

Exploring the Relationship Between Workplace Stress and Job Satisfaction Among Long-Term Care Nurses

Penelope Ruiz, Ivy Coleman, Beau Holland

1 Introduction

The nursing profession in long-term care facilities represents a critical component of healthcare delivery, characterized by unique challenges that distinguish it from other healthcare settings. Long-term care nurses provide continuous care for elderly and chronically ill patients, often developing deep relationships with residents over extended periods. This sustained engagement, while professionally rewarding, creates distinctive stressors that differ from those experienced in acute care environments. The existing literature on nursing stress has predominantly focused on hospital settings, creating a significant gap in understanding the specific dynamics within long-term care facilities. This study addresses this gap through an innovative methodological approach that captures the multidimensional nature of stress and satisfaction in this specialized context.

Workplace stress among healthcare professionals has been extensively documented, with numerous studies highlighting the consequences of burnout, turnover, and diminished quality of care. However, the relationship between stress and job satisfaction presents a more complex picture than previously acknowledged. Traditional models often presuppose an inverse linear relationship, where increased stress invariably leads to decreased satisfaction. Our research challenges this oversimplification by proposing a more nuanced understanding that accounts for the potential positive aspects of certain stress types and the moderating role of

professional meaning-making. The long-term care environment provides an ideal context for examining these complexities, given the extended patient relationships and the particular emotional demands of caring for individuals with progressive chronic conditions.

This investigation was guided by three primary research questions that have received limited attention in existing literature. First, how do different types of workplace stress—including emotional, organizational, and patient-related stressors—differentially impact job satisfaction among long-term care nurses? Second, what individual and organizational factors moderate the relationship between stress experiences and satisfaction outcomes? Third, to what extent do physiological stress markers align with self-reported stress measures in predicting job satisfaction? These questions required an innovative methodological approach that could capture the dynamic and multifaceted nature of stress experiences in real-world settings.

The theoretical framework for this study integrates concepts from conservation of resources theory, job demands-resources model, and allostatic load theory. This integrative perspective allows for examination of both the psychological and physiological dimensions of stress, while accounting for the resource dynamics that influence how nurses appraise and respond to workplace demands. By situating our investigation within this comprehensive framework, we move beyond simplistic stress-satisfaction correlations to explore the underlying mechanisms and contextual factors that shape these relationships in long-term care nursing.

2 Methodology

2.1 Research Design

This study employed a longitudinal mixed-methods design to capture the dynamic relationship between workplace stress and job satisfaction over time. The 18-month investigation incorporated multiple data collection points to track changes in stress levels, satisfaction measures, and potential moderating variables. The design was particularly innovative in

its integration of ecological momentary assessment, which allowed for real-time capture of stress experiences as they occurred in the workplace environment. This approach addressed limitations of retrospective reporting that can be influenced by memory biases and general tendencies.

Participants were recruited from 12 long-term care facilities representing diverse organizational structures, including nonprofit, for-profit, and government-operated facilities. The facilities varied in size from 80 to 240 beds, ensuring representation across different care environments. Inclusion criteria required participants to be registered nurses with at least one year of experience in long-term care, working a minimum of 30 hours per week in direct patient care roles. The final sample consisted of 245 nurses, with retention rates of 89

2.2 Data Collection Procedures

Data collection occurred through three primary modalities administered at different intervals. The first modality involved daily electronic diaries completed at the end of each shift through a secure mobile application. These diaries captured specific stress events, emotional responses, coping strategies, and immediate satisfaction indicators. The second modality consisted of comprehensive quarterly surveys that assessed broader organizational factors, career satisfaction, burnout symptoms, and personal resources. The third modality involved bi-monthly collection of salivary cortisol samples to measure physiological stress responses, with samples collected at consistent times to control for diurnal variation.

The ecological momentary assessment component represented a significant methodological innovation in nursing stress research. Nurses received brief prompts at randomized intervals during their shifts, asking them to rate their current stress level, primary stressor type, and momentary job satisfaction. This high-frequency sampling provided unprecedented granularity in understanding stress fluctuations throughout the workday and their immediate impact on satisfaction perceptions.

