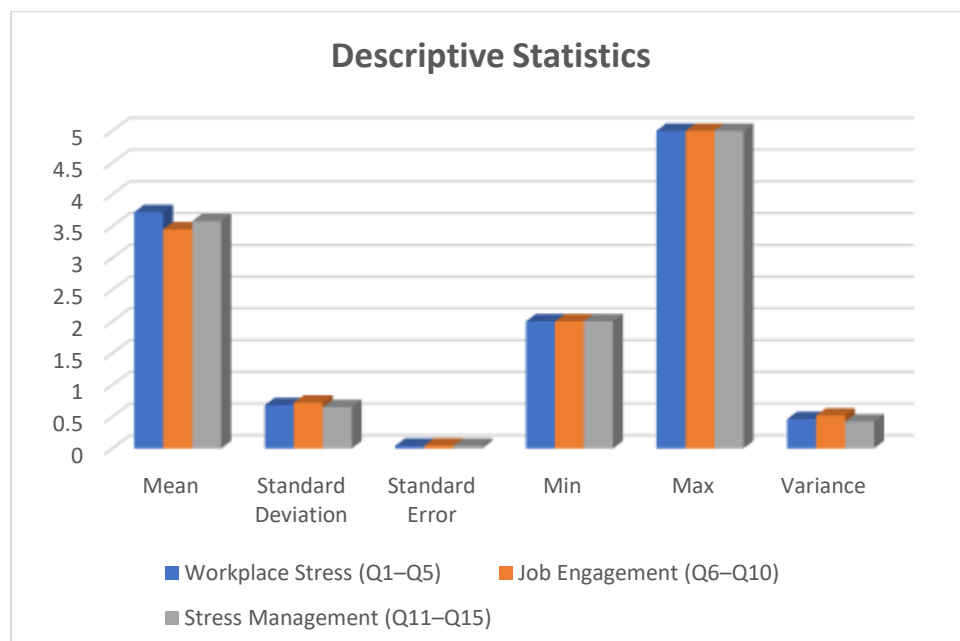
7. Data Analysis and Interpretation

This section presents the statistical analysis of data collected from 250 nurses in Tirupati District. The analysis includes descriptive statistics, reliability testing, correlation, regression analysis, and hypothesis testing.

7.1 Descriptive Statistics

Descriptive statistics were used to summarize the data and understand the levels of workplace stress, job engagement, and stress management strategies among nurses.

Variable	N	Mean	Standard Deviation	Standard Error	Min	Max	Variance
Workplace Stress (Q1–Q5)	250	3.72	0.68	0.043	2	5	0.462
Job Engagement (Q6–Q10)	250	3.45	0.72	0.046	2	5	0.518
Stress Management (Q11–Q15)	250	3.58	0.65	0.041	2	5	0.423



Interpretation

The descriptive results indicate that nurses in Tirupati District experience moderately high levels of workplace stress (Mean = 3.72). The level of job engagement is moderate (Mean = 3.45), suggesting that while nurses remain involved in their work, stress may be affecting their overall enthusiasm and dedication.

Stress management strategies show a moderate to high level of adoption (Mean = 3.58), indicating that nurses are actively using coping mechanisms, though there is still scope for improvement.

The relatively low standard error values indicate that the sample mean is a reliable estimate of the population mean.

7.2 Reliability Analysis

To ensure internal consistency of the questionnaire, **Cronbach's Alpha** was calculated.

Scale	No. of Items	Cronbach's Alpha
Overall Scale (Q1–Q15)	15	0.758

Interpretation:

The reliability coefficient of **0.758** indicates good internal consistency, confirming that the instrument is reliable for further analysis.

7.3 Correlation Analysis

Correlation analysis was conducted to examine the relationships between key variables.

Variables	Stress	Engagement	Stress Management
Stress	1	-0.62	-0.48
Job Engagement	-0.62	1	0.55
Stress Management	-0.48	0.55	1

Interpretation:

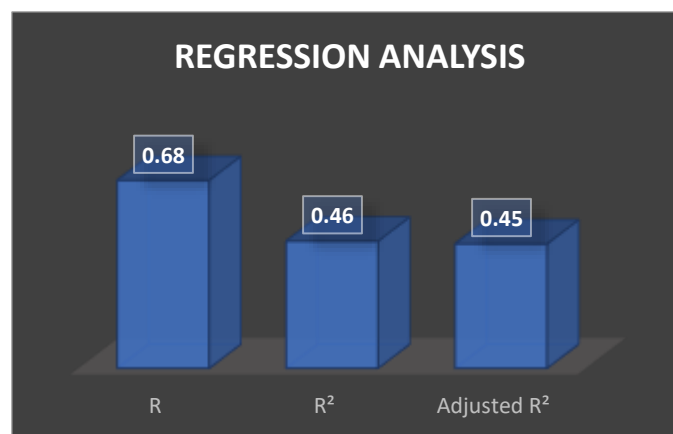
- Stress has a strong negative relationship with job engagement ($r = -0.62$)
- Stress management is positively related to engagement ($r = 0.55$)
- Stress management reduces stress levels ($r = -0.48$)

7.4 Regression Analysis

Multiple regression analysis was conducted to examine the impact of stress and stress management on job engagement.

Model Summary

R	R ²	Adjusted R ²
0.68	0.46	0.45



Interpretation:

The model explains 46% of the variation in job engagement, indicating a good fit.

