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titleAnalyzing the Effect of Job Demands on Turnover Intentions Among Newly Licensed Registered Nurses
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sectionIntroduction

The nursing profession faces a critical challenge with persistently high turnover rates, particularly among newly licensed registered nurses (NLRNs) during their initial transition to professional practice. This period represents a vulnerable phase where approximately 30
Traditional investigations of nursing turnover have predominantly relied on cross-sectional surveys and retrospective recall, which capture broad relationships but fail to elucidate the dynamic, real-time processes through which workplace stressors translate into turnover cognitions. This methodological limitation has constrained our understanding of how specific job demands—varying in intensity, frequency, and nature—differentially impact NLRNs' career decisions. Furthermore, existing literature has often treated job demands as independent factors, overlooking their potential interconnectedness and cumulative effects within the complex healthcare environment.

This study addresses these gaps through an innovative methodological framework that combines ecological momentary assessment (EMA) with network analysis to examine the real-time dynamics linking job demands to turnover intentions. We propose that certain job demands function as central nodes within a network of workplace stressors, amplifying the effects of other demands and creating cascade effects that substantially increase turnover risk. By capturing momentary experiences throughout NLRNs' workdays over an extended period, we aim to reveal the precise temporal sequences and psychological pathways through which specific demands trigger turnover considerations.

Our research questions investigate: (1) How do different categories of job demands differentially influence turnover intentions among NLRNs? (2) Through what psychological mechanisms do specific job demands translate into turnover cognitions? (3) Which job demands function as central nodes within the network of workplace stressors? (4) What moderating factors buffer the relationship between job demands and turnover intentions? The answers to these questions

hold significant implications for developing targeted retention strategies that address the most influential drivers of early-career nursing turnover.

sectionMethodology

subsectionParticipants and Setting

We recruited 347 newly licensed registered nurses from 12 healthcare institutions across three geographic regions in the United States. Participants were required to have obtained their RN license within the previous three months and to be employed in direct patient care positions. The sample comprised 82
The healthcare institutions included academic medical centers (42

subsectionResearch Design

We employed an intensive longitudinal design combining ecological momentary assessment with traditional survey methods. The study period spanned six months, capturing NLRNs' experiences throughout their critical transition to professional practice. Ecological momentary assessment involved signal-contingent sampling where participants responded to brief surveys on mobile devices at random intervals during work shifts. Additionally, event-contingent assessments were triggered when participants experienced specific job demands identified through preliminary qualitative work.

Participants completed baseline assessments measuring demographic characteristics, personality traits, resilience, and career expectations. Throughout the six-month study period, they responded to momentary assessments measuring current job demands, emotional states, cognitive appraisal, and turnover cognitions. End-of-shift surveys captured retrospective evaluations of the workday, while monthly assessments measured more stable constructs including job satisfaction, organizational commitment, and career development perceptions.

subsectionMeasures

Job demands were assessed using a multidimensional framework capturing quantitative demands (workload, time pressure), emotional demands (patient suffering, family interactions), cognitive demands (clinical decision complexity, documentation requirements), and social demands (interprofessional conflicts, supervisory interactions). Each dimension was measured using both Likert-type scales and semantic differential items adapted to the momentary assessment context.

Turnover intentions were measured using a momentary adaptation of established scales, capturing both cognitive elaboration about leaving and affective components of withdrawal. Psychological mechanisms including emotional exhaustion, cognitive fatigue, self-efficacy, and professional identity were assessed using validated brief scales optimized for repeated administration. Moderating variables

including social support, resilience, and organizational resources were measured through baseline and monthly assessments.

subsectionAnalytical Approach

Our analytical strategy employed multilevel modeling to account for the nested structure of momentary assessments within individuals and individuals within healthcare institutions. We conducted time-lagged analyses to examine how job demands predict subsequent turnover intentions, controlling for prior states and stable individual differences. Network analysis was used to visualize and quantify the interrelationships among different job demands and their connections to turnover intentions, identifying central nodes within the stressor network.

We employed dynamic structural equation modeling to test mediating pathways through which job demands influence turnover intentions. Moderated mediation analyses examined how individual and organizational factors buffer these relationships. All analyses were conducted using R software with specialized packages for intensive longitudinal data and network analysis.

sectionResults

subsectionDifferential Effects of Job Demands

Our analyses revealed substantial variation in how different categories of job demands influence turnover intentions among NLRNs. Quantitative demands, particularly patient-to-nurse ratios and simultaneous task requirements, demonstrated strong direct effects on turnover intentions ($= 0.38$, $p < 0.001$). However, these relationships were largely mediated through emotional exhaustion, suggesting that workload influences turnover primarily by depleting emotional resources.

Cognitive demands, especially documentation requirements and electronic health record complexity, exhibited unique patterns of influence. While documentation burden showed only moderate direct effects on turnover intentions ($= 0.21$, $p < 0.01$), it demonstrated strong indirect effects through cognitive fatigue pathways ($= 0.42$, $p < 0.001$). This suggests that documentation demands contribute to turnover by overwhelming NLRNs' cognitive capacities rather than directly triggering withdrawal cognitions.