2.3 Measures and Instruments

Workplace stress was measured using a multidimensional assessment battery that included both established instruments and newly developed scales tailored to the long-term care context. The Nursing Stress Scale was adapted to include items specific to long-term care environments, such as prolonged patient relationships and end-of-life care dynamics. Emotional exhaustion was measured using the relevant subscale from the Maslach Burnout Inventory, while organizational stressors were assessed through a modified version of the Nursing Work Index.

Job satisfaction was evaluated through both global and facet-specific measures. The McCloskey/Mueller Satisfaction Scale provided comprehensive assessment of satisfaction across multiple domains, while a single-item global satisfaction measure allowed for tracking of overall satisfaction trends. Additionally, we developed a meaning-in-work scale specifically for long-term care nursing, capturing dimensions of professional purpose and relational satisfaction unique to this setting.

Physiological stress measurement involved analysis of salivary cortisol levels using enzyme immunoassay techniques. Cortisol samples were collected at consistent time points (30 minutes after awakening and at the end of the shift) to capture both basal levels and stress reactivity. The integration of cortisol data with self-report measures enabled examination of potential discrepancies between physiological and psychological stress indicators.

2.4 Analytical Approach

Data analysis employed a multilevel modeling approach to account for the nested structure of repeated measurements within individuals and individuals within facilities. This approach allowed for simultaneous examination of within-person fluctuations and between-person differences in the stress-satisfaction relationship. Latent profile analysis was used to identify distinct subgroups of nurses based on their stress response patterns, while structural equation modeling tested the hypothesized moderating and mediating relationships.

The analytical strategy specifically addressed the non-linear nature of stress-satisfaction relationships through the application of piecewise regression and threshold detection algorithms. This approach enabled identification of potential inflection points where the relationship between stress and satisfaction changed direction or magnitude, moving beyond assumptions of linearity that have dominated previous research.

3 Results

3.1 Descriptive Findings

The sample characteristics revealed a experienced nursing workforce, with average tenure in long-term care of 8.7 years ($SD = 5.2$). Participants were predominantly female (92

Longitudinal analysis demonstrated significant fluctuations in both stress and satisfaction measures over the 18-month period. Notably, these fluctuations often followed facility-specific patterns rather than individual trajectories, highlighting the importance of organizational context in shaping nurse experiences. Facilities with more robust support systems, including regular debriefing sessions and adequate staffing ratios, showed more stable satisfaction levels despite similar stress exposure.

3.2 Stress-Satisfaction Relationship Dynamics

Contrary to conventional linear models, our analysis revealed a complex, non-monotonic relationship between workplace stress and job satisfaction. At low to moderate stress levels, we observed a positive association with satisfaction, suggesting that manageable challenges may contribute to professional engagement and fulfillment. However, beyond a identified threshold (approximately 3.8 on our 5-point stress scale), the relationship reversed, with higher stress levels predicting sharp declines in satisfaction.

This threshold effect varied significantly across different stressor types. Emotional stressors related to patient care showed a higher tolerance threshold before negatively impacting

satisfaction, while organizational stressors such as administrative burdens and staffing issues demonstrated lower thresholds. This differentiation provides important insights for targeted intervention development, suggesting that different stressor types require distinct management approaches.

The ecological momentary assessment data provided particularly revealing insights into daily stress-satisfaction dynamics. Momentary satisfaction ratings showed considerable resilience to transient stress spikes, with recovery to baseline typically occurring within the same shift. However, sustained stress periods exceeding four hours consistently predicted end-of-shift satisfaction decrements, identifying a critical duration threshold for stress management interventions.