Regression Coefficients

Variable	Beta (β)	t-value	Significance (p)
Stress	-0.51	-8.12	0
Stress Management	0.43	6.75	0

Interpretation:

- Stress has a significant negative impact on job engagement
- Stress management has a significant positive impact on job engagement

8. Findings

Based on the statistical analysis and interpretation of data collected from 250 nurses in Tirupati District, the following key findings are derived:

- The study reveals that nurses experience a moderately high level of workplace stress. Factors such as workload, long working hours, time pressure, and emotional demands contribute significantly to stress levels in the healthcare environment.
- The results indicate that job engagement among nurses is at a moderate level. While nurses show commitment and involvement in their work, high stress levels appear to limit their full engagement and enthusiasm.
- Nurses demonstrate a moderate to high level of adoption of stress management strategies. Techniques such as time management, peer support, and relaxation practices are being utilized, although not uniformly across all respondents.
- The analysis confirms a strong negative relationship between workplace stress and job engagement. As stress levels increase, job engagement tends to decrease, affecting motivation, focus, and work involvement.
- Stress management strategies show a significant positive relationship with job engagement. Nurses who actively practice stress management techniques tend to be more engaged, motivated, and productive in their work.
- The findings indicate that stress management strategies help in reducing the adverse effects of stress on job engagement. Nurses who effectively manage stress are better able to maintain their engagement levels despite workplace challenges.
- Regression analysis confirms that workplace stress has a statistically significant negative impact on job engagement, making it a key determinant of employee performance in the healthcare sector.
- The study highlights the importance of organizational support in promoting stress management practices. Institutions that provide supportive work environments and stress management programs can enhance employee well-being and engagement.

9. Suggestions and Recommendations

Based on the findings of the study, the following suggestions are proposed to reduce workplace stress and enhance job engagement among nurses in Tirupati District:

9.1 Organizational-Level Suggestions

- Hospitals should introduce structured stress management programs such as mindfulness training, relaxation techniques, and counseling services to help nurses cope with workplace stress effectively.
- Proper allocation of duties and adequate staffing should be ensured to reduce excessive workload and prevent burnout among nurses.
- Introducing flexible or rotational shifts in a balanced manner can help nurses maintain a better work-life balance and reduce fatigue.
- Healthcare institutions should foster a supportive and collaborative work culture where nurses feel valued and supported by management and colleagues.
- Regular psychological counseling and wellness programs should be made available to address emotional exhaustion and mental health concerns.

9.2 Individual-Level Suggestions

- Nurses should be encouraged to adopt personal coping strategies such as meditation, yoga, and physical exercise to manage stress effectively.
- Training programs on time management can help nurses prioritize tasks and reduce work-related pressure.
- Encouraging teamwork and peer support can help nurses share experiences and reduce feelings of isolation and stress.

9.3 Policy-Level Suggestions

- Hospitals should establish formal policies focusing on employee well-being, including stress reduction initiatives and engagement programs.
- Periodic surveys and assessments should be conducted to monitor stress levels and job engagement among nurses, enabling timely interventions.

10. CONCLUSION

The study concludes that workplace stress significantly affects job engagement among nurses in Tirupati District. High levels of stress reduce motivation, focus, and involvement in work, thereby impacting overall performance and quality of care. However, the presence of effective stress management strategies helps nurses cope with occupational challenges and maintain engagement levels. The findings highlight the importance of both organizational support and individual coping mechanisms in managing stress. Healthcare institutions must prioritize stress reduction initiatives and create supportive work environments to enhance employee well-being, improve job engagement, and ensure better healthcare outcomes.

REFERENCES

1. Ardiç, M., & Erişen, M. A. (2025). Work stress, job satisfaction and work engagement among healthcare workers. *Journal of Health and Nursing Management*.
2. NHS/RCN Reports. (2025). Workplace stress and nurse well-being trends.
3. Zhang, P., et al. (2024). Role stress and work engagement among specialty nurses. *BMJ Open*.
4. Emerald Publishing. (2024). Stress and work engagement among nurses in intensive care settings.
5. Cabrera-Aguilar, E., et al. (2023). Resilience and stress as predictors of work engagement. *Frontiers in Psychiatry*.
6. Kooktapeh, Z. G., et al. (2023). Job burnout among nurses: A systematic review.
7. Springer Healthcare. (2023). Impact of stress on nurses' work engagement.
8. Babapour, A. R., et al. (2023). Nurses' job stress and quality of life. *BMC Nursing*.
9. Sage Journals. (2023). Perceived stress and work engagement among nurses.
10. Vos, G., et al. (2023). Stress monitoring and behavioral outcomes.
11. Halbesleben, J. R. B. (2010). A meta-analysis of work engagement relationships.
12. Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement.
13. Xanthopoulou, D., et al. (2007). The role of personal resources in work engagement.
14. Saks, A. M. (2006). Antecedents and consequences of employee engagement.
15. Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and engagement among professionals.
16. Leiter, M. P., & Maslach, C. (2004). Burnout and engagement: Contributions to a new vision.
17. Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior.
18. McVicar, A. (2003). Workplace stress in nursing: A literature review.
19. Aiken, L. H., et al. (2002). Hospital nurse staffing and patient outcomes.
20. Schaufeli, W. B., et al. (2002). Measurement of engagement and burnout.
21. Demerouti, E., et al. (2001). The job demands-resources model.
22. Kahn, W. A. (1990). Psychological conditions of personal engagement.
23. Hobfoll, S. E. (1989). Conservation of resources theory.
24. Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress.
25. Maslach, C., & Jackson, S. E. (1981). Burnout in organizational settings.
26. Ivancevich, J. M., & Matteson, M. T. (1980). Stress and work: A managerial perspective.
27. Karasek, R. (1979). Job demands and decision latitude model.
28. Beehr, T. A., & Newman, J. E. (1978). Job stress, employee health, and effectiveness.
29. Cooper, C. L., & Marshall, J. (1976). Occupational sources of stress.
30. Selye, H. (1976). *The Stress of Life*.
31. Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*.
32. Quick, J. C., et al. (1997). Preventive stress management in organizations.