Emotional demands, particularly exposure to patient suffering and managing family expectations, revealed complex relationship patterns. These demands showed weaker direct effects on turnover intentions but strong indirect effects through compassion fatigue and emotional dissonance pathways. Social demands, especially interprofessional conflicts and perceived lack of supervisory support, demonstrated the strongest direct effects on turnover intentions ($= 0.45$, $p < 0.001$), indicating their potent role in triggering immediate withdrawal considerations.

subsectionNetwork Structure of Job Demands

The network analysis revealed a complex interconnected structure among different job demands, with certain demands functioning as central nodes that amplify the effects of other stressors. Documentation requirements emerged as the most central node within the network, demonstrating strong connections to multiple other demands including time pressure, cognitive overload, and emotional exhaustion. This central positioning suggests that interventions targeting documentation burden may have cascading benefits for reducing other workplace stressors.

Interprofessional conflicts constituted another central node, strongly connected to emotional demands, supervisory support, and professional identity concerns. The network structure indicated that conflicts with physicians and other healthcare team members trigger broader psychological consequences including reduced self-efficacy and threatened professional identity, which subsequently influence turnover intentions.

The network analysis further revealed that the strength of connections between job demands varied across clinical settings and individual characteristics. In critical care environments, for instance, emotional demands showed stronger connections to turnover intentions, while in medical-surgical units, quantitative demands demonstrated greater centrality. These contextual variations highlight the importance of unit-specific approaches to addressing turnover drivers.

subsectionModerating Factors

Our analyses identified several significant moderators of the relationship between job demands and turnover intentions. Unit-level social support, particularly from nurse managers and experienced colleagues, substantially buffered the effects of quantitative and emotional demands on turnover intentions. Nurses reporting high supervisory support showed 62
Individual resilience capacities moderated the impact of cognitive and emotional demands, with highly resilient nurses demonstrating attenuated emotional exhaustion pathways. Professional identity integration emerged as another important buffer, particularly for social demands related to interprofessional conflicts. Nurses with strong professional identity showed reduced sensitivity to conflicts with other healthcare providers in terms of turnover considerations.

Organizational resources including adequate staffing, mentorship programs, and professional development opportunities demonstrated cross-level moderating effects, reducing the strength of connections between multiple job demands and turnover intentions. These findings suggest that organizational investments in supportive structures can disrupt the cascade from workplace stressors to withdrawal cognitions.

subsectionTemporal Dynamics

The time-lagged analyses revealed important temporal patterns in how job demands influence turnover intentions. Quantitative demands showed immediate effects on turnover considerations, with peak influence occurring within the same work shift. In contrast, emotional demands demonstrated delayed effects, with strongest relationships emerging 2-3 days following exposure to particularly distressing patient situations.

Cognitive demands related to documentation and clinical decision-making showed cumulative effects, with turnover risk increasing progressively across consecutive shifts with high cognitive load. Social demands exhibited variable temporal patterns depending on their nature, with conflicts showing immediate effects while lack of support demonstrated gradual influence over several weeks.

These temporal dynamics have important implications for intervention timing, suggesting that different types of job demands require distinct response strategies in terms of both timing and nature of support.

sectionConclusion

This study makes several original contributions to understanding the relationship between job demands and turnover intentions among newly licensed registered nurses. By employing ecological momentary assessment combined with network analysis, we move beyond traditional linear models to reveal the dynamic, interconnected nature of workplace stressors and their influence on career decisions. Our findings demonstrate that job demands operate through distinct psychological pathways, with certain demands functioning as central nodes that amplify the effects of other stressors.

The identification of documentation burden as a central node within the job demand network represents a significant insight for nursing retention strategies. Rather than viewing documentation as an isolated administrative task, our findings suggest it functions as a linchpin stressor that exacerbates multiple other demands. This indicates that interventions targeting documentation efficiency and support may have disproportionate benefits for reducing overall turnover risk.

Similarly, the central role of interprofessional conflicts highlights the importance of relational aspects of the work environment for NLRN retention. Our findings suggest that conflicts with other healthcare providers trigger not only immediate distress but also broader threats to professional identity and self-efficacy, creating potent pathways to turnover considerations. This underscores the need for interprofessional education and team development initiatives specifically tailored to support new nurses' integration into healthcare teams.

The temporal patterns we identified offer novel insights for intervention timing. The immediate effects of quantitative demands suggest the need for real-time

support during high-workload shifts, while the delayed effects of emotional demands indicate the importance of follow-up debriefing after distressing patient encounters. The cumulative nature of cognitive demands points to the value of workload distribution strategies that prevent consecutive high-cognitive-load shifts.

Our findings have practical implications for healthcare organizations seeking to improve NLRN retention. Targeted interventions should address the most central job demands identified in our network analysis, particularly documentation burden and interprofessional conflicts. Organizational investments in social support structures, especially from nurse managers and experienced colleagues, appear particularly promising given their strong buffering effects across multiple demand categories.

This study has several limitations worth noting. The intensive longitudinal design, while providing rich data on momentary experiences, required substantial participant commitment that may have influenced sample characteristics. The six-month study period, while capturing the critical transition phase, may not fully represent longer-term career development processes. Future research should extend these investigations to longer timeframes and examine how the relationships we identified evolve as nurses gain experience.

In conclusion, our research provides a more nuanced understanding of how job demands influence turnover intentions among newly licensed registered nurses. By revealing the network structure of workplace stressors and their dynamic temporal relationships with withdrawal cognitions, we offer new directions for developing targeted, effective retention strategies that address the most influential drivers of early-career nursing turnover.

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