3.3 Nurse Profile Identification

Latent profile analysis identified three distinct nurse profiles based on stress response patterns and satisfaction outcomes. The adaptive resilient profile (58

These profiles demonstrated differential relationships with physiological stress markers. The adaptive resilient group showed moderate cortisol elevations that returned to baseline efficiently, indicating healthy stress response systems. The chronic stressed group exhibited both elevated baseline cortisol and prolonged recovery, suggesting allostatic load accumulation. Surprisingly, the detachment coping group showed blunted cortisol responses, potentially indicating hypothalamic-pituitary-adrenal axis dysregulation associated with chronic emotional suppression.

3.4 Moderating and Mediating Factors

Analysis of potential moderators revealed several significant factors influencing the stress-satisfaction relationship. Professional identity emerged as a powerful buffer, with nurses reporting strong identification with the nursing role showing maintained satisfaction despite high stress levels. Social support from colleagues similarly moderated this relationship,

particularly when support was readily available during shifts rather than through formal mechanisms.

Organizational factors demonstrated substantial moderating effects. Facilities with structured mentorship programs, reasonable workload distribution, and recognition systems showed attenuated negative relationships between stress and satisfaction. Conversely, environments with perceived administrative injustice or inadequate resources amplified stress impacts on satisfaction, regardless of individual coping resources.

Mediation analysis indicated that the effect of workplace stress on satisfaction operated primarily through two pathways: emotional exhaustion and professional meaning. Emotional exhaustion partially mediated the relationship for all stressor types, while professional meaning showed particularly strong mediation for patient-related stressors. This suggests that stress impacts satisfaction not only through depletion of emotional resources but also through threats to the sense of professional purpose that initially attracted nurses to long-term care.

4 Conclusion

This study makes several original contributions to understanding the relationship between workplace stress and job satisfaction in long-term care nursing. The identification of non-linear relationships and threshold effects challenges prevailing assumptions about stress impacts and suggests more nuanced approaches to stress management. The demonstration that moderate stress levels can coexist with—and potentially enhance—job satisfaction represents a significant departure from deficit-focused models that view stress exclusively as detrimental.

The integration of physiological measures with psychological assessments provided unique insights into the mind-body dynamics of workplace stress. The discordance between self-reported stress and cortisol patterns in the detachment coping group highlights potential

limitations of relying solely on subjective measures and suggests the importance of multi-modal assessment in future research. The identification of distinct nurse profiles offers a person-centered approach to understanding stress responses, moving beyond one-size-fits-all interventions to recognize the diversity of adaptation patterns within the nursing workforce.

Several practical implications emerge from these findings. First, stress management interventions should focus not only on stress reduction but also on building resilience and maintaining professional meaning. Second, organizational support systems should be designed to address different stressor types through targeted approaches, recognizing that emotional and organizational stressors operate through distinct mechanisms. Third, regular assessment of both psychological and physiological stress indicators could help identify nurses at risk for chronic stress patterns before satisfaction deterioration occurs.

This study has several limitations that should be addressed in future research. The sample, while diverse, was drawn from a single geographic region, potentially limiting generalizability. The observational design, while longitudinal, cannot establish causal relationships definitively. Future research should incorporate experimental interventions based on the identified profiles and thresholds, examining whether tailored approaches yield improved outcomes compared to standardized stress management programs.

The findings suggest promising directions for future investigation. Research examining the developmental trajectories of different nurse profiles could identify factors that promote adaptive resilience versus chronic stress patterns. Studies exploring the intersection between workplace stress and quality of care would strengthen the connection between nurse well-being and patient outcomes. Longitudinal investigations following nurses from education through career progression could identify critical transition points where targeted support might prevent the development of maladaptive stress patterns.

In conclusion, this research demonstrates that the relationship between workplace stress and job satisfaction among long-term care nurses is characterized by complexity, non-linearity, and significant individual variation. By moving beyond simplistic stress-reduction paradigms

and embracing the multifaceted nature of nursing experiences, healthcare organizations can develop more effective approaches to supporting this vital workforce. The preservation of job satisfaction despite inevitable workplace stress represents not only an organizational imperative but a crucial component of sustainable healthcare delivery in long-term care settings.

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